

REQUEST FOR QUALIFICATIONS

Partridge Lake Watershed Restoration Plan Implementation:
Preparation for In-Lake Phosphorus Treatment

Issued by:

Partridge Lake Property Owners Association



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Introduction

The Partridge Lake Property Owners Association (PLPOA) has prepared this Request for Qualifications (RFQ) in cooperation with the New Hampshire Department of Environmental Services (NHDES) to solicit submittals from qualified firms to provide the deliverables requested in the subject Scope of Work.

Project Summary

Partridge Lake is a 99-acre waterbody located in the Towns of Littleton and Lyman, New Hampshire. Partridge Lake is on the NHDES 2020-2022 303(d) list as impaired for Primary Contact Recreation (swimming) due to cyanobacteria blooms. Due to elevated phosphorus levels, Partridge Lake has recurring cyanobacteria blooms extending into the late fall and early winter.

According to the Partridge Lake Watershed Restoration Plan, 55 percent of the phosphorus in Partridge Lake is from internal phosphorus loading. This project will evaluate approaches and design a treatment plan for reducing nutrient loading from benthic sediments in Partridge Lake.

Partridge Lake Watershed Restoration Plan: [Partridge Lake Watershed Restoration Plan \(PDF\)](#)

Selection Procedure

Required Qualifications Submissions

Applicants are required to submit one (1) electronic copy as a PDF of their qualifications package. Please email PDF documents to Tom Norris: thosnoss@gmail.com. Submissions, including all listed components below, shall be five or fewer pages in length and shall **not** include a cost estimate.

Qualification packages shall include the following components as described below.

1. Name, address, brief history, and description of the firm.
2. Description of the project team, including project team organization, team member resumes, special qualifications or certifications, and their anticipated level of involvement in each phase of the project as described in the Scope of Work.
3. Related projects, areas of expertise, and experience:
 - a. Include a description of other projects the firm has done that are similar in nature to this one.
 - b. Provide a list of references including names, titles, and contact information.
4. Description of the firm's approach to performing the tasks detailed in the Scope of Work and described in the project description, including a timeline and discussion of the relative effort anticipated to be expended on each Objective and Task.

Responses should demonstrate and document that the individual/firm has the professional experience to proceed with the work tasks as described in the scope of work in this RFQ. A complete and timely submittal as described in this RFQ is required for the submittals to be considered.

Selection Criteria

Selection will be based on the assessment of the qualifications package to meet the following criteria.

1. Specialized Experience of the Project Team (40%)
 - a. Demonstrated understanding of in-lake treatment approaches and how such approaches may be applied to Partridge Lake;
 - b. Overall experience directly related to the successful development of similar in-lake treatment plan evaluation and development projects;
 - c. Experience evaluating in-lake treatment approaches for internally loaded lakes as detailed in the Anticipated Scope of Work;
 - d. Experience developing in-lake treatment plans for phosphorus reduction in lakes with internal loading;
 - e. Demonstrated experience developing cost estimates and bid packages for in-lake treatments;
 - f. Demonstrated ability to complete work within available budget and schedule;
 - g. Demonstrated experience working with interdisciplinary project teams on similar efforts.

2. Project Personnel and References (25%)
 - a. Principal team members' roles and participation levels, availability, qualifications, and experience; and
 - b. Reference check responses.

3. Project Approach (35%)

Demonstrated strong understanding of the scope of work, project schedule, and expected deliverables outlined in the RFQ.

The PLPOA reserves the right to request interviews with any or all applicants. Scope, schedule, and fee negotiations will start with the highest-ranked qualified firm. If an agreement cannot be mutually arrived at, negotiations shall proceed with the next highest ranked firm and so on until an agreement is reached.

RFQ Questions

Questions concerning this RFQ must be submitted via email to **Tom Norris by July 13, 2023**. The PLPOA will not respond to telephone inquiries about the RFQ. Any questions about this RFQ raised by an individual/firm will be answered in a summary digest. The summary digest will be provided to those who contact PLPOA before **July 13, 2023**. The summary digest will be provided via e-mail on **July 16** to all who requested to be on the response list.

Anticipated Timeline

- July 7, 2023 Release of Request for Qualifications
- July 13, 2023 Deadline for submittal of questions about this RFQ (4:00 p.m.)
- July 16, 2023 Q&A summary digest distributed to those who have requested it
- July 31, 2023 Deadline for receipt of qualification packages to this RFQ (4:00 p.m.)
- August 21, 2023 Anticipated final selection of contractor and notification to all firms

Disclaimer

This RFQ does not commit PLPOA to award a contract or pay any costs incurred during the preparation of any submittal. The PLPOA reserves the right to reject submittals while adhering to applicable laws. The PLPOA also reserves the right to eliminate the need for the selected firm to complete one or more tasks, pending the outcome of preceding related tasks or issues.

To participate in the project and receive payment, the selected firm will be required to enter into a contract which stipulates that the contractor is eligible to receive federal funding and certifies compliance with State and Federal rules related to grant funded projects.

Anticipated Scope of Work

Project Description

Partridge Lake is a 99-acre lake located in Littleton, New Hampshire. The Partridge Lake watershed is approximately 896 acres. The lake is on the State of New Hampshire 303(d) List of impaired waters for Primary Contact recreation due to frequent cyanobacteria blooms. Chronic cyanobacteria blooms in Partridge Lake are linked to anoxic water column conditions during the summer months when the lake is stratified coupled with enhanced nutrient loading from the release of historically accumulated phosphorus from lake sediments. Additionally, nutrients stimulate plant and algal growth in the lake, which in turn results in greater oxygen consumption during decomposition, thereby depleting the lake of oxygen for aquatic life integrity. Under those anoxic conditions, phosphorus is much more likely to be released from the sediments into the water column.

