



Village of Southampton

Town of Southampton Community Preservation Fund 2022

Wickapogue Pond Watershed Bioswales



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

2022

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:

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



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

2022

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

Project Applicant: _____
 Project Title: _____
 Project Manager Name: _____

Name	
Title	
Organization	
Address	
Phone	
Email	

Property owner (if different from Project manager organization):

Name	
Affiliation	
Organization	
Address	
Phone	
Email	

Project Address: _____ SCTM #(S) _____

Type of Project (Check all that apply):

- Reduction Remediation Restoration

0904-030.00-01.00-001.012
 0904-030.00-01.00-015.000

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



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

2022

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.

3. PROJECT DESCRIPTION

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

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.



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

2022

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

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).

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	
<input type="checkbox"/>	<input type="checkbox"/>	If stormwater system or drainage is proposed: The project must indicate compliance with the New York State Stormwater Design Manual (2015 and as updated).
<input type="checkbox"/>	<input type="checkbox"/>	If project is related to farmland: Describe any Agricultural Stewardship Plan or other long term strategy for Nitrogen abatement.
<input type="checkbox"/>	<input type="checkbox"/>	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.
<input type="checkbox"/>	<input type="checkbox"/>	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.
<input type="checkbox"/>	<input type="checkbox"/>	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.

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



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

2022

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

[Redacted area for response to 4c]

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.

[Redacted area for response to 5a]

5b. Describe any matching funds to be provided.

[Redacted area for response to 5b]

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.

[Redacted area for response to 5c]

6. MANAGEMENT, EXPERIENCE, ABILITY

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

[Redacted area for response to 6a]

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

[Redacted area for response to 6b]

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

[Redacted area for response to 6c]



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

2022

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.

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.

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

9. 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.

10. 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

Please see attached.



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

2022

BUDGET PROPOSAL

Is the applicant a municipality group? 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-	\$-	\$-	\$-	\$-
Task 2-	\$-	\$-	\$-	\$-
Task 3-	\$-	\$-	\$-	\$-
Task 4-	\$-	\$-	\$-	\$-
Task 5-	\$-	\$-	\$-	\$-
Task 6-	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
Planning/Engineering/Design Cost Total	\$-	\$-	\$-	\$-

Contractual Services				
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
	\$-	\$-	\$-	\$-
Contractual Services Cost Total	\$-	\$-	\$-	\$-

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



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

2022

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

APPLICANT'S INFORMATION

Owner: Village of Southampton
Contact First and Last Name: Jesse Warren, Mayor
Contact Address: 23 Main Street, Southampton, NY 11968
Contact Phone: 631-283-0247
Contact Email: jwarren@southamptonvillage.org

CONTRACT RECIPIANT INFORMATION

Name/Organization: Village of Southampton
Contact Person/Officer: Charlene Kagel-Betts, Village Administrator
Contact Address: 23 Main Street, Southampton, NY 11968
Contact Phone: 631-283-0247
Contact Email: ckagel-betts@southamptonvillage.org

PROJECT INFORMATION

Project Title: Wickapogue Pond Watershed Bioswales
Project Location: Wickapogue Pond Watershed Area, Southampton
Project Description (1-3 sentences):

The Village of Southampton will install 5 bioswales and raingardens along the public right of way of Village roads in the Old Wickapogue Pond watershed area and in Wickapogue Park. The project will improve water quality by removing nutrients, oils, sediment, and pesticides from road runoff prior to stormwater discharge in the pond.

ANTICIPATED PROJECT TIMELINE

Begin: Summer 2022
Complete: Summer 2023
Notes:

[Redacted area]

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: [Handwritten Signature] Date 4/13/2022



APPLICATION NARRATIVES

VILLAGE OF SOUTHAMPTON WICKAPOGUE POND WATERSHED BIOSWALES

PROJECT SUMMARY

The Village of Southampton will install bioswales and raingardens in the public right of way in the Wickapogue Pond watershed area. Specifically, five (5) bio-infiltration areas will be installed along Wickapogue Road, Narrow Lane and in Wickapogue Park. The project will improve water quality by removing nutrients, oils, sediment, and pesticides from road runoff prior to stormwater discharge in Wickapogue Pond. The bio-infiltration areas will reduce non-point pollution by filtering the road runoff while creating a natural aesthetically pleasing view.

