

# REQUEST FOR PROPOSALS

## Lake Agawam Permeable Reactive Barrier



### Village of Southampton

*The Village of Southampton seeks proposals from well drillers and injection contractors to install a permeable reactive barrier on Village-owned property to reduce nitrogen loading into Lake Agawam. The scope of work includes the installation of 18 injection wells, two groundwater extraction wells, and six groundwater monitoring wells on the parcel immediately east of Agawam Park within the Village of Southampton.*

RFP Release Date:	July 29, 2024
Site Visit	August 19, 2024
Deadline for Questions:	August 31, 2024
Deadline for Response:	September 30, 2024

Questions regarding the RFP should be emailed to:

Anthony M. Carter

Village Administrator

Village of Southampton

[Acarter@southamptonvillage.org](mailto:Acarter@southamptonvillage.org)

Subject Line "RFP: Lake Agawam Permeable Reactive Barrier"

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Village Administrator Anthony M. Carter

Planning Director Alex J. Wallach, AICP

Building Inspector Christopher Talbot

Village Superintendent of Public Works Stephen Phillips Jr.

## Request for Proposals (RFP)

### I. Introduction.

The Incorporated Village of Southampton, NY (the "Village") is seeking experienced and qualified contractors to (i) install twenty-six (26) groundwater wells, eighteen (18) of which will be used as injection wells to inject vegetable oil-based organic substrate into the aquifer to a depth of up to eighty (80) feet below the surface. Six (6) of the wells will be used as groundwater monitoring wells, and an additional two (2) wells will serve as extraction wells to mix the organic substrate and used for injection; and (ii) conduct the injection at the 18 injection wells, which will serve as the delivery mechanism for the permeable reactive barrier.

The Village seeks to minimize site disturbance and environmental impacts of these activities and encourages developers to propose the least intrusive approach for installation of the permeable reactive barrier.

The Village intends to consider proposals (each, a "Proposal") from one or more contractors (each, a "Proposer") in a manner consistent with the goals set forth in this RFP.

### II. Background.

Lake Agawam is a 64-acre freshwater lake that is separated from the ocean by a barrier beach. An outfall and gate valve at the southern part of the lake drains to the ocean as a means to control lake level.

Lake Agawam has routinely experienced blooms of cyanobacteria since at least 2013. Studies have shown that nitrogen loading to the lake from groundwater discharge, benthic flux and stormwater have contributed to these cyanobacteria blooms. Due to the presence of harmful algal blooms (HABs), swimming and fishing is not permitted at various times throughout the year and the beach is closed when the lake is draining. Although it is a freshwater lake, research by Stony Brook University has indicated that excessive nitrogen loading is the trigger for these HABs. Therefore, reducing the nitrogen load to the lake has been a topic of much interest over the past several years. A permeable reactive barrier (PRB) is one means to passively reduce the nitrogen load in groundwater prior to discharging as baseflow to the lake.

The site proposed for the installation of a PRB is an undeveloped property located alongside Agawam Park, along the northeastern shoreline to Lake Agawam. The site is accessed through a parking area along Jobs Lane. The site is currently owned by the Village of Southampton and is bordered to the west by Agawam Park and to the east by residential properties located along South Main Street. The site is open space, therefore site clearing and grubbing will not be required. Numerous commercial establishments are located to the north which include restaurants, bars and various shops and businesses. The surrounding community is not connected to a sewer system and disposes of its wastewater through on-site wastewater disposal systems (OWDSs) such as conventional septic systems or cesspools.

### III. PRB Installation.

#### Well Installation

The PRB will consist of six (6) injection well clusters, each containing 2-inch diameter SCH 40 PVC wells having 10 foot sections of slotted screen at the following depths (feet below the ground surface): i) 50 to 60; ii) 60 to 70 and iii) 70 to 80. A total of 18 wells will be installed. Well clusters are to be spaced approximately 17 feet apart, center to center. Well installation will involve 6-inch boreholes, drilled using hollow stem auger methods. All wells will be completed and developed.

Two (2) groundwater extraction wells will be installed, capable of producing forty (40) gallons per minute (gpm) each. These extraction wells will be constructed of 6-inch diameter SCH40 PVC with a 20-foot section of wire-wrapped well screen, also installed using hollow-stem auger methods (depth of 55 to 75 feet below ground surface). Two 10-inch boreholes to a depth of 75 feet below grade will be drilled as part of the installation of these wells.

