

RFP # 33-06

**CITY OF PORTSMOUTH, NH
DEPARTMENT OF PUBLIC WORKS**

**RFP # 33-06
REQUEST FOR PROPOSALS**

**ENGINEERING & DESIGN SERVICES
MADBURY WATER TREATMENT PLANT
UPGRADE**

Sealed Request for Proposals, plainly marked RFP # 33-06, "Engineering & Design Services, Madbury Water Treatment Plant Upgrade " 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 p.m. on July 14, 2006** at which time all proposals will be publicly opened and read aloud.

SCOPE OF WORK: The City of Portsmouth's Department of Public Works is requesting proposals from consulting engineering firms who are on NHDES roster of pre-qualified consulting engineers for the following project: To provide design engineering and construction services for upgrade to the City's existing water treatment plant in Madbury, NH. The work will include a preliminary design phase that will evaluate three alternatives and final design of the recommended option.

There will be a **mandatory pre-proposal meeting on June 22, 2006 at 10:00 a.m.** at the Madbury Water Treatment Plant, on Freshet Road in Madbury, New Hampshire. All firms will have the opportunity to ask questions and tour the plant site at this meeting.

This Request for Proposal may be obtained from the Finance/Purchasing Department on the third floor at the above address, by calling the Purchasing Clerk at 603-610-7227, or from our website www.cityofportsmouth.com. **Please continue below for the entire Request for Proposal.**

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.

If you have any questions please contact the Finance/Purchasing Department at the following number: (603) 610-7227 or Peter Rice at (603) 766-1416 or Steve Scotton, Chief Plant Operator at 603-516-8360.

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FUNDING

The design portion of this project will be funded through a State Revolving Fund Loan.

MANDATORY PRE-PROPOSAL MEETING

There will be a **mandatory pre-proposal meeting on June 22, 2006 at 10:00 a.m** at the Madbury Water Treatment Plant, on Freshet Road in Madbury, New Hampshire. All firms will have an opportunity to ask questions and tour the plant site at this meeting.

PROJECT BACKGROUND/PURPOSE

The City of Portsmouth has recently completed a two phase update to its Water System Master Plan. The major findings of this update include: the existing water supplies will not meet future (2020) demands; groundwater and surface water supplies should be conjunctively managed to maximize their sustainable potential; efforts to secure additional ground water sources should be pursued; and that the Madbury Water Treatment Plant should be upgraded to improve reliability, to increase capacity and to meet future and current regulatory requirements. The existing Madbury WTP has a maximum treatment/pumping capacity of approximately 4.0 mgd. The proposed capacity of the new treatment plant capacity is 4.0 mgd with redundant capacity if one unit process is down for maintenance.

In addition to the Master Plan, the City hired Fay Spofford and Thorndike (FST) to conduct an extensive pilot study to select the water treatment technology for the plant upgrade. The purpose of this project was to evaluate and select the most cost effective treatment process technology which will meet the City's water quality needs. This pilot study was comprehensive in nature; and it considered all aspects of the treatment plant including pretreatment, post-treatment, disinfection and residuals management.

An additional pilot was performed by Leopold Water and Wastewater Products using their new high rate DAF “Clari- DAF™” system. This pilot was done to verify an alternate DAF could meet the high loading rate achieved during the first pilot . A copy of both pilot study reports are available for review at the Department of Public Works.

Specific regulatory issues of concern are compliance with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and the Disinfectants/Disinfection Byproducts Rule (D/DBPR) Stage 1 and Stage 2. The City’s water system is currently in compliance with these rules. However, the City in the past was in non-compliance with the D/DBPR running average for two quarters and will likely have difficulty meeting the Stage 2 D/DBPR requirements when they come into effect. The optimization of disinfection byproduct precursors removal must be incorporated into the final design.

SCOPE OF WORK

The scope of work shall be sufficient to address the following:

- The Consultant will perform a preliminary design of three options including the recommended treatment train utilizing a Leopold DAF, the recommended treatment train using the Aqua DAF and the option of relocating the water treatment plant to a new location to be determined at the Pease International Tradeport near the City’s Newington Booster Station. For budgeting purposes assume the plant will remain at the current site. The scope and budget will be adjusted if necessary to perform final design effort to relocate the water treatment plant to a site at the Pease International Tradeport
- Prepare and submit a preliminary design report with recommended option to the City for review and comment. The report shall include enough detail to adequately develop opinion of costs for each alternative and shall have adequate detail of assumptions made to allow City personnel to document justification of the final design decision.
- The Consultant shall conduct land survey necessary to complete the final design. A separate budget item for additional survey shall be carried if the relocation option is pursued.
- The Consultant will conduct necessary geotechnical investigations for design of new buildings, tankage and associated equipment.
- The Consultant will coordinate, prepare and submit all local, State, and Federal permits necessary to complete this project. This task will include all meetings and presentations as required.
- The Consultant shall assist the City in doing a Value Engineering Study of the Final Design. The Consultant shall participate in the VE workshop sessions. The Consultant shall incorporate recommended changes for cost saving or improved process control into the final design.
- The Consultant shall assist the City with public outreach. This effort at a minimum shall include preparation of a PowerPoint presentation and public informational meeting as well as content for the City’s Web page.

Project Deliverables shall include, at a minimum, the following:

1. Six (6) copies of the Preliminary Design Report
2. Three (3) sets of 75% Design Plans for City review and comment.
3. Five (5) sets of Value Engineering Design Plans, Specifications for review and comment.
4. Four (4) sets of 100% Design Plans, Specifications, and Necessary Forms for NHDES to review and comment.
5. Provide one (1) unbound reproducible copy and a Digital copy of the approved design plans and specifications to the City. Provide twenty (20) bound sets of plans and specifications for project bidding.
6. Consultant's opinion of probable construction costs based on the 75% Design and 100% Design.

The Consultant shall include in their scope of work the number of site visits and/or meetings with the City or NHDES staff necessary to satisfactorily complete the project. The consulting engineering firms must be on the NHDES roster of pre-qualified consulting engineers.

Schedule

Advertise for Request for Proposals	June 2006
Mandatory Pre-proposal Meeting	June 22, 2006
Open Proposals	July 14, 2006
Interview	August, 2006
Select Consultant	August, 2006
Execute Contract	September, 2006

The City will work with the successful consultant to finalize the schedule.

CITY ROLE

City staff will be responsible for administering the project and overseeing the consultant's work on this project. Representatives of the City's Public Works Department will review plans and other documents prepared by the consultant.

Additional information and raw water quality data will be available for the Consultant's review after the pre-proposal meeting. This information along with the master plan documents, and pilot studies will be available at the Public Works Department, 680 Peverly Hill Road, Portsmouth, NH from 8:00 a.m. to 4:00 p.m. Monday through Friday.

SUBMITTAL REQUIREMENTS

Proposals shall include the following:

- Brief history of the firm.
- Description of relevant previous projects which key project staff have played a central role in developing.
- Scope of work.
- Project schedule, organized by task.
- Names and qualifications of specific project staff that will play the primary role in this project.
- Level of man-hours effort by task. Assume for budgeting purposes that the water treatment plant will remain at the existing location in Madbury. The scope and budget will be adjusted as needed if the preliminary Design Report recommends relocating the treatment plant to the Pease International Tradeport.
- Three (3) references, including current contact name and phone number for similar project.
- Six (6) copies of the proposal must be submitted.

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EVALUATION CRITERIA

All Proposals must include the following components, which will also serve as the City's evaluation criteria:

1. Knowledge and understanding of the City's water system.
2. Understanding of the project requirements and City's needs.
3. Description of project approach and scope of services to accomplish the project, including schedule.
4. Firm qualifications, and experience.
5. Descriptions of and references for similar projects performed in New England, specifically those in New Hampshire. References shall include contact person and telephone number.
6. Identification and description of project team and staff who will perform the project.
7. Innovative approach to meeting the City of Portsmouth's Sustainability goals as outlined by the most recent City Master Plan

Upon review of all responsive proposals the City may select up to three (3) firms to interview. Upon completion of the interviews the City will negotiate a final Scope of Services and fee with the highest scoring firm.

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. The City reserves the right to negotiate directly with the firm(s) selected for additional project work including construction administration services, and/or additional project engineering and design services.

The City also reserves the right to make such inquiries regarding the firm's qualifications and reputation as it deems necessary to evaluate the firm. The firm may be requested to execute releases to obtain information from third parties. Failure to execute a release upon request may result in disqualification.

CONTRACT DOCUMENT

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.

ADDITIONAL INFORMATION

If you have any questions please contact the Finance/Purchasing Department at the following number: 603-610-7227 or Peter Rice, P.E., City Engineer, Water and Sewer Divisions at 603-766-1416 or Steve Scotton, Chief Plant Operator at 603-516-8360.