

FALL NEWSLETTER 2020



What's Inside?

RECAP: CITIZENS' ADVISORY COMMITTEE MEETINGS

On page 02, you'll find resources about the Suffolk County Septic Improvement Program and how you can get involved with PEP.

COMPREHENSIVE CONSERVATION MANAGEMENT PLAN 2020

Celebrating the release of PEP's management plan for the next decade, beginning on page 03.

PECONIC ESTUARY PARTNERSHIP UPDATES

On page 06, read about projects that the Peconic Estuary Partnership has been working on and has completed!

New York's Plastic Bag Ban

Remember your reusable bags when you head out to the store. The New York State Department of Environmental Conservation (NYSDEC) announced the enforcement of New York's Plastic Bag Ban beginning Oct. 19, 2020. With the campaign #BYOBAGNY, New York promotes the use of reusable bags in the effort to reduce plastic pollution in our environment and waterways. You can find details in the [NYSDEC Plastic Bag Ban announcement](#).

Photo Credit: NYSDEC



CITIZENS' ADVISORY COMMITTEE MEETINGS RECAP



**SUFFOLK COUNTY
SEPTIC IMPROVEMENT PROGRAM
WORKSHOP**

Wednesday, August 26th
2:00 - 4:00 pm
Virtual meeting on Zoom
Registration required

Join the Peconic Estuary Partnership's
CITIZENS' ADVISORY COMMITTEE MEETING
for a featured workshop on the Septic Improvement Program

Questions about the grant application process?
Suffolk County representatives will present everything you need to know
about how to upgrade your cesspool or septic system through the program




The last two PEP CAC meetings of 2020 provided great information for the community to put into action. If you missed these resource filled events, we provide you with helpful recaps below. You'll find resources that will get you started on upgrading your septic system or cesspool through the Suffolk County Septic Improvement Program and will find resources that will help you get involved with PEP's efforts to protect and restore the Peconic Estuary.

One of the most serious issues affecting water quality in the Peconic Estuary is excess nitrogen loading, which can cause harmful algal blooms, low dissolved oxygen, and degraded aquatic habitats. The largest source of non-point source pollution in the Peconic Estuary is wastewater from residential on-site septic systems and cesspools. The Peconic Estuary Partnership hosted a Suffolk County Septic Improvement Program Workshop to provide the community with easy access to details on what the program entails, how to apply, and to encourage upgrades to cesspools and septic systems for cleaner water quality.

The recorded Zoom workshop can be viewed on PEP's Vimeo page: <https://vimeo.com/453324848>, and the presentation can be found on PEP's Citizens' Advisory Committee webpage under the August 2020 dropdown menu. Go to the [Suffolk County Reclaim Our Water website](#) to find all Septic Improvement Program resources including the Septic Improvement Program Grant Application.

We encourage you to share these resources with your family, friends and neighbors to increase participation in the program and continue efforts to reduce nitrogen pollution to our groundwater and bays.



Long Island is home to three Estuary Programs that work to protect and restore our natural resources and treasured ecosystems. During National Estuaries Week, we celebrate Estuary Day with Long Island Sound Study and South Shore Estuary Reserve to bring awareness to the work that we do and inspire communities to get involved in our efforts to create a cleaner and more vibrant future.

The recorded Zoom event for PEP's Estuary Day presentation can be viewed on PEP's Vimeo page: <https://vimeo.com/461889812>. The PEP presentation and our [PEP Estuary Day Digital Resources Packet](#) that contains all of the links and information we refer to in our presentation can be found on [PEP's Citizens' Advisory Committee webpage](#) under the September 2020 dropdown menu.

You can also retrieve the other Estuary Day presentations:
Long Island Sound Study: https://www.youtube.com/watch?v=2-49VWhROw4&feature=emb_title
South Shore Estuary Reserve: Request the recording by emailing sser@dos.ny.gov



ESTUARY DAY
September 25, 2020

Long Island is home to three Estuary Programs that work to protect and restore our natural resources and treasured ecosystems. **YOU CAN GET INVOLVED** in our efforts to create a cleaner and more vibrant future. Learn how by attending one, two or all three of our virtual presentations and Q&A sessions this Estuary Day.

