

# Cornell Cooperative Extension Marine Program

**Cornell Cooperative  
Extension of Suffolk County**  
Suffolk County Marine Environmental  
Learning Center  
3690 Cedar Beach Road  
Southold, New York 11971  
631-852-8660

March 14, 2023

Town of Southampton  
Community Preservation Department  
Attn: Jacqueline Fenlon  
24 W Montauk Highway  
Hampton Bays, NY 11946

Re: Town of Southampton Community Preservation Fund Application  
**Shellfish and Habitat Restoration in Support of Water Quality Improvement:**  
*Continuation of Tiana Bayside Facility Shellfish and Plant Nursery Operations, and Subsequent  
Restoration Plantings in Southampton Town*

Dear Ms. Fenlon,

Enclosed please find our application package submission in response to the Community  
Preservation Fund grant opportunity.

We look forward to be considered for funding in support of the shellfish, marine and coastal  
plant restoration work we are seeking to conduct. This proposed project would help continue  
and further expand our partnership with Southampton Town by increasing the capacity of Tiana  
Bayside Facility to serve as a shellfish and coastal plant nursery, while providing meaningful  
stewardship-based opportunities for public participation in our science-based work. The  
resulting restoration efforts will lead to improvements in water quality and habitat within  
Southampton Town waters.

Thank you for your consideration of this funding request. Should you have questions about any  
element of this application package or the proposed project, please direct them to me at 631-  
461-5294 or [kp237@cornell.edu](mailto:kp237@cornell.edu).

Sincerely,



Kimberly Barbour  
Marine Program Outreach Manager





# TOWN OF SOUTHAMPTON

Department of Community Preservation  
24 W Montauk Hwy, Hampton Bays, NY 11946  
Ph: 631-287-5720 Fx: 631-728-1920

[www.southamptontownny.gov/WQIPP](http://www.southamptontownny.gov/WQIPP)

# 2023

## COMMUNITY PRESERVATION FUND (CPF) WATER QUALITY IMPROVEMENT PROGRAM CHECKLIST/APPLICATION INSTRUCTIONS

The CPF Water Quality Improvement Project Plan (WQIPP) Fund follows the objectives in the adopted [Water Quality Improvement Project Plan](http://www.southamptontownny.gov/WQIPP) (see <http://www.southamptontownny.gov/WQIPP>)

To apply for funding, an application must be COMPLETED and submitted along with detailed narratives and supporting information as described below. The Water Quality Advisory Committee will rank and score projects based on the [Scoring Criteria contained in the application materials](#). Parcel acquisitions will be considered on an ongoing basis, independent of this application process.

**Note: Electronic application submission required and 4 - full printed sets of application, site plan and narrative.**

**Upload application at [www.southamptontownny.gov/WQIPPSUBMISSION](http://www.southamptontownny.gov/WQIPPSUBMISSION)**

**A Public Hearing and Town Board Resolution will be required for individual or multiple projects.**

### WATER QUALITY IMPROVEMENT PROJECT MEANS:

#### [1] DEFINITIONS:

1. **Wastewater Treatment Improvement Project** means the planning, design, construction, acquisition, enlargement, extension, or alteration of a wastewater treatment facility, including alternative systems to a sewage treatment plant or traditional septic system, to treat, neutralize, stabilize, eliminate or partially eliminate sewage or reduce pollutants in treatment facility effluent, including permanent or pilot demonstration wastewater treatment projects, or equipment or furnishings thereof. Stormwater collecting systems and vessel pumpout stations shall also be included within the definition of a wastewater improvement project.
2. **Nonpoint Source Abatement and Control Program Projects** developed pursuant to section eleven-b of the soil and water conservation districts law, title 14 of article 17 of the environmental conservation law, section 1455b of the federal coastal zone management act, or article forty-two of the executive law;
3. **Aquatic Habitat Restoration Project** means the planning, design, construction, management, maintenance, reconstruction, revitalization, or rejuvenation activities intended to improve waters of the state of ecological significance or any part thereof, including, but not limited to ponds, bogs, wetlands, bays, sounds, streams, rivers, or lakes and shorelines thereof, to support a spawning, nursery, wintering, migratory, nesting, breeding, feeding, or foraging environment for fish and wildlife and other biota.
4. **Pollution Prevention Project** means the planning, design, construction, improvement, maintenance or acquisition of facilities, production processes, equipment or buildings owned or operated by municipalities for the reduction, avoidance, or elimination of the use of toxic or hazardous substances or the generation of such substances or pollutants so as to reduce risks to public health or the environment, including changes in production processes or raw materials; such projects shall not include incineration, transfer from one medium of release or discharge to another medium, off-site or out-of-production recycling, end-of-pipe treatment or pollution control.
5. **The Operation of the Peconic Bay National Estuary Program**, as designated by the United States Environmental Protection Agency. Such projects shall have as their purpose the improvement of existing water quality to meet existing specific water quality standards. Projects which have as a purpose to permit or accommodate new growth shall not be included within this definition



