Peconic Estuary Partnership

PROTECTING AND RESTORING LONG ISLAND'S PECONIC BAYS

Policy Committee Meeting

Highlights & New Projects

June 10th 2020

Habitat Restoration Plan Updates and Map

NEW Priority Habitat Sites

In the 2017 PEP Habitat Restoration Plan Update, a total of forty-one (41) projects were approved for inclusion in the Plan. In 2020, the NRS, TAC, and Management Committee are recommending adding an additional five (5) projects to the plan and modifying two (2) existing projects.

New Projects

- **Widow's Hole Preserve Living Shoreline/Wetland Restoration Phase II (Southold, NY)**
  Cost: $150K
- **Napeague Harbor Hydrodynamic and Water Circulation Study (East Hampton, NY)**
  Cost: $250K
- **Diamondback Terrapin Habitat Restoration/Protection Strategy (Estuary-wide)**
  Cost: Staff time; Strategy implementation TBD
- **Horseshoe Crab Habitat Restoration/Protection Strategy (Estuary-wide)**
  Cost: Staff time; Strategy implementation TBD
- **River Otter Habitat Restoration/Protection Strategy (Estuary-wide)**
  Cost: Staff time; Strategy implementation TBD

Modified Projects

- **Restoring Natural Hydrology to Accabonac Harbor Wetlands (East Hampton, NY)**
  Scope of work updated. Cost: $35,000 for site studies and conceptual design plan; Design and construction costs TBD
- **Forge Rd Diadromous Fish Passage (Peconic River, Phase III)**
  Monitoring and education components added. Cost: Additional $15,528 needed.

Policy Committee Vote on New Priority Habitat Projects to be included in the Habitat Restoration Plan

New Committee Representatives

- **Policy Committee, Local Government Committee Representative and voting member:** Scott Russell, Southold Town Supervisor
- **Management Committee, Suffolk County Representative and voting member:** Ken Zegel, Suffolk County Department of Health Services, Office of Ecology-Chief, Public Health Engineer
- **Local Government Committee, Chair**: Catherine Kent, Town of Riverhead Councilwoman

PEP CCMP Revision

- The 2020 PEP CCMP is in final stages of EPA review and approval.
- PEP is working with a graphic design contractor to develop design template for the 2020 PEP CCMP.
- The Peconic Estuary Partnership Conference planned for September 25th, 2020 has been postponed. New date is April 14th, 2021.

PEP's Completed Projects!

Check out the PEP Accomplishments page to view PEP's impact in the region and projects completed in 2019 and 2020!

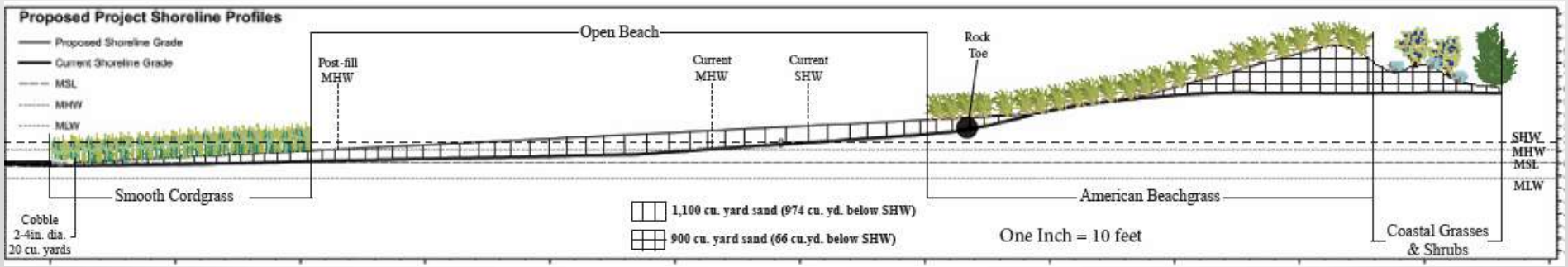
Living Shoreline Pilot Project- Greenport

PEP and Peconic Land Trust with Cornell Cooperative Extension (CCE)

Status: Completed August 2019, monitoring of living shoreline is ongoing.

Next Steps: Phase II of the project scope, extending the living shoreline to the entire property, has been developed by CCE and added to PEP Habitat Restoration Plan.

Click here for the Widow's Hole Preserve Story Map.



Seagrass Bio-optical Model

PEP and The Research Foundation of SUNY Stony Brook

Status: Model completed September 2019. Final report released in May 2020.

