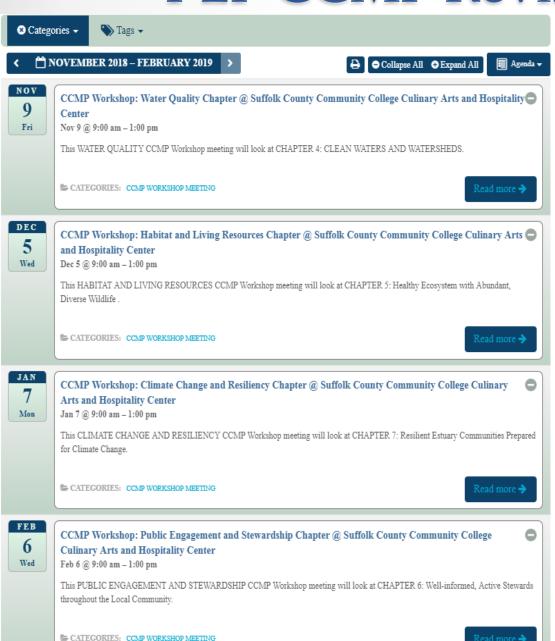


# PEP CCMP Revision Underway



- EPA on **September 30th**, **2018**. Comments from the EPA were reviewed and incorporated.
- PEP is now hosting four CCMP
  Workshop Meetings monthly
  throughout November,
  December, January and
  February to gain specific
  feedback on the Draft CCMP
  Outline and Chapters.
- The draft CCMP document is anticipated to be submitted for review by EPA, NYSDEC, Suffolk County and Local Governments in March 2019.

# Peconic Estuary Solute Transport Model

Contracting with United States Geologic Survey
Status: GIS preparation and Model Development phase. Most recent project
meeting on November 14<sup>th</sup>, 2018.

Link to Solute Transport Model Workplan



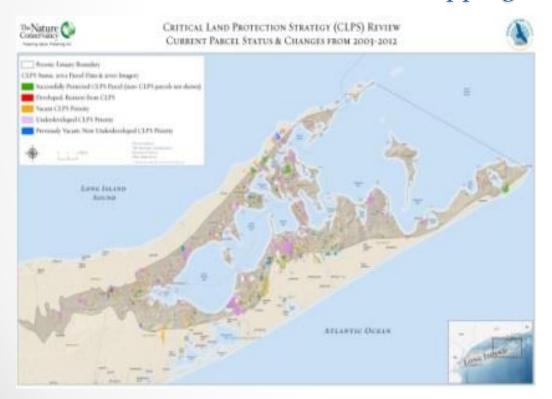
Objective: This Solute Transport Model will be a tool to estimate time-varying nitrogen loading rates to the Peconic Estuary resulting from wastewater and fertilizer inputs to the groundwater. The overall objective of the study is to apply methods that will allow for the quantitative analysis of nitrogen loading rates to the Peconic Estuary resulting from wastewater and fertilizer inputs to groundwater in Suffolk County.

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) incorporate these data as source terms in models capable of simulating transport processes to estimate current estuarine loading rates and nutrient concentrations in the aquifer, and
- 3) use these current-condition models to simulate the response of estuarine loading rates to possible wastewater-management actions.

# CLPS Update and Climate Ready Assessment Services for PEP and Shinnecock Indian Nation

Contracting with Anchor QEA
Status: New CLPS criteria being circulated for review and feedback. Next Steps:
Mapping of CLPS.



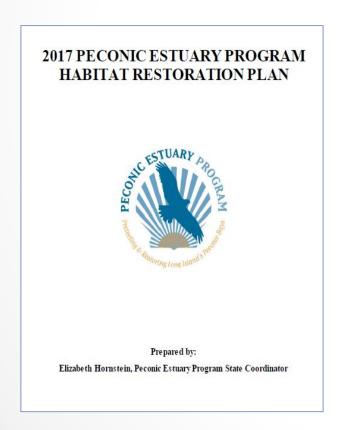
### Objective:

- 1) Re-evaluation of the original prioritization of the Critical Lands Protection Strategy (CLPS).
- 2) Assessment of climate change vulnerabilities of the environmental restoration and protection programs for both the Peconic Estuary Program and Shinnecock Indian Nation.