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# 2023

## COMMUNITY PRESERVATION FUND (CPF) WATER QUALITY IMPROVEMENT PROGRAM

### PROPOSAL SUMMARY

Project Applicant: Cornell Cooperative Extension of Suffolk County Marine Program

Project Title: Tiana Bayside Habitat Restoration

Project Manager Name: Kimberly Barbour

Name	Kimberly Barbour
Title	Senior Resource Educator
Organization	Cornell Cooperative Extension
Address	423 Griffing Avenue Riverhead NY 11901
Phone	631-461-5294
Email	kp237@cornell.edu

Property owner (if different from Project manager organization):

Name	Town of Southampton
Affiliation	
Organization	Department of Parks and Recreation
Address	6 Newtown Road, Hampton Bays NY 11946
Phone	631-728-8585
Email	parksandrec@southamptontownny.gov

Project Address: 89 Dune Road, Hampton Bays NY SCTM #(S) 4722689 386.000-00001.02

Type of Project (Check all that apply):

Reduction  Remediation  Restoration

Project Summary: (Provide a brief narrative description of proposed WQIPP project)

In efforts to build upon existing efforts underway out of Tiana Bayside Facility, CCE Marine Program is seeking support to conduct additional habitat and shellfish restoration work in support of water quality improvement. The proposed project would enable a spat-on-shell oyster reef expansion; cultivation, planting, and monitoring of bay scallop populations; and eelgrass plantings and seeding to be conducted in the Town designated sanctuary in the waters off Tiana Bayside. This funding will also enable an extensive demonstration coastal rain garden to be constructed in the large parking lot island on the property, using plants propagated in the coastal plant nursery on site, supplemented with additional coastal shrubs and grasses. This multi-species approach will help in filtering stormwater before it enters the bay, enabling nutrient reduction and improved the habitat value and aesthetics of the site. The project will also feature a significant community education and involvement element, and enable the monthly Back to the Bays Stewardship Session series to continue, enabling community members to assist in elements of this important restoration work.



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# 2023

\*If additional information is needed to describe the project; a project narrative can accompany the application. Please limit the narrative to approximately 3 pages of project description, provide a summary of water quality benefits/objectives of approximately 2 pages and provide a cost estimate of approximately 2 to 4 pages with supporting estimates. Any additional materials should be focused specifically on the proposed project with references to other studies that are pertinent\*

## 1. PROJECT TYPE (check all that apply)

Must meet at least one of the definitions of "Water Quality Improvement Project" per State Law Chapter 551 cited above. Check all that apply. **Note: Monitoring costs are only potentially eligible for CPF funding within Aquatic habitat restoration projects.**

- Wastewater Treatment Improvement Project
- Non-point source abatement and control
- Aquatic habitat restoration
- Pollution prevention
- Operation of Peconic Bay National Estuary Program (Grant Match)

## 2. PRIORITY AREA(S) (check all that apply)

Priority areas are defined in the [Water Quality Improvement Project Plan \(WQIPP\)](#).

- 303(d) Impaired
- Peconic Estuary Program - [PEP map](#)
- High
- Medium
- Outside High and Medium priority areas\*

\*If Outside High and Medium priority areas, explain how the project is relevant to WQIPP goals.

The areas in which work will be conducted are considered high priority and impaired, per the Hampton Bays map on page 34 in the WQIPP.

## 3. PROJECT DESCRIPTION

3a. Existing conditions of applicable groundwater/sub-watershed/waterbody and most recent and relevant data available (provide sources).

The proposed restoration sites for the coastal and marine habitat restoration efforts have all been identified as areas capable of supporting such restoration plantings. This will mark the 3rd year of consecutive eelgrass and shellfish plantings, and we are continually seeing expansion and improvement of habitat conditions in the areas we are working in.

3b. How the proposed solution addresses the issue in the context of Reduction, Remediation and/or Restoration as per the CPF Water Quality Project Plan. Note all remediation and restoration projects must assure that reduction measures are also addressed.

This project specifically addresses the priority action of "Restoration of Coastal and Marine Habitats". By reducing loading generated by stormwater through our large scale rain garden, and then addressing nitrogen reduction via filtration by the shellfish and eelgrass this project presents solutions to water quality improvement.