Wickapogue Pond is a 10.5 acre pond assessed by the NYSDEC as a Priority waterbody that is impacted due to recreational uses that are considered to be impaired by frequent to persistent occurrences of harmful algal blooms. These improvements will maximize opportunities to leverage the multiple benefits of green stormwater infrastructure, provide highly visible innovative stormwater management practices, and build capacity to construct and maintain green stormwater infrastructure.

The proposed project was identified by the Village's consulting engineer which conducted an exhaustive review of the Village to identify available locations for bio-infiltration projects that can be accomplished in Village right of way areas. The effort culminated in identification of 51 bio-infiltration areas, as detailed in the Village's Water Quality Improvement Project Plan (2022). This project will complete five of the identified areas, including two that ranked in the top 10 for nitrogen reduction. Pollutant load reductions include 34 lbs. of nitrogen and 4 lbs. of phosphorous annually.

3. PROJECT DESCRIPTION

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

Wickapogue Pond is a 10.5 acre pond assessed by the NYSDEC as a Priority waterbody that is impacted due to recreational uses that are considered to be impaired by frequent to persistent occurrences of harmful algal blooms. Aquatic life may also be impacted by resulting low dissolved oxygen in the ponds. Nonpoint stormwater runoff is

a known source of pollutants, as reported by the NYSDEC Priority Waterbody List (0701-0119). The NYSDEC documented the occurrence of Harmful Algal Blooms (HABs) in 2014, 2016 and 2018.¹ The pond is adjacent to the South Shore Estuary Reserve (SSER). The SSER has more impaired surface waters due to nitrogen loading than any other region of New York State, making nitrogen pollution a priority concern.²

The study titled, “Quantifying Nitrogen Loading From Southampton Village to Surrounding Water Bodies and their Mitigation By Creating a Sewer District” was completed in 2017 by Dr. Christopher Gobler of the Stony Brook University School of Marine and Atmospheric Sciences. Nitrogen loading models were constructed that considered nitrogen delivered to various waterbodies in the Village, including Wickapogue Pond. See attached subwatershed map. As shown below, the model demonstrated that storm drains and fertilizer are external inputs associated with storm runoff.

Total Nload (kg/yr)	Agawam, current	Old Town Pond	Wickapogue Pond	Agawam, current	Old Town Pond	Wickapogue Pond
Atmosphere, watershed	720	258	218	3%	6%	8%
Waste Water, sewer area	4,152	-	-	20%	0%	0%
Waste Water, unsewered	10,363	2,498	908	49%	62%	33%
Southampton Hospital	-	131	-	0%	3%	0%
Sewage Treatment Plant	-	-	-	0%	0%	0%
Storm drain	928	42	51	4%	1%	2%
Fert - Residential Lawns	1,159	348	514	6%	9%	19%
Fert - Agriculture	308	144	283	1%	4%	10%
Fert - Parks and Golf	170	128	143	1%	3%	5%
Fertilizer, all	1,637	620	939	8%	15%	35%
Benthic flux	2,884	387	470	14%	10%	17%
Bird, geese, swans	219	36	36	1%	1%	1%
Direct atmosphere	134	75	91	1%	2%	3%
Total	21,037	4,048	2,714	100%	100%	100%

Table 1. Annual nitrogen loading rates from all sources to Lake Agawam, Old Town Pond, and Wickapogue Pond in kg nitrogen per year for the 50 year watershed with percentages of the total nitrogen load represented by each process also shown (Gobler, 2017).

¹ https://www.dec.ny.gov/docs/water_pdf/habsextentsummary.pdf

² https://www.dos.ny.gov/opd/sser/comprehensive_management_plan.html

The Village is working to reduce flow of pollutants into the pond in order to improve water quality, protect public health and support health of the SSER.

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.

The proposed project is designed to reduce pollutants from stormwater runoff that ends up in the groundwater or running overland to the pond, especially during storm events. The pollutants eventually end up in the pond as evident in the pollutant levels and reported Harmful Algal Blooms.

The proposed project will make use of existing curbs, catch basins and natural topography to install a total of five (5) bio-infiltration areas. These bioswales and raingardens will provide both infiltration and storage which will capture and treat the stormwater. After being treated, the cleaned stormwater will infiltrate to groundwater. In heavy rain events water will overflow to existing catch basins. The five areas to receive the bio-infiltration systems are listed below, and are further summarized in a table provided with the application attachments.

