



2010 IMPLEMENTATION PROGRESS REPORT: HABITAT RESTORATION PLAN



Grangebél Park Rock Ramp Fishway, Peconic River, Downtown Riverhead, NY. Installed February 2010.

Submitted to:

Peconic Estuary Program Management Committee

December 2010

Prepared by:

Peconic Estuary Program Natural Resources Subcommittee

Laura B. Stephenson, NYSDEC, Co-Chair

Wayne Grothe, TNC, Co-Chair

INTRODUCTION

The updated and revised “Peconic Estuary Program Habitat Restoration Plan” was adopted and finalized in November 2009. This new Plan resulted from the Peconic Estuary Program Natural Resources Subcommittee’s intensive effort to fully assess the prior “Habitat Restoration Plan for the Peconic Estuary” (2000), and to identify new candidate restoration sites. In an effort to ensure the Peconic Estuary Program (PEP) and our partners undertake the necessary planning and implementation steps to enhance and restore the 71 sites outlined in the Plan, the PEP Natural Resources Subcommittee (NRS) has committed to track its implementation. The NRS will develop and submit annual Implementation Progress Reports (IPRs) to the PEP Management Committee. This will ensure proper accounting and tracking of implementation progress and will provide an adaptive and timely mechanism for notifying the Management Committee of new priorities, needs, and recommendations. What follows is a brief assessment of actions taken from November 2009 to November 2010.

In summary, the same amount of progress has been made within the past year in implementing the 2009 Plan as the previous 9 years in implementing the 2000 Plan. This can likely be attributed to PEP’s renewed partnerships with local municipalities, heightened awareness and interest in the process of habitat restoration amongst PEP partners, and PEP’s ability to fund conceptual habitat restoration plans. Three (3) projects have been completed and over \$2.2 million has been secured/allocated to advance planning and implementation of 20 projects. Diadromous fish access and habitat restoration/enhancement projects clearly have the most momentum.

2010 Status of the Peconic Estuary Program Habitat Restoration Plan (2009)

STATUS	NUMBER OF PROJECTS	PERCENTAGE
Not Initiated	32	46%
Planning	18*	25%
In-Progress	16	23%
Partially Completed	3	4%
Attempted	1	1%
Completed	3*	3%
Total	73*	102%

**While the 2009 Plan lists 71 projects 2 additional projects have commenced and warrant listing.*

It should also be noted here, that the PEP and its stakeholders are involved in numerous habitat restoration related efforts that are not described in this report and not included in the PEP Habitat Restoration Plan. These efforts include, but are not limited to: eelgrass management and monitoring efforts; invasive *Ludwigia* monitoring and maintenance control programs; various shellfish and aquaculture initiatives; wetland monitoring; and, land acquisition programs of town, county, and state governments and the private sector.

MAJOR ACCOMPLISHMENTS

1. COMPLETED PROJECTS:

Grangebel Park Diadromous Fish Passage Restoration (Peconic River, Phase I), Riverhead

The long awaited permanent rock ramp/riffle fishway was completed in February 2010. The entire project, including planning, design, permitting, analysis, and construction, amounted to nearly \$1 million. 24 acres and 1.5 miles of historic habitat and spawning grounds for alewife and American eels has been re-opened. Monitoring of the Spring 2010 alewife migration by the Peconic River Fish Restoration Commission estimates the rock ramp may have effectively passed up to 50,000 alewives. The construction of this fishway has provided an impetus for additional fish passage projects upriver.

Eelgrass Sanctuary Established in Bullhead Bay, Southampton *(not listed as a site in the 2009 Plan)*

Monitoring data collected and reported under the Peconic Estuary Program Long-Term Eelgrass Monitoring Program indicated that the Bullhead Bay eelgrass bed, the western-most bed in the Peconic Estuary, was in severe decline and was being impacted greatly by physical disturbances, especially shellfish harvesting. As reported in the “Peconic Estuary Program 2008 Long-Term Eelgrass Monitoring Program Progress Report 9”, the annual mean eelgrass shoot density at Bullhead Bay monitoring stations fell from 710 shoots per m² to 46 shoot per m² between 1997 and 2008. This information was presented to the Southampton Trustees, who then designated the bed as an eelgrass sanctuary in December 2009. Destructive physical disturbance of the eelgrass bed is now prohibited.

Fresh Pond Circulation Enhancement, East Hampton

The Fresh Pond inlet was dredged in January 2010. Approximately 2,140 cubic yards of dredged material was placed on the beach just southeast of the channel. This increased flushing in this non-navigable waterbody is expected to benefit the living resources, habitat, and water quality of the Pond. This effort was spearheaded and funded by the East Hampton Trustees at a cost of \$18,450.