Next Steps: GIS tool for stakeholders is being developed.

Click here for a video about the project created by the PEP Education and Outreach Program: https://vimeo.com/377382663

- Report includes: Site specific information to inform eelgrass management and restoration programs. Report is linked below: Living on the edge- Analysis of Zostera marina and the potential for restoration in Peconic Bay (Long Island, NY) (2020)
- Final Seagrass Bio-optical Model results were presented at the PEP Technical Advisory Committee meeting on February 26th, 2020. Click here for the link to the presentation.

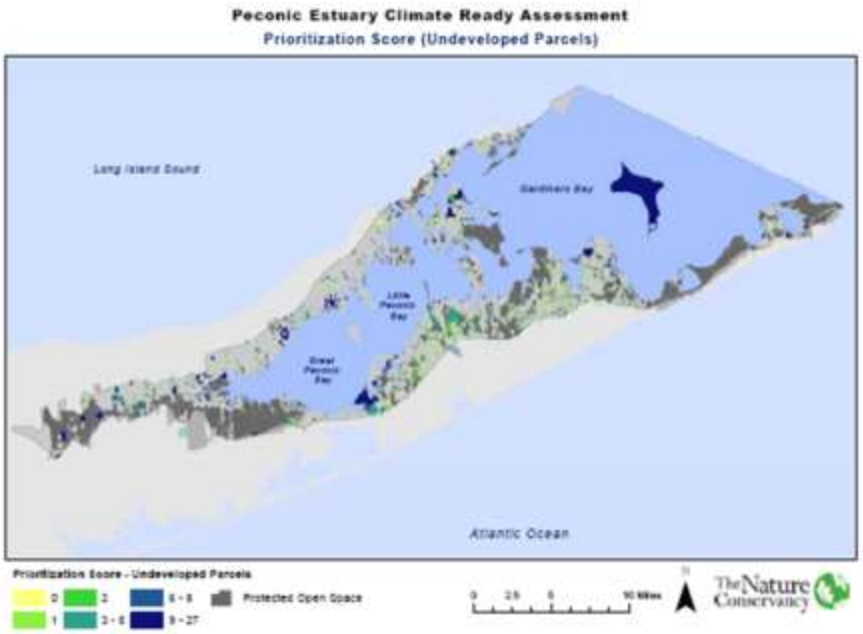
Critical Lands Protection Strategy Update and Climate Ready Assessment Services for PEP and Shinnecock Indian Nation

PEP and Anchor QEA

Status: Completed September 2019. Final reports available on PEP website here.

Next Steps: Municipal Training Workshops are being planned to distribute tools and information.

Figure 13: Undeveloped Priorization with protected



Report includes:

1)Updated Critical Lands Protection Strategy (CLPS).

2)Assessment of climate change vulnerabilities for both the Peconic Estuary Program and Shinnecock Indian Nation.

PEP Land Protection Highlights

- The Peconic Land Trust, in partnership with the Peconic Estuary Partnership, was awarded **$3.6 million from the NYSDEC WQIP Round 16 grant program for Phase III of the source water protection program (Regional Aquifer Protection Land Acquisition Program Phase III)** that acquires land within regional Special groundwater Protection Areas and /or in close proximity to public supply wellheads. This is the 3rd year that the PLT and PEP have successfully been awarded WQIP funds to support land acquisition.

Lands that will be prioritized in Program Phases:

- Phase I: Parcels in **Brookhaven**
- Phase II: Parcels in **Riverhead, Southold, and Shelter Island**
- Phase III: Parcels in **Brookhaven, Riverhead, Southold, Shelter Island, and East Hampton**

PEP Partner 2019 Grant Awards

PEP collaborated with our partners on the following successful grant awards:

- **Greenport Sewage Treatment Plant Effluent Reuse Study-** $26,240 from the Environmental Facilities Corporation Engineering Planning Grant: The Village of Greenport was awarded funding to complete an engineering report to identify the requirements, technical and capital needs, estimated costs and maintenance and operation needed to redirect 300,000 gallons per day of treated wastewater going to the Long Island Sound from the Greenport Sewage Treatment Plant to be instead reused at an adult care facility and a golf course for irrigation.

- **Village of Greenport Sewer Expansion-** $390,000 Empire State Development Grant: The Village of Greenport was awarded funding to design and construct an expansion of their municipal sewer system to provide a sewer extension to the Stirling Basin Marina properties and the Sandy Beach residential area in order to reduce the nitrogen and pathogen pollution inputs from the existing septic systems serving the area nutrient input to Stirling Basin and the nearby Peconic Estuary.