A watershed restoration plan was completed for the lake in 2022 with partial funding from a NHDES Clean Water State Revolving Fund Stormwater Planning Loan awarded to the Town of Littleton in partnership with PLPOA, NHDES, and Comprehensive Environmental, Inc. The Partridge Lake Watershed Restoration Plan (WRP) provides an assessment of conditions in the Partridge Lake watershed and offers recommendations for actions that will result in measurable improvements to water quality and habitat, including in-lake phosphorus treatment as one of the priority best management practices (BMPs) recommended in the WRP.

The WRP identifies internal loading as the primary source of phosphorus loading to Partridge Lake (55 percent) and is likely the primary driver of nuisance algal blooms. Restoration of Partridge Lake cannot be achieved unless the internal load is significantly reduced. The management goal for Partridge Lake is to reduce nutrient loading to the lake to reduce the frequency and intensity of cyanobacteria blooms in the lake. The PLPOA proposes to accomplish this goal by gaining an understanding of the nature and extent of phosphorus loading from sediment sources, developing management measures that target internal sources of phosphorus loading, and prioritizing in-lake management measures that maximize return and are cost-effective.

The following scope of work for this project includes tasks that will evaluate in-lake treatment approaches and result in the design of a treatment plan for reducing nutrient loading from benthic sediments in Partridge Lake.

Scope of Work – Deliverables and Tasks

Deliverable 1: Prepare a sediment technical memo for Partridge Lake

Review sediment sampling data from University of Wisconsin-Stout containing the results of benthic sediment coring conducted in June 2023 by NHDES and PLPOA (Figure 1). Prepare a technical memo characterizing the phosphorus contents of Partridge Lake’s surficial sediments as evidenced by the data and describe how this information is applicable to the evaluation of options to reduce internal phosphorus loading to the lake.

Deliverable 2: Alternatives review memo for in-lake treatment

Tasks: Coordinate with the PLPOA and its project partners to review alternatives for in-lake treatment of phosphorus loading from benthic sediments (to include a review of data and information relative to Partridge Lake including sediment coring data, water quality data, watershed plan information, and other information as needed). Prepare a memo describing treatment alternatives considered and rationale for each. Assist PLPOA and NHDES in selection of preferred treatment approach.

Deliverable 3: In-lake treatment plan for Partridge Lake

Tasks: Develop an in-lake treatment plan for selected treatment approach. The treatment plan will include treatment elements including any application requirements (dosing, location of treatment, etc.), schedule, monitoring, evaluation of results, and operations and maintenance plan.

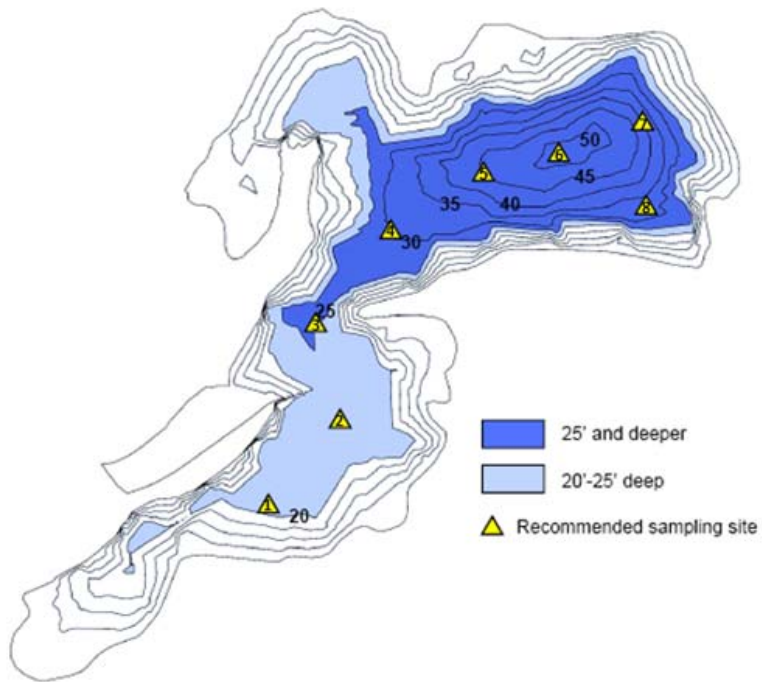
Deliverable 4: Assist PLPOA in obtaining permission from NHDES for in-lake treatment

Tasks: Coordinate with PLPOA to obtain permission from NHDES to apply in-lake treatment to Partridge Lake.

Deliverable 5: Cost estimates and bid documents for in-lake treatment

Tasks: Develop cost estimates for in-lake treatment of Partridge Lake. Following NHDES procurement procedures, develop bid documents for PLPOA use in selecting firms to apply in-lake treatment to Partridge Lake.

Figure 1. Partridge Lake Sediment Coring Stations



Station	Lat	Long
1	44.304876	-71.888271
2	44.306027	-71.886948
3	44.307352	-71.887392
4	44.308599	-71.886006
5	44.309387	-71.884275
6	44.309654	-71.882888
7	44.300091	-71.881333
8	44.308939	-71.881267