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**2023**

3c. Describe the proposed technology and its demonstrated efficacy in similar settings. May include published data.

CCE has been conducting shellfish and eelgrass restoration for over 30 years, and are a local leader in developing successful restoration methodologies.

3d. How the project supports Town of Southampton, Suffolk County, NYSDEC, Long Island Nitrogen Action Plan (LINAP) or other adopted goals/policies (provide references with page numbers).

This project supports many objectives of the WQIPP including Shellfish Restoration (p. 87) and Coastal Habitat Restoration (p. 89) in addition to meeting goals in the Trustee’s Marine Resources Management Plan (p. 21, p.26). LINAP Scope document mentions bioextraction goals and coastal restoration (Section 6.1), both to be achieved as part of this project.

3e. Review the following statements and indicate whether they are applicable to your project. For all “Yes” responses, please indicate how your project addresses the requirements indicated.

YES      N/A



**If stormwater system or drainage is proposed:** The project must indicate compliance with the New York State Stormwater Design Manual (2015 and as updated).



**If project is related to farmland:** Describe any Agricultural Stewardship Plan or other long term strategy for Nitrogen abatement.



**If the project is for habitat restoration:** The narrative must address how underlying causes are being ameliorated and expected outcomes for local species populations or other ecological considerations are given.



**If project is a Sewage Treatment Plant (STP) or cluster treatment system:** Fund allocation request is based on cost for reduction of pre-existing conditions and not for purpose of accommodating new density (describe pre-existing density and associated flow (gallons per day) and total projected nitrogen reduction in narrative). Include detailed information on how many homes the system would treat as well as potential for formation of Sewer District, if required by Suffolk County Health Department or Town Law.



**If the project is requesting grant match:** Include information related to funding program source and purpose of application and any relevant items on this checklist. Note: A Town Board resolution will be required in order to encumber matching funds for grant applications.

## 4. WATER QUALITY BENEFIT

4a. Identify Nitrogen, Pathogen or Pollutant of Concern (POC) including Existing Condition and Target Reduction.

The pollutant of concern targeted through these proved efforts is primarily nitrogen. Shellfish are effective filter feeders and capable of removing nutrients from the water column (Newell, R. 2004; Rose, J. et al. 2015; Alber and Valiela, 1996). Seagrass meadows sequester nitrogen and carbon from the water column and bind it to the sediment.

4b. Describe plans for collecting and reporting on water quality over time.

The amount of shellfish produced and seeded will be documented and survivability (and projected harvest rates where appropriate) will be monitored in order to provide a projection of estimated nutrient reduction in the final project report. The expected benefit of shellfish restoration as proposed will expand beyond 5 years.



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4c. Indicate useful life of proposed technology (must meet or exceed five years).

The majority of plants and animals being produced for this purposes of this project are expected to survive at least five years (18-24mos. for bay scallops), and contribute to the natural populations through spawning (shellfish), vegetative propagation and seed spreading (eelgrass and coastal plants).

### 5. COST FACTORS

5a. Explain how you have confirmed that the proposed budget is reasonable, appropriate and necessary. If available, provide third party estimates or other documentation of how costs were determined.

CCE will be requesting approximately 50% of the true cost of this project from the Town. Given the number of species being worked with and restoration methodologies employed to conduct this project, ample funds must be provided to support the percentage of infrastructure and staff time needed to carry out the proposed objectives.

5b. Describe any matching funds to be provided.

CCE will provide matching funds in the form of fringe benefit rate for salaries included in project, volunteer hours, as well as funds from a large scale SSER DOS project that will support the full cost of the eelgrass restoration work proposed. Private funds from foundation grants and fundraising activities will also be applied.

5c. Explain: i. Why project cannot proceed and intended benefits cannot be achieved without external funding.  
ii. if funds are awarded at a lower level than requested, or if there are cost overruns, explain how the project will proceed.

Funds are needed to enable work to continually be conducted at Tiana Bayside Facility in support of Town water quality and habitat restoration goals. CCE has historically and will continually seek supplemental funds to ensure annual plantings and stewardship activities may take place, but Town support enables these efforts to be done at a more meaningful level.

### 6. MANAGEMENT, EXPERIENCE, ABILITY

6a. Describe applicant's experience in completing similar projects.

CCE has successfully completed a 2-year project to lay the framework for long term eelgrass and shellfish cultivation and restoration in the sanctuary off Tiana Bayside. The monitoring efforts conducted indicate a successful effort that this current project will build upon. CCE also has extensive coastal restoration experience that will be applied.