2. CONCEPTUAL HABITAT RESTORATION DESIGN PLANS:

At the recommendation of the PEP NRS, the PEP Management Committee approved use of \$80,000 of Federal Fiscal Year (FFY) 2009 PEP National Estuary Program (NEP) funding to secure conceptual habitat restoration design plans for 5 sites in the Plan; one in each Town. A request for proposals (RFP) was released on July 15, 2010, and proposals were due on September 17, 2010. A contractor is expected to be selected by December 2010. The sites investigated will include:

- Silver Lake/Moore’s Drain Alewife Access, Southold
- Ligonee Brook Diadromous Fish Passage Restoration, Southampton
- Napeague Harbor Circulation Enhancement, East Hampton
- Shell Beach Revegetation, Shelter Island
- Forge Road/Peconic Lake Diadromous Fish Passage Restoration (Peconic River, Phase III), Riverhead

Then again, at the recommendation of the PEP NRS, the PEP Management Committee approved the use of \$100,000 of FFY 2010 PEP NEP funding to produce an additional round of conceptual habitat restoration design plans. An RFP for this round is anticipated for release in the winter of 2010-11. The sites investigated will include:

- Arshamomaque Preserve Phragmites Eradication, Southold
- Iron Point Wetland Restoration, Southampton
- Lake Montauk Alewife Access and Habitat Enhancement, East Hampton
- Sposato Property Phragmites Eradication, Shelter Island
- East Creek Phragmites Eradication, Riverhead

3. \$2,200,428 OF PLANNING AND IMPLEMENTATION FUNDS SECURED**A. Breakdown of Planning/Design Funds (\$350,000 for 12 projects):**

- **\$80,000 FFY2009 PEP NEP:** Silver Lake/Moore’s Drain Alewife Access, Southold; Ligonee Brook Diadromous Fish Passage Restoration, Southampton; Napeague Harbor Circulation Enhancement, East Hampton; Shell Beach Revegetation, Shelter Island; and, Forge Road/Peconic Lake Diadromous Fish Passage Restoration (Peconic River, Phase III), Riverhead.

- **\$100,000 FFY2010 PEP NEP:** Arshamomaque Preserve Phragmites Eradication, Southold; Iron Point Wetland Restoration, Southampton; Lake Montauk Alewife Access and Habitat Enhancement, East Hampton; Sposato Property Phragmites Eradication, Shelter Island; and, East Creek Phragmites Eradication, Riverhead.
- **\$100,000 Suffolk County ¼%:** Woodhulls Pond/Wildwood Lake Diadromous Fish Passage Restoration, Southampton.
- **\$70,000 FFY08 PEP NEP:** Upper Mills Diadromous Fish Passage Restoration (Peconic River, Phase II), Phase 2 Final Design, Riverhead.

B. Breakdown of Implementation Funds (\$1,850,428 for 8 projects):

- **\$100,000 Suffolk County ¼%:** Napeague Harbor Bay Scallop Restoration and Three Mile Harbor Bay Scallop Restoration, East Hampton.
- **\$265,312* New York State Department of State (NYSDOS) Local Waterfront Revitalization Program:** Napeague Harbor Hard Clam/American Oyster Enhancement/Restoration and Three Mile Harbor Hard Clam/American Oyster Enhancement/Restoration, East Hampton (* \$132,656 from NYSDOS and \$132,656 matching funds from Town of East Hampton).
- **\$60,000* Atlantic Coastal Fish Habitat Partnership (ACFHP):** Alewife Brook/Scoy Pond and Staudinger's Pond Alewife Access and Habitat Enhancement, East Hampton (*includes \$30,000 from ACFHP and \$30,000 matching from Town of East Hampton). Note: Staudinger's Pond was not included in the 2009 Plan.
- **\$18,450 East Hampton Town Trustees:** Fresh Pond Circulation Enhancement, East Hampton.
- **\$1,406,666 Mixed Sources:** Indian Island Tidal Wetland Restoration, Riverhead
 - ~ \$1,050,666* Round 10 New York State Department of Environmental Conservation (NYSDEC) Water Quality Improvement Project (WQIP)/Aquatic Habitat Restoration (AHR) (*includes \$788,000 from NYSDEC and \$262,666 matching from Suffolk County in-kind).
 - ~ \$300,000 Suffolk County ¼%
 - ~ \$56,000 FY00 NYSDEC WQIP/AHR.

RECOMMENDATIONS

1. **Re-evaluate Riverhead Phragmites Control Sites** – The Town of Riverhead should work with the PEP NRS to review the feasibility of implementing successful Phragmites control projects listed in the 2009 Plan and identify which are still viable and would be supported by the Town. No progress had been made in planning, design, or implementation since their original nomination in 2000.
2. **Evaluate the Success of Prior Completed Projects** - A more concerted effort must be made to fully assess the short and long term success of past projects. This will ultimately help us to adopt and modify restoration objectives and strategies. These projects may be found in the Completed Habitat Restoration Project Inventory (see attached). This is consistent with a recommendation made at the 2010 Peconic Estuary Call to Action Conference.

3. **Increase Short and Long Term Monitoring of Initiated Projects** – Many habitat restoration funding programs will not cover the costs of intensive pre and post project monitoring, and prioritize funding on-the-ground implementation. Monitoring is an essential step, which is often overlooked, and inhibits our ability to implement adaptive management and restoration techniques. This is consistent with a recommendation made at the 2010 Peconic Estuary Call to Action Conference.
4. **Use Peconic Community Preservation (CPF) Funds to Restore CPF Acquired Properties** - Set aside 1% of annual CPF generated revenue for habitat restoration/stewardship projects on CPF acquired sites. Potential candidates sites listed in the PEP Habitat Restoration Plan meeting this criterion include, but are not limited to: Arshamomaque Pond Preserve, Southold; Arshamomaque Preserve*, Southold; Pipes Cove, Southold; Iron Point*, Southampton; and, Sposato Property*, Shelter Island. This is consistent with a recommendation made at the 2010 Peconic Estuary Call to Action Conference. * *Denotes projects the PEP is funding/ developing conceptual restoration design plans.*
5. **Long-Term Local Sustainable Funding Source for Habitat Restoration** - Many municipalities do not have funds to undertake habitat restoration project, yet, most habitat restoration grant programs require anywhere from 25-50% of local match. Development of a new funding source must be investigated and discussed. This is consistent with a recommendation made at the 2010 Peconic Estuary Call to Action Conference.
6. **Citizen Education Efforts** - PEP must continue to provide information on the ecological dangers that invasive species present to terrestrial, freshwater and marine habitats. This should include efforts to encourage maintenance of areas of native vegetation, and the reduction of lawn areas and re-establishment with native species. Efforts should also be made to ensure compliance with local vegetation preservation requirements and the Suffolk County law that that prohibits the sale, introduction and propagation of invasive plants
<http://www.co.suffolk.ny.us/departments/EnvironmentandEnergy/DivisionofWaterQualityImprovement/WaterandLandInvasiveSpeciesAdvisoryBoard.aspx>

