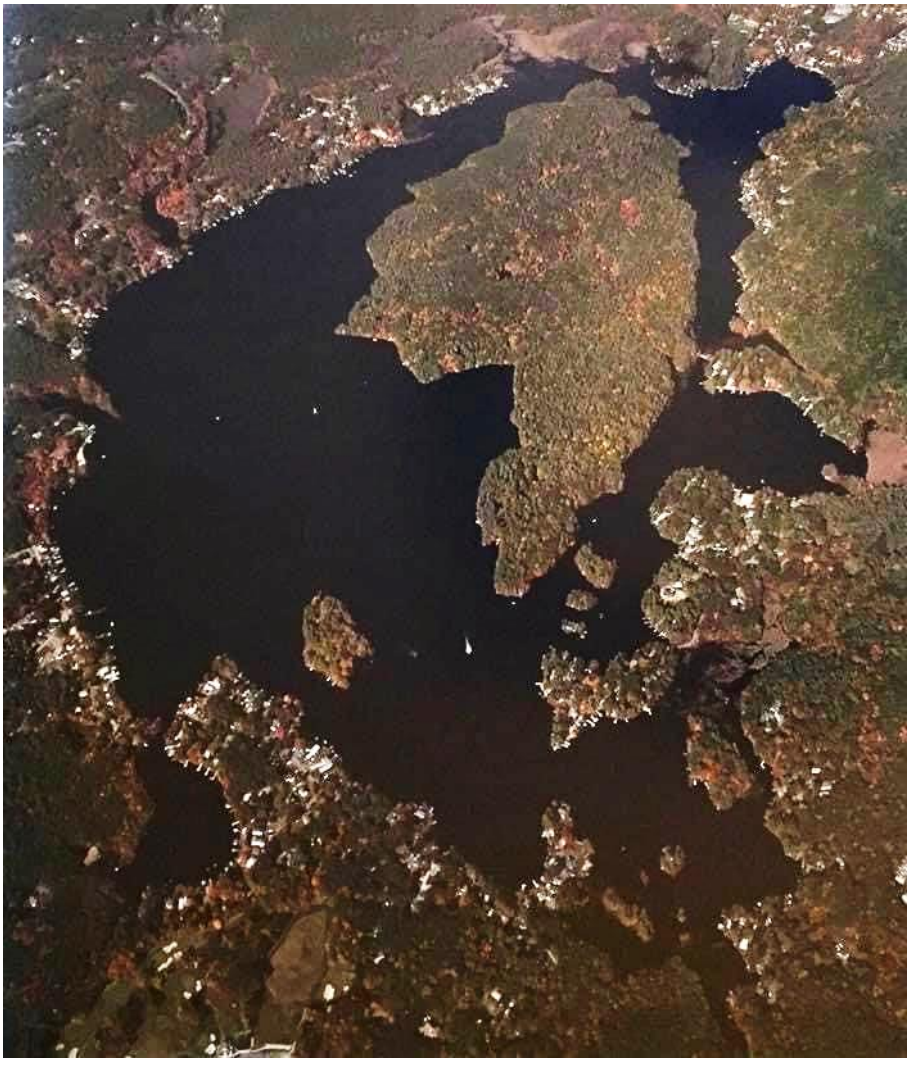
REQUEST FOR QUALIFICATIONS

Issued by the Town of Derry
for

Big Island Pond Watershed-Based Management Plan Development

January 18, 2023



Big Island Pond
Photo courtesy: Big Island Pond Corporation

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REQUEST FOR QUALIFICATIONS

Big Island Pond Watershed-Based Management Plan Development

January 18, 2023

I. REQUIRED QUALIFICATIONS SUBMISSIONS

Each consultant will submit a qualifications package to the Town of Derry (the Town) that will include the following components as described in detail below:

- Cover letter indicating a primary contact for the qualifications package and that person's title, address, phone number, and email address. The cover letter should include relevant professional certifications (e.g., Professional Engineer, Certified Lake Manager, Certified Wetland Scientist, etc.).
- Description of the respondent's general approach (i.e., "philosophy") to watershed planning, skills and specialties for which the respondent is qualified, and a summary of directly relevant work experience of the respondent. Responses must address how the respondent meets the desired qualifications; please consult Section V - SELECTION CRITERIA (below) for additional guidance.
- List of references including names, titles, contact information. These will preferably be clients for whom similar work has been performed within the past five (5) years.
- The project team, including project team organization, team member qualifications and the anticipated level of involvement of key team members in each phase of the project as described in the project approach and scope of work.
- A technical proposal that describes the team's project approach and scope of work (do not include budget, fee schedule, or any type of cost estimate).

