



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

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

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

PROPOSAL SUMMARY

Project Applicant: New York State Center for Clean Water Technology, Stony Brook University
 Project Title: Nitrogen Reducing Woodchip Biofilter Polishing Units in Commercial I/A Systems
 Project Manager Name: Frank Russo, PE

| | |
|--------------|--|
| Name | Frank Russo, PE |
| Title | Associate Director |
| Organization | New York State Center for Clean Water Technology |
| Address | 1000 Innovation Rd, Stony Brook, NY |
| Phone | 631-252-3797 |
| Email | frank.russo.3@stonybrook.edu |

Property owner (if different from Project manager organization):

| | |
|--------------|---|
| Name | Eight different residential, municipal, and NGO owners |
| Affiliation | Sites installing new I/A Systems by Fuji Clean, Hydro-Action, Septitech, and Orenco |
| Organization | |
| Address | Sights to be selected to meet all WQIP eligibility requirements and priorities |
| Phone | To be determined |
| Email | TBD |

Project Address: TBD - All sites will be in High Priority Areas SCTM #(S) TBD

Type of Project (Check all that apply):

- Reduction Remediation Restoration

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

Innovative and onsite wastewater treatment systems (I/A OWTS) are helping to improve water quality across the Town of Southampton. Still, the Suffolk County standard for I/A OWTS effluent of 19 mg N/L is two orders of magnitude higher than the levels of N found in most Southampton surface waters. The NYS Center for Clean Water Technology (CCWT) has developed a denitrifying woodchip biofilter that is capable of being added to any commercial I/A OWTS and reducing nitrate levels from these systems to 3-4 mg-N/L, greatly improving system performance and better protecting Southampton's most precious natural resource, its water.

This project will install eight denitrifying woodchip biofilter polishing units at eight locations, coupling the woodchip bio filters with new commercial I/A OWTS's, selected from leading OWTS vendors, such as Hydro-Action, Fuji Clean, Septi-Tech, and Orenco. All sites will be within Southampton High Priority watershed areas and meet all WQIP Eligibility requirements except they will include some residential as well as NGO, and/or municipal facilities. The woodchip biofilter polishing units will be installed together with the IA OWTS to minimize total installation costs. CCWT will work with local engineers that design I/A OWTS's in Southampton to identify the specific sites. All of the installations will be within High Priority watershed areas, have owners' written consent, be fully permitted, be designed by qualified local engineers, be installed by licensed contractors, and meet all other mandatory requirements for CPF WQIP funding. Projects will be shovel ready by the time the Town completes the contract process and will be completed within the Town's CPF WQIP timing requirements. CCWT will measure the water quality (i.e. ammonium, nitrate, nitrite, TKN and NH4+ DO and pH) before and after the woodchip biofilter polishing unit over three years.

Data in final effluent samples from installations of four main IA OWTS (Hydro-Action, Fuji Clean, Septi-tech, Orenco recently) FOILED from SC DHS showed nitrate was a large portion of OWTS effluent. Monitoring of installations of woodchip box biofilters coupled to various preliminary treatment technologies including sand beds and commercial I/A OWTS over the previous 1- 5+ years showed mean nitrate % removal of 84% (range 53- 96%), a rate which equates to 63 pounds of nitrogen removed per year at these 8 sites combined. Scenario analysis by NYS CCWT under various woodchip replacement assumptions and N removal rates show cost per pound nitrogen removed varies between \$78 and 21 when amortized over 10 and 30 year periods, a range is comparable to costs of a Fuji Clean or Hydro-Action I/A systems.



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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.

See narrative

3. PROJECT DESCRIPTION

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

See narrative

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.

See narrative



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

See narrative

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).

See narrative

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.

See narrative

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

See Narrative



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

See Narrative

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.

See Narrative

5b. Describe any matching funds to be provided.

See Narrative

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.

See Narrative

6. MANAGEMENT, EXPERIENCE, ABILITY

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

See Narrative

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

See Narrative

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

See Narrative



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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.

See Narrative

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.

See Narrative

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

See Narrative

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: **Robert Dunbar**

Digitally signed by Robert Dunbar
Date: 2023.03.03 10:16:13 -05'00'

Date 3/3/23

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



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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-Supplemental Engineering to add the woodchip biofilter | \$-16,000.00 | \$- | \$- | \$-16,000.00 |
| Task 2-Engineering During Construction | \$- | \$-2,000.00 | \$- | \$-2,000.00 |
| Task 3-Project Management & Administration | \$- | \$-8,000.00 | \$- | \$-8,000.00 |
| Task 4-Project Closeout, O&M, Start Up | \$- | \$-2,000.00 | \$- | \$-2,000.00 |
| Task 5-Application Preparation | \$- | \$-3,000.00 | \$- | \$-3,000.00 |
| Task 6-Administration | \$- | \$-624.00 | \$- | \$-624.00 |
| | \$- | \$- | \$- | \$-0.00 |
| Planning/Engineering/Design Cost Total | \$-16,000.00 | \$-15,624.00 | \$-0.00 | \$-31,624.00 |

| Contractual Services | | | | |
|--|----------------|----------------|----------------|----------------|
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| Contractual Services Cost Total | \$-0.00 | \$-0.00 | \$-0.00 | \$-0.00 |

| Construction & Site Improvements | | | | |
|--|----------------|----------------|----------------|----------------|
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| | \$- | \$- | \$- | \$-0.00 |
| Construction & Site Improvements Cost Total | \$-0.00 | \$-0.00 | \$-0.00 | \$-0.00 |



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

APPLICANT'S INFORMATION

Owner: _____ NYS Center for Clean Water Technology, Stony Brook University _____
Contact First and Last Name: Frank Russo, PE
Contact Address: _____ 1000 Innovation Rd, Suite 100, Stony Brook, NY _____
Contact Phone: _____ 631-252-3797 _____
Contact Email: _____ frank.russo.3@stonybrook.edu _____

CONTRACT RECIPIANT INFORMATION

Name/Organization: _____ NYS Center for Clean Water Technology, Stony Brook University Research Foundation _____
Contact Person/Officer: Hilary Wolfskil
Contact Address: _____ 1000 Innovation Rd, Suite 100, Stony Brook, NY _____
Contact Phone: _____ 631-816-0912 _____
Contact Email: _____ hilary.brooks@stonybrook.edu _____

PROJECT INFORMATION

Project Title: _____ Nitrogen Reducing Woodchip Biofilter Polishing Units in Commercial I/A Systems _____
Project Location: _____ 8 sites _____
Project Description (1-3 sentences): _____

NYS CCWT will work with leading local engineers to design, specify, permit, procure, install, and monitor woodchip biofilter polishing units in eight sites and monitor their incremental denitrification for 3 years.

ANTICIPATED PROJECT TIMELINE

Begin: _____ Nov '23 _____
Complete: _____ Feb '24 _____
Notes: _____

