

TOWN OF SUNAPEE
23 Edgemont Road
Sunapee, New Hampshire 03782-0717

Town of Sunapee, NH
Request for Qualifications for Engineering Services
Perkins Pond Watershed Management Plan
Sunapee NH 03782

Posted Date: 1 April 2024
Questions Due By: 12 April 2024
Statement of Qualifications Due By: 10 May 2024

1. INTRODUCTION

The Town of Sunapee, New Hampshire, is soliciting Statements of Qualifications (SOQs) from interested consulting firms to develop a watershed management plan that meets the United States Environmental Protection Agency (USEPA) requirements for nine-element (a-i) watershed management plan to mitigate phosphorus loading in the watershed of Perkins Pond in Sunapee NH.

Perkins Pond has an extended history of high phosphorus and chlorophyll levels, and while we have had minimal Cyanobacteria blooms, we would like to identify the contributing factors for these elevated levels so that mitigation may begin. Perkins Pond also experienced increasing sedimentation at the bottom of the pond and identified that its depth is rapidly decreasing. Additionally, during the past decade, there is a significant amount of accumulated road debris that has been deposited in the pond. In 1939, Perkins Pond was 15 feet deep according to NHDES. It is now just over 9 feet. Understanding the sources and causes of this accumulating infill and road debris is critically important. Current and future potential water quality degradation due to climate change with accompanying increases in precipitation/storm severity and occurrence increase the need to address stormwater runoff issues.

The goal of this project is to address external and internal phosphorous loading as well as the transportation of road debris into the lake to develop a management plan that identifies necessary steps to reduce nutrient, sediment and road debris loading.

The project will be funded by the New Hampshire Department of Environmental Services (NHDES) Clean Water State Revolving Fund through a loan to be awarded to the Town of Sunapee. Contractor selection will be through a Qualification Based Selection (QBS) process.

2. PROJECT DESCRIPTION

The goal of this project is to develop a watershed management plan following the U.S. EPA (Environmental Protection Agency) Nine-Element (a-i) Framework further detailed in the *Clean Water Act Section 319 Guidance for Watershed Management Plans*. The proposed work is expected to involve a year-long study of phosphorus loading and cycling in Perkins Pond.

The long-term goal of this effort is to determine if and what might be necessary for an in-lake treatment that binds or inactivates the phosphorus present in pond sediments within the pond. Prior to such

treatment, it will be critical that the majority of significant watershed sources of phosphorus to the pond have been mitigated. Recommended mitigation of watershed sources will be achieved through the development of a watershed management plan that prioritizes phosphorus and nitrogen sources in the watershed for treatments with best management practices that will achieve water quality goals established in the completed plan. The plan will meet the criteria for the USEPA [Clean Water Act Section 319 Guidance for Watershed Management Plans \(need a link here\).https://www.epa.gov/nps/handbook-developing-watershed-plans-restore-and-protect-our-waters](https://www.epa.gov/nps/handbook-developing-watershed-plans-restore-and-protect-our-waters) Best Management Practices will be identified, and then selection will be determined and prioritized based upon load reduction estimates, cost estimates, and feasibility.

3. SITE DESCRIPTION

Perkins Pond is a natural lake in west central New Hampshire. The Perkins Pond watershed encompasses an area of 265.15 hectares (655.21 acres) which includes the pond area of 63.54 hectares (157.01 acres).

While a Diagnostic and Feasibility study was finalized in 2009, it is important that this plan incorporates the a-i framework as well is updated with current data available. A major initiative was undertaken in 2012 with the installation of a sewer system that required all homes within 350 feet of the sewer line (and homes within the 250-foot water buffer) be hooked up. This was completed by 2015. While it appears that water quality has improved (based on individual observations) it is important to have the science updated.

Additionally, since the 2009 watershed study, new homes have been built, some vacation homes have become full time residences, and roads within the watershed have been reconstructed. As a result, significant changes to the watershed have occurred since that study. Determining new water quality goal targets and in-lake and watershed restoration recommendations and implementation plans that reflect new available technologies will be critical to long term efforts.