***FREE ZOOM REGISTRATIONS TO ATTEND!**

10:00 - 11:00 AM PECONIC ESTUARY PARTNERSHIP
Climate Change, Water Quality, Habitats & Wildlife - Get Involved with the Peconic Estuary Partnership
Register for this presentation: <https://cornell.zoom.us/j/61889812>

12:00 - 1:00 PM LONG ISLAND SOUND STUDY
Discover Long Island Sound: A virtual tour of local treasures to explore
Register for this presentation: <https://cornell.zoom.us/j/61889812>

2:00 - 3:00 PM SOUTH SHORE ESTUARY RESERVE
Protecting and Restoring the South Shore Estuary Reserve
Register for this presentation: <https://cornell.zoom.us/j/61889812>






2020 COMPREHENSIVE CONSERVATION MANAGEMENT PLAN

The Peconic National Estuary Program, The Peconic Estuary Partnership (PEP), has completed its 2020 Comprehensive Conservation Management Plan (CCMP). This guiding document establishes the framework for protecting clean water and healthy habitats on the East End of Long Island. As a National Estuary Program, PEP brings together all members of our community – Federal, State and local governments, non-profit organizations, businesses, academia and interested members of the public – to protect and restore the Peconic Estuary and its watershed.

The PEP was established in 1992 under the EPA National Estuary Program as an **“Estuary of National Significance”** and adopted the first CCMP in 2001. In 2018, we set out on a journey to update the CCMP with the inclusion of our Management Conference, our local officials, scientific partners, and our community members. Through the years, we have gained a greater understanding of the issues facing the Peconic watershed; for instance, the importance of groundwater pathways as a leading mechanism of pollution transport to our bays, the increase in the number of harmful algal bloom (HAB) species adversely affecting our waters, the harmful role excess nitrogen has played, the interconnectivity of our wildlife to the health of our habitats, and the extreme influence climate change will have on everything. With this greater understanding, we’ve developed ***the new CCMP (2020) that lays out a roadmap for protecting and restoring the Peconic Estuary and its watershed, carrying us forward through the next ten years.***

The work of our partnership has always been dedicated to restoring clean water, protecting and enhancing vibrant ecosystems, and communicating sound science for nature-based coastal planning. In this way, we have shared some key successes over the years.



Photo: Stephen Tettelbach



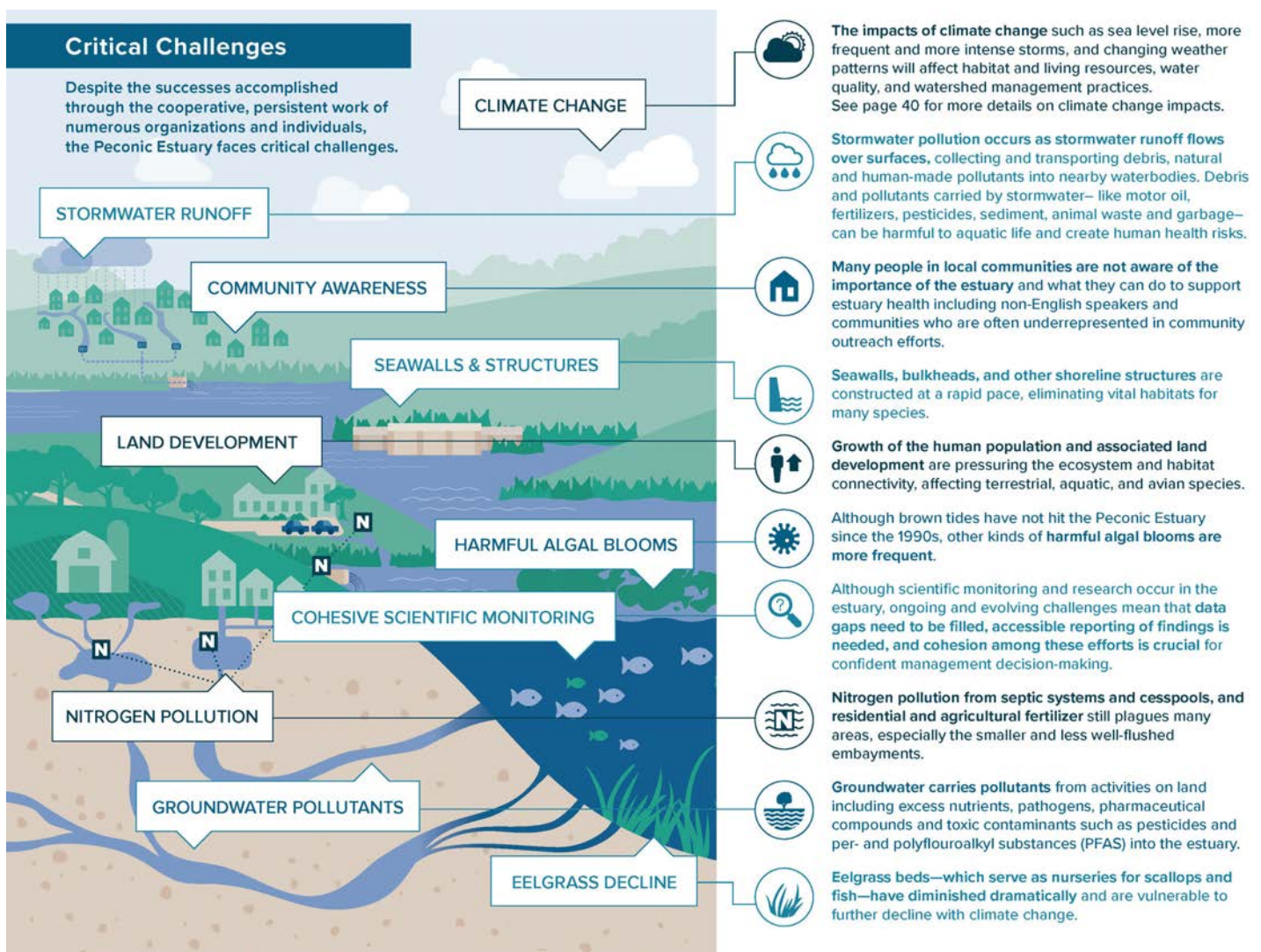
Selected Milestones in Peconic Protection: 2000 to 2019