Two clusters of 2-inch diameter groundwater monitoring wells will be installed, one approximately 20 feet north-northeast and the second 20 feet south-southwest of the PRB. These wells will be installed with 5-foot sections of PVC wire-wrapped well screens of i) 52.5 to 57.5; ii) 62.5 to 67.5 and iii) 72.5 to 77.5 feet below the ground surface.

All wells will be finished and fully developed. The attached drawings and specifications should be referenced for details concerning the installation of the PRB, monitoring, and extraction wells.

Following well installation, groundwater quality samples will be collected from the two monitoring well clusters and one of the clusters from the PRB. This sampling will be conducted by others.

#### Amendment Preparation

Following water quality collection, the injection of the amendment can proceed. The Contractor is responsible for purchasing EOS100 amendment and arranging for delivery to the site. The PRB will require 2,700 gallons of EOS100, or approximately 150 gallons of EOS100 per well point. The amendment will be diluted to produce a 2% EOS100 solution for injection. Groundwater will be extracted from two extraction wells to be installed at the site to dilute the amendment. The total quantity of two percent diluted EOS100 solution would be approximately 6,400 gallons per injection point. EOS100 can be shipped in drums, totes, or tanker trucks. Given the estimated volume needed and the fact that totes are easier to handle than drums or tanker trucks, it is assumed that a total of ten totes (assuming 275 gallons per tote) of EOS100 would be necessary to complete the installation of the PRB.

The amendment would be stored onsite to ensure continuous amendment injection operation. The Contractor would construct a staging area to store the amendment with proper secondary containment (e.g., berms) installed to prevent spills. A single shipment of the amendment is anticipated.

## Injection System

The injection system to be used will consist of components for diluting and mixing the amendments to the design concentrations using water pumped from extraction wells onsite, injecting the designed concentration of amendments into the target treatment zones, and tracking the quantity of amendment and water used for preparing the designed concentrations. The Contractor will be required to provide a process flow diagram with equipment specifications to match the requirements set forth in the design specifications.

The Contractor will be required to select appropriate equipment, monitoring, and control devices (e.g., pressure gauges, flow meters, totalizers, ball valves) suitable for the intended injection operation conditions.

The Contractor can propose their recommended optimized injection strategy to minimize costs while achieving the best distribution of amendment through the PRB area. The Contractor may inject amendment simultaneously at several locations using either an injection manifold or individual injection setups.

The Contractor will continue to inject the required volume of amendment in the target treatment zone until the target injected volume for each well has been achieved. The high transmissivity of the aquifer (indicated by the high hydraulic conductivity) may indicate a large storage capacity for the amendment, so surfacing is not anticipated but will be monitored during injection activities. If surfacing is observed, it would be possible to use packers during injections to case off some upper portions of the injection well screen. Injection pressures shall not exceed 20 pounds per square inch (psi). During the mid-point and towards the end of the injection period of the middle clusters, the contractor shall take a groundwater sample from the representative screen interval of the existing LA-01 (2-inch diameter) and LA-02 (1-inch diameter) monitoring well series (LA-01/02s is screened 45 to 50 feet below ground surface; LA-01/02i is screened 60 to 65 feet below ground surface and LA-01/02d is screened 75 to 80 feet below ground surface) to document amendment presence (sample will be milky-white in color).

The Contractor will design the injection sequencing to maintain sufficient distance between active injection locations to minimize potential impacts from adjacent injection points. If surfacing of the amendment is observed, the Contractor will be required to stop the injections at the location(s) identified as causing the surfacing and evaluate how to best move forward with the injections, in conjunction with the Village and its engineer. The Contractor can attempt to deliver the amendments at a lower flow rate, deploy packers to case off the upper portion of the injection well screen, or abandon the injection location. Abandoning the injection well will only be considered as a last resort since it would require a new injection well to be installed. If this occurs, it is recommended to install the new injection well within 5 feet of the original injection point.

Following all work, the Contractor will be responsible for site restoration. Minimal waste is anticipated to be produced as part of the PRB installation activities. Disposal of drill cuttings from injection well installation, PPE, amendment totes, and any other waste generated from PRB installation activities will be required. It is possible that drill cuttings may be raked and left on site (not hazardous). The Contractor will dispose of waste generated from the activities, such as personal protective equipment and used amendment totes.

Once completed, the area will be raked to a level surface and seeded with grass seed, if appropriate. Coordination with additional projects (harvesting) and restoration activities would be beneficial.

## IV. Proposal.

The Proposal should be brief, precise, and should not include unnecessary promotional material. The Proposal should clearly indicate which tasks as described above are included. The Proposal should not exceed 15 pages, excluding resumes and example project write-ups which may be included as appendices.