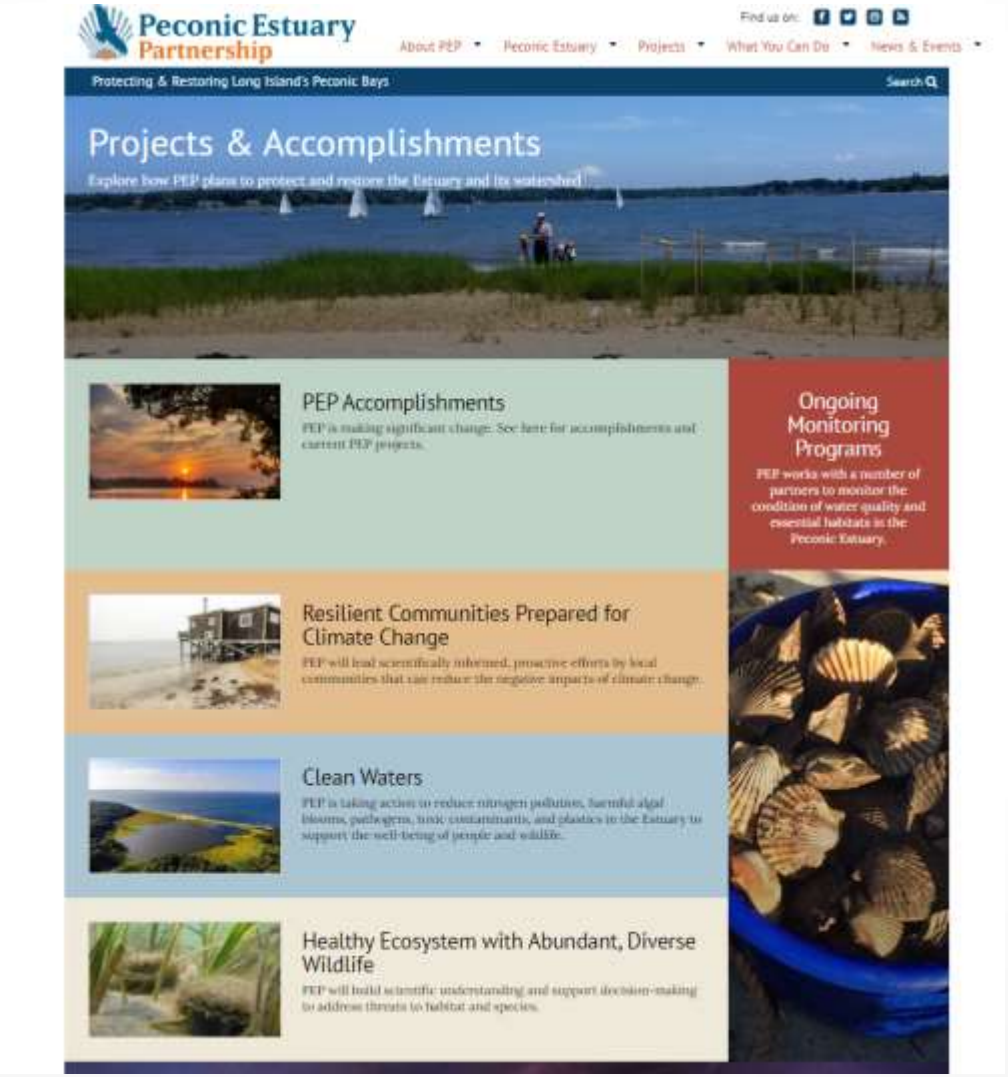
PEP Partner 2020 Grant Awards

PEP collaborated with our partners on the following successful grant awards:

- **Town of Shelter Island Wastewater Re-Use for Goat Hill Golf Course Irrigation/ Town of Shelter Island Center Decentralized Wastewater Treatment System-** $71,925 from the Suffolk County Water Quality Protection and Restoration Program (WQPRP) grant: The Town of Shelter Island was awarded grant funding to fund an engineering report for the Shelter Island Heights Property Owners Corporation Sewage Treatment Plant Wastewater Re-use project. The project aims to redirect treated effluent away from the Sewage Treatment Plant owned and operated by the Shelter Island Heights Property Owners Corporation (SIHPOC) and provide for beneficial re-use of the effluent by using it to irrigate the Town-owned Goat Hill golf course. Additionally, the Town of Shelter Island was awarded funding from the same grant to fund an engineering report for the Shelter Island Center Decentralized Wastewater Treatment System. The project would involve establishing an innovative/alternative wastewater treatment system to serve Town facilities, the Public Library, and Shelter Island Fire Department headquarters.