- 2000** ● **Habitat Restoration:** Since 2000, more than two dozen projects have restored shorebird habitat, wetlands, grasslands, beaches, shellfish, diadromous fish habitat, and eelgrass beds.
- 2002** ● **Vessel Waste No Discharge Zone:** Federal designation of the entire Peconic Estuary as a Vessel Waste No Discharge Zone protects water quality by prohibiting all untreated or treated discharges from boat toilets.
- 2007** ● **Fertilizer Reduction Law:** This Suffolk County law decreases nitrogen pollution in the estuary by prohibiting off-season use of fertilizers in the watershed.
- **Total Maximum Daily Load for Nitrogen:** New York State established a limit for nitrogen pollution discharges in the watershed, leading to major upgrades in wastewater treatment plants.
- 2009** ● **Bullhead Bay Eelgrass Sanctuary:** The sanctuary protects the estuary’s westernmost eelgrass bed, which provides habitat for fish and shellfish.
- 2013** ● **Shellfish Restoration:** More than one million clams and 500,000 oysters were grown and seeded into the estuary.
- 2014** ● **Homeowner Rewards Program:** Since the program’s establishment, more than 70 homeowners have received funding for sustainable landscaping to help protect water quality.
- 2015** ● **Intermunicipal Agreement:** PEP initiated the creation of the **Peconic Estuary Protection Committee**, an intermunicipal affiliation comprised of Suffolk County, the New York State Department of Transportation, the six Towns within the Peconic Estuary watershed and the Villages of Greenport, North Haven, and Sag Harbor. The Committee focuses efforts on compliance with EPA’s Clean Water Act and New York State’s Phase II stormwater regulations for municipal separate storm sewer systems (MS4s) to achieve the Goals of the Peconic Estuary Partnership’s Comprehensive Conservation and Management Plan.
- 2016** ● **Sewage Treatment Plant Upgrade and Reuse Project:** After upgrades to the Riverhead plant, highly treated wastewater is now used to irrigate the Indian Island Golf Course, reducing overall water use and diverting approximately 1.4 tons of nitrogen per year from entering the Peconic Estuary via the Riverhead Sewage Treatment plant outfall pipe, and the improved treatment technology at the plant will help to further reduce the nitrogen load down to 3 mg/L to the estuary.
- 2017** ● **Update of Suffolk County Sanitary Code:** The updated sanitary code requires installation of a compliant system including a septic tank any time a new cesspool is proposed to replace an existing cesspool. It also requires liquid waste professionals to report system pump outs through a new database and portal.
- 2019** ● **Critical Lands Protection Strategy (2004, 2019):** The strategy supports coordinated efforts of many partners with more than four thousand acres protected to date.
- **Living Shoreline Project:** Plantings and construction of a new beach and dune in Greenport provide greater habitat value and resiliency to erosion.