Project #	Location	BMP Type	Impervious Treatment Area (SF)	Volume Captured (CF)	Runoff (acre-feet/yr.)
SV-14A	ROW along Wickapogue Road	ROW Raingarden	7,690	1,500	0.5
SV-14B	ROW along Wickapogue Road	ROW Raingarden	5,123	866	0.3
SV-14C	ROW along Wickapogue Road	ROW Raingarden	6,647	1,343	0.4
SV-15	ROW along Narrow Lane	ROW Raingarden	22,285	3,864	1.4
SV-16	Wickapogue Park	ROW Raingarden & Bioswale	38,841	5,569	2.5
		Totals	80,586	13,142	5

The project is designed to capture 13,142 CF of rain water for a total impervious treatment area of 80,586 SF. The technology conforms to the 2015 NYSDEC Stormwater Management Design Manual. Eastern Long Island native plants will be used for the bio-infiltration systems which will provide an aesthetic appearance. The attached plant list is representative of the types of plants that will be selected. In cases where lawn is needed, a customized mix of native and naturalized grasses will be used.

Please see attached design plans, which were developed by the Village engineer as part of the Village’s Water Quality Improvement Project Plan. The plan identified a total of 51 opportunities for green infrastructure projects across the Village. This proposal addresses five (5) of the 51 opportunities.

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

Bioretention systems are often referred to by a variety of names such as bioinfiltration areas, biofilters, rain gardens, bioswales, or recharge gardens, and are recognized by the NYSDEC and other agencies as practices that are very effective at removing pollutants and reducing stormwater runoff. Properly designed bioretention practices mimic natural ecosystems through species diversity, density and distribution of vegetation, and the use of native species. This allows for the bioretention system to be resistant to insects, disease, pollution, and climatic stresses.

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 pages numbers).

Town of Southampton Water Quality Improvement Project Plan³

The plan indicates that stormwater collection/abatement initiatives meet State Law Chapter 551 definition of “water quality improvement project” and “wastewater treatment improvement project.” Stormwater Best Management Practices and treatment fall within the category of mitigation initiatives for nitrogen pollution (p. 21). Wickapogue Pond is shown in the Plan as being situated in a High and Medium Priority area. See attached map.

Long Island South Shore Estuary Reserve Comprehensive Management Plan (SSER CMP)⁴

The NYSDEC Priority Waterbodies List (PWL) indicates that the waterbody is adjacent to the South Shore Estuary Reserve (SSER). The SSER CMP is an element of the LI Nitrogen Action Plan. The project is supported by SSER implementation action 1-1: *Construction of stormwater abatement projects in significant nonpoint source contributing areas associated with closed shellfish beds, impaired living resources, and bathing beaches that experience periodic closures due to water quality concerns.*

Long Island Nitrogen Action Plan⁵

The project aligns with stormwater management options outlined in the Action Plan scope, which discusses the benefits of bioretention on page 31, Section 6.13.

Suffolk County Subwatershed Plan⁶

Wickapogue Pond is discussed as a water body that has experienced freshwater Harmful Algal Blooms (HABs), and is indicated as a Priority 1 subwatershed for nitrogen reduction (p. 2-215). The Village’s planned sewer system, is not expected to extend into

³ <https://www.southamptontownny.gov/DocumentCenter/View/7318/Water-Quality-Improvement-Plan-CPF-Referendum-PDF?bidId=>

⁴ <https://www.dos.ny.gov/opd/sser/pdf/Full%20CMP%20Document.pdf>

⁵ https://www.dec.ny.gov/docs/water_pdf/linapscope.pdf

⁶ <https://suffolkcountyny.gov/Portals/0/formsdocs/planning/CEQ/2020/RevisedComplete%20SWP2-21-20.pdf>

this watershed. Therefore, stormwater inputs are a near-term action that can contribute to improvements in water quality.

Village of Southampton Old Town Pond-Wickapogue Pond 2020 Management Plan⁷

The Management Plan, which was created by Village community members, calls for stormwater improvements including bioswales in the Wickapogue Pond watershed for the purpose of pollutant reduction.

Southampton Village Water Quality Improvement Project Plan (2022)

This plan was funded by Southampton Village and completed March 2022. It lists the five bioswales/raingardens that comprise this project as areas SV-14 through SV-16. The plan identifies 51 potential green infrastructure projects Village-wide, and ranks them according to nitrogen reduction benefits. This project addresses two of the top 10 ranked projects for nitrogen reduction as shown in the application attachments (p. 167).

