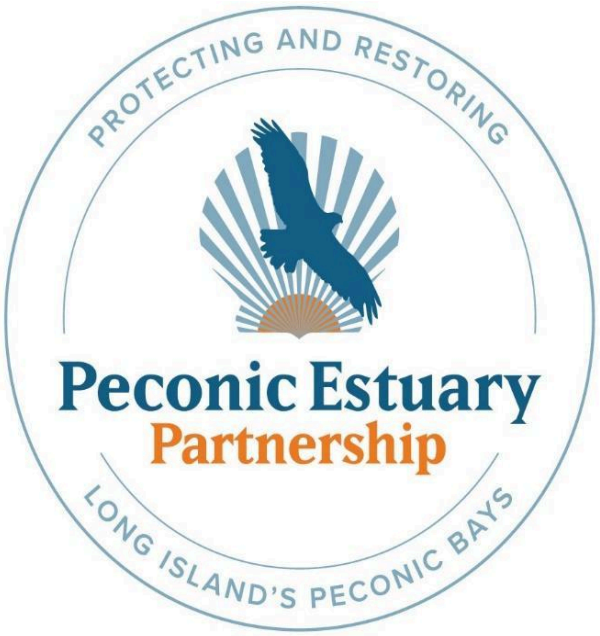

PEP BIL Y3

(IIJA YR3)

The Infrastructure Investment and Jobs Act (IIJA; formerly referred to as the Bipartisan Infrastructure Law (BIL) Year 3) Workplan for the Peconic Estuary Partnership (PEP)

Approved By PEP Policy Committee
May 15, 2024

ANEMDED

Peconic Estuary Partnership
PROTECTING AND RESTORING LONG ISLAND'S PECONIC BAYS

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PROTECTING AND RESTORING LONG ISLAND'S PECONIC BAYS

Workplan for PEP BIL Year 3

I. INTRODUCTION

Peconic Estuary Partnership

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 includes numerous stakeholders, representing citizen and environmental groups, businesses and industries, academic institutions, and local, county, state and federal governments.

The PEP 2020 Comprehensive Conservation Management Plan (CCMP) guides the priorities of the organization and, as such, all projects and plans detailed in this workplan relate directly to the actions established to achieve our four goals: strong partnerships and engagement, clean waters, resilient communities prepared for climate change, and a healthy ecosystem with abundant, diverse wildlife.

The Infrastructure Investment and Jobs Act (IIJA or "bipartisan infrastructure law" or BIL) passed the U.S. Senate in August 2021 and the U.S. House of Representatives in November 2021. President Biden signed it into law on November 15, 2021. This legislation provides an additional $132 million to the 28 NEPs over five years in addition to regular appropriations. For the PEP this results in an additional $909,800 annually from FY22 to FY26 to carry out work that accelerates and more extensively implements the 2020 CCMP, ensures benefits reach disadvantaged communities, and builds the adaptive capacity of ecosystems and communities.

This workplan outlines work to be carried out during the PEP FY24 Workplan cycle. To differentiate the two plans that PEP and EPA will be managing for five years, and the deliverables associated with each of them, all funds under the recurring EPA NEP 320 funding will continue to be referenced by the fiscal year ("FY") and the associated year (e.g.: PEP FY21, FY22, etc.). Funds associated with IIJA will use the 'Bipartisan Infrastructure Law' (BIL) acronym with the associated sequential funding year (Years 1-5). A BIL Long Term Plan for all five fiscal years and a PEP Equity Strategy was completed and approved by EPA. Program Office personnel will be funded under this workplan for the administration related to the BIL funds and outreach staff related to education and outreach for the projects and CCMP Goals associated with the BIL workplan.

Overall Funding Sources

BIL Year 3

PEP BIL Y3-Stony Brook	*$909,800.00*
Non-Federal Match:	$0.00**
Total:	**$909,800.00**

**Federal match is waived for BIL funds - PEP has an EPA approved Equity Strategy.

Resources Requested

The total BIL Year 3 funds requested in this grant to Stony Brook University is $909,800.00

II. SUMMARY OF ACCOMPLISHMENTS

In 2023, PEP initiated all BIL related projects as follows:

- Meetinghouse Creek Wetland Restoration: Green Infrastructure for Stormwater Management and Climate Change Adaptation – Construction Phase:

  All funds are in contract with the Town of Riverhead. A Request for Proposal was completed, and bids are currently under review. The lowest bid exceeds the current amount of money accumulated for this project and PEP is working withSuffolk County to provide grant funds to enable a timely execution of this project. The engineering plans, permits and QAPP were completed prior to this award and so are not part of this BIL reporting.

- Sag Harbor Stormwater Management Project (Two Green Infrastructure Installations):

  All funds are in contract with the Village of Sag Harbor. The Village has approved designs, permits, and a final approved Quality Assurance Project Plan (QAPP). Implementation is due to begin Summer 2024

- Goose Creek Sub-Catchment Discharge Elimination in the Town of Southold:

  These funds are contracted to the Town of Southold and work will begin in Fall of 2024. No QAPP is necessary for this project.

- Peconic Land Trust-Broad Cove (Phase I)

  The contract with Peconic Land Trust has been finalized. The Peconic Land Trust received funds to carry out trail development and education programs at this site. Additionally, The Long Island Invasive Species Management Area (LIISMA) donated an Invasive Management Plan that is guiding implementation by the project team. Trail development, and construction of parking area infrastructure for water access are in process. No QAPP is required for this project.