6b. Describe community support or opposition to project. If there is opposition, explain how this is to be addressed.

CCE has received an incredible amount of support from local residents and visitors of the Tiana Bayside Property. Through our SPAT, Back to the Bays and summer camp experiences we are able to reach the community and through projects like this are able to incorporate hands-on, science based restoration activities into our community programming.

6c. Describe any permits needed and time frame/status of approvals. If permits are approved, indicate same.

We currently have all permits in place to conduct the proposed work. Our existing DEC permit and Town Trustee permission/sanctuary designation will enable our oyster reef and eelgrass related work to continue offshore. We have also recieved initial approvals from the Town Parks and Recreation Dept. and Conservation Dept. to proceed with the parking lot project.



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### 7. MAINTENANCE, MONITORING, EVALUATION

Estimate ongoing maintenance costs and explain how these will be supported. Explain stewardship and monitoring activities planned for ensuring sustainability of the project.

CCE is committed to keeping the restoration work and educational stewardship work being conducted at Tiana Bayside going for the long term. Revenue and fundraising in support of these efforts at this location will ensure at least a baseline of annual activities will continue at this site, with expansion being made possible with grants such as this.

### 8. DURATION OF PROJECT

8a. Provide a projected project timeline. Note: The Committee will only make recommendations for shovel-ready projects that can commence this fiscal year.

Feb.-March: planning, permissions April-May: shellfish spawning, gear construction + set up, coastal plant propagation, garden construction June-Aug.: Shellfish nursery and grow out, buoy deployed eelgrass seeding, oyster reef deployment, adult shoot eelgrass planting Sept.-Dec.: bay scallop planting monitoring. Dec.-Feb. final report. Monthly stewardship sessions will be held for duration of project period.

8b. If project is multi-year or phased, provide a breakdown of budget and milestones for each year and phase.

Project will be conducted in a one-year timeframe.

### 9. ATTESTATION

Allocation of CPF funds will not be for the purpose of accommodating new growth, as this is prohibited by State law.

Check all boxes & sign.

- We certify that funds will not be directed for projects for the purpose of accommodating new growth.
- We understand that progress reports will need to be generated as specified in our Water Quality Improvement Contract AND a final report showing qualitative and/or quantitative data will be generated upon project completion. .

Signature: \_\_\_\_\_

Date 3/14/23

### 10. REQUIRED ATTACHMENTS Confirm that the following required documents are attached to this application:

- Photos of existing conditions
- Location Map
- State Environmental Quality Review Act (SEQRA) Long or Short Environmental Assessment Form (EAF)  
<https://www.dec.ny.gov/permits/6191.html>
- Completed EPA Spreadsheet Tool for Evaluating Pollutant Load (STEPL)  
<https://www.epa.gov/nps/spreadsheet-tool-estimating-pollutant-loads-step1> or similar standardized methodology (describe)
- Project budget (see attached template)
- Ownership commitment is provided via letter of intent (LOI) for non-municipal owners or municipal resolution for municipal owners
- Public agencies must complete SEQRA on the project and submit determination of significance and associated documentation.

### 11. OTHER ATTACHMENTS

List other attachments provided, including cost estimates, bids, plans, documentation of matching funds, and other as appropriate to demonstrate project readiness, quality, feasibility, and cost effectiveness



**BUDGET PROPOSAL**

Is the applicant a municipality?  Yes  No  
 If yes, please enter the request date or anticipated request date of RFP (Request for Proposals) \_\_\_\_\_.

PLANNING/ENGINEERING/DESIGN	Town CPF Request	Matching Funds Committed	Matching Funds Pending	Estimated Total Project Costs
Task 1 Permitting, site planning, restoration de	\$3000	\$7000	\$-	\$0
Task 2-	\$-	\$-	\$-	\$0
Task 3-	\$-	\$-	\$-	\$0
Task 4-	\$-	\$-	\$-	\$0
Task 5-	\$-	\$-	\$-	\$0
Task 6-	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
<b>Planning/Engineering/Design Cost Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Contractual Services				
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
<b>Contractual Services Cost Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Construction & Site Improvements				
Coastal Rain Garden Installation	\$12,000	\$7488	\$-	\$0
Operation of Coastal Plant Nursery	\$0	\$5,590	\$-	\$0
Eelgrass Restoration Seeding + Planting	\$14,000	\$33,953	\$-	\$0
Spat-on-Shell Oyster + Clam Restoration	\$57,000	\$56,452	\$-	\$0
Bay Scallop Nursery Operation + Planting	\$45,000	\$63,778	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
<b>Construction &amp; Site Improvements Cost Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