4. WATER QUALITY BENEFIT

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

POC reduction estimates were prepared by Village consulting engineer Nelson, Pope & Voorhis and use the 2013 Watershed Treatment Model by the Center for Watershed Protection. This is an approved methodology by NYSDEC.

The 13,142 cubic feet of bio-infiltration areas will be designed to capture the water quality volume of water from 80,586 square feet of road and surrounding impervious surfaces. The water quality volume is the 1.2" – 24 hour storm event. As shown in the below table, reductions in POCs have been modeled as follows:

- Total Phosphorous (TP) is 4 lbs/year
- Total Nitrogen (TN) is 34 lbs/year
- Total Suspended Solids (TSS) is 21,710 lbs/year
- Fecal Coliform is 1,300 billion/year

Phosphorous reduction has been shown to have a significant water quality benefit in freshwater ponds. In general, one pound of phosphorous reduction equals 500 pounds of algae growth that will be avoided.

⁷ <https://www.southamptonvillage.org/DocumentCenter/View/768/Old-Town-Pond---Wickapogue-Pond-2020-Management-Plan-Summary-Recommendations>

Project #	Location	BMP Type	TP (lbs/yr.)	TN (lbs/yr.)	TSS (lbs/yr.)	Bacteria (billion/yr.)
SV-14A	ROW along Wickapogue Road	ROW Raingarden	0.4	3.3	4,145	126
SV-14B	ROW along Wickapogue Road	ROW Raingarden	0.3	2.2	4,083	84
SV-14C	ROW along Wickapogue Road	ROW Raingarden	0.3	2.8	4,114	105
SV-15	ROW along Narrow Lane	ROW Raingarden	1.1	9.4	4,484	356
SV-16	Wickapogue Park	ROW Raingarden and Bioswale	2.0	16.6	4,884	629
		Totals	4	34	21,710	1,300

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

The Village will continue to work with its consulting engineers and/or Dr. Gobler of the NYS Center for Clean Water Technology for ongoing water quality monitoring.

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

The expected useful life of the proposed improvements is 50-200 years.

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.

Village consulting engineer Nelson, Pope & Voorhis has prepared the watershed analysis, conceptual design, cost estimate and pollutant load reduction estimate for this project, and will be responsible for all remaining design tasks. See attached feasibility study, engineer's cost estimate and conceptual plans. CVs of representative personnel are attached. The project cost is estimated using knowledge of current market conditions. No extraneous or unnecessary costs are included in the budget.

5b. Describe any matching funds to be provided.

The Village has self funded its recently completed Water Quality Improvement Project Plan at a cost of \$17,500.

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.

The Village has invested substantial funding to complete numerous stormwater remediation and other water quality improvement initiatives throughout the Village. It is also currently working toward design and engineering for a sewer district. Because its funding needs far outweigh available local resources, the Village has attempted to

leverage SCWQPRP, Community Preservation Fund (CPF), NYS, local, and other sources whenever possible. If funds are not awarded by CPF, or are awarded at a lower level than requested, the project may be delayed while funding for the balance of the project budget is identified.

Cost overruns are not anticipated. This is because the Village's consulting engineer has designed the project and prepared a detailed budget estimate that reflects current market conditions. During construction, the Village Superintendent of Public Works will monitor field conditions to proactively address any issues that affect project cost by modifying the design as necessary to stay within funding limitations. Significant overruns or design changes will be discussed with the CPF program leadership in advance to ensure conformance with terms of a funding award.

6. MANAGEMENT, EXPERIENCE, ABILITY

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

Gary Goleski, Superintendent of Public Works, oversaw the engineering consultant's work to design the project. He has a degree in Public Sector Management from Cornell University and has been with the Village for more than 30 years. Under Mr. Goleski's direction, the Village has successfully administered several prior CPF and other grant awards in compliance with granting agency requirements.

Design services are provided by the firm Nelson, Pope & Voohis (NPV). Curricula Vitae of project staff are provided with the application attachments.