Complete and timely submittal of all required documents is mandatory for the qualifications package to be considered.

Electronic copies of your Statement of Qualification should be emailed in PDF format and received no later than Friday February 15, 2023 at 4pm to Craig Durrett at: craigdurrett@derrynh.org. Include "**Big Island Pond RFQ**" in the subject line. Alternatively, if unable to submit electronically, three (3) hardcopies must be submitted by the closing date and time to the Town of Derry, 14 Manning Street, Derry, NH 03038, Attention: Craig Durrett and include "**Big Island Pond RFQ**" on the outside of the package/envelope.

Representatives from the Town of Derry, the Big Island Pond Watershed Corporation (BIPC), and the New Hampshire Department of Environmental Services (NHDES) will review qualification packages. After the qualifications-based ranking is complete, the top two to three ranked consultants may be invited for an interview if desired by the review committee. After the interview process, the top ranked consultant will be asked to provide a task-based cost proposal, and the BIPC and Town of Derry will

proceed with contract negotiations with that consultant. If these negotiations are not successful, the Town and BIPC will negotiate with the second-ranked, qualified consultant, etc. until a contract has been successfully negotiated. **The contract will be between the Town of Derry and the consultant.**

II. PROJECT TEAM AND LEVEL OF PARTICIPATION

The qualifications package will identify the individuals responsible for managing the project and conducting specific project tasks. The qualifications package will also include an estimate for the expected level of participation in the project tasks and in the overall project. An organization chart showing lines of communication and decision-making hierarchy will be included in the qualifications package.

III. PROJECT APPROACH/SCOPE OF WORK

Attachment I provides guidance to assist in the development of the project approach, scope of work, and demonstration of qualifications. It must be clear how the United States Environmental Protection Agency (EPA) elements 'a – i' for watershed-based planning will be addressed and also how public participation and interaction with the various stakeholders will occur.

IV. PROJECT SCHEDULE

The respondents will provide a schedule to conduct and complete the project. The schedule will include project tasks as identified in the Scope of Work. Project tasks will be laid out in a flow chart identifying the anticipated dates to complete each task and the interrelationship of conducting and completing these tasks. It is desired that this project will be completed by December 30, 2024 although an alternative expected completion date will be considered.

V. SELECTION CRITERIA

Selection will be based on the qualifications package. Respondents will be assessed based on the following criteria.

1. Specialized Experience of the Project Team (30 Percent)

The respondent will be rated on:

(a) overall experience directly related to the successful implementation of similar projects that include planning, data analysis, watershed and in-lake modeling, engineering, outreach, and working with diverse stakeholders to achieve project goals;

(b) direct experience incorporating the EPA nine key elements (a-i) to develop watershed management and/or restoration plans;

(c) demonstrated ability to work with municipal government (town boards, public works officials, etc.), state government (NHDES, etc.), local residents, nonprofit groups, universities, and other

stakeholders in New England;

(d) experience and willingness to work with existing data, such as from municipal GIS layers, LIDAR, University of New Hampshire, Plymouth State University, and the NHDES Environmental Monitoring Database, etc.;

(e) demonstrated ability to complete the work within the required schedule;

(f) demonstrated ability to effectively solicit, assess, and use comments and suggestions from stakeholders during project development;

(g) demonstrated success in developing and implementing innovative approaches to facilitating public and project team meetings across in-person, virtual, and hybrid settings;

(h) experience in lake quality, limnology, and environmental monitoring, modeling and data interpretation;

(i) demonstrated ability to conduct watershed and lake modeling to achieve project goals (including build-out analyses and water quality goal setting);

(j) experience interpreting and applying New Hampshire water quality standards;

(k) demonstrated ability to identify structural and non-structural Best Management Practices (BMPs)/ Stormwater Control Measures (SCMs), and generate pollutant load and cost/benefit analyses for BMPs/SCMs;

(l) proven ability to evaluate and propose solutions to address pollution from septic systems;

(m) experience designing and providing construction oversight for SCMs/BMPs;

(n) experience working with municipal officials and stakeholders on public policy review and recommendations; and

(o) demonstrated ability to conduct effective public outreach and generate measurable results.