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More recently we have worked extensively with our partners at New York State and Suffolk County on ongoing work to model nitrogen inputs to the estuary and to reduce nitrogen loads, by encouraging septic upgrades, developing fertilizer recommendations, and working with the agricultural community. PEP's Solute Transport Model of historic nitrogen loads to the estuary, Suffolk County's Reclaim Our Water initiative and Subwatersheds Wastewater Plan, and the Long Island Nitrogen Action Plan are all key components to ensuring clean water for future generations.

While our accomplishments are many, we still face critical challenges as we move into the next decade. ***The 2020 CCMP includes fresh Goals: Strong Partnerships, Resilient Communities, Clean Waters, and a Healthy Ecosystem***, that are the pillars of our foundation. Under these four Goals, the new CCMP lays out 8 new Objectives and 35 new Actions that will guide PEP and our partners to address the challenges facing our watershed. ***Our renewed focus on partnership will enable us to grow and meet the challenges of the next decade.***



As a coastal community on Long Island, we share the same water and the same habitats, and as a result, we must work together to address the same environmental issues. ***Our partnership is our greatest tool to help us achieve the Goals and Actions outlined in the 2020 CCMP.*** It is our partnerships that bring positive change and our partnerships that will usher in the next decade of clean water and healthy habitats. PEP strives to increase community awareness and the inclusion of all of our communities, ensuring people know of the challenges we face while helping people to understand what they can do to support estuary health. We welcome the next decade of working together to follow the plan we built together for the protection and restoration of our estuary. ***See the new 2020 CCMP here: peconicestuary.org/CCMP2020***

"A DAY IN THE LIFE" OF THE PECONIC ESTUARY

By Sarah Schaefer

Students and teachers from across Long Island are given the opportunity to explore unique habitats and wildlife through the "A Day in the Life" Program, supported by the Brookhaven National Laboratory and the Central Pine Barrens Commission. Each fall, students from schools across the Island collect a series of data and observations at nearby rivers and bays on a designated day. The idea is for each school to visit a particular body of water to gather information that creates a snapshot of "a day in the life" for that particular body of water. The Program provides a hands-on learning experience and an opportunity for students to engage with experts in the field about Long Island's species, water, habitat and natural characteristics. The data collected at each body of water is then shared online to encourage further analysis of data over the years and between locations.



Though students could not participate in the "A Day in the Life" Program this year as they normally would due to COVID-19 restrictions, the dedicated co-creators of the Program, Mel Morris (Brookhaven National Lab), Melissa Parrott (Central Pine Barrens Commission), and Ron Gelardi (NYSDEC), brought the "A Day in the Life" Program to a virtual classroom. During the months of September and October, Mel, Melissa and Ron visited six sites which included the Carmans River, Fire Island National Seashore, the Nissequogue River, the Forge River, the Peconic Estuary and the Connetquot River on separate days to conduct the Program activities so that data could be available and shared for 2020. Partners and experts met the co-creators at the sites to help conduct and also film the "A Day in the Life" activities, completing the tasks of Groups 1-4 of the workbook. By filming the activities, students and teachers can follow along on their own, compare data between various sites, and immerse themselves in all the activities through a virtual experience.



Group 1 collects "physical data" which includes tide measurement, current direction and speed, air temperature, cloud cover, and wind. Group 2 records the "site description" which includes the physical characteristics of the site, map of the site, and sediment samples of the shoreline and site bottom. Group 3 conducts the "biological sampling" of the site which includes an aquatic biodiversity survey and habitat association survey. Group 4 conducts the "chemical analysis" of the site which includes water temperature, dissolved oxygen, and pH. The videos produced this year not only provide data and observations for 2020 but are also a resource that can be referred to for years to come!