ATTACHMENT A:

IMPLEMENTATION TRACKING TABLE

An Implementation Tracking Table can be found hereafter. It reports and details the status of each site currently listed in the 2009 Peconic Estuary Program Habitat Restoration Plan.

Peconic Estuary Program Habitat Restoration Plan: Implementation Tracking Table: Progress Made From Nov 2009- Nov 2010

HABITAT TYPE	SITE NAME	STATUS						DETAILS ON NOV '09- NOV '10 PROGRESS
		Not Initiated	Planning Stage	In-Progress	Partially Completed	Attempted	Completed	
Southold								
Diadromous Fish Passage	Silver Lake/Moore's Drain Alewife Access		x					PEP is funding conceptual design w/ '09 NEP funds. RFP advertised 7.15.2010. Proposals due 9.17.2010.
Eelgrass	Hallock's Bay Eelgrass Sanctuary		x					Town staff, Trustees and CCE had been discussing. Eelgrass no longer present due to lack of action.
Phragmites Control	Arshamomaque Pond Preserve Phragmites Eradication	x						
Phragmites Control	Arshamomaque Preserve Phragmites Eradication		x					PEP is funding conceptual design w/ '10 NEP funds. RFP is expected to be released late 2010/early 2011.
Phragmites Control	Cedar Beach Phragmites Eradication	x						
Phragmites Control	Downs Farm Preserve and Downs Creek Phragmites Eradication	x						
Phragmites Control	Husing Pond Phragmites Eradication	x						
Phragmites Control	Lake Marion Phragmites Eradication			x				Project approximately 75% complete. Additional cuttings completed amnd a wicking anticipated in Fall 2010 prior to revegetation/plantings. Estimated completion date: Spring 2011.
Phragmites Control	Narrow River Phragmites Eradication	x						
Phragmites Control	Pipes Cove Phragmites Eradication		x					Mapping completed by Town. \$30,000 NYSDEC Invasive grant secured but then not extended due to lack of Town support. Permit has not been issued- outstanding permit issues.
Shellfish	Southold Shellfish Spawner Sanctuary Network	x						
Wetland	Budds Pond Wetland Restoration	x						
Wetland	Fleet's Neck Wetland Restoration	x						
Wetland	Nassau Point Wetland Restoration	x						
Wetland	TGA Easement Wetland Restoration	x						
Southampton								
Diadromous Fish Passage	Ligonee Brook Diadromous Fish Passage Restoration		x					PEP is funding conceptual design w/ '09 NEP funds. RFP advertised 7.15.2010. Proposals due 9.17.2010. April 2010 site visit discovered significant alewife run.
Diadromous Fish Passage	North Sea/Alewife Creek Diadromous Fish Passage Enhancement	x						
Diadromous Fish Passage	Woodhulls Pond/Wildwood Lake Diadromous Fish Passage Restoration		x					Suffolk County 1/4% Committee approved \$100,000 for design work. Led by Suffolk County Parks.
Grassland	Shinnecock Grassland Restoration				x			
Wetland	Davis Creek Wetland Restoration	x						
Wetland	Iron Point Wetland Restoration		x					PEP is funding conceptual design w/ '10 NEP funds. RFP is expected to be released late 2010/early 2011.
East Hampton								
Diadromous Fish Passage	Alewife Brook Alewife Access and Habitat Enhancement		x					Funding secured via \$30,000 ACFHP grant; total cost w/ Town match \$60,000. Est. start date Oct-Nov 2010.
Diadromous Fish Passage	Lake Montauk Alewife Access and Habitat Enhancement		x					PEP is funding conceptual design w/ '10 NEP funds. RFP is expected to be released late 2010/early 2011.
Eelgrass	Lake Montauk Eelgrass Restoration			x				
Eelgrass	Napeague Eelgrass Restoration				x			
Eelgrass	Three Mile Harbor Eelgrass Restoration					x		
Flushing/Circulation	Fresh Pond Circulation Enhancement						x	Completed January 2010- added to the PEP Completed Habitat Restoration Project Inventory.
Flushing/Circulation	Napeague Harbor Circulation Enhancement		x					PEP is funding conceptual design w/ '09 NEP funds. RFP advertised 7.15.2010. Proposals due 9.17.2010.
Grassland	Culloden Grassland Restoration				x			
Phragmites Control	Accabonac Harbor Phragmites Eradication			x				
Phragmites Control	Barnes Meadow Phragmites Eradication	x						
Phragmites Control	Fort Pond Phragmites Eradication			x				NCTE submitted for NYSDEC grant (C303078) through 8.1.2010.
Phragmites Control	Fresh Pond Phragmites Eradication	x						
Phragmites Control	Lake Montauk Phragmites Eradication			x				
Phragmites Control	Little Northwest Creek Phragmites Eradication			x				
Phragmites Control	Napeague Phragmites Eradication	x						
Phragmites Control	Northwest Creek Phragmites Eradication	x						
Phragmites Control	Three Mile Harbor Phragmites Eradication			x				