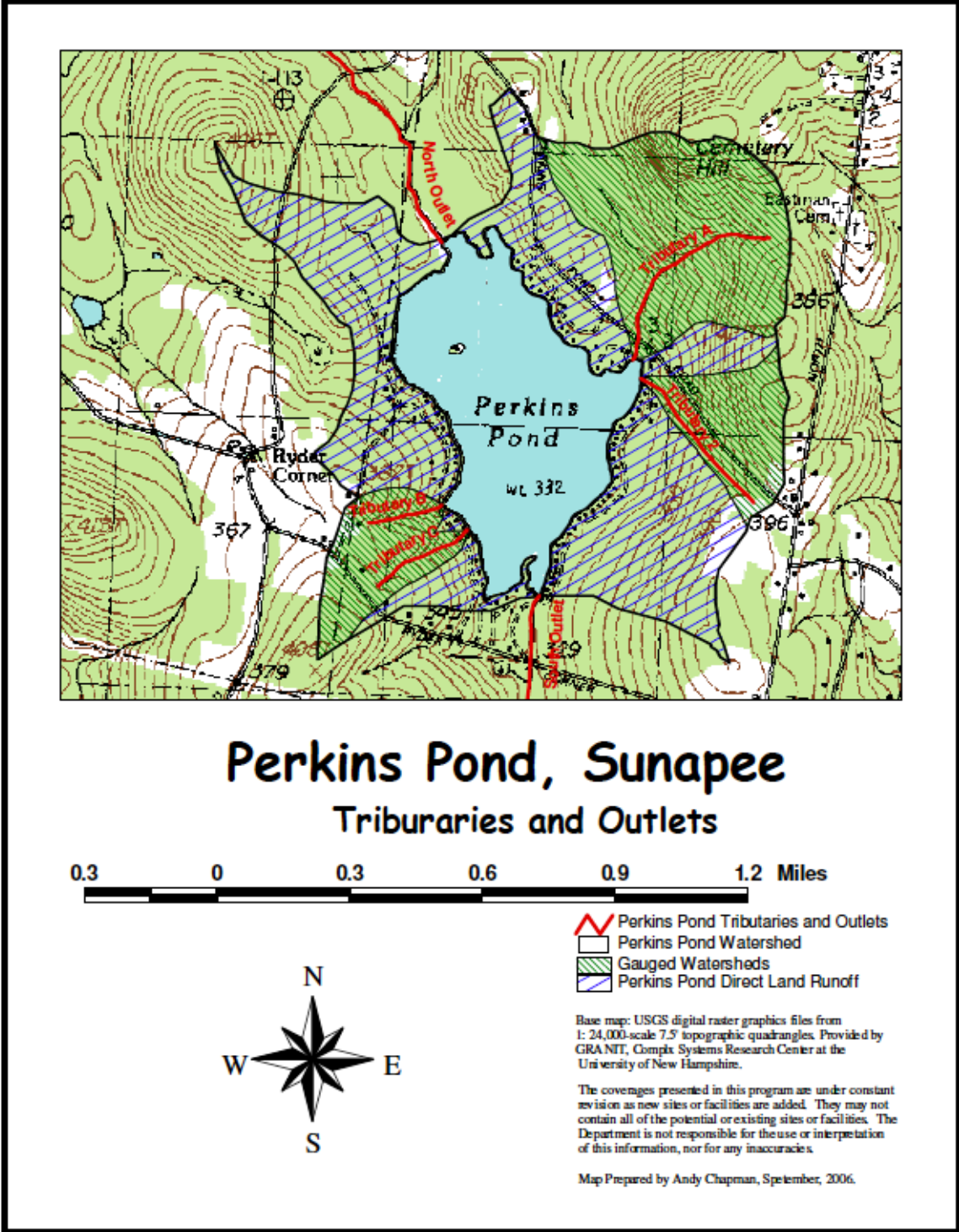


Figure 2-1: Perkins Pond watershed, tributaries, subwatersheds and outlets.

The Perkins Pond watershed is unique in that the North Outlet behaves as an inlet, outlet, or part of the pond depending on several factors. These factors include pond level and Ledge Pond Brook flow, which is occasionally impacted by debris and beaver activity where Ledge Pond Brook discharges to the North Outlet. In 2008 a Pond and Watershed Diagnostic Study was conducted by NHDES and released in 2009. It states, “Under normal conditions as was seen during the study period, the North Outlet acts solely as an outlet as elevated pond levels and lack of beaver activity allow for the majority of the Ledge Pond Brook flow to discharge via the North Outlet and downstream of the pond. As a result, the Ledge Pond Brook watershed (1037.40 acres) was not included as having an impact on the pond during the study period.” It will be important for this study to determine the contribution to phosphorus loading from the North Outlet area, if any. In other words, when the North Outlet acts as an inlet to Perkins Pond, how does the water from Ledge Pond and Ledge Pond Brook contribute to phosphorus or other loading?