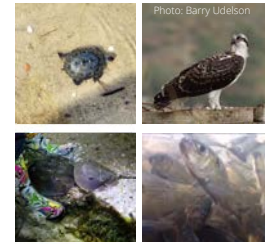
This year, "A Day in the Life" of the Peconic Estuary was held on October 23rd. Two sites around the estuary were visited for data collection. Peconic Estuary Partnership, Peconic BayKeeper and Cold Spring Harbor DNA Learning Center joined the co-creators of the Program for the Peconic Estuary event held at Squires Pond in Hampton Bays. Check out the video produced at Squires Pond, available here: <https://www.youtube.com/watch?v=NLTbbXXglrg>. In addition to Hampton Bays, a small group of students from Shoreham-Wading River was able to conduct the activities at Indian Island County Park in Riverhead. We hope to be out in the field again with all of the students, teachers and partners next year!



PECONIC ESTUARY PARTNERSHIP UPDATES

Wildlife Monitoring Network for Long Island

PEP is developing a Wildlife Monitoring Network for Long Island. The goal of the Wildlife Monitoring Network is to create a brand and central website where all Long Island wildlife monitoring projects are housed together (links to surveys). This makes it easy for partners to collaborate and avoid overlap, and for the public to become aware of all the efforts going on around Long Island and to get involved with multiple citizen science programs. With this brand and central website, this should increase citizen participation, data collection, and partner collaboration. PEP is currently organizing content and is working with Seatuck Environmental Association to launch the website. Keep an eye out for its release in 2021.



Peconic Estuary Solute Transport Model



Contracting with United States Geological Survey, this Solute Transport Model will be a tool to estimate time-varying nitrogen loading rates to the Peconic Estuary resulting from wastewater and fertilizer inputs to the groundwater. The Model will be used to simulate the response of loading rates to the Estuary due to possible wastewater and fertilizer-management actions. It is in the model development and scenario finalization phase. Anticipated completion is Spring 2021. Next project meeting will be scheduled for early 2021.

<https://www.peconicestuary.org/projects/clean-waters-2/peconic-estuary-solute-transport-model/>

Nitrogen Load Reduction Assessment Project

PEP is contracting with Anchor QEA 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. The project is ongoing. Expected completion September 2021.

Non-point Source Pollution Management Project

The PEP and Village of Sag Harbor implemented a non-point source pollution management project (constructing two rain gardens at Havens Beach) 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 reduce nitrogen pollutant loads and improve the health of the Peconic Estuary. Rain gardens were installed on 6/26/20 and an educational sign was installed 9/23/20.

Water Quality Monitoring Assessment

PEP in conjunction with CoastWise Partners drafted a PEP Water Quality Monitoring Strategy that was approved by the Technical Advisory Committee on 5/4/20, by the Management Committee on 5/28/20, and by the Policy Committee on 6/10/20. The final strategy will be formally approved by the EPA and incorporated into the CCMP. The goal 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 annual water quality reports.

Supplemental Water Quality Sediment Data Collection

PEP is working with Tetra Tech, Inc on a Quality Assurance Management Plan for supplemental water quality sediment data collection. A NYSDEC and EPA approved Quality Assurance Management Plan (QAMP) is under development. The Project Technical Advisory Committee is reviewing the final draft. The goal is to identify and prioritize subwatersheds in the Peconic Estuary that should be targeted for water quality improvement activities and to ensure water bodies are properly listed on the NYS Impaired Waters list. This will also help the Peconic Estuary Protection Committee members and partners assess the current baseline in water quality and effectiveness of water quality improvement interventions over time. Anticipated completion is December 2020.

Critical Lands Protection Strategy (CLPs) and Climate Ready Assessment Services for PEP and Shinnecock Indian Nation

PEP contracted with Anchor QEA and the project was completed in September 2019. [Final reports are available on the PEP website.](#) They include the updated Critical Lands Protection Strategy (CLPS) and the assessment of climate change vulnerabilities for both the Peconic Estuary Partnership and Shinnecock Indian Nation. Municipal Training Workshops are being planned to distribute tools and information.



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Expansion and Monitoring of the Town of Southold Living Shoreline Demonstration Project

Peconic Estuary Partnership is contracting with Cornell Cooperative Extension. Project is underway and is an expansion to an existing Town of Southold Living Shoreline Demonstration Project contract with the Town of Southold Trustees and the Suffolk County DEDP. Goal is to establish a larger geography of the project and monitoring services to run in tandem with the existing project to quantify nitrogen and pathogen uptake results and assess the effectiveness of the living shoreline to mitigate nitrogen pollution in the Peconic Estuary with *Spartina alterniflora* and ribbed mussels. A page on the PEP website will be devoted to the project where you can learn further details. Expected project completion in August 2021.