Shellfish	Lake Montauk Hard Clam/American Oyster Enhancement/Restoration			x				Round 10 NYSDEC WQIP AHR grant application submitted- Decisions not yet announced.
Shellfish	Accabonac Creek Hard Clam/American Oyster Enhancement/Restoration			x				Round 10 NYSDEC WQIP AHR grant application submitted- Decisions not yet announced.
Shellfish	Napeague Harbor Bay Scallop Restoration			x				Currently funded by Suffolk County through 2010. Suffolk County 1/4% Committee re-approved as part of 3 yr \$100,000 scallop restoration project. Led by East Hampton Dept. of Aquaculture.
Shellfish	Napeague Harbor Hard Clam/American Oyster Enhancement/Restoration			x				Funded: Part of NYSDOS LWRP \$132,656- Total: \$265,312. Led by East Hampton Town Aquaculture.
Shellfish	Three Mile Harbor Bay Scallop Restoration			x				Currently funded by Suffolk County through 2010. Suffolk County 1/4% Committee re-approved as part of 3 yr \$100,000 scallop restoration project. Led by East Hampton Dept. of Aquaculture.
Shellfish	Three Mile Harbor Hard Clam/American Oyster Enhancement/Restoration			x				Funded: Part of NYSDOS LWRP \$132,656- Total: \$265,312. Led by East Hampton Dept. of Aquaculture.
Wetland	Accabonac Harbor Wetland Restoration			x				
Wetland	Lake Montauk Wetland Restoration			x				
Wetland	Fort Pond Wetland Restoration			x				
Shelter Island								
Beach/Dune	Shell Beach Revegetation			x				PEP is funding conceptual design w/ '09 NEP funds. RFP advertised 7.15.2010. Proposals due 9.17.2010.
Eelgrass	Coecles Harbor Eelgrass Revegetation	x						
Phragmites Control	Sposato Property- Phragmites Removal			x				PEP is funding conceptual design w/ '10 NEP funds. RFP is expected to be released late 2010/early 2011.
Riverhead								
Diadromous Fish Passage	Edwards Ave Diadromous Fish Passage Restoration (Peconic River, Phase IV)			x				Design completed, but NYSDEC waiting for approval to use funds to pay design firm before they can obtain final design plans and apply for the necessary permits.
Diadromous Fish Passage	Forge Rd/Peconic Lake Diadromous Fish Passage Restoration (Peconic River, Phase III)			x				PEP is funding conceptual design w/ '09 NEP funds. RFP advertised 7.15.2010. Proposals due 9.17.2010.
Diadromous Fish Passage	Grangebelle Park Diadromous Fish Passage Restoration (Peconic River, Phase I)						x	Completed Feb 2010- added to PEP Completed Habitat Restoration Project Inventory.
Diadromous Fish Passage	Upper Mills Diadromous Fish Passage Restoration (Peconic River, Phase II)			x				Town contracted \$25,000 Phase 1 Design to Inter-fluve and is initiated in Summer 2010. NYSDEC in single source contracting process to provide up to \$70,000 of FY08 PEP funds to Inter-fluve for Phase 2-Final Design.
Phragmites Control	Bay Woods Phragmites Eradication	x						
Phragmites Control	Broad Cove Phragmites Eradication	x						
Phragmites Control	Browns Point Phragmites Eradication	x						
Phragmites Control	East Creek Phragmites Eradication			x				PEP is funding conceptual design w/ '10 NEP funds. RFP is expected to be released late 2010/early 2011.
Phragmites Control	Gravel Pit (Dog Ponds) Phragmites Eradication	x						
Phragmites Control	Grumman Phragmites Eradication	x						
Phragmites Control	Linns Pond Phragmites Eradication	x						
Phragmites Control	Peconic Edwards Phragmites Eradication	x						
Phragmites Control	Peconic Seep Phragmites Eradication	x						
Phragmites Control	Reeves Creek Phragmites Eradication	x						
Phragmites Control	Terry Creek Phragmites Eradication	x						
Phragmites Control	Tidal Peconic Phragmites Eradication	x						
Phragmites Control	Tidal Sawmill Creek Phragmites Eradication	x						
Phragmites Control	Upper Sawmill Creek Phragmites Eradication	x						
Phragmites Control	Warner Duck Farm Phragmites Eradication	x						
Riverine	Peconic Upper Mills Riverine Restoration	x						
Wetland	Indian Island Tidal Wetland Restoration			x				\$1,406,666 allocated. Includes \$1,050,666 NYSDEC WQIP AHR (\$788,000 award & \$262,666 match), \$300,000 SC 1/4%, \$56,000 FY00 NYSDEC WQIP/AHR.