- CHANGES (formerly titled Peconic East Blue Carbon Project)

  PEP is embracing **CHANGES** in our watershed as we look to the future. The Peconic **CHANGES** project is a multi-faceted approach to address many of the issues associated with climate change in the Peconic Bays.

  - **C**reating **H**abitat
  - **A**cidification reduction
  - **N**itrogen bio extraction
  - **G**uarding our shorelines
  - **E**cosystem longevity
  - **S**equestration of carbon

  The QAPP for this project has been approved and work started in November 2023. Sites selection includes: Menantick Creek (Shelter Island), South Ferry (Shelter Island), Gannet Creek (North Haven), Eastern shore (North Haven), Barcelona Point (Sag Harbor), and Sag Harbor Cove (Sag Harbor). Water Quality Characterization will include Water clarity,

Temperature, Salinity, Dissolved oxygen, pH, Chlorophyll, Phytoplankton abundance, and diversity. Sediment surveys have also begun at selected sites.

- Southampton Riverside Wetland Restoration

  All funds are in contact with the Town of Southampton for the conceptual design at Riverside wetland restoration. Six bids are under review. Quarterly meetings occur with the project team.

Personnel, Travel, Supplies:

In February 2024 PEP hired an Outreach Assistant who will assist the program with outreach associated with BIL funded projects and other topics and projects related to these themes and priorities of the PEP CCMP. The hiring of the Grant Manager and Community Liaison is in progress.

*I/A Support for Maintenance:

Suffolk County Legislature has formally accepted BIL funds awarded under CE 96214400. Suffolk County Department of Health has moved forward in setting up the necessary mechanism to create a grant program for distribution of funds to be used for maintenance of installed Innovative and Alternative Septic systems in the Peconic watershed under the Suffolk County program. Funds have yet to be drawn down as teams have focused on setting up the needed grant program. Suffolk County will drawdown funds once the grant program is set up for applications to be submitted, reviewed, and money granted.

III. WORKPLAN

CCMP Goals

The use of these funds will be in accordance with the PEP Comprehensive Conservation Management Plan. The four pillars of this plan are: Strong Partnerships, Resilient Communities, Clean Water, and a Healthy Ecosystem; these elements are the foundation of PEP work and guide the Management Conference in decisions for project priorities. The CCMP lays out eight Objectives and 35 Actions that will guide PEP and our partners to address the challenges facing our watershed. Each workplan item identifies the CCMP Goal, Objective, and Action to which it pertains and can be found here: https://indd.adobe.com/view/201ca273-3278-44ee-b907-a8308ec3d4a5

Budget and Program Office Expenditures for BIL Year 3

In 2023, PEP completed a Five-Year Plan for the use of the BIL Funds. This workplan follows the projects and expenditures outlined and approved in the PEP Five-Year Plan. These project budgets include IDC. See detailed budget in Table 1.

Recreation and Bulkhead Removal Assessment: $156,500

As part of our focus on enhanced community recreation, we will use these funds to identify bulkheads for removal and carry out feasibility and cost estimates.

Peconic Land Trust Broad Cove Phase II: $166,456

The Peconic Land Trust received funds from BIL23 to carry out the design and installation of trails and education programs at this site. BIL24 will fund Year Two of this project and focus on invasive removal and adaptation planning, looking to plan a demonstration project using nature-based solutions for adaptation, bioextraction (e.g.: kelp, ribbed mussels, etc.). Increased community recreation will also take place and continued education at this site.

Peconic East CHANGES - Phase II: $300,000

Formerly titled, the Blue Carbon Project, the project name was updated to reflect the range of climate adaptation techniques that will be addressed with the project. The Stony Brook team will utilize combinations of kelp, oysters, and seagrasses to mitigate climate, sequester carbon, mitigate ocean acidification, protect shorelines, and improve water quality/clarity. This is a multi-year project, and these funds will be 'Phase II.'

BIL Staff Support: $286,844

"BIL Staff Support" includes Personnel Salary, Fringe, Travel, Supplies and associated IDC.

Marked with a (*) in the budget Table below.

Two full-time and one part-time staff members will be supported to manage grants and carry out BIL related outreach. Details as follows:

One Full Time Grants Manager - manage all projects for BIL.

One Full Time Outreach Assistant - carry out outreach for all BIL projects and work with project teams to disseminate information about the work.

One Part Time Community Liaison- work with PEP Communication and Outreach Manager to support education and outreach througouht the watershed

Travel – travel costs associated with personnel listed as BIL employees.

