

**City of Portsmouth  
Portsmouth, New Hampshire  
Public Works Department**

**RFQ #26-23  
REQUEST FOR QUALIFICATIONS**

**ENGINEERING SERVICES  
LAFAYETTE WATER STORAGE TANK PRESSURE ZONE ASSESSMENT**

**INVITATION:**

The City of Portsmouth, New Hampshire (City) issues this Request for Qualifications (RFQ) for engineering consulting services (Engineer) to identify and evaluate options for the improvement of the Lafayette Road area distribution system pressure, and the operation and water quality management of the Lafayette Storage Tank.

Qualification Statements shall be submitted by qualified firms that are capable with demonstrable background in the aspects of work described in the Scope of Services of this RFQ. Firms submitting Qualification Statements must be licensed to practice engineering in the State of New Hampshire.

Any questions regarding this RFQ may be addressed to Bridie O'Brien Purchasing Coordinator, [purchasing@cityofportsmouth.com](mailto:purchasing@cityofportsmouth.com), with "RFQ Question – LAFAYETTE WATER STORAGE TANK PRESSURE ZONE ASSESSMENT" in the subject line. All questions shall be received by 4:30 pm on **February 17, 2023** and their corresponding responses will be issued as an addendum to this RFQ on the City's website. Prospective consultants shall be solely responsible for obtaining all questions and answers related to this RFQ. Addenda to this RFQ, if any, including written answers to questions, will be posted on the City of Portsmouth purchasing website under the project heading at <https://www.cityofportsmouth.com/finance/purchasing-bids-and-proposals>. Addenda and updates will NOT be sent directly to proposers, written acknowledgment of the receipt of all addenda must be included in the cover letter of each proposer.

Sealed Qualification Statements, plainly marked with "**RFQ# 26-23, Lafayette Water Storage Tank**" on the outside of the mailing envelope are due at the City of Portsmouth, NH City Hall located at 1 Junkins Ave, Portsmouth NH 03801 no later than 4:30 pm on **February 28, 2023**. Four (4) hard copies and one (1) electronic copy (in .pdf format on USB thumb drive) are required. Submissions will not be accepted via fax or email. Submissions received at the above address after this time will not be considered.

**FUNDING**

This project is funded through a portion of the Water Enterprise Fund as well as a NHDES Drinking Water and Groundwater Bureau Strategic Planning Grant. The Qualifications Statement must include a detailed project budget at or below a total cost of \$100,000 to complete the scope of work. Future tasks, such as preliminary design may be approved once the \$50,000 from the NHDES grant is secured. The firm awarded this project must comply with the provisions related

to this grant. The selected consultant must provide invoices with sufficient detail regarding personnel hours and task completion to allow for the preparation of acceptable reimbursement submittals to the NHDES.

## **PROJECT BACKGROUND/PURPOSE**

This project will address the water distribution system pressure conditions in the Lafayette Road, southern Portsmouth and Greenland area of the water system and water quality concerns as they relate to the Lafayette Water Storage Tank (see attached map of the study area). The Lafayette Tank is one of three water storage tanks in the Portsmouth water system. This tank has a total storage capacity of approximately 7.5 million gallons (MG), of which 2.3 MG is usable due to its stand-pipe design and elevation relative to the distribution system. As a result of the large volume and the tank configuration, there is minimal daily turnover of the water in the tank (average of 7% of total volume daily). This results in the loss of disinfectant residual, water stratification, and potential increases in disinfection byproduct formation.

The Lafayette Road Water Storage Tank is a ground-based, welded steel tank built in 1995. It has a diameter of 114 feet and is 96 feet tall, and is typically operated with water levels between 158 and 163 feet amsl. The condition of the tank with respect to structural and surface coatings was considered very good during its latest inspection in 2018. However, the inspection identified the need for spot repairs, cleaning and re-coating in the near future.

An update and analysis of the water distribution system's hydraulic model must also be performed as part of this project along with an update of predicted system growth in the area of this tank and water demands. The project deliverables will include any edits necessary to the City's GIS water layer and updates to the City's distribution system hydraulic model. The overall intent is to develop an updated strategic long-range capital and operational plan for this area of the water system with then intent of optimizing efficiencies.

## **SCOPE OF SERVICES**

Portsmouth seeks engineering consulting services to develop a plan for addressing the pressure issues in the Lafayette Road area and improving the water quality in the Lafayette storage tank. Specific tasks shall include:

1. Review existing water distribution system infrastructure features, available water quality and water pressure information, and system operations;
2. Develop conceptual options for addressing pressure and water quality issues;
3. Pressure study shall include:
  - a. Conduct short-term monitoring of pressures in select locations within the study area;
  - b. Perform hydrant flow tests to assist model validation and calibration;
  - c. Update and utilize Portsmouth's distribution system model (Innovyze) to assess feasibility of conceptual solutions; and
  - d. Prepare distribution pressure maps to illustrate modeled results of existing and evaluated options pressures and fire flow capability.

4. Lafayette Tank study shall include:
  - a. Inspection of tank including exterior and interior per AWWA D101-53,
  - b. Compilation of existing water quality data for the last five years, and
  - c. Evaluation of tank design and improvement options including mixing, aeration and disinfection
5. Prepare a report that includes specific recommendations for improving water pressure in the Lafayette Road area and water quality issues associated with the Lafayette Water Storage Tank. Budgeting level cost estimates shall be included. Plans must include a sufficient level of detail to ensure solutions are feasible with respect to permitting, constructability, and operations. Plan shall include conceptual drawings where appropriate and general equipment and sizing specification where applicable. Provide two (2) hard copy reports and one report in PDF format.
6. Assume at least four (4) in-person meetings at the Portsmouth DPW office, and at least four (4) virtual meetings. A representative from the NHDES must be present at a minimum of three of these meetings.