The Proposal should contain the following elements in the exact order and segmentation listed below:

- a. Cover Letter. Describe your firm's interest and commitment to working with the Village to install the PRB to reduce nitrogen loading to Lake Agawam. The letter must be signed by a person authorized to negotiate a lease with the Village.
- b. Project Approach & Understanding. Provide a detailed discussion demonstrating your firm's understanding of the needs of the Village and the approach by which your firm intends to address those needs, containing a complete written description of Proposer's Proposal. Proposers may also identify any anticipated constraints, potential problems, or issues that may occur during the execution of the plan and provide suggested approaches to resolving them.
- c. Experience Providing Similar Work. Present significant evidence of successful completion of similar installation and amendment injection projects over the past five years. Information should include a description of the work performed by your firm, completion date, and reference information (name of reference, agency, title, address, and telephone number). Example project write-ups may be included as an appendix.
- d. Staffing and Team Experience. Describe the qualifications and experience of your firm and the key staff expected to be assigned to this project and provide resumes. Qualifications and experience should highlight previous experience with similar projects. It is expected that designated key staff will remain on the project for the duration of the construction. Key staff substitution will only be allowed after consultation and concurrence with the Village. Single page resumes of key staff members should be included as an appendix.
- e. References. Provide at least three (3) references, including the name of the reference, agency, title, address, and telephone number of recent similar or related work.
- f. Other Relevant Information. Provide additional relevant information that may be helpful in the selection process.

## V. Selection Criteria and Selection Process with Estimated Dates.

a. Criteria and Selection Process. Proposals will be screened, and the top candidates will be reviewed by a selection committee. The qualifications of the top candidates will be verified, and references will be checked. Proposal elements, as described above, will be reviewed and evaluated for completeness and responsiveness according to pre-determined standards and selection criteria. Proposals will be deemed responsive only if the Proposer responds to and meets all of the requirements of this RFP. Proposers may be invited for interviews to discuss project requirements and proposal elements in more detail should the selection committee request such. The Village reserves the right to award all or any part of this project, and to waive any technical irregularities or omissions, or to cancel this RFP and solicit new proposals if, in the Village's sole judgment, the best interests of the Village will be served.

The selection committee will evaluate each Proposal and use the following for scoring each submission:

Contract Requirements and Proposed Solution: 50%. Overall responsiveness of the Proposal; demonstration of a clear understanding of the requirements of the RFP; a clear description of the scope of work needed to ensure complete and proper installation of the PRB; timeline and the proposed plan for installation of the wells and staging area for the amendment and injection system

Related Experience: 30%. Prior public sector experience, project management and implementation qualifications, and related experiences of the Proposer, including Proposer's previous record of performance in business dealings with any municipal, state, or federal agencies, including the Village; references, organizational and technical capacity, and outcome/results of services provided to other similar clients of similar size; comprehensive description of why the Proposer can perform the development described in the RFP.

Proposer Profile: Organization. Capacity. Staffing. Resumes. Financial Condition: 20%. Complete substantiation of the organizational structure and capacity to provide and support the development, management, marketing and design of projects of a scale, complexity and quality similar to that required by this RFP; resumes of the proposed personnel (quality / demonstrated skills of proposed personnel); clear description of potential resource utilization methods and approach; Proposer's financial qualifications (including its proven ability to obtain financing for projects of similar size, experience with institutional lenders, and evidence of the willingness of such lenders to finance the proposed development), and the amount of equity or personal risk the Proposer proposes for the Proposal.

The Village will consider any other relevant factors determined by the selection committee.

The Village retains sole discretion to evaluate Proposals and may make award(s) to the Consultant(s). Receipt of Proposals in response to this RFP does not obligate the Village in any way to engage any Consultant, and the Village reserves the right to reject any or all Proposals, wholly or in part, at any time, without penalty. The Village shall retain the right to abandon the proposal process at any time prior to the actual execution of a contract with a Consultant, and the Village shall bear no financial or other responsibility in the event of such abandonment. The Village reserves the right to negotiate all final terms and conditions of any agreements.

b. The Village's target dates are as follows:

RFP Release Date:	July 29, 2024
Site Visit:	August 19, 2024
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## VI. Submittal Guidelines.