Village Administrator Charlene Kagel-Betts, CPA has more than 20 years of experience in municipal finance, and before joining the Village in 2020, worked as Chief Internal Auditor for East Hampton Town, served as the Southampton Town comptroller, and was chief fiscal officer for the Town of Brookhaven. She began her career as an agent for the Internal Revenue Service in New York City, before going into public accounting and government auditing. Leveraging her depth of experience in municipal management and finance, Ms. Kagel-Betts will provide oversight of the procurement process and payment applications submitted by consultants and contractors.

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

Village residents are supportive of projects that will improve the health of the pond. A community-led Clean Water Task Force prepared the Old Town Pond-Wickapogue Pond Management Plan in 2020. The plan recommended bio-infiltration projects as a component of the ongoing effort to improve water quality. No opposition is noted.

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

Village of Southampton Right of Way permit will be secured during Summer 2022.

7. MAINTENANCE, MONITORING, EVALUATION

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

Maintenance is required for all of the Green Infrastructure practices to maintain the function and viability of the practice. Frequency of maintenance will be monthly in the first year after installation, then on to bi-monthly maintenance in year two and three times annually from year three and beyond. Existing staff and equipment resources will be used for maintenance activities, and the activities listed below will be incorporated into the Village's ongoing routine maintenance schedule. Any associated costs will be addressed in the Village's annual operating budget. The following is recommended for long-term maintenance.

Inspections: The Village will need to inspect the Green Infrastructure locations annually to ensure their functionality. Bio-infiltration basins will be considered functional if no standing water is present 24-48 hours after a rainfall event, pre-treatment chambers are operational, no erosion is present, minimal weeds are present, and plants are well-established.

Maintenance: Maintenance activities may include:

A. *Pre-Treatment Chamber Inlet:* Inspect pre-treatment chamber inlet periodically and remove debris from the grate surface as needed (an estimated 3-4 times per year). Remove any sediment that makes it into the rain garden.

B. *Mulch:* Inspect mulch coverage annually and add double shredded hardwood mulch in order to maintain an average 3" layer. Adequate mulch coverage will suppress weeds and ensure adequate moisture availability for plants. Once plants are established and the mulch is not visible, mulch replenishment can be stopped.

C. *Edging:* Inspect the edging every spring for damage, including edging that has lifted up from the freeze/thaw cycle. If the edging has lifted, remove a few inches of soil underneath and reinstall the edging. The top of the edging must be flush with the grass to minimize potential damage during lawn maintenance and to ensure that runoff can enter the rain garden from a maximum amount of area, depending on the design of the individual rain garden.

D. *Watering:* During the first growing season, add a minimum of 1" of water per week if no rainfall occurs. This amount should be adjusted based on observed plant stress.

Once established, rain gardens generally do not require any water unless several weeks have passed without rain.

E. Weeding: Weeding must be performed a minimum 3 times a growing season during the first three seasons. Weeding may be increased to monthly to maintain the desired appearance.

F. Replacement Plants: Replace plants as needed to maintain intended plant coverage within the rain garden. Use plant species from the approved rain garden plan. If a large percentage of plants require replacement, determination of the cause will be required and development of a replacement planting plan.

G. Pest Maintenance: If severe pest damage is noted, treat as appropriate.

8. DURATION OF PROJECT

8a. Provide a projected project timeline.

The Village's engineering consultant team will conduct a survey and soil borings in Summer of 2022 after the grant is awarded and design contract is complete to provide on-site technical information to be used in refining the conceptual plans in late Summer to early Fall of 2022. The Village will conduct a public outreach and education session in Fall of 2022 with neighbors and landowners adjacent to the parking lot. Once the final conceptual plans are approved the engineering team will commence with construction documents and prepare for a bid process over the late Fall of 2022 leading to an award to construct the project. The bid package will be reviewed by the Village and approved within the Board's bid process prior to bid requests and submission late Fall of 2022. Construction would commence by Winter of 2022 or early Spring of 2023, depending on weather conditions. The project would be complete before summer 2023.

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

N/A

ATTACHMENTS PROVIDED AS A SEPARATE FILE

- Resolution
- SEQRA Determination and Short Environmental Assessment Form
- Southampton Town WQIPP location map
- Southampton Village Subwatersheds Map
- Consultant Qualifications
- Village of Southampton Water Quality Improvement Program
- Green Infrastructure Project list/ranking
- Existing Conditions
- Engineer's Cost Estimate
- Plant List
- Pollutant Load Reduction Calculations
- Village of Southampton Water Quality Improvement Program
- Project Identification Map
- Design Plans