Other:

Bullhead Bay Eelgrass Sanctuary Established by Southampton Town Trustees in Dec 2009- added to PEP Completed Habitat Restoration Project Inventory.
 Staundinger's Pond Alewife Access and Habitat Enhancement Funded- Included as part of ACFHP \$30,000 grant for Alewife Brook/Scoy Pond.

ATTACHMENT B:

UPDATED COMPLETED HABITAT RESTORATION PROJECT INVENTORY

Peconic Estuary Program Completed Habitat Restoration Project Inventory- Updated November 2010

<i>Habitat Type</i>	<i>Site & Location</i>	<i>Action</i>	<i>Maintenance</i>	<i>Size (acres)</i>	<i>Cost/Funding</i>	<i>Year Initiated</i>	<i>Status (end date)</i>	<i>Contact Person</i>
<i>Beach/Dunes</i>								
<i>Beach/Dunes</i>	Gerard Drive, East Hampton	Bare-root beach grass planting into sand adjacent to existing growth on upper beach. Transplants dug from local stock. Success based on plant establishment. Establishment successful.	String fence through first summer	0.25	<\$500 Town	Spring 1996	Ongoing	Larry Penny, EHTNRD (631) 324-0496; Accabonac Harbor Protection Committee, Tim Sullivan (631) 324-3627
<i>Beach/Dunes</i>	Louse Point, East Hampton	Bare-root beach grass planting into sand adjacent to existing growth on upper beach. Transplants dug from local stock. Success based on plant establishment- successful.	String fence through first summer	0.25	<\$500 Town	1996	Ongoing	Larry Penny, EHTNRD, (631) 324-0496
<i>Beach/Dunes</i>	Gin Beach, East Hampton	Bare-root beach grass planting into sand adjacent to existing growth on upper beach. Transplants dug from local stock. Success based on plant establishment- successful.	String fence through first summer	0.1	<\$500 Town	1997	Complete	Larry Penny, EHTNRD, (631) 324-0496
<i>Beach/Dunes</i>	New Suffolk, Southold	Bare-root beach grass planting into sand adjacent to existing growth on upper beach. Transplants from nursery stock. Success based on plant establishment- mostly successful.	String fence through first summer	0.1	<\$500 PEP	1997	Complete	Chris Pickerell, Cornell Cooperative Extension, Marine Program (CCE), (631) 852-8660
<i>Beach/Dunes</i>	Mattituck Park District, Southold	Bare-root beach grass planting into sand adjacent to existing growth on upper beach. Transplants from nursery stock. Success based on plant establishment- only partially successful.	None	0.1	<\$500 PEP	Spring 1997	Complete	Chris Pickerell, CCE, (631) 852-8660
<i>Beach/Dunes</i>	Robins Island Landing, Southold	Bare-root beach grass planting into newly deposited sand on upper beach in and around large stone. Transplants from nursery stock. Success based on plant establishment- mostly successful.	Permanent snow fence	0.5	? Private	1997	Complete	Peter Trexler, Belvedere Property Management (BPM) (631) 734-5134
<i>Beach/Dunes</i>	Second Causeway, Shelter Island	Bare-root beach grass planting into newly deposited sand (over large rocks) on upper beach. Transplants from nursery stock. Success based on plant establishment- successful.	String fence through first summer	1	\$	1999	Complete	Town of Shelter Island
<i>Beach/Dunes</i>	Sammi's Beach, East Hampton 41.0310, -72.1922	This barrier beach peninsula, previously a dredge material site, was graded down and replanted with beach grasses. Road was removed and replanted. Generally successful as least terns and piping plovers returned.		?	\$300,000 (State, Town, County)	1999	2003 (planting complete)	Larry Penny, EHTNRD, (631) 324-0496
<i>Beach/Dunes</i>	Reel Point, Shelter Island	Eroding beach affected by vehicle use was replanted with beach grass. Snow fencing installed. Owned by Peconic Land Trust.	?	8	Private	?	Complete	Pam Greene, Peconic Land Trust (631) 283-3195
<i>Diadromous Fish</i>								
<i>Diadromous Fish</i>	Grangebel Park, Peconic River, Phase I, Riverhead 40.9159, -72.6632	Structural repairs made to the North Spillway. South Spillway channel/stream bed was re-graded and narrowed and a permanent rock ramp/riffle was installed downstream-upstream of spillway. Success (utilization by alewife and American eels) to be determined during Spring 2010 migration.	Rock ramp debris removal may be necessary	24 acres & 1.5 miles	\$1million (studies, design, repairs, rock ramp). Multiple sources- contacts can provide listing.	Planning initiated in 2000	Completed Feb 2010	Laura Stephenson, NYSDEC/PEP 631.444.0871 Chart Guthrie, NYSDEC 631.444.0281. Partners include Riverhead, USFWS, NOAA, PEP, NYSDEC, Suffolk County, AmericanRivers, FishAmerica Foundation, CWRP, Peconic River Fish Restoration Commission, Spectra Energy, National Grid.