The North Outlet flows into Long Pond Brook before discharging to Loon Lake and eventually the Sugar River near the Route 11 and Reeds Mill Road intersection. In addition to the North Outlet, water discharges from Perkins Pond through the South Outlet, flowing into the Sugar River just east of the Rte. 11 and Sleeper Road intersection.

There are several intermittent tributaries or streams, four perennial or year-round tributaries or streams, and areas of direct overland flow and groundwater seepage entering Perkins Pond. Perkins Pond also is fed from underwater springs.

4. PRE-EXISTING INFORMATION

Considerable information already exists regarding Perkins Pond and its water quality. Please refer to the NHDES 2009 Watershed Diagnostic Study which used information from 2005 and 2006; recent VLAP reports (2020 and 2021, 2022), VLAP water quality reports from 1987, earlier water quality reports from 1977 and 1986, New Hampshire’s Watershed Report Card 2022, historic water quality reports.

The pond's water quality has been monitored by various programs. Perkins Pond was the focus of a 2009 Diagnostic Study by NHDES. Perkins Pond has also been sampled annually as part of NHVLAP since 1987. The trophic status for Perkins Pond was assessed and classified by New Hampshire Lake Classification in 1986 and 2003, and later using different classification methods (Dillin-Rigler and Vollenweider). Perkins Pond was classified as Mesotrophic based on dissolved oxygen, Secchi disk transparency, aquatic vegetation, and chlorophyll-*a* concentrations.

Water samples from Perkins Pond are collected at various locations throughout the pond at least three times per year.

5. CLIMATE AND PRECIPITATION

The region's climate is characterized by moderately warm summers, cold, snowy winters, and ample precipitation. Mean annual precipitation is about 40 inches. Generally, snow is present from mid-December until the end of March or early April. Ice-out typically occurs by mid-April. Ice out data is collected by the Perkins Pond Protective Association since 1993.

Precipitation data are available from two National Oceanic and Atmospheric Administration (NOAA) weather stations (Lebanon, NH, Springfield, VT), one NHDES Dam Bureau weather station (Sunapee Harbor) and one Town of Sunapee Highway Department. The Sunapee Highway Department precipitation data set was selected for the 2009 diagnostic study as the most reflective of actual storm events within the Perkins Pond watershed. This weather station is the nearest to the Perkins Pond area of the stations evaluated.

Interestingly, VLAP water samples were taken during the summer of 2023 during extremely heavy rain events and high lake levels. The phosphorus and chlorophyll levels remained stubbornly high.

6. SCOPE OF REQUIRED SERVICES

Development of a watershed management plan that meets the criteria for the Clean Water Act Section 319 Guidance for Watershed Management Plans will include the following:

1. Compile historical water quality data and determine what additional data is needed to assimilate capacity (phosphorus and nitrogen) in the pond and watershed.
2. Establish in-pond water quality goals for phosphorus and nitrogen in Perkins Pond.
3. Quantifying the sources and potential sources of nutrient loading (phosphorus, nitrogen, sediment) in the total watershed that will be accounted for and addressed. This will include calculating amounts from each source and recommended management practices. The fieldwork for this project can be done in collaboration with the Perkins Pond Protective Association. This will include year around collection of water samples (stream and pond) along with streamflow measurements.
4. Determination of estimated reductions for phosphorous and nitrogen by implementing recommended management practices for the watershed.
5. NPS management measures (BMPs) will be recommended for addressing sources in the watershed focusing on critical areas where mitigation will provide the greatest phosphorus and nitrogen load reductions and progress toward achieving the in-pond water quality goals established for Perkins Pond.
6. Expected costs of technical assistance required to implement the management plan recommendations along with potential funding sources.
7. A public outreach plan will be developed for working with the town, landowners, and stakeholders.
8. An implementation schedule will be created for implementing recommended management practices.
9. A detailed description of milestones for each stage of the management plan implementation.
10. Establish criteria to be used for assessing phosphorus and nitrogen reductions for Perkins Pond and its tributaries.
11. A detailed monitoring plan will be completed for measuring the effectiveness of the management plan using stream and pond water chemistry in subsequent years.

The consultant will work collaboratively with the Town of Sunapee and the Perkins Pond Protective Association and their partners to coordinate the development of the watershed management plan.

7. PROJECT SCHEDULE

Qualifications packages should include a schedule for conducting and completing the activities described in the Scope of Work with an anticipated start date during summer 2024.

8. OTHER TERMS AND CONDITIONS OF SERVICE

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 state funding and certifies compliance with State rules related to CWSRF grant funded projects.

