



PEP BIL23 (IIJA YR2)

The Infrastructure Investment and Jobs Act (IIJA, formerly known as the Bipartisan Infrastructure Law, BIL) Workplan for the Peconic Estuary Partnership (PEP) Stony Brook Submission



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Workplan for PEPBIL23 – Stony Brook Submission

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 and builds the adaptive capacity of ecosystems and .

This workplan outlines work to be carried out during the PEP FY23 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 (eg: PEP FY21, FY22, etc). Funds associated with IIJA will use the ‘Bipartisan Infrastructure Law’ (BIL) acronym with the associated fiscal year number (eg: BIL22, BIL23, etc). A BIL Long Term Plan for all five fiscal years will be completed no later than June 1, 2023. 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

BIL23

PEP BIL23-Stony Brook \$859,800.00

PEP BIL23-Suffolk County \$ 50,000.00 Non-Federal Match: \$0.00***

Total: \$909,800.00

*Work presented in this workplan are for the PEP BIL23-Stony Brook award only. Work for the PEP BIL23-Suffolk County Workplan will be submitted under a separate workplan.

**Federal match is waived for the first two years of implementation of the BIL funds.

Resources Requested

The total BIL23 funds requested in this grant to Stony Brook University is \$859,800 for BIL23.

II. SUMMARY OF ACCOMPLISHMENTS

PEP submitted the BIL22 workplan to EPA in October 2022. At this time, funds have not yet been released, and no work has commenced. As such, no summary of accomplishments can be reported.

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>

Program Office Expenditures - \$235,556

Program Office Staff

\$217,140

BIL23 funds will support two full time and one part time staff as follows:

Grants Manager

Location: School of Marine and Atmospheric Sciences, Stony Brook University

Responsibilities: Management of BIL projects; assistance in tracking leveraged funds

Education and Outreach Assistant

Location: PEP Program Office, 300 Center Drive, Suite 250S, Riverhead, NY 11901

Responsibilities: education and outreach for BIL specific projects

Community Liaison (part-time)

Location: PEP Program Office, 300 Center Drive, Suite 250S, Riverhead, NY 11901

Responsibilities: Support community outreach

Program Office Supplies and Travel

\$18,416

BIL23 funds will support three laptops and associated technology equipment (screens, docking stations, additional chargers, etc) to support the three BIL employees listed above. Travel associated with National Estuary Program Tech Transfers and Local Travel as required for job duties will also be included in program office cots for BIL employees.

Details included in Table 1.



Table 1: PEP Budget for BIL23

	BIL23 Request	Notes
Program Office Support		
Personnel	\$217,140	
<i>Fringe (41%)</i>	\$28,700	
<i>Fringe (41%)</i>	\$20,500	
<i>Fringe (41%)</i>	\$13,940	
Travel	\$2,000	Local travel for outreach assistant and IDEA staff
Equipment	0	
Supplies	\$16,415	Laptops (3), screens, docks, outreach materials

Contracts and Subawards		
Contracts	\$150,000	In BIL23 one contract will receive funds for implementation projects.
<i>Peconic Land Trust-Broad Cove</i>	<i>\$150,000</i>	Project cost without indirect - 26% Indirect is applied to the first \$25,000 of contract and included in 'Total Indirect'
Other		
<i>Subawards</i>		In BIL23 two sub-awards will receive funds for implementation projects.
<i>Town of Southampton-Riverside</i>	<i>\$100,000</i>	Project cost without indirect-26% Indirect is applied to the first \$25,000 of sub-award and included in 'Total Indirect'
<i>Peconic East Pilot site</i>	<i>\$300,000</i>	IDC not applied-funds sub-awarded internally to Stony Brook Department; PEP does not pay IDC.
	\$400,000	
Total Direct	\$785,556	
Total Indirect	\$74,245	26% Indirect is applied to Program Office Support and to the first \$25,000 of contracts and sub-awards
Total EPA BIL23 Funds Request	\$859,800	
Match	0	No match requirement BIL23
Total Project Cost	\$859,800	

BIL23 Workplan

This workplan includes all projects, which PEP will carry out July 1, 2023 to June 30, 2025 using BIL23 funds.

BIL23 Projects

Project 1: Peconic Land Trust-Broad Cove

New Project – *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. To*

continue our partnership, PEP will devote funds to create trails and educational signs.

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: \$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 coastal 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/tmdl_nitr_pecn1.pdf).

d. **Objectives:** Increased shoreline and water recreational areas for the local community; increased community knowledge about coastal vulnerability issues; natural shoreline flood protection.

e. **Outputs and Deliverables:** Completion of trails and educational signage.

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 community recreation on the shoreline. On-site education related to coastal vulnerability, 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 by providing much needed storm surge protection by providing an extensive buffer of natural shoreline. The education will create a community more educated in both coastal vulnerability, 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 2: Southampton Riverside Wetland Enhanced Recreation*

Project scope updated 2025 to be community recreation focused

New Project – 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 community recreation and enhanced coastal resiliency to the Riverside community.

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.

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

- 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 recreational areas 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 work will be coupled with community outreach. Quarterly meetings will be held as stakeholder meetings to ensure community input to the project.

g. **Long Term Outcomes:** The concept plan which will be funded under this award will lead to increased community recreation areas, increased acreage of restored wetlands and a community more prepared for coastal resiliency.

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.

Project 3: Peconic East CHANGES– Shoreline Protection project

New Project: PEP will develop a focused area of the Eastern watershed to carry out coastal vulnerability mitigation activities and education. The Peconic East site will utilize combinations of kelp, oysters, and seagrasses to 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 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: 1. Perform benthic and pelagic site evaluations to assess the suitability of multiple sites across the eastern Peconic Estuary 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, 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. 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 changing conditions, 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 coastal vulnerability assessments, developing and implementing coastal adaptation strategies and using adaptation tools to promote coastal resilience;