<i>Eelgrass</i>								
<i>Eelgrass</i>	Accabonac Harbor, East Hampton	Bundled bare-root shoots attached to metal staples and wooden stakes. Transplants collected from Northwest Harbor and Lake Montauk. Planted into unvegetated coarse and fine sediments. Unsuccessful	Regular observation, Marked with PVC tubes	0.1	<\$2,000 PEP	Jun-94	Complete	Larry Penny, EHTNRD, (631) 324-0496, Chris Pickerell, CCE, (631) 852-8660, Emerson Hasbrouck, CCE (631) 727-3910
<i>Eelgrass</i>	Little Northwest Creek, East Hampton	Bundled bare-root shoots attached to metal staples and wooden stakes. Transplants collected from Northwest Harbor. Planted into unvegetated coarse and fine sediments. Unsuccessful.	Observation, Marked with PVC tubes	0.1	<\$2,000 PEP	Jun-94	Complete	Larry Penny, EHTNRD, (631) 324-0496, Chris Pickerell, CCE, (631) 852-8660, Emerson Hasbrouck, CCE (631) 727-3910
<i>Eelgrass</i>	Napeague Harbor, East Hampton	20 cm diameter intact sods transplanted to the perimeter and open areas in the center of an existing bed along the eastern shoreline and an open sandy flat near the south end of the Harbor. All transplants from Napeague. Success based on eelgrass presence the following year. Mostly successful (~75%) (eastern shore). Unsuccessful (sandy flat).	Regular observation, Mapped with GPS, Perimeter of bed and planting sites marked with PVC tubes	0.1	<\$2,000 PEP	June and Sept 1997-1998	Complete	Larry Penny, EHTNRD, (631) 324-0496, Chris Pickerell, CCE, (631) 852-8660, Emerson Hasbrouck, CCE (631) 727-3910
<i>Eelgrass</i>	Three Mile Harbor, East Hampton	20 cm diameter intact sods transferred to the perimeter of an existing bed. Transplants from Napeague.	Observation of sod establishment	0.1	<\$2,000 PEP	Oct-99	Complete Monitoring 2000	Larry Penny, EHTNRD, (631) 324-0496, Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Northwest Creek, East Hampton	Unsuccessful.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Noyak Creek, Southampton	Unsuccessful.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Paynes Creek, Southampton	Unsuccessful.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Upper Sag Harbor Cove, Southampton	Unsuccessful.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Bullhead Bay, Southampton	Unsuccessful. Small annual population exists.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Sage Harbor Cove, Southampton	Unsuccessful.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Cutchogue, Southold	Unsuccessful.	?	0.1	?	?	Not successful	Chris Pickerell, CCE, (631) 852-8660
<i>Eelgrass</i>	Bullhead Bay Eelgrass Sanctuary, Southampton 40.9105, -72.4457	This western most eelgrass bed in the Peconic Estuary is highly stressed and disturbed. Southampton Town Trustees designated it as an eelgrass sanctuary, a type of Shellfish Management Zone, to prohibit shellfishing within its boundaries. Edges marked and delineated.	Monitored under PEP Long Term Eelgrass Monitoring Program. Trustees maintain markings.	n/a	None	Dec-09	Ongoing	Southampton Town Trustees 631.287.5717

Flushing/ Circulation								
<i>Flushing/ Circulation</i>	Accabonac Harbor Flushing, East Hampton, 41.0364, -72.1364	A large box culvert was installed to replace an existing smaller culvert under Gerard Dive at a causeway. The disturbed area was re-planted with native vegetation. The larger culvert is believed to increased tidal circulation which has benefited the nearby tidal wetland vegetation.	Maintenance dredging of the channel is performed	50 acres	Over \$500,000	2004	Complete (2005)	Larry Penny, EHTNRD, (631) 324-0496, Partners: East Hampton Dept. of Natural Resources & Dept. of Engineering
<i>Flushing/ Circulation</i>	Fresh Pond Circulation, East Hampton, 41.9956, -72.1129	A 650 foot long, 40 foot wide and 2 foot below mean low water channel was dredged. Approximately 2,140 cubic yards of material was removed and placed on the beach southeast of the channel. The new channel is expected to help increase tidal flushing and benefit habitat and resources.	Maintenance dredging of the inlet may be required	?	\$18,450	2010	Complete (2010)	East Hampton Trustees (Diane McNally), (631) 267-8668
Freshwater Wetlands								
<i>Freshwater Wetlands</i>	Robins Island, Southold	A groundwater-fed freshwater pond completely filled with Phragmites was excavated to original depth and diameter. Fill including Phragmites biomass was buried nearby in a lined pit. Following excavation, native emergent species (nursery stock) were planted throughout the shoreline. Success based on establishment of proper hydrology and shoreline vegetation and elimination of common reed. Successful.	Checked regularly for new Phragmites growth. New growth removed	1	?	Summer 1996	Complete (Fall 1996)	Peter Trexler, BPM, (631) 734-5134
Grassland								
<i>Grassland</i>	Orient Point County Park, Southold	Clearing or woody overgrowth in a former farm field using a bulldozer, discing with a tractor, followed by seeding with native warm season grasses. Seed from nursery stock. Success based seeding success of warm season grasses and control of forbes and woody growth. Mostly successful.	Annual mowing plus removal of forbes and new woody growth	50	53700 USEPA + inkind	Spring & Summer 1998, 1999, 2000	Ongoing	Lisa Holst, New York State Department of Environmental Conservation (NYSDEC) (631) 444-0469
<i>Grassland</i>	Maratooka Grassland, Mattituck, Southold	Clearing of woody overgrowth with a bulldozer, land preparation including discing and seeding with switchgrass. Hand seeded. Organ grinder. Seed from nursery stock. Success based seeding success of warm season grasses and control of forbes and woody growth. Mostly successful.	first mowing Sept.(high) after July 15 Every 3yrs.	1	\$4720 seed \$450 mowing \$25/yr Wildlife Habitat Incentive Program (WHIP)	Jun-99	1999-2008	Allan Connell, USDA, Natural Resources Conservation Service (NRCS) (631) 727-2315
<i>Grassland</i>	Fort Hill Cemetery Grassland, East Hampton 41.0458, -71.9497	Replanting of native grassland grasses in disturbed part of historic cemetery. Re-vegetation successful.	Maintained by East Hampton Parks Dept.	?	Town	1991	Complete	Larry Penny, EHTNRD (631) 324-0496
Phragmites								
<i>Phragmites</i>	Hog Creek Phragmites, East Hampton, 41.0494, -72.1652	Small patches of invasive Phragmites were cut. Native species have returned. Successful.	?	<1	?	1998	Complete	Larry Penny, EHTNRD (631) 324-0496