- **Village of Sag Harbor Bay Street Stormwater Management Improvement Project-** $82,130 from the Suffolk County Water Quality Protection and Restoration Program (WQPRP) grant: The Village of Sag Harbor was awarded grant funding to fund the installation of twelve rain gardens ranging in size between 200-800 square feet on Bay Street to reduce stormwater runoff into Sag Harbor Bay.

Current Projects



Narrow Road Wetland Restoration

Status: Completed Conceptual Habitat Restoration Design in September 2019. Southold Town and stakeholders reviewed plans.

Next steps: Engineering Design Plans will be developed.

- Narrow River is a tributary of the Peconic Bay and flows south from the Town's Whitcom Marsh Preserve under Route 25 and along the eastern side of Narrow River Rd in Orient, NY. An earthen dam was constructed after the 1938 hurricane to prevent tidal flooding of the lands north of the dam. The western-most section of the dam blocked the tidal flow from Narrow River to the large meadow area north of the dam known as Broad Meadows and Whitcom Marsh Preserve north of Route 25.
- Remediation of the culvert and earthen dam is needed to improve the tidal exchange throughout the extent of the river and increase the salinity of the river to promote the re-establishment of native vegetation and important waterfowl and wading bird habitat. The potential extent of the restoration area is 80 acres.
- PEP is working with partners to secure funding for engineering design plans and construction.

Click here for the Narrow River Road Wetland Restoration Conceptual Design Plan.

Lake Montauk Alewife Access and Habitat Enhancement

Status: Completed Conceptual Habitat Restoration Design in September 2019. East Hampton Town reviewed plans.

Next steps: Partial funding secured and will move forward with construction project in coordination with partners.

Click here for the Lake Montauk Alewife Access and Habitat Enhancement Conceptual Design Plan.

- PEP recently completed a conceptual habitat restoration design plan to restore connectivity for diadromous fish species between Lake Montauk and Big Reed Pond by replacing an undersized culvert, and between Lake Montauk and Stepping Stones Pond by replacing an undersized, impassable culverts under Old West Lake Drive and removing debris.
- Suffolk County Capital funds have been secured to replace the culvert that leads to Big Reed Pond and PEP staff will be working with Suffolk County parks to complete the permitting and construction.
- PEP staff are also working with partners to secure funding to complete engineering design plan and construction of the culvert leading to Stepping Stones Pond.

Meetinghouse Creek Main Road Wetland Construction/ Restoration

Status: Completed Conceptual Habitat Restoration Design in September 2019. Funding is secured for Engineering Design and Permitting.

Next Steps: An RFP for Engineering Design and Permitting will be advertised. PEP will begin work with selected contractor.

- PEP recently completed a conceptual habitat restoration design plan for Meetinghouse Creek. This site is located at a large wetland area that forms the headwaters to Meetinghouse Creek in Riverhead, NY. Meetinghouse Creek is listed as an impaired waterbody on the NYSDEC Priority Waterbodies List. The wetland vegetation at this site is dominated by *Phragmites*.
- The conceptual design recommendation is to construct a 1.2-acre stormwater wetland to treat stormwater runoff in the 5.6 acre contributing watershed. This will improve water quality in the downstream wetland and surface waters. Additionally, it will greatly increase the ecological quality of the habitat and improve plant and wildlife diversity.
- PEP will work with the selected contractor and Town of Riverhead to complete the Engineering Design and Permitting services.

Click here for the Meetinghouse Creek Wetland Restoration/ Construction Conceptual Design Plan.

Paul Stoutenburgh Preserve Habitat Restoration

Status: An RFP for Engineering Design and Permitting will be advertised in Summer 2020.