2. Project Personnel (30 Percent)

The respondent will be rated on the principal team member's role and participation level, project management effectiveness, and the qualifications and experience of key personnel, their communication abilities, and availability during the project.

- Project Manager 20 Percent
- Task Managers 10 Percent

3. Project Approach (20 Percent)

The respondent will be rated on the approach to the project scope outlined in this RFQ, the understanding of the project scope and schedule of work and the interfacing of tasks.

4. Qualifications for SCM/BMP Design Services (20 percent)

The consultant will be rated on their qualifications and experience regarding ability to provide design of structural SCMs/BMPs as described in Attachment I – Scope of Work Guidance, Section IV.

VI. REQUEST FOR QUALIFICATIONS (RFQ) INQUIRIES

The Town will not respond to telephone inquiries about the RFQ. Questions concerning this RFQ must be submitted via email to Craig Durrett of the Town of Derry at: craigdurrett@derrynh.org

Questions must be submitted by 4:00pm ET on February 1, 2023 and must have the Subject Line: "Big Island Pond WMP RFQ Question". If you have a question, please follow this procedure to ensure consistency of answers. Any information obtained by speaking one-on-one with a project partner is not considered an official response for the purposes of this process.

A Question and Answer Digest (Q&A Digest) version of all questions and answers will be emailed to everyone that submits a question. Additional persons wishing to receive the digest version of all questions and answers should request a copy via email by contacting Craig Durrett, craigdurrett@derrynh.org (Subject: "Big Island Pond WMP RFQ Digest Request"). The Town shall distribute the Q&A Digest by February 8, 2023.

Upon completion of ranking qualifications packages, the Town of Derry, in consultation with the project team will negotiate with the top-ranked firm for contract scope and price. The negotiated contract will be based on fair and reasonable compensation for the services required.

VII. TIMELINE

January 18, 2023	RFQ Release
February 1, 2023	Deadline for submittal of questions on RFQ (4:00pm ET)
February 8, 2023	Q&A Digest emailed to those requesting a copy
February 15, 2023	Deadline for receipt of proposals to RFQ (4:00pm ET)
March 15, 2023	Final selection of contractor and notification (anticipated) to all firms

VIII. INSURANCE REQUIREMENTS

A certificate of insurance must be on file and approved by the Town before this project can begin. All companies are required to include a Certificate of Insurance with the bid submittal. Contractor, at its own expense, shall procure and maintain during the entire term of this agreement and any extensions thereof, the following insurance to cover all risks which shall arise directly or indirectly from Contractor obligations and activities.

Workers Compensation and Employers Liability Insurance meeting the requirements of the New Hampshire Workers Compensation Law covering all the Contractors employees carrying out the work involved in this contract.

General Liability Insurance with limits of at least $1,000,000 per occurrence for Bodily Injury and Property Damage. As a minimum, coverage for Premises, Operations, Products and Completed Operations shall be included. This coverage shall protect the public or any person from injury or property damage sustained by reason of the Contractor or its employees carrying out the work involved in this contract.

Subcontractors: In the case of any work sublet, the Contractor shall require subcontractors and independent contractors working under the direction of either the Contractor or a subcontractor to carry and maintain the same workers compensation and liability insurance required of the Contractor. All subcontractors must be approved by the Town in advance.

Qualifying Insurance: Policies shall be issued by insures authorized to do business in the State of New Hampshire. If Professional Liability coverage is written on a claims made policy form, the certificate of insurance must clearly state coverage is claims made and coverage must remain in effect for at least two years after final payment with the contractor continuing to furnish the Town certificates of insurance. The Contractor shall be responsible for deductibles and self-insured retentions in the Contractor insurance policies.