Supplies –outreach materials, meeting materials, translation services, etc. for BIL personnel

(See table on next page for details)

Peconic Estuary Partnership
PROTECTING AND RESTORING LONG ISLAND'S PECONIC BAYS

Table 1: PEP Budget for Year 3

EPA Budget Category		Budget
Contract	Enhanced Recreation and Bulkhead Removal Assessment	$150,000
	Contract total:	**$150,000**
Other	Peconic Land Trust-Broad Cove Phase II	$159,956
	Peconic East CHANGES	$240,428
	Other total	**$400,384**
Personnel Salary*	**Personnel Salary total**	**$159,753**
Fringe 40%*	**fringe (40%) total**	**$63,901**
Travel*	**Travel total**	**$2,000**
Supplies*	**Supplies total**	**$2,000**
IDC	IDC Program Office (Personnel, fringe, travel)*	$59,190
	IDC (26% on first $25,000) Enhanced Recreation and Bulkhead Removal Assessment	$6,500
	IDC (26% on first $25,000) PLT Broad Cove	$6,500
	IDC (%) Peconic East Changes CHANGES	$59,572.00
	IDC total:	**$131,762**
	Total	$909,800

BIL Year3 Workplan

This workplan includes all projects, which PEP will carry out May 1, 2024, to April 30, 2025, using BIL23 funds. All new projects have been approved by the PEP Management Conference in the Five-Year Plan.

BIL23 Projects - NEW

Project 1: Enhanced Recreation and Bulkhead Removal Assessment

New Project – As part of our focus on our local communities, we will use these funds to identify bulkheads for removal and carry out feasibility and cost estimates. Leads on possible bulkhead removal areas have been identified from stakeholders but proper assessment of possibilities will need to be evaluated from the combination of parcel data and results from the PEP Hardened Shoreline Assessment.

Relevant CCMP Actions:

CCMP Objective B: Overarching Priority Objectives

- Action 9: Incorporate environmental justice considerations into public outreach.

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary

- Action 12: Mitigate climate change through coastal ecosystem management.
- Action 14: Increase public awareness of anticipated impacts of climate change on the Peconic Estuary

a. **Estimated Budget:** BIL funds: $156,500.
b. **Partners and their roles:** PEP (Lead)
c. **Description:** Physical alterations to the Peconic Estuary and its watershed such as the hardening of the shoreline with bulkheads and other erosion control structures harm the habitats and living resources within and around the estuary. As temperatures increase, sea levels rise, and precipitation occurs with increasing intensity, estuarine species and habitats may move or change. Where there is significant coastal development and shoreline hardening, important habitats such as salt marshes could be blocked from migrating landward as sea levels rise. Construction of hardened shoreline structures frequently leads to loss of vital habitats such as salt marsh and eelgrass beds. This, in turn, reduces spawning habitat for recreationally and commercially important fish species, promotes erosion, and may increase coastal flooding. Bulkhead removal siting is a vital planning initial step in order to pilot the process of bulkhead removal for restoration of natural shoreline and water access.
d. **Objectives:** Increased shoreline and water access to community members; increased community knowledge about climate related issues; protect/restore natural shoreline enhancing flood protection and vital habitats such as tidal wetlands and eelgrass meadows.
e. **Outputs and Deliverables**: Siting and conceptual plan of area for pilot bulkhead removal project in the Peconic Estuary.
f. **Estimated Milestones:** To be contracted by bid. Quarterly progress meetings will take place,
g. **Long Term Outcomes:** This project will provide plans for future implementation of restoration of a natural shoreline.

h. On-site education related to coastal vulnerability, adaptation, and community engagement will take place. Siting will set up needed information for a successful future pilot that will create a community more educated in both climate change, potential adaptation solutions, and reduced burden of flooding.
i. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation; Developing and implementing strategies to increase opportunities for disadvantaged communities to access, enjoy, and benefit from surface waters and waterways, participate in ecosystem restoration, and engage in capacity-building or educational activities.

Project 2: Peconic Land Trust-Broad Cove Phase 2

New Project - Phase II is a new project and follow-on from the Broad Cove Phase I project funded under BIL Year 2. Broad Cove is a 100-acre former duck farm in the Town of Riverhead, NY that was purchased by the Peconic Land Trust in FY22. This acquisition will be the only large waterfront property acquisition that will be entirely devoted to passive recreation and education. PEP BIL Y2 funds were devoted to implementing an invasive species removal plan to create parking area infrastructure needed to achieve safe water access goals, the expansion of trail systems as well as the development of educational signage for outreach. To continue our partnership, PEP will devote BIL Y3 funds to the continuation of expanding the trail system, needed emergency access infrastructure for safe water access, continued invasive removal and revegetation for erosion control, as well as educational signage relating to the impacts of invasive species and enhanced recreation programming, such a as, a sensory garden.

Relevant CCMP Actions:

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary

- Action 12: Mitigate climate change through coastal ecosystem management.
- Action 14: Increase public awareness of anticipated impacts of climate change on the Peconic Estuary

a. **Estimated Budget:** BIL funds: $166,456
b. **Partners and their roles:** Peconic Land Trust (Property Owner), PEP (Partner), NYSDEC, Long Island Invasive Management Area (Project Partner)
c. **Description:** Located at 40.9343657N -72.6235418W, Broad Cove, a 100-acre waterfront parcel on Flanders Bay in Aquebogue, a hamlet in the Town of Riverhead. The land, a former duck farm, long sought after for conservation, is now available for passive recreation, while also providing climate change resiliency, wildlife habitat, and water quality protection in this part of the Peconic Bay Estuary. Flanders Bay East/Center and Tributaries) (https://www.dec.ny.gov/chemical/31290.html), has a nitrogen TMDL in place (https://www.dec.ny.gov/docs/water_pdf/tmdlnitrpecn1.pdf),
d. **Objectives:** Increased safe shoreline and increased community knowledge about coastal flooding related issues; natural shoreline flood protection, enhanced ecological community.