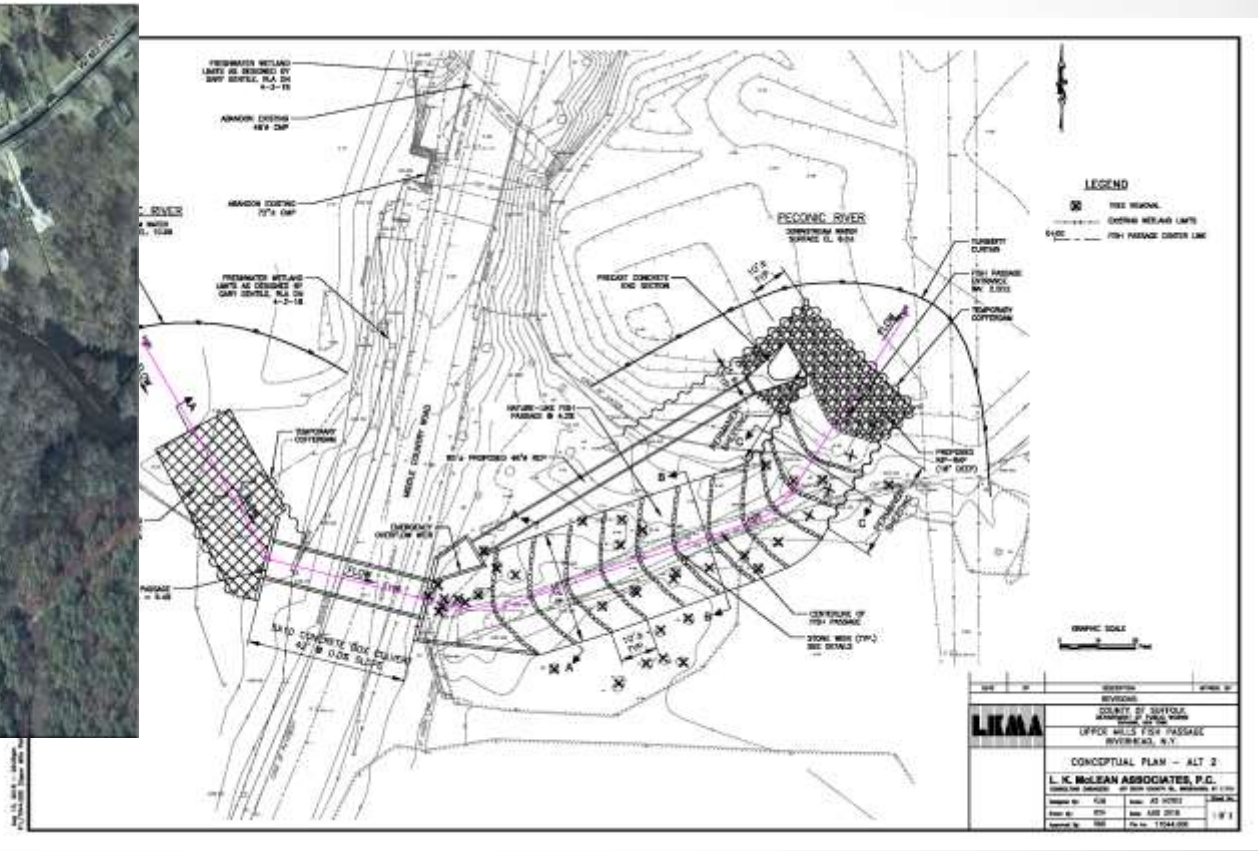
- Paul Stoutenburgh Preserve is a Town owned 52 acre nature preserve on the west side of Arshamomaque Pond with an adjacent 7 acre County preserve. Several areas along the shoreline and interior have pockets of invasive *Phragmites australis* resulting in low quality wetlands. Invasive mile-a-minute weed has become established and is rapidly increasing in areas adjacent to tidal and fresh water wetland areas. The project site was nominated by the Town of Southold to be included in the Peconic Estuary Program Habitat Restoration Plan in 2013 and the project was prioritized for habitat restoration in 2016. Habitat restoration is recommended and is anticipated to involve the removal of the invasive species using currently accepted removal and restoration practices, and changes to drainage infrastructure in the area to make conditions less suitable for invasive vegetation.

- The goal of the project is to improve the freshwater and tidal wetland habitat and to promote the re-establishment of native vegetation and important waterfowl, shorebird, wading bird and migratory bird habitat.