Insurance Requirements: The selected firm must submit proof of liability and workers compensation prior to execution of the contract including comprehensive public liability insurance coverage amounts of not less than \$1,000,000 each occurrence and \$2,000,000 general aggregate.

9. EVALUATION PROCESS

Qualifications will be evaluated and ranked according to the following criteria (weighted equally):

1. Specialized Experience of the Project Team (35%)
 - Overall experience directly related to the successful completion of similar watershed planning projects include incorporation of EPA's Nine Elements ("a - i"), data analysis, monitoring, outreach, and working with diverse stakeholders to achieve project goals;
 - Demonstrated ability to identify structural and non-structural BMPs and generate pollutant load analyses for BMPs;
 - Demonstrated ability to complete work within the available budget and schedule (do NOT provide a cost estimate at this time); and
 - Demonstrated ability to work with NHDES to develop Quality Assurance/SSPP documents.
2. Project Personnel (35%)
 - Principal team members' roles and participation levels, availability, qualifications, and experience.
3. Project Approach (30%)
 - Demonstrated strong understanding of the scope of work, project schedule, and expected deliverables outlined in the RFQ.

The Town of Sunapee reserves the right to interview, either in person or over the phone, candidates as part of the selection process.

The Town of Sunapee will evaluate all responses. Determination of qualifications and rank is at the sole discretion of the Town of Sunapee following the criteria and procedure detailed in this RFQ. Failure to submit all information called for may be sufficient grounds for disqualification.

10. SELECTION PROCESS

Complete submittals will be evaluated in accordance with the criteria set forth under the "Evaluation Process." A scope and cost proposal will then be requested from the highest ranked qualified firm. Should an agreement not be reached, negotiations will proceed with the second ranked firm and so forth. The contract may be awarded to the firm that most closely satisfies the needs of the project and is deemed to be the most advantageous to the Town of Sunapee. The Town of Sunapee reserves the right to reject any and all proposals not conforming to the "Scope of Required Services" and "Other Terms and Conditions of Service". The contract shall be made only with responsible firms who possess the potential ability to perform successfully under the terms and conditions of the proposed procurement.

This RFQ does not commit the Town of Sunapee to award a contract or to pay any costs incurred during the preparation of the applicant's RFQ response. The Town of Sunapee reserves the right to reject any or all responses, or portions thereof, to negotiate separately with any source whatsoever, or to cancel this request at any time for any reason allowable under applicable rules and laws.

11. REQUIREMENTS FOR STATEMENTS OF QUALIFICATION

1. Name and address of firm; name, title, phone, and email for contact person.
2. Description of other projects designed by this firm similar to this project.
3. Contact information for 2 – 3 references.

4. A brief description of the firm’s approach to planning, designing, and implementing the project, including expectations of clients.
5. Principal team members’ roles, availability, qualifications, and experience
Note: *Do NOT provide a cost estimate, fee schedule, or any type of price proposal at this time. You are also invited to include a maximum of one page of information not covered above, which you feel may be useful.*

Electronic copies of your Statement of Qualification should be emailed in PDF format and received no later than 10 May 2024 at 12 PM to Town Manager, Sunapee NH manager@town.sunapee.nh.us or by mail at 23 Edgemont Road, Sunapee, NH 03782. If mailed, the Statement of Qualification must be received by 10 May 2024 .

Questions concerning this RFQ must be submitted via e-mail to Skylar Hathorn at skylar@town.sunapee.nh.us no later than 12 April 2024. 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 request to be put on an e-mail list to receive the digest and will be posted on the Town’s website. Please email Skylar Hathorn to be placed on the email distribution list.

12. TIMELINE

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| Date | |
| 1 April 2024 | Request for Qualifications released |
| 12 April 2024 | Deadline for submission of questions on this RFQ (4:00 p.m.) |
| 17 April 2024 | Questions and answers posted to Town of Sunapee Website |
| 10 May 2024 | Deadline for receipt of qualification packages to this RFQ (12:00 p.m) |

Due Date: Complete submittals should be sent by email in digital format (PDF) to **Shannon Martinez, Town Manager, Town of Sunapee, NH**, at manager@town.sunapee.nh.us by 12:00 p.m. EST on **10 May 2024**. Please enter *Perkins Pond RFQ Submittal* as the subject line.

X. DISCLAIMER

This RFQ does not commit the Town of Sunapee to award a contract or pay any costs incurred during the preparation of any submittal. The Town of Sunapee reserves the right to reject any or all of the submittals while adhering to applicable laws. 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.