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**2023**

Equipment/Materials/Supplies	Town CPF Request	Matching Funds Committed	Matching Funds Pending	Estimated Total Project Costs
250 Cubic Yards of Sand for Rain Garden Du	\$9250	\$-	\$-	\$0
Buoy Deployed Eelgrass Seeding Array	\$0	\$2550	\$-	\$0
Coastal grasses and shrubs for restoration p	\$11400	\$5000	\$-	\$0
Bay Scallop Cultivation and Monitoring Gear	\$2,200	\$4,000	\$-	\$0
Vehicle Usage	\$1,663	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
	\$-	\$-	\$-	\$0
				0
				0
				0
				0
				0
				0
				0
				0
				0
Equipment/Materials/Supplies Total	\$0	\$0	\$0	\$0

Additional Cost				
CCE Indirect Fee	\$23,635	\$-	\$-	\$-0
Volunteer Time	\$-	\$-	\$14,975	\$-0
	\$-	\$-	\$-	\$-0
	\$-	\$-	\$-	\$-0
	\$-	\$-	\$-	\$-0
	\$-	\$-	\$-	\$-0
	\$-	\$-	\$-	\$-0
Additional Cost Total	\$-0	\$-0	\$-0	\$-0

Planning/Engineering/Design Cost Total (from page 7)	\$-0	\$-0	\$-0	\$-0
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Total Project Cost	\$0
Applicant matching funds committed	\$0
Applicant matching funds pending approval (e.g. grant request submitted pending determination)	\$0
Total CPF Funds Requested	\$0

Source of matching funds	Amount
Existing Grants (SSER, DOS, Suffolk County	64,000
Back to the Bays Fund	74,549
In-Kind	62,236



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**2023**

## COMMUNITY PRESERVATION FUND (CPF) WATER QUALITY IMPROVEMENT PROGRAM LETTER OF INTENT

### APPLICANT'S INFORMATION

Owner: Cornell Cooperative Extension of Suffolk County  
Contact First and Last Name: Kimberly Barbour  
Contact Address: 423 Griffing Avenue Riverhead, NY  
Contact Phone: 631-461-5294  
Contact Email: kp237@cornell.edu

### CONTRACT RECIPIANT INFORMATION

Name/Organization: Cornell Cooperative Extension of Suffolk County  
Contact Person/Officer: Vanessa Lockel  
Contact Address: 423 Griffing Avenue Riverhead, NY  
Contact Phone: 631-727-7850  
Contact Email: vl332@cornell.edu

### PROJECT INFORMATION

Project Title: Tiana Bayside Habitat Restoration  
Project Location: Tiana Bayside Facility Hampton Bays, NY  
Project Description (1-3 sentences): \_\_\_\_\_