Upper Mills Dam Fish Passage

PEP and L.K. McLean Associates for engineering and permitting services

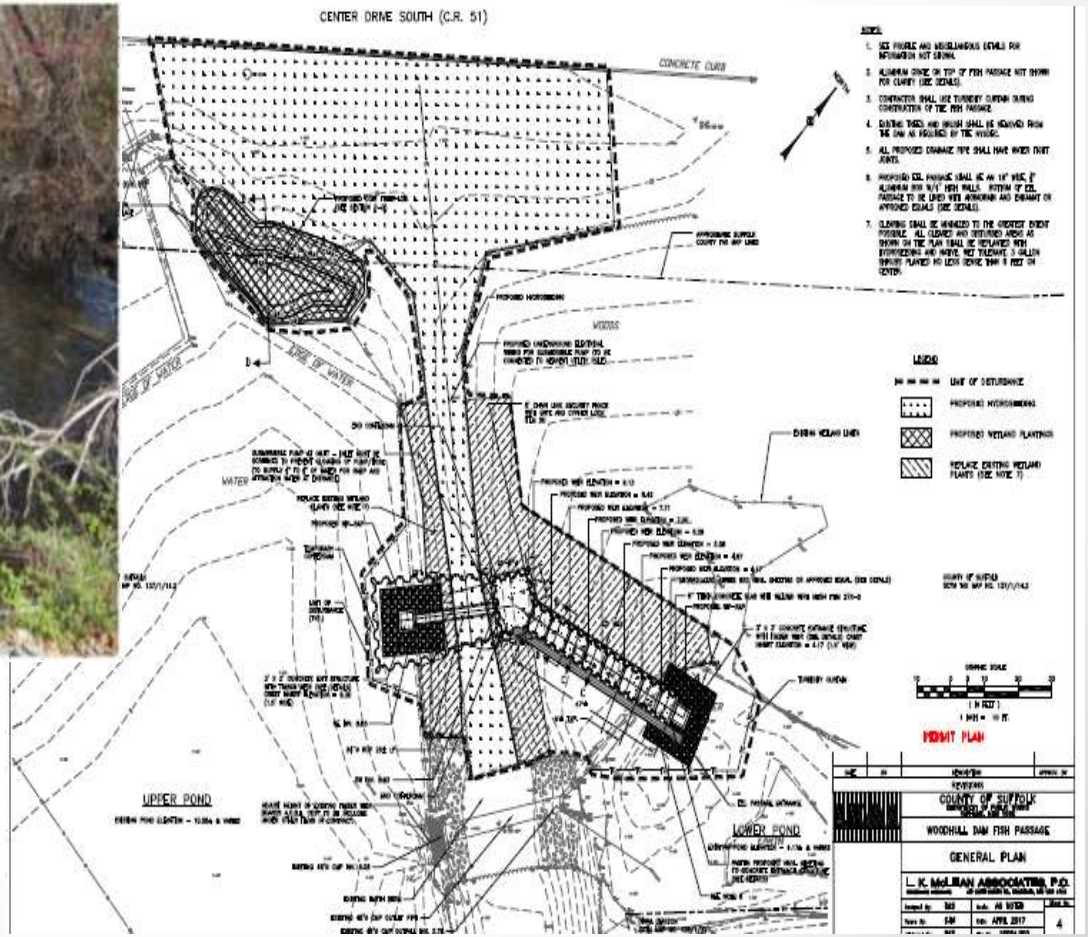
Status: Design alternative selected at April 9th, 2019 stakeholder meeting. Developing engineering designs, designs and permitting work anticipated completion February 2021.



Woodhull Dam Fish Passage

PEP and Suffolk County contracted with L.K. McLean Associates

Status: PEP has secured additional funds ($250K from Suffolk County & $50K from USFWS) and hopes to complete construction in 2020. We were not awarded $50K from the Atlantic Coastal Fish Habitat Partnership Grant.



Spring 2020 Alewife Monitoring

- Video camera installed at Grangebel fishway on Peconic River for second year. Suffolk County College Professor (Kellie McCartin) and students helping with video monitoring analysis.
- Alewife Count Update: From 02/28/20-04/15/20, just over 45,000 fish are estimated to have passed through the camera. Last year's total estimate was around 34,500, so we are exceeding last year's estimate. The migration has ended and the camera will be taken out of the river in June.
- 25 Volunteer River Herring Surveyors trained at two workshops in February 2020.
- Alewife Monitoring QAPP finalized.

Expansion and Monitoring of the Town of Southold Living Shoreline

PEP and Cornell Cooperative Extension

Status: Work is underway. Expected project completion in August 2020.

EPA grant funding expires 9/30/2020

Figure 2. Location of proposed living shoreline project on Southold Town Trustee land near Suffolk County Marine Environmental Learning Center.

- Expansion to an existing Town of Southold Living Shoreline Demonstration Project.
- Goal is to establish a larger project area and the addition of monitoring services at the project site.
- Enable the quantification of nitrogen and pathogen uptake of *Spartina alterniflora* and ribbed mussels.

Peconic Estuary Solute Transport Model

PEP and United States Geologic Survey

Status: Model Development phase and scenario finalization. Anticipated completion Spring 2021.

Next project meeting scheduled for August 19th, 2020.