e. **Outputs and Deliverables**: Expansion of trail system, invasive removal with needed permits, revegetation in disturbed or vulnerable areas, educational signage, educational program, construction of fencing and emergency access infrastructure.
f. **Estimated Milestones:** The Peconic Land Trust will lead this project. Quarterly progress meetings will take place, educational signs will be developed, and community engagement will take place as part of this process.
g. **Long Term Outcomes:** This project will provide enhanced recreation to the shoreline. On-site education related to coastal vulnerability, adaptation, and community engagement will take place. Invasive species management will enhance habitat quality and. This project is located between Meetinghouse and Terry's Creek, both listed as impaired waterbodies on the NYSDEC Priority Waterbodies List. Additionally, this project will contribute to coastal resiliency by providing much needed storm surge protection by providing an extensive buffer of natural shoreline. Educational signage and programming will create a community more educated in both potential adaptation solutions and reduced burden of flooding.
h. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation.

Project 3: Peconic East CHANGES Shoreline Protection Project-Phase II

New This is a newly funded portion of the existing PEP CHANGES project.

Relevant CCMP Actions:

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary.

- Action 11: Provide tools and assistance to local government to mitigate and adapt to the impacts of climate change.
- Action 13: Collaborate on coastal and ocean acidification monitoring and research.

CCMP Objective E: Increase understanding of nutrient pollution in groundwater and surface waters and decrease negative impacts from legacy, current, and future nutrient inputs.

- Action 17: Plan science-based approaches for monitoring and reducing nutrient pollution.
- Action 18: Implement science-based approaches for monitoring and reducing nutrient pollution.

CCMP Objective G: Expand scientific understanding of the Peconic Estuary ecosystem and deliver information that supports management decision making.

- Action 23: Conduct scientific studies to expand understanding of the Peconic Estuary ecosystem and support ecosystem-based management.

CCMP Objective H: Restore and protect key habitats and species diversity in the Peconic Estuary

- Action 30: Monitor and protect existing eelgrass beds; where appropriate, restore and expand eelgrass beds.
- Action 33: Implement living shoreline projects, monitor ecological and financial benefits, and use model projects to educate planners and homeowners on the benefits of living shorelines over hardened shorelines.

- **Performance Measure:** Comprehensive site evaluations for the feasibility of oyster reefs, seagrass restoration, and kelp lines as means to sequester carbon, bioextract nitrogen, and protect shorelines.
- **Performance Measure:** Estimates of carbon sequestration, bioextraction of nitrogen, and shoreline protection via oyster reefs, oyster cages, seagrass restoration, and kelp lines for multiple sites within eastern Peconic Estuary based on pilot-scale deployments.

a. **Estimated Budget:** BIL funds: $300,000
b. **Partners and their roles:** Stony Brook University (lead and execute project), PEP (partner), Sag Harbor Village (partner), North Haven Village (partner), Shelter Island Town (partner), Southampton Town and Town Trustees (partners), East Hampton Town and Town Trustees (partners).
c. **Description:** Tasks of this project are to continue the project goals: 1. Perform benthic and pelagic site evaluations to assess the suitability of multiple sites across the eastern Peconic Estuary for the aquaculture of kelp, the establishment of oyster reefs, cages, and/or balls, and for eelgrass restoration. 2. Perform experimental and pilot scale deployment of aquaculture kelp, oyster reefs, cages, and/or balls, and eelgrass, 3. Quantify carbon sequestration, nitrogen bioextraction, and shoreline protection afforded by sundry experimental and pilot scale approaches, and 4. To estimate carbon sequestration, nitrogen bioextraction, and shoreline protection afforded by full scale deployments. During year two, water quality and benthic parameter assessments relative to the growth of kelp, oysters and seagrass will be made at in-shore and open water sites across North Haven, Sag Harbor, and Shelter Island to assess of the work carried out in year 1. Other inner embayment sites with continued assessment are Gannet Creek in North Haven, Menatic Creek on Shelter Island, and Sag Harbor Cove, in Sag Harbor whereas open water regions will include the eastern shore of North Haven, the region near the south ferry site of Shelter Island, and the region north of Northwest Harbor in East Hampton. Water quality will continue to be surveyed via continuous temperature, light, pH, and dissolved oxygen measurements. Experimental scale grow-out of kelp, oysters, and seagrass will be continued, and growth rates of organisms will be quantified and along with C and N extraction. In year two, benthic and pelagic surveys will be repeated and larger, pilot scale grow-out of kelp, oysters, and seagrass will be performed with growth rates of organisms quantified along with C and N extraction. Changes in near-shore currents and waves in proximity of deployments will also be assessed.
d. **Objectives:** The overarching objective of this project is to utilize combinations of kelp, oysters, and seagrasses to sequester carbon, mitigate ocean acidification, protect shorelines, extract nitrogen, and improve water quality/clarity.
e. **Outputs and Deliverables**: Annual oral and written reports outlining site feasibility and performance of oysters, kelp, and seagrass for locations across the eastern Peconic Estuary including North Haven, Sag Harbor, and Shelter Island.
f. **Estimated Milestones:** Annual monitoring report fall 2024 and fall 2025.
g. **Long Term Outcomes**: Enhanced carbon sequestration in the Peconic Estuary, enhanced bioextraction of nitrogen in the Peconic Estuary, shoreline protection for Peconic Estuary communities, expansion of seagrass beds, increases fish and invertebrate habitat.

h. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration; Measuring, monitoring, and increasing carbon sequestration; Conducting climate vulnerability assessments, developing and implementing climate change adaptation strategies and using adaptation tools to promote coastal resilience;

BIL Projects - ON GOING:

Peconic Land Trust - Broad Cove Phase I

Broad Cove is a 100-acre former duck farm in the Town of Riverhead, NY that was purchased by the Peconic Land Trust in FY22. This acquisition will be the only large waterfront property acquisition that will be entirely devoted to passive recreation and education. PEP has used BIL funds to create trails and educational signs about climate change including plans for a sensory garden.