### ANTICIPATED PROJECT TIMELINE

Begin: February 1, 2024  
Complete: January 31, 2025  
Notes: \_\_\_\_\_



# Tiana Bayside Facility and Grounds: Areas of Shellfish and Habitat Restoration Activities

4

Trustee Designated 5 Acre  
Shellfish + Eelgrass Sanctuary

3 Remote Setting  
Oyster Tank Site

2 Coastal Plant  
Nursery Area

1

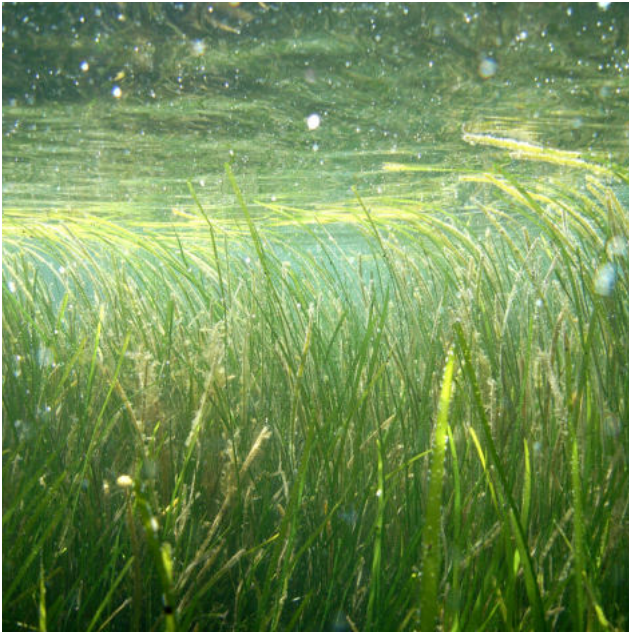
Bay Scallop Nursery Area

5

Coastal Rain Garden  
Restoration Site



# COASTAL PLANT RESTORATION



## Eelgrass *Zostera marina*

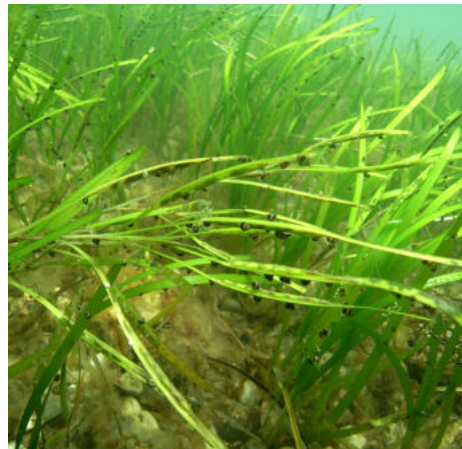


- ✓ Our local seagrass species that is critical nursery habitat as well as foraging grounds
- ✓ Important foraging and nesting habitat for our fish and waterfowl
- ✓ Helps protect shorelines from erosion, absorb nutrients

## Eelgrass Restoration via the "Buoy Deployed Seeding"



a. Buoy grid arranged at restoration site in June



b. Wild seeds in Shinnecock Bay are monitored for development in June



c. Eelgrass Flower shoots containing seeds are collected at peak (late June-early July)



d. Volunteers event scheduled for collection day to help fill nets with shoots + sew back together



e. CCE's Habitat team deploys nets on pre-arranged grid



f. Nets are removed after 3-4 weeks; monitoring for seed germination spring of following yr.

# COASTAL PLANT RESTORATION



## Eelgrass

*Zostera marina*



- ✓ Our local seagrass species that is critical nursery habitat as well as foraging grounds
- ✓ Important foraging and nesting habitat for our fish and waterfowl
- ✓ Helps protect shorelines from erosion, absorb nutrients

## Eelgrass Restoration via the "Tortilla Method"



a. Marine Meadows Workshops engage the public in this work



b. Eelgrass "tortillas" are assembled by volunteers



c. New holding system at Tiana Bayside to enhance restoration efforts



d. Tortillas being transported just prior to planting



e. CCE's divers hand plant each tortilla



f. Eelgrass plantings are monitored for survival and species utilization

# COASTAL PLANT RESTORATION



## Smooth Cordgrass

*Spartina alterniflora*



- ✓ Inundated by the tides, this species serves as a critical buffer between land and sea
- ✓ Helps absorb nutrients and pollutants from land-based runoff
- ✓ Important foraging and nesting habitat for our fish and waterfowl



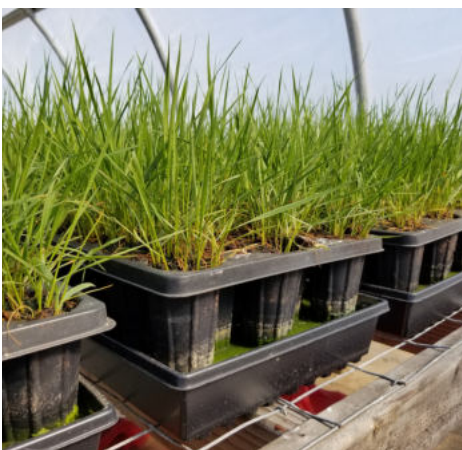
a. Local seed is collected in the fall during a carefully monitored collection window



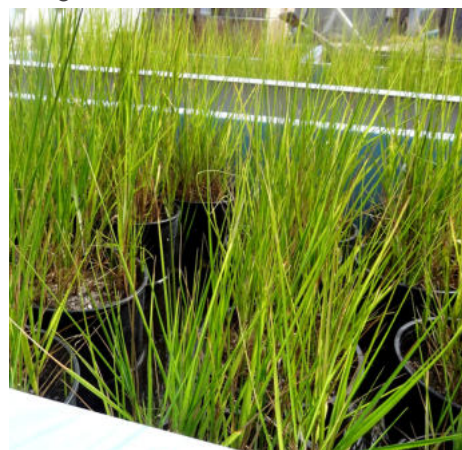
b. After winter stratification, a seed mix is prepared based on germination trials



c. Plug trays begin to germinate and root expansion takes place



d. Plant propagation begins once plugs become root bound



e. Each plug will be split and up-potted a total of 4 times, making up to 16 planting units



f. Plants will be transported from Tiana Bayside nursery to the restoration site and planted based on guidelines

