

City of Portsmouth  
Portsmouth, New Hampshire  
**Public Works Department**  
RFQ #06-12  
REQUEST FOR QUALIFICATIONS

ENGINEERING SERVICES

WATER SYSTEM DISTRIBUTION STORAGE TANK ASSESSMENT, HYDRAULIC MODEL UPDATE, AND LONG-RANGE CAPITAL AND OPERATIONAL PLAN

**INVITATION:**

Sealed Statement of Qualifications (SOQ), plainly marked RFQ #06-12, “Water System Distribution Storage Tank Assessment, Hydraulic Model Update, and Long-Range Capital and Operational Plan” on the outside of the mailing envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until **2:00 pm on November 17, 2011.**

**FUNDING**

This effort will be funded by water enterprise revenues.

**PROJECT BACKGROUND/PURPOSE**

The City of Portsmouth is a regional water supplier, with a service area that includes customers in the City of Portsmouth including the Pease International Tradeport, as well as the Towns of Greenland, Madbury, New Castle, Newington, and Rye.

The City’s water supplies are drawn from a combination of surface and ground waters. Surface water supply consists of the City owned Bellamy Reservoir located in the Town of Madbury, New Hampshire. Treatment of this water supply is located at the City’s Water Treatment Plant in Madbury. This water is then pumped to Portsmouth through a pipeline, which runs through portions of Madbury, Durham and Newington.

The City’s groundwater supply is provided by a total of nine individual wells. Three wells are located at the Madbury Water Treatment Plant site, three are located within the Pease Tradeport, two are east of I-95 in Portsmouth, and one is located in the Town of Greenland.

The City’s water distribution system includes approximately 150 miles of pipe in two pressure zones: the Portsmouth zone (serving all areas except Pease) and the Pease zone. The City also owns, operates, and maintains five water distribution storage facilities at the following locations:

- Newington Booster Station Tank
- Spinney Road Elevated Tank
- Osprey Landing Elevated Tank
- Lafayette Road Tank
- Hobbs Hill Tank

In addition, the NH Air National Guard (NHANG) Elevated Tank is connected to the Pease distribution system, although not maintained by the City.

In 1999, the City initiated the first phase of a comprehensive two-phase Water System Master Plan. The Phase 1 study focused primarily on the City's distribution pipe network, distribution storage tanks, the system's pumping capacity, and future water system demands. In addition, the Phase 1 master plan recommended distribution system improvements, and indicated that future water demands might exceed available water supply capacity.

In that much of the City's water pipe is 50 to 100 years old, and many of the older pipes are undersized and at the end of their design life, the Phase 1 Water System Master Plan identified approximately \$34 million worth of needed water line upgrades. The City has prioritized those replacement needs, and has carried out systematic replacement as part of its Annual Water Line Replacement Program; whenever possible, the installation of new water lines is carried out in conjunction with road reconstruction and other utility projects.

Since the 1999 Master Plan the City has completed a number of water infrastructure projects include the new Spinney Road tank, and the replacement of the Constitution to Congress Street water main. In addition, the City has already begun to implement many of the other recommendations contained in the Phase 1 Plan, which include increasing promotion of water conservation through a variety of media; increasing public education of best practices in watershed management for the Bellamy Reservoir; and expanding the water quality sampling program beyond the routine quality sampling, which is already performed.

The Phase 2 Water System Master Plan, looked at future needs in the year 2020, assessed the reasonableness of the Phase 1 water demand predictions, identified the sustainable yields of the City's groundwater and surface water (Bellamy Reservoir) supplies, and outlined actions the City would need to take to ensure the water system had sufficient supply, production and treatment capacity to meet both future demand and water quality regulations. The City has completed the major recommendations of the Phase 2 plan including construction of a new 4.0 mgd water treatment plant and improvement to the Bellamy Reservoir.

The intent of this project is to provide the City with an update to its 10 year old Master Plan and to assess the condition of the ground and elevated storage tanks through field inspections and hydraulic analysis. An update and analysis of the water distribution system's hydraulic model will also be performed as part of this project along with an update of predicted system growth and water demands via water system delivery and usage data. 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. An assessment of the system demand trends related to historical operating parameters of the surface water treatment facility, the wells, the booster station and the distribution storage tanks will also be undertaken as a part of this study. The overall intent is to develop an updated strategic long-range capital and operational plan for the water system with then intent of optimizing efficiencies.

#### **ENGAGEMENT OF THE ENGINEER**

**A. Required Contents of the Statement of Qualifications (SOQ)**

A sealed SOQ, plainly marked RFQ #06-12, “Engineering Services, Water System Storage Tank Assessment, Hydraulic Model Update and Long-Range Capital and Operational Plan” on the outside of the envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until 2:00 pm on November 17, 2011. Five (5) copies of the SOQ shall be submitted and include the following information:

1. Firm (team) Experience (for each firm in the team):

Describe relevant experience in each of the following primary areas of focus:

- a. Familiarity with the Portsmouth Water Division’s operations
- b. Water System distribution tank assessments
- c. Water System hydraulic modeling and GIS capabilities
- d. Water System long-range planning and operational efficiency assessments

The firm’s experience shall be summarized in a matrix format. In addition, detailed project descriptions of no more than five reference projects containing the majority of the focus areas listed above shall be included. The project descriptions shall be current and limited to a maximum of one full page per project, along with client references and up-to-date contact information (name, title, organization, phone, cell and email).

2. Project Team:

List each member of the proposed Project Team along with their:

- a. Firm affiliation
- b. Area of specialty
- c. Office location
- d. Total years of experience
- e. Years with current firm
- f. Specific involvement/role in projects used as references

One member of the Project Team must be assigned as the Project Manager that will act as the primary client contact and who shall be involved in day to day management of the Project. All resumes shall be included and limited to a maximum of two pages per team member.

## **B. Ranking of Qualifications**

Each SOQ 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 SOQ package   | Maximum of 10 points |

## **SCHEDULE**

The project is anticipated to start in December 2011 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 Public Works Department 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 SOQs using the criteria outlined above, the City may select up to three (3) firms to submit proposals and 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.

## **ADDITIONAL INFORMATION**

Requests for additional information should be directed to Peter Rice, City Engineer at (603) 766-1416 or Jared Sheehan at (603) 610-7497. 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 proposal. Failure to do so may result in disqualification.

#### **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.