Spring 2020 Alewife Monitoring

[A video camera was installed at Grangebel fishway on Peconic River for a second year.](#)

Suffolk County Community College Professor (Kellie McCartin) and students are helping with video monitoring analysis. **Alewife Count**

Update: From 02/28/20 - 05/18/20, over 57,000 fish are estimated to have passed through the camera. Last year's total estimate was around 34,500, so we exceeded last year's estimate! The migration has ended and the camera was taken out of the river on June 30th. A report will be circulated with monitoring results. Alewife Monitoring QAPP is finalized.



Upper Mills Dam Fish Passage Project

Contracting with L.K. McLean Associates for engineering design/permitting services. Design alternative selected at April 9th, 2019 stakeholder meeting. Engineering designs have been finalized and permitting is in progress. Anticipated completion August 2021.

Woodhull Dam Fish Passage Project

PEP and Suffolk County contracted with L.K. McLean Associates to design a fish passage project at Woodhull Dam. PEP secured funds from NYSDEC, Suffolk County WQPRP, USFWS and additional grant funding was requested from Southampton Town CPF WQIPP and is pending at this time. When required funds are in place, the fish passage construction can begin. Completion goal by December 2021.

New USGS Continuous Tide-Warning Station

Two continuous USGS continuous water quality monitoring stations exist in the Peconic Estuary (one at the estuary head near its confluence with the tidal Peconic River, and the other near the estuary mouth in Orient Harbor). The PEP, along with the NYSDEC and USGS, support the operation and maintenance of the two continuous water quality monitoring stations in the Peconic. The USGS, in cooperation with the PEP and NYSDEC, are establishing a third station at the South Ferry dock on Shelter Island which originally was planned to have a tide-warning base station operational in late spring 2020, but the installation has been delayed. This additional station will provide tide-warning capabilities and the option to add on water quality monitoring parameters as additional funding becomes available.



Conceptual Habitat Restoration Design Planning in the Peconic Estuary

Peconic Estuary contracted with Land Use Ecological Services, LLC. The conceptual habitat restoration design plans for the following sites were completed in September 2019, the projects are all in some phase of implementation:

- Southold: Narrow River Road Wetland Restoration
- Southampton: Iron Point Wetland Restoration
- East Hampton: Lake Montauk Alewife Access and Habitat Enhancement
- Riverhead: Meeting House Creek Main Road Wetland Construction/Restoration

Peconic Estuary Ecosystem Study

The PEP, together with NYSDEC and SUNY Stony Brook, have proposed a study that will identify vulnerable species, critical habitats, and ecosystem properties within the Peconic Estuary. 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. This information has direct application to decisions affecting the use, management, and conservation of the natural resources in the bay. Expected completion for March 2023 and currently advertising for a postdoctoral position.

TAKE THE REDUCE NITROGEN PLEDGE!

The Peconic Estuary Partnership worked with Long Island Regional Planning Council to develop the "Reduce Nitrogen Pledge" for the Long Island Nitrogen Action Plan, a multiyear initiative to reduce the amount of nitrogen entering Long Island's groundwater and surface water from wastewater, stormwater runoff and fertilizers. This pledge was developed to encourage citizens to reduce their personal nitrogen pollution.

Nutrients, like nitrogen, impact our waterways causing harmful algal blooms, low dissolved oxygen, and degraded aquatic habitats. Outdated cesspools and septic systems, fertilizers, pet waste and nutrients carried by stormwater all provide substantial inputs of nitrogen pollution to our environment.

The pledge outlines "10 Things You Can Do to Reduce Personal Nitrogen Pollution" to make it easy to learn about the changes you can make in your daily life. You can do some, most or all of these actions to become a bronze, silver, or gold pledge taker and be "recognized as a leader in combatting nitrogen pollution!"

Go to the Long Island Regional Planning Council's website to read more and take the pledge: <https://lirpc.org/our-work/long-island-nitrogen-action-plan/nitrogen-pledge/>



**TAKE THE PLEDGE:
COMMIT TO
PERSONAL STEPS TO
REDUCE NITROGEN
POLLUTION**



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