Interested Proposers must provide five hard copies to Southampton Village Hall at 23 Main Street Southampton, NY 11968 re: RFP for Lake Agawam Permeable Reactive Barrier. Additionally, Proposers must e-mail an electronic pdf file of their Proposal to Anthony M. Carter, Village Administrator, at [ACarter@southamptonvillage.org](mailto:ACarter@southamptonvillage.org).

The subject of the e-mail and the electronic pdf file shall be named using the following format: "[Contractor Name] - Proposal for Lake Agawam Permeable Reactive Barrier."

The Village assumes no responsibility for failure or delays in delivery caused by electronic delivery service (e-mail). All interested developers are advised that the Village limits the receipt of e-mail attachments to approximately 15 MB. It is strongly suggested that larger electronic PDF files be sent via a file-sharing service such as Dropbox or Box. Every attempt will be made to send a confirmation e-mail to developers responding to this RFP; however, it may not be possible for Village staff to respond in a timely manner to e-mails sent just before the stated deadline.

Any changes made by the Village to the requirements in this RFP will be made by written addenda. Any written addenda issued to this RFP shall be incorporated into the terms and conditions of any resulting Agreement. The Village will not be bound by any modifications to or deviations from the requirements set forth in this RFP as the result of oral instructions.

The Village reserves the right to reject any and all Proposals, to waive any minor informalities, irregularities, and/or non-responsiveness that does not influence the competitive nature of the Proposal, to request additional information concerning any statement for purposes of clarification, to accept or negotiate any modification to any statement following the deadline for receipt of all statements, and to waive any irregularities if such would serve the best interests of the Village.

This RFP may be reissued, amended, or withdrawn if it is deemed in the best interest of the Village to do so or if, in the sole and absolute judgment of the Village (in consultation with its advisors), all the responses are unacceptable. Issuance of this RFP does not obligate the Village to undertake any action.

All inquiries regarding the RFP should be directed to Anthony M. Carter, Village Administrator, at [ACarter@southamptonvillage.org](mailto:ACarter@southamptonvillage.org).

## VII. Additional Submittal Information.

All costs incurred during Proposal preparation or in any way associated with the Contractor's preparations, submission, presentation, or oral interview, if held, shall be the sole responsibility of the contractor.

Proposers are liable for all errors or omissions contained in their Proposals. By submitting a Proposal, interested Contractors represent that they: (1) have thoroughly examined and become familiar with the work required under this RFP; (2) comprehend all conditions that may impact the requested scope of services; (3) have reviewed of all addenda, if any; and (4) are capable of

providing the equipment, goods and services necessary to perform the requested scope of services and/or meet the specifications outlined in this RFP, in a manner that meets the Village's objectives. Failure to examine the documents and inform itself shall be at the sole risk of the Proposers.

A Proposer shall have no claim against the Village based upon ignorance of or misunderstanding of the RFP documents. Once the award has been made, failure of a Proposer to have read all of the conditions and instructions of the RFP or any lease that follows shall not be cause to alter any term of the lease, nor shall such failure provide valid grounds for a Proposer to withdraw its Proposal or to seek additional compensation.

Additionally, if awarded a contract, the Contractor shall maintain any necessary New York State business licenses or registrations at all times during the performance of development work under the lease.

All Proposals and rates set forth therein shall be deemed to include applicable taxes. Interested Proposers shall be appropriately licensed in accordance with the laws of the State of New York or other applicable governmental authority for the work to be performed. The cost for any required licenses or permits shall be the responsibility of the Selected Proposer(s). The selected Proposer(s) is liable for any and all taxes due as a result of the lease.

The Village will withhold proposals submitted under this RFP from disclosure unless otherwise required by law, including, but not limited to, the Freedom of Information Law ("FOIL"). Proposers should indicate any information they feel is exempted from disclosure under FOIL. In the event that the Village determines that information is required by applicable law to be disclosed, the Village will notify the Proposer in advance of such disclosure to enable the Proposer to take such action as it deems appropriate. Copies of executed leases are not exempt from FOIL.

Acceptance of a Proposer's proposal or selection of the Selected Proposer pursuant to this RFP will not create any rights on the Proposer's or Selected Proposer's part, including without limitation rights of enforcement, equity, or reimbursement. After execution and delivery of the lease, the terms thereof will thereafter govern the relationship between the Village and the Selected Proposer. In the event of any variance between the terms of this RFP and the lease, the lease will govern.

The Village advises all Proposers that there is no legal obligation on the part of the Village to enter into a lease or other agreement, that this Request does not constitute an offer, and that the Village reserves the right to use the proposals submitted as a basis for negotiation with Proposers or other parties as the Village deems appropriate.