Link to PE Solute Transport Model Webpage

Objective: This Solute Transport Model will be a tool to estimate time-varying nitrogen loading rates to the Peconic Estuary

Specifically, the objectives of the investigation are to:

1) develop data sets representing current and historic land uses relevant to nitrogen loading in coastal watersheds

2) estimate current estuarine loading rates and nutrient concentrations in the aquifer, and

3) use these current-condition models to simulate the response to possible wastewater-management actions.

Hardened Shoreline GIS Mapping

Status: Hardened Shoreline GIS Mapping Project was presented at the PEP Natural Resources Subcommittee on June 28th, 2019.
Final report is anticipated in 2020.

- PEP completed a GIS mapping project to quantify the amount of hardened shoreline in the Estuary. The last survey was in 2003 using maps from 2001.
- The preliminary results are being reviewed and ground-truthed in advance of final report distribution.

Bulkhead Distribution in the Peconic Estuary Watershed

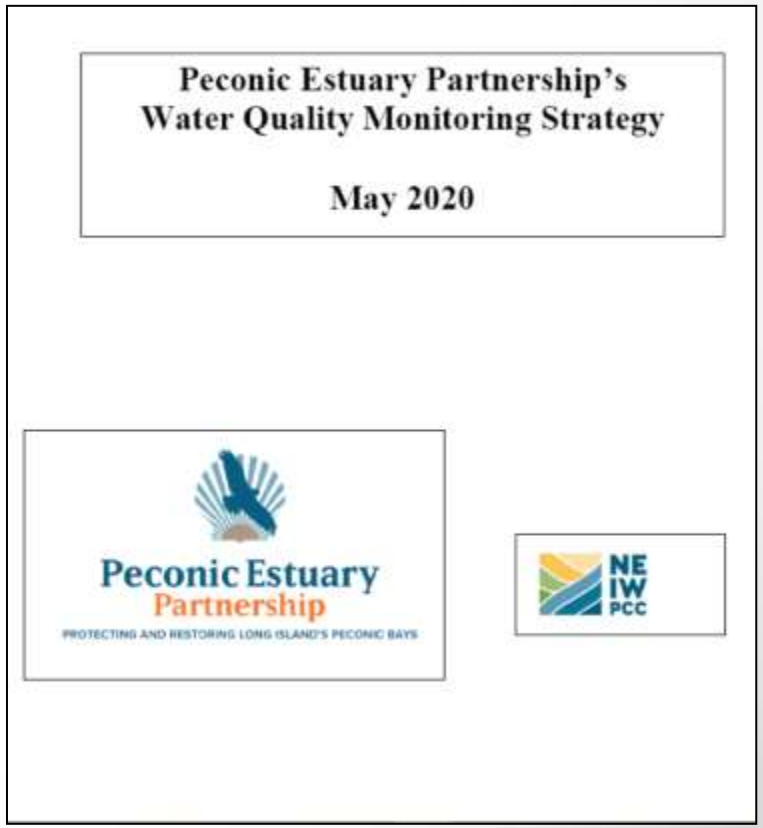
WQ Monitoring Assessment

PEP and CoastWise Partners.

Status: Draft Peconic Estuary Partnership's Water Quality Monitoring Strategy was approved by the TAC on May 4th and by the Management Committee on May 28th, 2020. After Policy Committee approval, the Strategy the document will be incorporated into CCMP.

- Goal of this project is to create a PEP Monitoring Strategy that will be relevant for all decision makers.
- The purpose of this project is to develop appropriate indicators of estuarine health, and ensure appropriate parameters are collected on a temporal and spatial scale to assess these indicators. The results of the project will be an updated monitoring strategy with the end goal of annual water quality reports.
- Services were recommended as a Finding of the EPA's 2017 Program Evaluation of the PEP.

Strategy Document distributed May 29th, 2020



Organizational Assessment

PEP and CoastWise Partners.

Status: On-going, after Management and Policy Committee approval of the Strategy the document will be incorporated into CCMP.

- Management and Policy Committee Joint Retreat held October 9th, 2019 and February 5th, 2020.
- Examine the relationships between all groups in the Management Conference and provide recommendations about how they can work together more effectively.
- The purpose of this project is to develop a set of guiding policies for the Management Conference and sub-groups.
- Services were recommended as a Finding of the EPA's 2017 Program Evaluation of the PEP.

Quality Assurance Project Plan Development for Supplemental Water Quality Sediment Data Collection

PEP and Tetra Tech, Inc.

Status: The project Technical Advisory Committee is reviewing the draft Quality Assurance Management Plan. Anticipated completion September 2020.