IX DISCLAIMER

This Request for Qualifications does not commit the Town of Derry to award a contract or pay any costs incurred during the preparation of the qualifications package. The Town of Derry and the BIPC reserve the right to reject any or all the proposals for completing this work for any reason allowable by law. The Town of Derry and the BIPC also reserve 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.

ATTACHMENT I - SCOPE OF WORK GUIDANCE

Big Island Pond Watershed-Based Management Plan Development

January 18, 2023

INTRODUCTION

The Big Island Pond Watershed-Based Management Plan Development project builds on efforts by the Big Island Pond Corporation (BIPC) to improve and protect all the water resources within the lake's watershed and develop a comprehensive lake-wide management plan for Big Island Pond. As a major economic asset and natural resource for the local communities as well as the State of New Hampshire, it is extremely important that the lake's health be protected from further degradation.

Development of an EPA nine key element ('a-i') watershed-based management plan for the Big Island Pond watershed will assess the health of the waters in Big Island Pond, result in the identification of sources of pollutants, and provide a roadmap for mitigation and protection efforts in the future.

A steering committee made up of representatives from the Town of Derry, Town of Atkinson, Town of Hampstead, BIPC, and NHDES will work together with the consultant to develop an action plan of strategies that will restore and protect the value, uses, and health of the lake for generations.

BACKGROUND

The Big Island Pond watershed lies primarily within Derry with smaller portions in Hampstead and Atkinson and is a subwatershed within the larger Arlington Mill Reservoir Watershed. The Big Island Pond watershed has an area of approximately 10,880 acres, and includes Big Island Pond, Ballard Pond, Wash Pond, and a few smaller impoundments as well as several streams. Big Island Pond is a 500-acre water body with shoreline property spread across three towns and is home to both year-round and seasonal residents. The shoreline of Big Island Pond touches all three towns with Wash Pond located in Hampstead and Ballard Pond located in Derry.

Big Island Pond offers a wide variety of recreational opportunities such as swimming, fishing, canoeing, kayaking, sailing, motor boating and water skiing. Public conservation lands around Big Island Pond also offer hiking and nature trails, biking, bird watching and picnicking.

The Big Island Pond Corporation (BIPC) is primarily made up of adjacent property owners with an interest in maintaining water quality for Big Island Pond. BIPC was formed to provide support in the effort to protect and restore Big Island Pond for many generations in the future. BIPC works year-round to protect the pond and its dam through education, cooperation and collaboration with its members and the residents. BIPC tests the waters of Big Island Pond periodically during the year. As a member of the New Hampshire Volunteer Lake Assessment Program (VLAP), BIP volunteers monitor the pond and NHDES provides

limnological sampling equipment and processing of the samples. NHDES Biologists that administer VLAP particularly look for chlorophyll-*a* (a measure of algae), total phosphorus (the primary nutrient for aquatic plant growth in freshwater), *E. coli* bacteria (a measure of fishable and swimmable water), conductivity (an indicator of erosion/road salt runoff/septic system failure, etc.) and water clarity. Over the past 10 years, conductivity has increased greatly with levels approaching 200 μmhos/cm in the water column and tributaries. In 1990, conductivity was at 131 μmhos/cm. The New Hampshire state average for conductivity levels of a freshwater body is 62 μmhos/cm. Most residents in the watershed rely on groundwater as a drinking water source and all properties depend on private septic systems for domestic sewage disposal.