Shorebird								
<i>Shorebird</i>	Mill Creek Enhancement Project, Southampton	Located on Pine Neck Lane in Noyac. This relatively small project expanded shorebird breeding habitat by removing vegetation and filling ruts caused by vehicle traffic on the beach. Native beach grasses were planted. Driving on the beach is now prohibited. Considered a successful project.	?	<1	?	?	Complete	Jon Semlear-President of Southampton Town Trustees (631) 287-5717
<i>Shorebird</i>	Hick's Island, East Hampton 41.0165, -72.0605	Material from dredging the mouth of Napeague Harbor was placed on Hick's Island. Vegetation was as cut and removed. Successful in restoring roseate tern and piping plover breeding habitat.	?	10	\$20,000 (re-veg) \$600,000 (dredgde)	?	Complete	Larry Penny, EHTNRD (631) 324-0496
Tidal Wetlands								
<i>Tidal Wetlands</i>	Pussys Pond, Springs, East Hampton	Phase 1 - Partial excavation of Phragmites-dominated soils on the shore of a brackish tidal pond. The shoreline was re-graded to intertidal elevation and planted with native transplants of Cordgrass and Salt hay grass. Phase II - Complete excavation of Phragmites-dominated soils and backfilled with clean fill. Seeded with local native seeds. Success based on establishment of native vegetation and elimination of common reed. Partially Successful.	Seasonal removal of Phragmites shoots originating from buried rhizome fragments	0.5	\$5,000 Waterfowl USA	1994	Complete	Bob Miller Waterfowl USA, Chris Pickerell, CCE (631) 852-8660
<i>Tidal Wetlands</i>	Accabonac Harbor, East Hampton	Removal of asphalt and concrete debris from an intertidal shoreline. Success based on establishment of native vegetation- TBA.	None	0.1	<\$500 Town	1997	Complete	Larry Penny, EHTNRD (631) 324-0496
<i>Tidal Wetlands</i>	Accabonac Harbor OMWM*, East Hampton	Open marsh water management (OMWM) for restoration of natural hydrology and Coliform bacteria reduction. Selected mosquito ditches were plugged using plywood and sandbags. Ditch selection based size and Coliform levels in repeated water samples. Success based dam stability, reduction in Coliform loading to the Harbor and conditional opening of the area to shellfishing. Successful.	Replace sandbags where necessary	50	Accabonac Harbor Protection Committee, East Hampton Trustees, USFWS	1994	Ongoing	Larry Penny, EHTNRD (631) 324-0496, Emerson Hasbrouck, CCE (631) 727-3910
<i>Tidal Wetlands</i>	Northwest Creek OMWM, East Hampton	OMWM for restoration of natural hydrology and Coliform bacteria reduction. Selected mosquito ditches were plugged using combination of plywood and sandbags. Ditch selection based size and Coliform levels in repeated water samples. Success based dam stability, reduction in Coliform loading to the Harbor and conditional opening of the area to shellfishing. Partially successful.	Replace sandbags where necessary	50	EH Trustees, USFWS	1994	Ongoing	Larry Penny, EHTNRD (631) 324-0496, Emerson Hasbrouck, CCE (631) 727-3910
<i>Tidal Wetlands</i>	Three Mile Harbor Drive, East Hampton	Planting bare-root cordgrass into a highly disturbed roadway cut into the marsh. Transplants gleaned from local stock in Three Mile Harbor. Success based on plant establishment. Very successful.	Permanently fenced to vehicular traffic	0.25	<\$500	Apr-96	Complete	Larry Penny, EHTNRD (631) 324-0496
<i>Tidal Wetlands</i>	Gerard Point, East Hampton	Planting nursery propagated cordgrass into open areas in and adjacent to the existing marsh. Success based on plant establishment. Successful.	Fenced	0.25	\$750 East End Institute	Jul-99	Complete	Larry Penny, EHTNRD, (631) 324-0496, Chris Pickerell, CCE, (631) 852-8660
<i>Tidal Wetlands</i>	Cassidy Preserve, Hashamomuck Pond, Southold	Excavation and re-grading of hydraulic dredge spoil, creation of intertidal pools and replacement of common reed with smooth cordgrass. Success based on proper elevations, maintenance of water in pools and elimination of common reed. Successful.	Portions were re-graded to inhibit common reed re-colonization	5	\$30,000 USEPA	Jun-99	Complete	Chris Pickerell, CCE (631) 852-8660, John Halsey, President Peconic Land Trust (631) 283-3195