Relevant CCMP Actions:

CCMP Objective B: Overarching Priority Objectives

- Action 9: Incorporate environmental justice considerations into public outreach.

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary

- Action 12: Mitigate climate change through coastal ecosystem management · Action 14: Increase public awareness of anticipated impacts of climate change on the Peconic Estuary

a. **Estimated Budget:** BIL funds: $150,000
b. **Partners and their roles:** Peconic Land Trust (Property Owner), PEP (Partner), NYSDEC, Long Island Invasive Management Area (Project Partner)
c. **Description:** Located at 40.9343657N -72.6235418W, Broad Cove, a 100-acre waterfront parcel on Flanders Bay in Aquebogue, a hamlet in the Town of Riverhead. The land, a former duck farm, long sought after for conservation, is now available for passive recreation, while also providing climate change resiliency, wildlife habitat, and water quality protection in this part of the Peconic Bay Estuary. Flanders Bay East/Center and Tributaries) (https://www.dec.ny.gov/chemical/31290.html), has a nitrogen TMDL in place (https://www.dec.ny.gov/docs/water_pdf/tmdlnitrpecn1.pdf).
d. **Objectives:** Increased recreation, increased community knowledge about coastal flooding related issues; natural shoreline flood protection.
e. **Outputs and Deliverables**: Completion of accessible trails and educational signage providing the community with nature-based education.
f. **Estimated Milestones:** The Peconic Land Trust will lead this project. Quarterly progress meetings will take place, educational signs will be developed, and community engagement will take place as part of this process.
g. **Long Term Outcomes:** This project will provide access to the shoreline in a historically disadvantaged area. On-site education related to adaptation, and community

engagement will take place. Invasive species management will also occur. This project is located between Meetinghouse and Terry's Creek, both listed as impaired waterbodies on the NYSDEC Priority Waterbodies List. Additionally, this project will contribute to coastal resiliency in an NYS proposed environmental justice area by providing much needed storm surge protection by providing an extensive buffer of natural shoreline. Education will create a community more educated in both climate change, potential adaptation solutions, and reduced burden of flooding.

h. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation.

Southampton Riverside Wetland Restoration

The Town of Southampton developed a Redevelopment Plan in 2015 for the Riverside community. This project focuses on the wetland restoration as part of the identified areas to create increased recreation and enhanced climate resiliency to the Riverside community. The funds for this work are in contract.

Relevant CCMP Actions:

CCMP Objective B: Overarching Priority Objectives

- Action 9: Incorporate environmental justice considerations into public outreach.

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary.

- ACTION 14: Increased public awareness of anticipated impacts from Climate Change in the Peconic Estuary and practical ways to mitigate and prepare for them.

Objective H: Restore and protect key habitats and species diversity in the Peconic Estuary

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- Action 31: Use available habitat quality assessment tools to prioritize wetland restoration projects for implementation

a. **Estimated Budget:** BIL funds: $100,000

b. **Partners and their roles:** Town of Southampton (Lead Partner), PEP (Partner) c. **Description:** Located at 40.9162475N and -72.6358475W, The Town of Southampton completed the Riverside Revitalization Action Plan in 2015 (https://www.southamptontownny.gov/DocumentCenter/View/4881/Riverside Revitalization-Action-Plan-RRAP-7-25-15--FINAL-PDF) which outlines a plan for wastewater control, natural resource enhancement, and increased recreation for this community. This project is located in the Flanders area of Southampton, an area which is located on the NYSDEC Priority Waterbodies List (https://www.dec.ny.gov/chemical/31290.html)

d. **Objectives:** The creation of a conceptual design for the Eastern portion of the Riverside area where degraded wetlands are identified in the 2015 plan.

e. **Outputs and Deliverables**: Completion of a conceptual design and engagement with the Flanders, Riverside, Northampton Community Association (https://www.frnca.org/).

f. **Estimated Milestones:** This project has released a Request for Proposals and is awaiting responses.

g. **Long Term Outcomes:** The concept plan which will be funded under this award will lead to increased acreage of restored wetlands.

h. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration; Promoting the adoption of green infrastructure approaches.

Peconic East (CHANGES) – Shoreline Protection project

This project was re-named Peconic CHANGES to better reflect the goals of the work contained therein. PEP will develop a focused area of the Eastern watershed to carry out climate mitigation activities and education. The Peconic East site will utilize combinations of kelp, oysters, and seagrasses to mitigate climate, sequester carbon, mitigate ocean acidification, protect shorelines, extraction nitrogen, and improve water quality/clarity.

Relevant CCMP Actions:

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary.