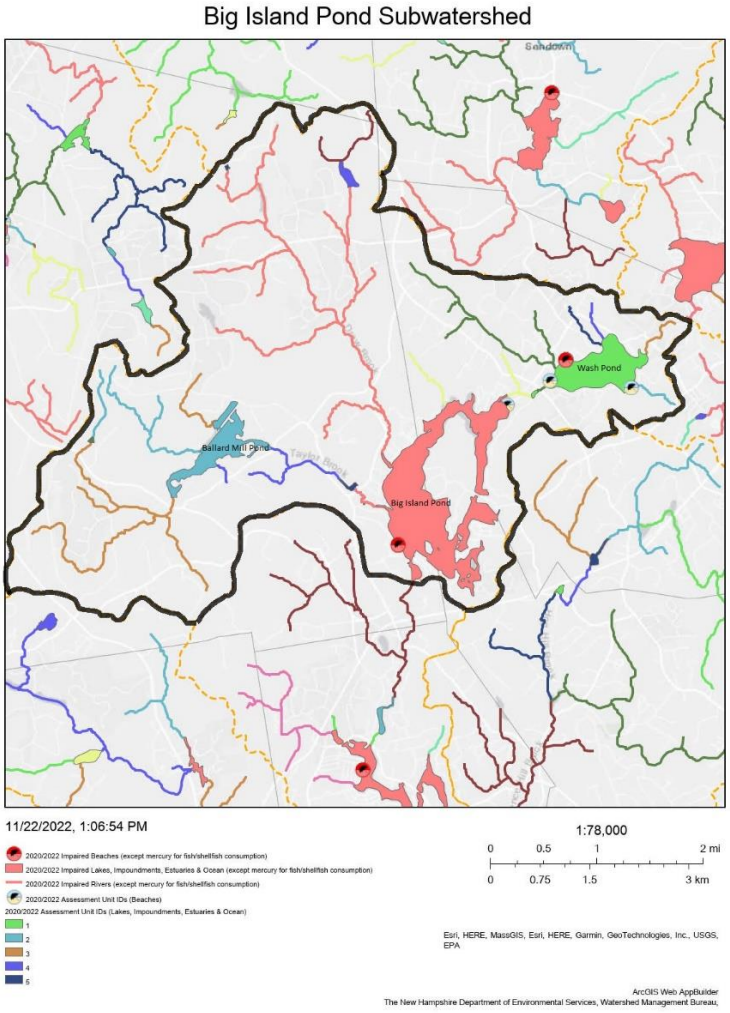
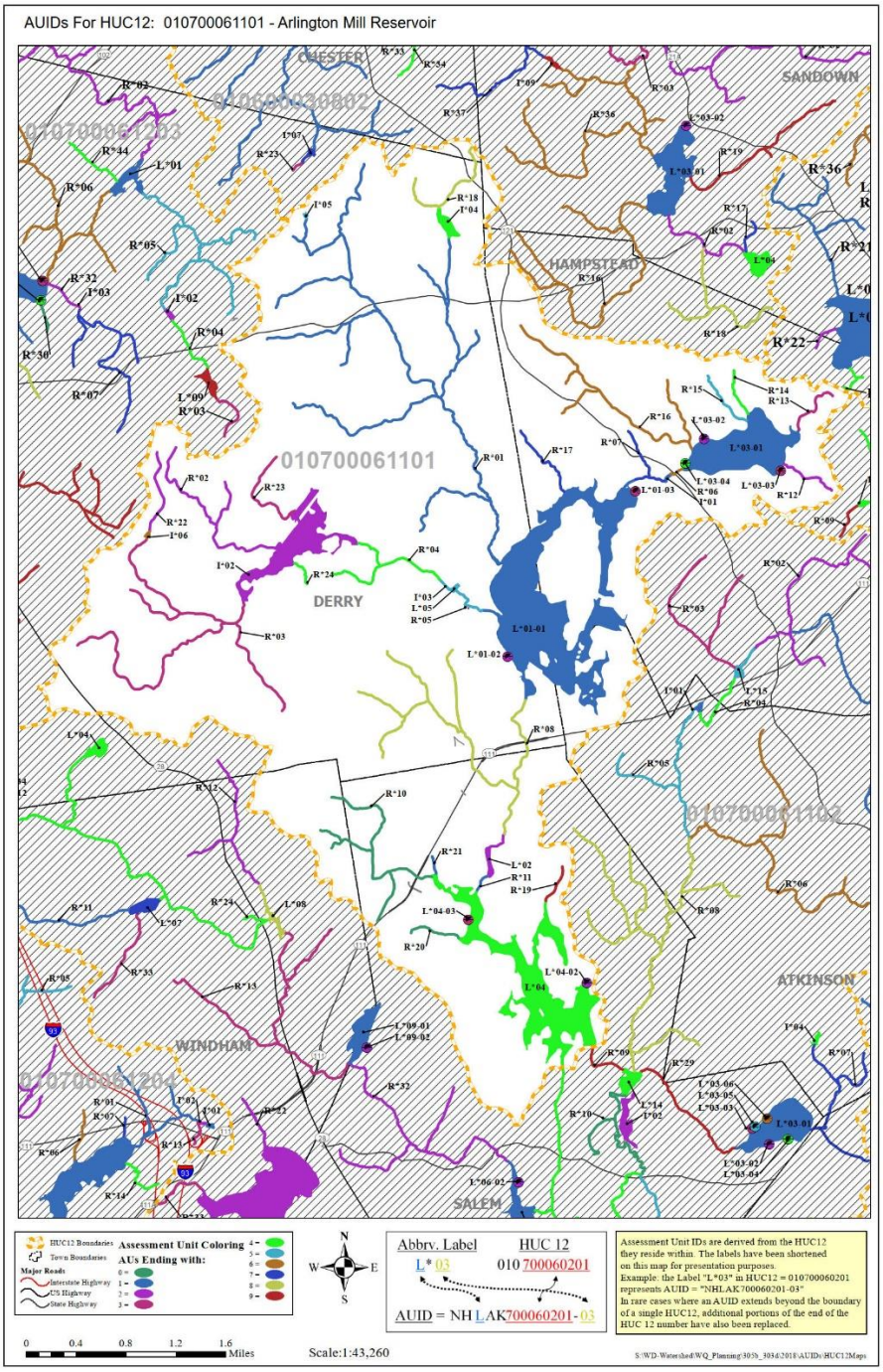