- A NYSDEC and EPA approved Quality Assurance Management Plan (QAMP) is under development;
- Identify and prioritize subwatersheds in the Peconic Estuary that should be targeted for water quality improvement activities; ensure water bodies are properly listed on the NYS Impaired Waters list;
- Help the PEPC members and partners assess the current baseline in water quality, and effectiveness of water quality improvement interventions over time.

Peconic Estuary Ecosystem Study

PEP, NYSDEC and SUNY Stony Brook.
Expected completion Fall 2021.
Status: Advertising for a Post-Doctoral position.

- Analyze spatial and temporal trends in the Peconic Estuary finfish trawl survey dataset, and develop risk metrics from ecological relationships for the Peconic Estuary that examine whether local and regional environmental changes have increased the vulnerability of individual finfish and mobile invertebrate species, community assemblages, and ecosystem processes.
- ECOSIM is a quantitative modeling framework that can represent all major ecosystem functional groups and can be used to identify and assess structural changes in the ecosystem in response to environmental change.
- The proposed study will identify vulnerable species, critical habitats, and ecosystem properties within the Peconic Estuary.
- This information has direct application to decisions affecting the use, management, and conservation of the natural resources in the bay.

Non-point Source Pollution Management Project

PEP and Village of Sag Harbor.

Status: Ongoing. Expected completion September 2020.

EPA grant funding expires 9/30/2020

- Implement a non-point source pollution management project at Havens Beach.
- The project involves utilizing green infrastructure best management practices to treat stormwater that would otherwise flow across the beach and/ or through an existing discharge pipe directly to Sag Harbor Bay.
- The project will significantly reducing the nitrogen pollutant loads to the waterbody and improving the overall health of the Peconic Estuary.

Nitrogen Load Reduction Assessment Project

PEP and Anchor QEA, LLC.

Status: QAPP approved. Project is ongoing. Expected completion September 2020.

EPA grant funding expires 9/30/2020

- Objective is to compile and assess the cost per pound of nitrogen reduction to groundwater for various nitrogen reduction best management practices (BMPs) currently being employed throughout the country.
- The project will provide a decision-making tool to guide cost effective management scenarios to reduce nitrogen on a subwatershed basis in the Peconic Estuary.

Education and Outreach Highlights

- The CAC Meetings in 2019 had an increase in the average number of attendees at **27** compared to 2018 average attendance at **19**. **We saw a 44% increase in total number of attendees at our CAC meetings from 2018 to 2019.**
- Topic relevance, round table discussion format, and increased engagement with partners have proven to reap positive results.

Tuesday, March 19th	1:00pm-3:00pm	Nitrogen Pollution Discussion	Hampton Bays Public Library	Hampton Bays	22
Thursday, June 20th	2:00pm-4:00pm	Septic Improvement Program Workshop	Hallock State Park Preserve	North Fork-Riverhead	20
Monday, September 23rd	1:00pm-3:00pm	Wildlife Monitoring Network and Citizen Science	Suffolk County Culinary Arts & Hospitality Center	Riverhead	38
Thursday, December 5th	3:00pm-5:00pm	The Peconic Estuary Story	Moustache Brewery	Riverhead	28

Education and Outreach Highlights

3rd year of Terrapin Monitoring Pilot Program completed - The goal of the program is to understand where terrapins are nesting on the East End to gauge need for conservation efforts, as well as to inform decision making for land-use planning and shoreline resiliency.

- In 2019, we confirmed that Northwest Harbor County Park in East Hampton was a favorable site for nesting.

Terrapin evidence observed during season (June-July):

- 98 predated nests
- 1 live terrapin on land
- 7 test holes
- Overwintered hatched eggs
- Over 50 sets of tracks

*Mostly in elevated grassland/shrubland area

In order to expand, next step is developing a Wildlife Monitoring Network for Long Island to increase collaboration among partners and participation of citizen scientists

Education and Outreach Highlights

- The first CAC meeting conducted virtually on zoom during COVID-19 resulted in 262 registrations and approximately 100 attendees.

Education and Outreach Highlights

- The second CAC meeting conducted virtually on zoom during COVID-19 resulted in 146 registrations as of June 3rd.

Education and Outreach Highlights

- Created Resources for Educators in both English and Spanish
- https://www.peconicestuary.org/about-pep/outreach-and-education-programs/resources-for-educators/

- Art & Writing
- Estuary Worksheets
- Wildlife Worksheets
- Scavenger Hunt Activities
- Lessons