- Action 11: Provide tools and assistance to local government to mitigate and adapt to the impacts of climate change.
- Action 13: Collaborate on coastal and ocean acidification monitoring and research.

CCMP Objective E: Increase understanding of nutrient pollution in groundwater and surface waters and decrease negative impacts from legacy, current, and future nutrient inputs. · Action 17: Plan science-based approaches for monitoring and reducing nutrient pollution

- Action 18: Implement science-based approaches for monitoring and reducing nutrient pollution.

CCMP Objective G: Expand scientific understanding of the Peconic Estuary ecosystem and deliver information that supports management decision making.

- Action 23: Conduct scientific studies to expand understanding of the Peconic Estuary ecosystem and support ecosystem-based management.

CCMP Objective H: Restore and protect key habitats and species diversity in the Peconic Estuary

- Action 30: Monitor and protect existing eelgrass beds; where appropriate, restore and expand eelgrass beds.
- Action 33: Implement living shoreline projects, monitor for ecological and financial benefits, and use model projects to educate planners and homeowners on the benefits of living shorelines over hardened shorelines
    - **Performance Measure:** Comprehensive site evaluations for the feasibility of oyster reefs, seagrass restoration, and kelp lines as means to sequester carbon, bioextract nitrogen, and protect shorelines.
    - **Performance Measure:** Estimates of carbon sequestration, bioextraction of nitrogen, and shoreline protection via oyster reefs, oyster cages, seagrass restoration, and kelp lines for multiple sites within eastern Peconic based on pilot-scale deployments.

a. **Estimated Budget:** BIL funds: $300,000

b. **Partners and their roles:** Stony Brook University (lead and execute project), PEP (partner), Sag Harbor Village (partner), North Haven Village (partner), Shelter Island Town (partner), Southampton Town and Town Trustees (partners), East Hampton Town and Town Trustees (partners).

c. **Description:** Tasks of this project are to: 1. Perform benthic and pelagic site evaluations to assess the suitability of multiple sites across the eastern Peconic Estuary for the aquaculture of kelp, the establishment of oyster reefs, cages, and/or balls, and for eelgrass restoration. 2. Perform experimental and pilot scale deployment of aquacultured kelp, oyster reefs, cages, and/or balls, and eelgrass, 3. Quantify carbon sequestration, nitrogen bioextraction, and shoreline protection afforded by sundry experimental and pilot scale approaches, and 4. To estimate carbon sequestration, nitrogen bioextraction, and shoreline protection afforded by full scale deployments. During year one, water quality and benthic parameter assessments relative to the growth of kelp, oysters and seagrass will be made at in-shore and open water sites across North Haven, Sag Harbor, and Shelter Island. In-land sites to be assessed will include Gannet Creek in North Haven, Menantic Creek on Shelter Island, and Sag Harbor Cove, in Sag Harbor whereas open water regions will include the eastern shore of North Haven, the region near the south ferry site of Shelter Island, and the region north of Northwest Harbor in East Hampton. In year one, water quality will be surveyed via continuous temperature, light, pH, and dissolved oxygen measurements whereas discrete measurements of nutrients and dissolved inorganic carbon will also be made. Sediment surveys will include assessments of sediment type, organic matter content, and sulfide content. Hydrodynamic measurement will include current direction and current speed and wave height. Experimental scale grow-out of kelp, oysters, and seagrass will be executed, and growth rates of organisms will be quantified and along with C and N extraction. In year two, benthic and pelagic surveys will be repeated and larger, pilot scale grow-out of kelp, oysters, and seagrass will be performed with growth rates of organisms quantified along with C and N extraction. Changes in near-shore currents and waves in proximity of deployments will also be assessed.

d. **Objectives:** The overarching objective of this project is to utilize combinations of kelp, oysters, and seagrasses to mitigate climate, sequester carbon, mitigate ocean acidification, protect shorelines, extraction nitrogen, and improve water quality/clarity.

e. **Outputs and Deliverables**: Annual oral and written reports outlining site feasibility and performance of oysters, kelp, and seagrass for locations across the eastern Peconic Estuary including North Haven, Sag Harbor, and Shelter Island.

f. **Estimated Milestones:** Annual monitoring report fall 2024 and fall 2025.

g. **Long Term Outcomes**: Enhanced carbon sequestration in the Peconic Estuary, enhanced bioextraction of nitrogen in the Peconic Estuary, shoreline protection for Peconic Estuary communities, expansion of seagrass beds, increases fish and invertebrate habitat.

h. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration; Measuring, monitoring, and increasing carbon sequestration; Conducting climate vulnerability assessments, developing and implementing climate change adaptation

strategies and using adaptation tools to promote coastal resilience.

Meetinghouse Creek Wetland Restoration: Green Infrastructure for Stormwater Management and Coastal Adaptation – Construction Phase

The Meetinghouse Creek project is referenced in the PEP FY22 workplan (page 25). All project details and information are outlined in the BIL22 workplan. Engineering designs and permitting are covered under workplans FY19 - FY22.

Relevant CCMP Actions:

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary

- ACTION 12: Mitigate climate change through coastal ecosystem management

CCMP Objective F: Reduce current and future inputs of toxics, pathogens, and marine debris into groundwater and surface waters, and minimize their impacts.