Figure 1. Map depicting the Big Island Pond Watershed study area.

In the 2020 The 2020/2022 NH 305(b)/303(d) Assessment of surface waters, the following impairments are listed in the Big Island Pond watershed:

- Big Island Pond – 5M aquatic life, swimming (poor, marginal support)
- Chases Grove – 5A-P swimming (severe, not supporting, Bacteria TMDL)
- Wash Pond – 3PAS aquatic life use (likely good, fully supporting)
- Wash Pond Town Beach – 5A-P swimming (severe, Bacteria TMDL)
- Drew, Cunningham, Leavitt Brooks – 5-M aquatic life use (severe, marginal support)



OVERALL PROJECT DESCRIPTION

The scope of work for this project is to develop a watershed-based management plan that addresses EPA's nine key elements for watershed-based plans. The overall project and scope of work represents a collaboration of entities working on various tasks and aspects of the project. The secondary goal for this project is to comply with select requirements of the towns' respective MS4 Permits through development of a broader watershed-based management plan to meet TMDL and impaired waters requirements. Components to be developed for Big Island Pond

Watershed as part of the project will be consistent with the requirements of the MS4 Permit. Big Island Pond, select beaches within the pond and tributaries within the surrounding watershed are impaired for bacteria, chlorophyll-*a*, cyanobacteria hepatotoxic microcystins, alkalinity, dissolved oxygen, and non-native plants. Certain beaches and a tributary are also subject to the bacteria TMDL.

Near term results and outcomes expected from the project include setting an in-lake threshold for total phosphorus for Big Island Pond, identification, and prioritization of site-specific measures to reduce sediment and nutrient loading, landscape management best practice recommendations, stormwater management through education and outreach to property owners, and predicted nutrient reductions achieved through the future implementation of stormwater improvement projects.

This stakeholder-driven process has proven successful in assisting communities in understanding how land use and development affects their local water quality, and why development of a watershed-based management plan is a necessary task for successful pond quality management and implementation.

SCOPE OF SERVICES

The consultant shall prepare a technical proposal that describes the team's project approach and scope of work. The following tasks are anticipated to be included in the consultants proposed scope as described below for the project titled '*Big Island Pond Watershed-Based Management Plan Development'*. Alternative or modified approaches within each task may be proposed by the consultant. Some tasks may be a shared responsibility with the BIPC and/or individual towns.

Task 1: **Project Management & Administration – Kick off the Big Island Pond Watershed-Based Management Plan project.**

The consultant in collaboration with the Town of Derry and BIPC shall hold a watershed-based management planning project kick-off meeting with the project stakeholders and NHDES. The Town of Derry and BIPC will publicize the meeting, invite stakeholders to join in the planning process, and introduce the selected consultant.