# 2017 Habitat Restoration Plan & Map Finalized

- Interactive GIS Map of Habitat Restoration Projects is live!
- This map complements the <u>2017 Peconic Estuary Program Habitat Restoration Plan</u> and will serve as a tool to track habitat restoration progress: completed, ongoing, and priority habitat restoration projects in the Peconic Estuary watershed.
  - https://www.peconicestuary.org/news-and-blogs/maps-gis/habitat-restoration/





# Habitat Restoration/Protection Progress To Date

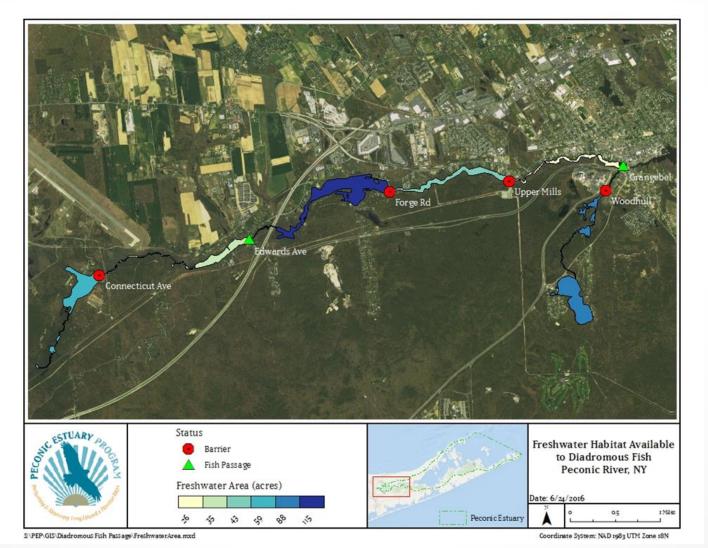
- 27 Completed Habitat Restoration Projects
  - Beach, Shorebird, Wetland, Invasive Species, Grassland, Diadromous Fish Habitat, Shellfish, Eelgrass, Water-Quality Improvement
  - 4 Partially Completed Habitat Restoration Projects
  - 13 Projects In-Progress
- 2,540 acres of land protected



# Progress in Diadromous Fish Habitat Restoration

The Peconic Estuary Program is working with its partners to restore critical freshwater spawning and maturation habitat for diadromous fish on the Peconic River.

Goal: Restore 300+ acres of habitat, Increase Alewife Population



Completed Fish Passage Projects



- •February 2010 Grangebel Rock ramp completed
- Cost \$1,000,000
- •Opened up 25 acres and 1.5 miles of habitat
- •40,000-80,000 alewife use this fishway each year

•June 2016 - Alaskan steeppass and eel passage installed at Edwards Avenue Dam

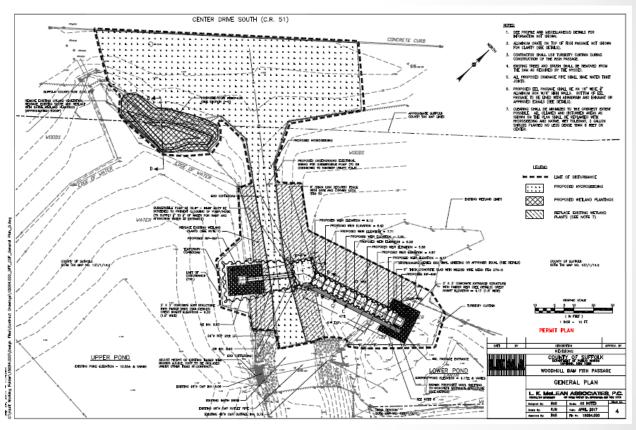
- •\$967,500 to construct
- •Will open up 35 acres of diadromous fish habitat once downstream projects are completed



# Coming Soon! Woodhull Dam Fish Passage



- Combination denil pass and step pool fish passage, along with an eel passage
- NYSDEC WQIP Funding awarded for fish passage construction
- Will open up 95 acres of prime spawning habitat within preserved lands



## Upper Mills Dam and Weir







- Contracting with L.K. McLean Associates for engineering design/permitting services
- Nature-like fishway and partial dam removal are being considered
- Will open up 40 acres of diadromous fish habitat

# Conceptual Habitat Restoration Design Planning in the Peconic Estuary

Peconic Estuary is contracting with Land Use Ecological

### Conceptual habitat restoration designs will be developed for the following identified priority sites:

- a. Southold: Narrow River Road Wetland Restoration
- **b.** Southampton: Iron Point Wetland Restoration
- c. East Hampton: Lake Montauk Alewife Access and Habitat Enhancement
- d. Riverhead: Meeting House Creek Main Road Wetland Construction/Restoration
- ➤ 2016 Suffolk County Capital funds have been secured for implementation of the Lake Montauk project.
- ➤ PEP secured 2018 NEP Funds (\$173,719) for implementation of the Meeting House Creek project.