- ACTION 21: Expand non-point source subwatershed management plans to all pathogen-impaired waterbodies and continue to use existing plans.
    - Performance Measure (Joint with Action 31): Complete construction of ongoing, priority wetland restoration project at Meetinghouse Creek.

a. **Estimated Budget:** BIL funds: $602,300 NYS Assemblywoman Giglio $50,000
b. **Partners and their roles:** PEP (Lead Partner), Town of Riverhead (Property Owner, Engineering Supervision), NYS Assemblywoman Giglio (sponsor funding)
c. **Description:** Located at 40°56'47.4"N 72°37'09.2"W, this project will construct a 1.2-acre stormwater wetland to treat stormwater runoff and create additional capacity to manage increased flooding as a result of increased precipitation as a result of climate change in this 5.6 acre contributing sub-watershed. This site is located at a large wetland area that forms the headwaters to Meetinghouse Creek in Riverhead, New York and this project will also serve to restore the wetlands for increased function. Meetinghouse Creek is listed as an impaired waterbody on the NYSDEC Priority Waterbodies List (Flanders Bay East/Center and Tributaries) (https://www.dec.ny.gov/chemical/31290.html), has a nitrogen TMDL in place (https://www.dec.ny.gov/docs/water_pdf/tmdlnitrpecn1.pdf),
d. **Objectives:** The restoration of this stormwater wetland has four objectives: (1) to improve water quality in the Meetinghouse Creek sub-catchment; (2) to provide increased coastal resiliency by increasing storm water capacity in this sub-catchment using restored wetland function and increasing capacity to a 100-year stormwater flood level; (3) provide increased education about coastal vulnerability and coastal adaptation using green infrastructure to the community. Additionally, wetland restoration increases the ecological quality of the habitat and improves plant and wildlife diversity.
e. **Outputs and Deliverables**: Completion of stormwater wetland and educational signage.
f. **Estimated Milestones:** This project will be led by stakeholders. Quarterly progress meetings will take place, stormwater educational signs will be developed, and community engagement will take place as part of this process.
g. **Long Term Outcomes:** This project will greatly increase the ecological quality of the habitat and improve plant and wildlife diversity. This site is located at a large wetland area that forms the headwaters to Meetinghouse Creek in Riverhead, New York. Meetinghouse Creek

is listed as an impaired waterbody on the NYSDEC Priority Waterbodies List. The wetland vegetation at this site is dominated by Phragmites. Additionally, this project will contribute to coastal resiliency in an NYS proposed environmental justice area by providing much needed stormwater control for a 100-year storm. This project will also function as a nature-based solution to stormwater management; with increased flooding events related to climate change, this project will result in an increased capacity for flood management and a community more educated in both potential adaptation solutions and reduced burden of flooding. This area currently sees "Sunny Day Flooding" – this project will build the capacity for a 100-year storm on the adjacent road and for the Meetinghouse Creek sub-catchment.

h. **Eligible BIL Actions:** Protecting and restoring critical habitats, including wetlands and addressing challenging issues that threaten the ecological and economic well-being of NEP watersheds and communities; Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation; Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation.

Sag Harbor Stormwater Management – Two Green Infrastructure Installations

The Sag Harbor Stormwater Management project is funded under the BIL Year 1 Workplan and referenced in the PEP FY22 workplan (page 25).

Relevant CCMP Actions:

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary.

- ACTION 14: Increased public awareness of anticipated impacts from Climate Change in the Peconic Estuary and practical ways to mitigate and prepare for them.

CCMP Objective F: Reduce current and future inputs of toxics, pathogens, and marine debris into groundwater and surface waters, and minimize their impacts.

- ACTION 21: Expand non-point source subwatershed management plans to all pathogen-impaired waterbodies and continue to use existing plans.

a. **Estimated Budget:** BIL funds: $190,000
b. **Partners and their roles:** PEP (Lead Partner), Village of Sag Harbor (Property Owner, Engineering Supervision), Village of North Haven (Municipal Partner)
c. **Description:** The Village of Sag Harbor has a Water Quality Improvement Project Plan that outlines 26 stormwater management installations throughout the Village. These funds will complete two installations (EH1 and EH2) as outlined and described in the plan. The two locations in the Village of Sag Harbor, will include (1) rain gardens and road amendments for increased stormwater capacity at Havens Beach, adjacent to the rain garden installation PEP funded under FY19; (2) road re-grading and amendments on the north side of Bay Street in the Village business district with the use of pervious pavement. These projects will manage increasing stormwater and decrease pollution into Sag Harbor Cove and Sag Harbor Bay. Sag Harbor Cove is listed as an impaired waterbody on the NYSDEC Priority Waterbodies List (https://www.dec.ny.gov/chemical/31290.html)

d. **Objectives:** The installation of two green infrastructure stormwater management areas have three objectives to: (1) improve water quality in Sag Harbor Cove and Sag Harbor Bay; (2) provide increased education about climate change, coastal adaptation and stormwater management using green infrastructure to the community.
e. **Outputs and Deliverables**: Completion of two stormwater management installations and two educational signs. Two community outreach events in Sag Harbor; one prior to installation and one after installation.
f. **Estimated Milestones:** This work will be coupled with community outreach. Each installation and associated community meeting will be a milestone. Additionally, each installation will also have an educational sign.
g. **Long Term Outcomes:** Sag Harbor currently experiences poor water quality and continuing pathogen related issues. The Village created a comprehensive plan that outlined 26 green infrastructure installations to reduce pathogens and other pollutants in the surface waters. The NYS proposed environmental justice area currently resides near water that is not swimmable due to pathogen pollution. Additionally, with increased flooding events related to climate change, this project will result in an increased capacity for flood management and a community more educated in both climate change, potential adaptation solutions, and reduced burden of flooding.
h. **Eligible BIL Actions:** Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation; Monitoring and addressing toxics and pathogen loads and contamination; Implementing stormwater management practices that reduce non-point source pollution impacts; Promoting the adoption of green and nature-based infrastructure approaches.