The consultant will provide project progress updates to Town of Derry and BIPC at their request.

Task 2: Preparation of Site-Specific Project Plan (SSPP)

The consultant will prepare a draft SSPP for all the data analysis, modeling and assessment aspects of the project. The Town of Derry and BIPC will provide the draft SSPP to NHDES for review and comment.

Consultant, Town of Derry, and BIPC will address draft SSPP comments and submit final SSPP to NHDES for review and approval.

Task 3: **Water Quality Data Review and determination of Assimilative Capacity for Total Phosphorus (TP) and Chlorophyll-*a*.**

BIPC and the Town of Derry will gather existing water quality data for Big Island Pond and provide it to the consultant to determine if it is of acceptable quality for use in analysis of assimilative capacity as per the approved SSPP.

Evaluate the historical and current median TP, chlorophyll-*a*, water clarity levels for the deep-water sites in Big Island Pond and update if necessary.

Calculate the reserve assimilative capacity available for Total Phosphorus and Chlorophyll-*a* to maintain and meet state nutrient criteria.

Analyze data to verify that assimilative capacity exists for current nutrient criteria for a mesotrophic waterbody.

Task 4: **Establish the water quality goal for total phosphorus for Big Island Pond.**

Meet with representatives of the Town of Derry and BIPC to review existing data and to set a water quality goal.

The Consultant will assist in the development and documentation of the process required for formally arriving at the water quality goal for total phosphorus, including participation in a facilitated meeting with the Town of Derry, BIPC, and NHDES to agree on the water quality goal.

Task 5: **Pollutant Load Modeling Scenarios**

The consultant will determine annual pollution source loads for catchments in the Big Island Pond watershed using the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) or other approved method.

Determine and submit pollution source load estimates for the major drainage basins in the Big Island Pond watershed to the Steering Committee and NHDES for review.

Using in-lake response models, such as the Lake Loading Response Model, in combination with empirical data, estimate in-lake total phosphorus concentration and associated chlorophyll-*a* concentration. Submit to Town of Derry, BIPC and NHDES for review/ approval.

Run additional modeling scenarios including natural background and build-out under current zoning. Additional scenarios may be run for near term, planned future development, or others to meet the water quality targets.

Hold a stakeholder meeting with the Steering Committee to communicate and review the results of Task 5.

Task 6: **Determine site specific stormwater treatment actions needed to maintain the water quality goals and future watershed conditions.**

Determine total phosphorus reductions needed to achieve the in-lake phosphorus water quality goals for current and future watershed conditions.

Coordinate with the Town of Derry and BIPC and Steering Committee members to conduct watershed assessments to determine sites requiring mitigation; i.e. infiltration sites, culvert upgrades, road surface erosion, septic systems, streambank erosion sites.

Following the field work, the consultant will provide a list of identified mitigation sites that will document GPS location, issues observed, recommended BMPs, estimated load reductions, estimated costs, technical assistance required, and photo documentation.

Estimate the load reductions expected for the management measures described under EPA element 'c' to maintain the water quality goals.

Conduct a shoreline survey of Big Island Pond. In coordination with Derry, Hampstead, and Atkinson residents and BIPC staff, the consultant will document the condition of the shoreline using a scoring system that evaluates the presence/absence of a vegetated buffer, bare soil, extent of shoreline erosion, distance of structures to the lake, and slope.

The consultant will generate an overall shoreline disturbance score for each parcel, with high scores indicating poor shoreline conditions, and develop a memorandum that describes the methods, results, and estimated pollutant load reductions for the Shoreline Survey. Photo documentation of each parcel will be catalogued by tax map-lot number.

Review results of Task 6 with the Town of Derry and BIPC and Steering Committee members and conduct preliminary overview of the prioritized BMP sites. Provide summary of identified sites and prioritization documentation to NHDES. The Steering Committee will provide input and approval on prioritization of structural BMP sites.

Task 7: **Develop an Action Plan that outlines responsible parties, potential funding sources, approximate costs, and an implementation schedule for each action aimed at improving water quality and the means to make the water quality goals a reality.**

Estimate the amounts of technical and financial assistance needed, associated costs, and the resources and authorities that will be relied upon to implement the management measures in the watershed-based management plan (element 'd').