The proposed project timeline is as follows:

<b>Milestones:</b>	<b>Expected Date:</b>
Select engineer	March 2023
Develop engineering contract	April 2023
Kick off meeting	May 2023
Conduct field testing, modeling and inspection	May - July 2023
Engineering design and plan preparation	May - August 2023
Project Completion	September 2023

## QUALIFICATION STATEMENT

Prospective consultants shall submit a Qualifications Statement in response to this RFQ. The Qualifications Statement shall be organized using each of the required elements as section headings in the order in which they appear below:

1. **Cover Letter:** Signed by a representative of the consultant firm authorized to enter into contracts and commit the staff and corporate resources to complete the scope of work as expeditiously as possible.
2. **Firm Profile:** Provide a general outline of the firm, including brief history, areas of practice/service, place(s) of business of the firm, and the office from which the services of this RFQ will be provided. If the firm is proposing the use of sub-consultants to perform any aspects of the project, similar information on each additional firm shall be included.

3. **Project Team:** Provide a description of the project team proposed to provide the services identified in this RFQ. Provide names and resumes of key personnel who would be assigned to this project, including their roles and billing rates.
4. **Firm's Related Experience:** Provide a description of the experience of the firm and project team, including specific examples of similar water distribution system work. Provide other pertinent information that may clearly and effectively identify the prospective consultant as a qualified firm. *General promotional materials are not needed or wanted.*
5. **Project Schedule and Level of Effort:** Provide a detailed schedule of the project, level of effort in hours by respective project team staff and the firm's capacity for maintaining the schedule.
6. **References:** Provide three (3) references for relevant projects completed over the past ten (10) years. Include names of contact persons with email addresses and telephone numbers to facilitate contacting references. Identify the team members proposed for this project that participated in the reference projects.
7. **Firm Performance:** Provide a statement describing what procedures your firm proposes to implement and follow to ensure quality end products and a successful project.

## RANKING OF QUALIFICATIONS

Each submittal will be reviewed and ranked according to the following criteria:

- |   |                      |
|---|----------------------|
| a. Firm's experience successfully completing similar projects and individual Project Team member experience | Maximum of 30 points |
| b. References indicating successful projects of this type   | Maximum of 20 points |
| c. Storage Tank, Hydraulic Modeling and System Demand and Operating Efficiency experience                   | Maximum of 40 points |
| d. Quality of RFQ package   | Maximum of 10 points |

## **SCHEDULE**

The project is anticipated to start in early 2023 with the initial analysis to take place during the first six months of the project and a final report due within three months after. Level of effort and final schedule will vary based on the negotiated scope and work tasks.

## **CITY ROLE**

City staff will be responsible for administering the project. Representatives of the City's Water Division will provide input and assistance with any necessary field work and review all deliverables from the effort.

## **SELECTION AND CONTRACT DOCUMENT**

Upon review of all responsive RFQs using the criteria outlined above, the City may select up to three (3) firms to interview. Upon selection, the highest ranking firm will be invited to negotiate a Scope of Services and fee with the City. When the contract is executed by both parties, the Consultant will be instructed to commence providing the work outlined in the contract. All information, data, documents, photos, computer records, and other materials of any kind acquired or developed by the consultant pursuant to this project shall be the property of the City of Portsmouth. If the City is unable to reach agreement with the highest ranking firm, the City will enter into negotiations with the next highest ranking firm. The City reserves the right to negotiate directly with the firm(s) selected for additional project work.

## **RESERVATION OF RIGHTS**

The City reserves the right to undertake such investigation as it deems necessary to evaluate the qualifications of the firm and to evaluate the qualifications submitted. Firms may be requested to execute releases for information. Failure to provide a release upon request will result in disqualification.

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the City and to negotiate the terms and conditions of any proposal leading to execution of a contract.

## **INDEMNIFICATION AND INSURANCE REQUIREMENTS**

The Contract will require the Consultant to agree to pay on behalf of and hold harmless the City of Portsmouth for all claims arising in whole or in part from its work on behalf of the City. Consultant will be required to maintain insurance in such form as will protect the Consultant from claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract. Consultant shall also be required to maintain professional liability insurance. Amounts and coverages shall be subject to contract negotiations.

## **NON-DISCRIMINATION**

Pursuant to State and Federal laws, any entity or individual that enters into a contract for goods or services with the City of Portsmouth or any of its boards, agencies, and departments and any recipient of City funds shall:

- a) Implement an employment nondiscrimination policy prohibiting discrimination in hiring, discharging, promoting or demoting, matters of compensation, or any other employment-related decision or benefit on account of actual or perceived race, ethnicity, color, religion, national origin, gender, disability, age, military status, sexual orientation, gender identity, gender expression, or marital or familial status.
- b) Not discriminate in the performance of the contract on account of actual or perceived race, ethnicity, color, religion, national origin, gender, disability, age, military status, sexual orientation, gender identity, gender expression, or marital or familial status.
- c) Incorporate the foregoing requirements in all subcontracts related to its contract with the City.

The foregoing terms shall have the meaning prescribed to them in N.H. RSA Chapter 354-A or in the Uniformed Services Employment & Reemployment Rights Act, as applicable.

## **ADDITIONAL INFORMATION**

Addenda to this request for qualifications, if any, including written answers to questions, will be posted on the City of Portsmouth website at the City's web site at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will NOT be sent directly to firms. Firms submitting qualifications should check the web site daily for addenda and updates after the release date. Firms should print out, sign and return addenda with the Qualifications Statement. Failure to do so may result in disqualification.