Goose Creek Sub - Catchment Discharge Elimination in the Town of Southold

New Project: *The Goose Creek project is referenced in the PEP FY22 workplan (page 25). All project details and information are outlined in this BIL22 workplan and, as such, this is treated as a new project. No work toward the construction of this outfall removal project has been initiated to date. All project deliverables and tracking will occur under this BIL22 workplan.*

Relevant CCMP Actions:

CCMP Objective C: Helping communities take meaningful, well-informed action to prepare for and adapt to climate change impacts in the Peconic Estuary.

- ACTION 14: Increased public awareness of anticipated impacts from Climate Change in the Peconic Estuary and practical ways to mitigate and prepare for them.

CCMP Objective F: Reduce current and future inputs of toxics, pathogens, and marine debris into groundwater and surface waters, and minimize their impacts.

- ACTION 21: Expand non-point source subwatershed management plans to all pathogen-impaired waterbodies and continue to use existing plans.

a. **Estimated Budget:** BIL funds: $98,000
b. **Partners and their roles:** PEP (Lead Partner), Town of Southold (Property Owner, Engineering Supervision), Goose Creek Civic Association (Community Partner), North Fork Environmental (Community Partner)

c. **Description:** The Town of Southold is currently carrying out a plan to remove direct stormwater discharges to the Peconic Bays. These funds will be used to complete the discharge removal in the sub-catchment of Goose Creek, Southold. Of the seven outfalls in the Goose Creek sub-catchment, four of them are minor outfalls and will be eliminated by the Town of Southold and using existing sources of funding. The remaining outfalls are major, requiring extensive drainage to be installed at the current outfall location and upstream of the outfall to ensure that localized flooding of the road does not occur. The Town of Southold will use existing staff and Town resources for all salary and fringe associated with the personnel. The funding will be applied materials for construction. This project will eliminate direct stormwater discharge in the Goose Creek sub-catchment of the Peconic Estuary watershed.

d. **Objectives:** The project aims to reduce stormwater pollution to the Peconic Estuary which will improve water quality to a priority one area under the Suffolk County Sub-watershed wastewater Plan (https://suffolkcountyny.gov/Departments/Health-Services/Environmental-Quality#SubWW Plan). Stormwater management is a high priority for climate adaptation as identified in the PEP Climate Vulnerability Assessment (https://gis.anchorqea.com/PeconicEstuaryCLPS/). This will also complete actions identified in the PEP 2013 Goose Creek watershed plan (https://www.peconicestuary.org/goose-creek-watershed-plan-2013/)

e. **Outputs and Deliverables**: Removal of all direct stormwater discharge to Goose Creek sub-catchment. Increased education on stormwater related pollution.

f. Estimated Milestones: Each outfall elimination will be a milestone.

g. **Long Term Outcomes:** Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation; Monitoring and addressing toxics and pathogen loads and contamination; Implementing stormwater management practices that reduce non-point source pollution impacts.

h. **Eligible BIL Actions:** Supporting water quality protection and restoration, including Total Maximum Daily Load plan implementation; Monitoring and addressing toxics and pathogen loads and contamination; Implementing stormwater management practices that reduce non-point source pollution impacts.

i. **Justice 40 Relevance:** This project lies outside of an area identified by New York State as an environmental justice area (see map linked in project 1 and 2 description).

Peconic Estuary Partnership
PROTECTING AND RESTORING LONG ISLAND'S PECONIC BAYS

Added page for EPA Budget Category clarity.

Table 2: EPA Personnel breakdown budget.

		Cost
Contract	Recreational Enhancement and Bulkhead Removal Assessment	$150,000
	Contract total:	**$150,000**
Other	Peconic Land Trust-Broad Cove Phase II	$159,956
	Peconic East CHANGES	$240,428
	Other total	**$400,384**
Personnel Salary	Full-time Grants Manager	$73,000
	Full-time Outreach Assistant	$51,733
	One Part Time Community Liaison	$35,020
	Personnel Salary total	**$159,753**
Fringe 40%	Full-time Grants Manager	$29,200
	Full-time Outreach Assistant	$20,693
	One Part TimeCommunity Liaison	$14,008
	fringe total	**$63,901**
Travel	**Travel total**	**$2,000**
Supplies	**Supplies total**	**$2,000**
IDC	IDC Program Office (Personnel, fringe, travel)	$59,190
	IDC (26% on first $25,000) Bulkhead Removal Assessment	$6,500
	IDC (26% on first $25,000) PLT Broad Cove	$6,500
	IDC (%) Peconic East Changes CHANGES	$59,572.00
	IDC total:	**$131,762**
	Total	$909,800