# COASTAL PLANT RESTORATION



## Beach Grass

*Ammophila breviligulata*



- ✓ Dune-forming species, trapping and accumulating sand
- ✓ Critical for erosion protection during storms
- ✓ Its presence is required for many beach nesting birds



a. Existing Coastal Plant Nursery at Tiana Bayside Facility will be expanded



b. Culms are harvested from nursery and separated for restoration planting



c. Individual culms being planted ~8" deep and 1' on center



d. Marked frames keep spacing; habitat team planting



e. With the help of snow fencing, individual shoots clone and spread rapidly



f. The Coastal Plant Nursery also serves as an important educational tool at the Tiana Bayside Facility

# HATCHERY OPERATION



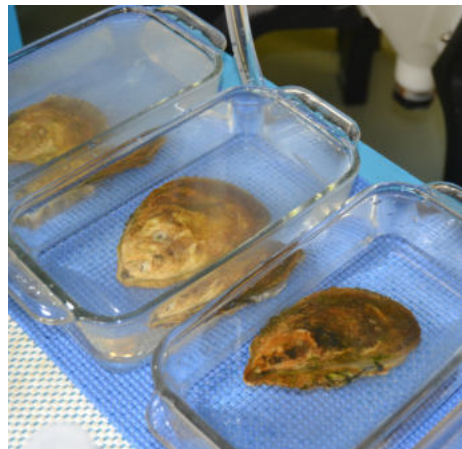
## Algae Production + Shellfish Spawning



All shellfish produced for this project will begin at CCE's state-of-the-art Shellfish Hatchery in Southold. Algae production, spawning, and care of shellfish will be conducted at this site before animals are transported for grow out at the Tiana Bayside Facility Shellfish Nursery.



a. Algae is produced in order to feed shellfish in hatchery



b. Scallops, clams, and oysters are spawned here



c. Shellfish are fed microalgae produced by CCE



d. Spat-on-shell oysters are produced by setting larvae on recycled shell in large holding tanks



e. Clams and single oysters are grown out in FLUPSYs until large enough for seeding in Town waters



f. Bay scallops are moved to nursery site for grow out and will be planted in Town waters

# SHELLFISH RESTORATION



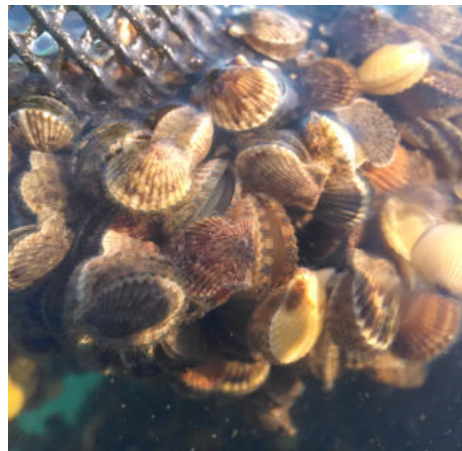
## Bay Scallop Nursery *Argopectin irradians*



- ✓ CCE has lead local bay scallop restoration efforts for over 15yrs.
- ✓ Bay scallops are economically important to the region
- ✓ Tiana Bayside Facility hosts the first and only successful scallop nursery in Shinnecock Bay



a. Bay scallops are spawned in CCE's Hatchery



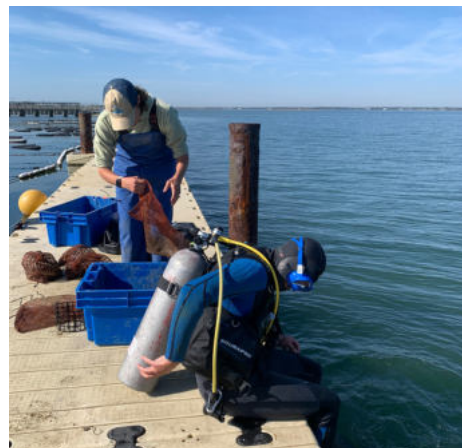
b. Scallops are cared for in a nursery setting to encourage growth and increase survival



c. A new floating nursery cage system will be installed and maintained at Tiana Bayside



d. View of bay scallops, protected from predators, in lantern nets



e. Scallops are serviced using CCE staff and vessels



f. Bay scallops will be planted in Town waters once they reach 40+mm

# SHELLFISH RESTORATION



## Oyster Spat-on-Shell *Crassostrea virginica*



- ✓ Spat-on-shell oysters are used to form oyster reefs
- ✓ Oysters are effective filter feeders and improve water quality
- ✓ Oyster reefs also serve as important habitat