# Living Shoreline Pilot Projects

Enhance the resiliency and ecological value of coastal habitats by encouraging living shorelines over hardened shorelines



### TIDAL WETLANDS GUIDANCE DOCUMENT

Living Shoreline Techniques in the Marine District of New York State

August 31, 2017



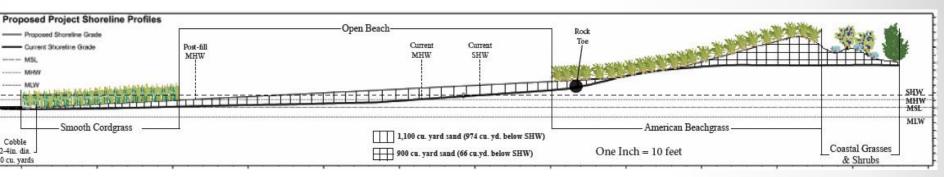
Planting marsh grasses along a "Iving shoreline" on the Shinnecock Reservation, Southampton NY on Shinnecock Bay in Suffox County, NY. This rock sit and native vegetation can protect shores from erosion and wave damage and create habitat for wilding.

Photo credit: Comeil Cooperative Extension, Suffolk Coun

1 | Page

# **Living Shoreline Pilot Projects**





Greenport - PEP is working with Cornell Cooperative Extension and Peconic Land Trust. Construction to begin spring 2019



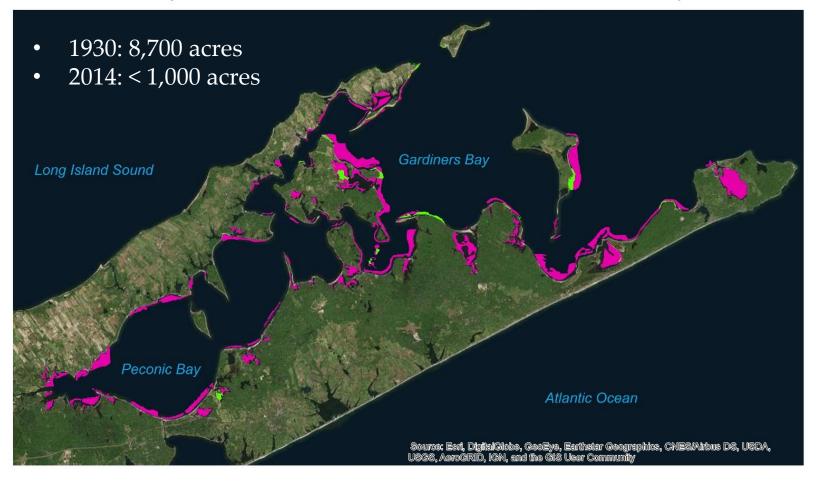
Suffolk County Marine
Environmental Learning
Center, Southold – PEP
is working with Town of
Southold and Cornell
Cooperative Extension
to evaluate the
effectiveness of living
shorelines to mitigate
nitrogen and pathogen
pollution