<i>Tidal Wetlands continued</i>								
<i>Tidal Wetlands</i>	Downs Creek, Cutchogue	Removal of concrete and other debris within an intertidal marsh to allow for natural re-vegetation and prevent future dumping. Success based on natural re-vegetation of the site by cordgrass. Successful.	Signage	0.1	Private	1996	Complete	Russ McCall
<i>Tidal Wetlands</i>	Long Beach Bay, Orient Southold	Culvert replacement and enlargement to increase salinity behind a dike at multiple points. OMWM for water quality improvement. Reductions in storm water inputs to surface waters. Success based on increased salinity behind dike and reduction in Coliform bacteria counts in adjacent open waters- TBD.	Salinity and tidal elevation monitoring. Repair of leaky dams	200+	\$253,000 USFWS	1999	Ongoing	Chris Pickerell, CCE (631) 852-8660, Emerson Hasbrouck, CCE (631) 727-3910
<i>Tidal Wetlands</i>	Fish Cover Bridge, North Sea Harbor, Southampton	Planting of cordgrass to mitigate new bridge construction. Plantings included nursery propagated peat pots. Success based on establishment of cordgrass. Successful.	?	0.1	?	1995	Complete	Gary Gentile, New York State Department of Transportation (631) 952-6219
<i>Tidal Wetlands</i>	Otter Pond, Sag Harbor	Planting of native marsh grasses to prevent erosion and improve aesthetics. Propagules included nursery stock. Success based on establishment of grasses. Partially successful.	?	0.1	Private	1997	Complete	Village of Sag Harbor
<i>Tidal Wetlands</i>	Broad Cove, Aquabogue, Riverhead	Restoration of intertidal marsh through cordgrass plantings, restoration of a tidal creek and opening of manmade tidal salt ponds to tidal flow. Success based on establishment of grasses, stability of new creek and increased flushing of tidal ponds. Sandbar plantings mostly unsuccessful, creek restoration successful, flushing successful	Minimal fencing, regular photographs	5	Private	1994	Complete	Chris Pickerell, CCE (631) 852-8660, Emerson Hasbrouck, CCE (631) 727-3910
<i>Tidal Wetlands</i>	Chase Creek, Shelter Island	Planting of cordgrass to mitigate bridge improvements. Plants included nursery propagated peat pots. Success based on establishment of cordgrass. Successful.	?	0.1	?	1996	Complete	Gary Gentile, New York State Department of Transportation (631) 952-6219
<i>Tidal Wetlands</i>	Sag Harbor Cove/Paynes Creek, Southampton	Located on Long Beach Road in Noyac. A dike was breached at this historic dredged material disposal site to re-introduce tidal flow. Dredged materials were removed off-site and plantings of native wetland vegetation completed. Project is considered a success as a native wetland was re-established and is now actively utilized by shore birds.	?	>5	?	?	Complete	Marty Shea, Southampton Town (631) 287-5710, Partners: Southampton Town Board, Southampton Town Trustees
<i>Tidal Wetlands</i>	Upper Sag Harbor Cove Wetlands, Southampton	An area of this wetland which was damaged by vehicles was re-vegetated with <i>Spartina</i> . Re-vegetation was successful.	?	<1	?	?	Complete	Jon Semlear, President Southampton Town Trustees (631) 287-5717
<i>Tidal Wetlands</i>	Paynes Creek Enhancement Project, Southampton	Re-vegetation occurred naturally and human induced efforts were not necessary.	?	?	No Cost	?	Complete (Naturally)	Marty Shea, Southampton Town (631) 287-5710
<i>Tidal Wetlands</i>	North Sea Wetlands, Southampton	An impervious paved walk at the Conscience Point Complex was removed and replaced with crushed shell. Native plants were planted and vehicle access restricted. Signage was installed.	?	<5	?	?	Complete	Marty Shea, Southampton Town (631) 287-5710, Partners: Southampton Historical Society, Southampton Town Board & Trustees

<i>Tidal Wetlands continued</i>								
<i>Tidal Wetlands</i>	Fish Cove Wetland Enhancement, Southampton	Several years of washed up marine debris has accumulated on the marsh. The Southampton Baymen's Association and other volunteers removed an enormous amount of flotsam which was transported by boat to Southampton Town Highway vehicles and trucked to the recycling center. Successful.	Future maintenance/debris removal may be required (every 3 years)	?	Volunteer Time	?	Complete	Jon Semlear, President Southampton Town Trustees (631) 287-5717 Partners: Southampton Town Board, Southampton Town Trustees
<i>Tidal Wetlands</i>	North Sea/Alewife Creek Wetlands, Southampton	Abutting landowner was required by Southampton Town to undertake restoration and re-planting efforts.	?	?	?	?	Complete	Marty Shea, Southampton Town (631) 287-5710
<i>Tidal Wetlands</i>	Three Mile Harbor Wetlands, East Hampton 41.0299, -72.2043	Disturbed/trampled areas were re-planted with native salt marsh vegetation. Success based on establishment of vegetation. Successful.	?	<2	\$150,000	1997	Complete	Larry Penny, EHTNRD (631) 324-0496
<i>Water Quality</i>								
<i>Water Quality</i>	Oyster Pond Water Quality, East Hampton 41.0719, -71.8919	Leaking oil tank was replaced and sewage pump station installed. Both were successful in removing source of contamination	?	?	\$100,000+	1990	1991	Larry Penny, EHTNRD (631) 324-0496