a. Oysters are spawned in CCE's hatchery



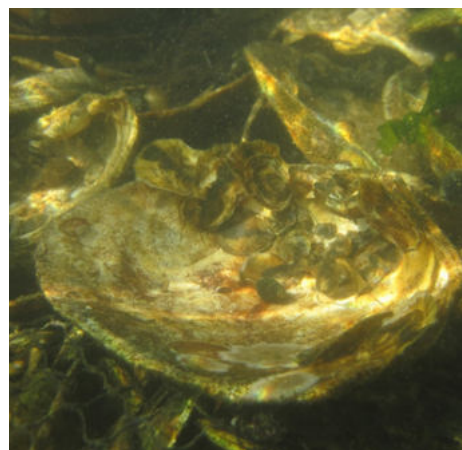
b. Recycled shell substrate is cleaned and prepared



c. Oyster larvae is added to the circulation tanks



d. Larvae sets on shell, becoming spat-on-shell



e. Spat-on-shell oysters continue to grow until ready to plant at suitable restoration site



f. CCE Marine staff and volunteers deploy spat-on-shell to form new oyster reefs site

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

**Part 1 – Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

<b>Part 1 – Project and Sponsor Information</b>			
Cornell Cooperative Extension of Suffolk County			
Name of Action or Project: Shellfish and Plant Nursery Expansion at Tiana Bayside Facility			
Project Location (describe, and attach a location map): Tiana Bayside Facility 89 Dune Road Hampton Bays, NY			
Brief Description of Proposed Action: Production of bay scallops, oysters, clams, marsh grass and dune grass at Tiana Bayside Facility for restoration purposes.			
Name of Applicant or Sponsor: Kimberly Barbour		Telephone: 631-461-5294	
		E-Mail: kp237@cornell.edu	
Address: 423 Griffing Avenue			
City/PO: Riverhead		State: NY	Zip Code: 11972
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO <input type="checkbox"/>
			YES <input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Southampton Town Trustees			NO <input type="checkbox"/>
			YES <input checked="" type="checkbox"/>
3. a. Total acreage of the site of the proposed action? _____ >1 acres			
b. Total acreage to be physically disturbed? _____ 0 acres			
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ >1 acres			
4. Check all land uses that occur on, are adjoining or near the proposed action:			
<input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential (suburban)			
<input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input checked="" type="checkbox"/> Aquatic <input type="checkbox"/> Other(Specify):			
<input type="checkbox"/> Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO <input type="checkbox"/>	YES <input checked="" type="checkbox"/>	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels? b. Are public transportation services available at or near the site of the proposed action? c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ _____	NO <input type="checkbox"/>	YES <input checked="" type="checkbox"/>	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ _____	NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ _____	NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?  b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	YES <input type="checkbox"/> <input type="checkbox"/>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?  b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?  If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ Western Shinnecock Bay >1 acre. _____ _____	NO <input type="checkbox"/> <input type="checkbox"/>	YES <input checked="" type="checkbox"/> <input type="checkbox"/>	



<b>CCE Marine Program CPF Grant Budget 2023</b>		<b>Town CPF Request</b>	<b>Matching Funds Committed</b>	<b>Estimated Total Project Costs</b>
<b>Planning Engineering and Design</b>				
Permitting, Site Planning, Restoration Design	3,000	7,000	10,000	
<b>Contractual Services</b>				
N/A				
<b>Construction and Site Improvements</b>				
Coastal Rain Garden Installation	12,000	7,488	19,488	
Operation + Maintenance of Coastal Plant Nursery	0	5,590	5,590	
Eelgrass Restoration	14,000	33953	47,953	
Spat-on-Shell Oyster + Clam Restoration	57,000	56,452	113,452	
Bay Scallop Nursery Operation + Planting	45,000	63,778	108,778	
<b>Equipment Materials and Supplies</b>				
250 Cubic Yards of Sand for Coastal Rain Garden	9,250	0	9,250	
Supplemental Plant Material for Rain Garden	11,400	5000	16,400	
Buoy Deployed Eelgrass Seeding Array	0	2550	2,550	
Bay Scallop Cultivation and Monitoring Gear	2,200	4000	6,200	
Vehicle Expenses (Mileage)	1,663	0	1,663	
Subtotal	155,513		341,322	
<b>Additional Costs</b>				
Indirect Rate (14.28% Negotiated Federal Rate)	\$22,207		22207.185	
Volunteer Hours (National Rate 29.95/hr)	0	14,975		
	<b>177,720</b>	<b>200,785</b>	<b>378,504</b>	