Review current land use regulations and ordinances in place within the Towns of Derry, Hampstead, and Atkinson, and identify other potential non-structural BMPs needed in the watershed.

Review a list of the proposed structural and non-structural SCMs and BMPs with Steering Committee members in order to identify, prioritize, and develop a feasible schedule for the implementation of each SCM or BMP (element 'f'). Develop and describe interim, measurable milestones for determining whether the nonpoint source (NPS) management measures or other control actions that are included in the watershed plan are being implemented as expected (element 'g').

Coordinate with the Town of Derry and BIPC to assess the existing VLAP monitoring program, and propose changes as needed, so that successful implementation of the plan can be evaluated as compared to the criteria developed in Task 3 (element i).

Compile information about the identified structural and non-structural practices needed to achieve water quality goals, and then prepare the draft Action Plan. Prepare maps or other means of identifying locations of SCMs and BMPs.

Develop a set of criteria or statistical analysis that can be used to determine whether the desired phosphorus loading is being achieved over time and if substantial progress is being made towards attaining water quality standards, and, if not, the criteria for determining whether this watershed-

based plan needs to be revised (element 'h').

Task 8: **Draft and finalize an a-i Watershed-Based Management Plan for the Big Island Pond Watershed.**

Draft components of the watershed-based management plan for initial review and comment by NHDES and Steering Committee. The draft watershed-based management plan (WMP) will be delivered through the Town of Derry website. All materials used to support the WMP through the website and the content on the website will be provided to NHDES for review and comment.

Compile, review and integrate comments into the draft WMP, and prepare the final version of the WMP, which must be ADA compliant.

Publicize and hold stakeholder meeting to communicate results of the plan.

Task 9: **Designs for a selected subset of priority SCMs/BMPs**

Identify and provide preliminary designs for up to six SCMs/BMPs identified in Task 6. Consider estimated load reduction, cost, feasibility, and opportunity to select SCMs/BMPs for design. Submit proposed selections to Steering Committee for review.

Design plans (up to 30% design) and prepare cost estimates for up to six SCMs/BMPs identified in the WMP. Provide documentation to Steering Committee for submission to NHDES for review and approval.

GEOGRAPHIC SCOPE: The project area is the Big Island Pond Watershed (17 square miles), which lies within the towns of Derry, Hampstead, and Atkinson, NH.

PROJECT DELIVERABLES AND ESTIMATED PROPORTION OF CONTRACT EFFORT

Deliverables		Estimated Effort %	Cumulative %
Task 1.	Project Management and Administration	2	2.0
Task 2.	Preparation of the Site-Specific Project Plan	3	5.0
Task 3.	Water Quality Data Review	3	8.0
Task 4.	Establish the water quality goal for phosphorus	3	11.0
Task 5.	Pollutant Load Modeling Scenarios and maps	23	34.0
Task 6.	Subwatershed Assessments	16	50.0
Task 7.	Watershed SCM/BMP matrix and Action Plan	10	60.0
Task 8.	Draft/Final Watershed Restoration Plan & Presentation	25	85.0
Task 9.	SCM/BMP Designs	15	100.0

RESOURCES:

1. Big Island Pond Corporation website: http://devbipc.com/?fbclid=IwAR27o5eItGy-rSFVbrxjM4RbYGrI4U6R7_3Y9k16eVQSMQmKiozyUGJBlIU

2. Big Island Pond Corporation Facebook Page: https://www.facebook.com/BigIslandPondCorp/

3. Friends of Big Island Pond website: https://www.friendsofbigislandpond.org/

4. NHDES 2020 Watershed Report Card for Arlington Mill Reservoir: https://www4.des.state.nh.us/onestoppub/SWQA/010700061101_2020.pdf

5. Volunteer Lake Assessment Program Individual Lake Report, 2020 Data Summary-Island Pond, Derry NH: https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-big-island-derry.pdf

6. Volunteer Lake Assessment Program Individual Lake Report, 2021 Data Summary-Island Pond, Derry NH: https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2021-bigisland-derry.pdf