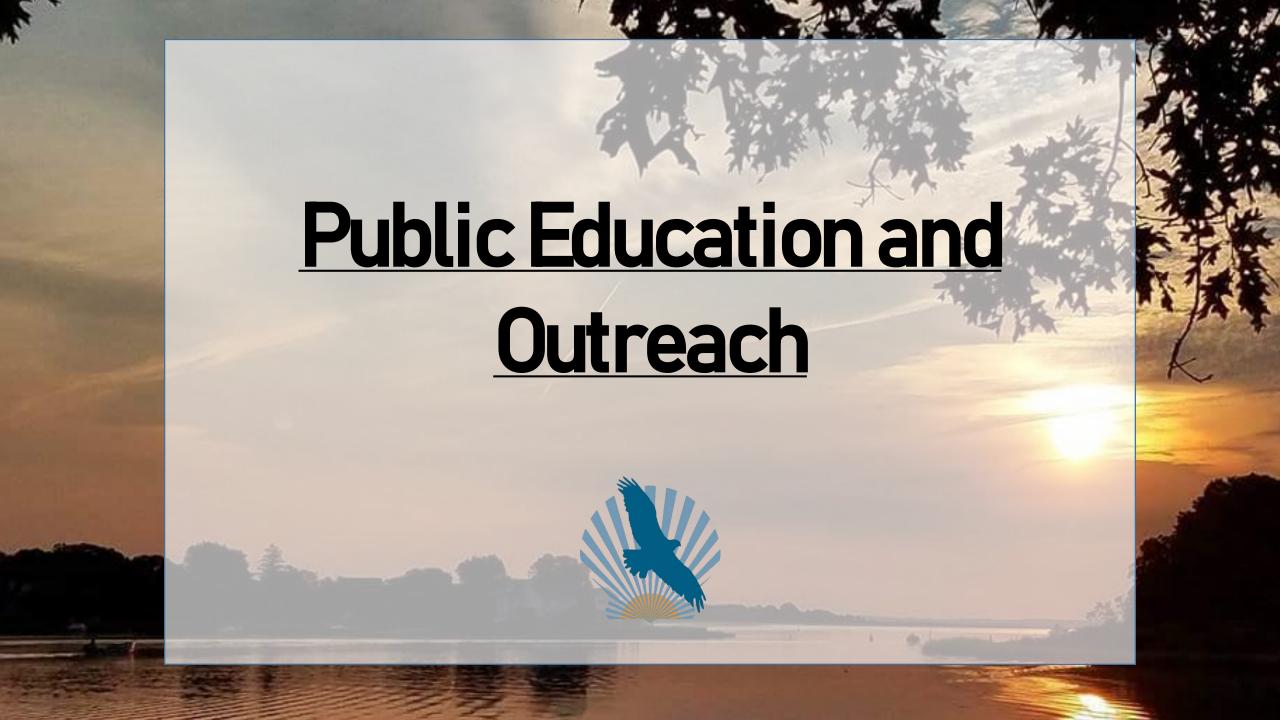
Figure 2. Location of proposed living shoreline project on Southold Town Trustee land near Suffolk County Marine Environmental Learning Center.

# Seagrass Bio-optical and Habitat Suitability Model

### Seagrass Distribution in 1930 vs. 2014 in the Peconic Estuary



- PEP is contracting with The Research Foundation of SUNY Stony Brook
- Project will lead to a better understanding of specific light and temperature requirements for eelgrass in the Peconic Estuary
- Project will help determine where restoration projects have the best probability of success and inform eelgrass management



### Public Education & Outreach

We aim to reach and educate our diverse community through various different avenues in hopes of instilling passion and sparking positive behavioral change

- Citizens' Advisory Committee
- Volunteer Days & Citizen Science
- Social Media and Newsletters
- Community Projects
- A Day in the Life of the Peconic Estuary
- Building Partnerships
- Behavioral Change









# Citizen Science Programs













# Citizen Science Programs















# Citizen Science Programs







# **Educational Outreach Events**















# Community Projects





# Community Projects

Thank you **Peconic Estuary Program** for the sign! We are very proud to show off our project! #peconicestuaryprogram #nativeplants #raingarden @ Flanders, New York









# Print and Digital Outreach



### Fall Newsletter 2018



#### What's Inside?

#### First Ever Estuary Day

Turn to page 2 to learn about this collaborative celebration of Long Island's estuaries.

#### Living VS. Hardened Shorelines

What's the difference, and why do our shorelines matter? Starts on page 3.

#### Peconic-Friendly Gardens

Check out the seasonal progression of our two local demonstration gardens starting on page 5.

### November 1st - April 1st

Local Law 41-2007 prohibits lawn fertilizer application between November 1st through April 1st in Suffolk County. During this time period, lawn grass doesn't grow rendering fertilizers useless. The purpose of this law is to reduce the amount of purpose of this law is to reduce the amount of user to reduce harmful algae blooms and hypoxic, or low oxygen events in our waterways. Retailers are required to post signs near fertilizer displays notifying customers of the date restrictions. Violators, whether it be home-owners, landscapers or other parties risk fines of \$1,000. As a community we can work together to help keep our estuaries healthy!

