



Request For Qualifications

Water System Master Plan Update

Oak Creek Water & Sewer Utility

Oak Creek, Wisconsin

January 23, 2006

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REQUEST FOR QUALIFICATIONS

I. INTRODUCTION

The Oak Creek Water & Sewer Utility intends to retain the services of an engineering consulting firm to perform a water system master plan update.

The purpose of this document is to outline the Utility's interest in obtaining the services of a qualified engineering consulting firm to provide engineering services. This document introduces a brief scope of services to be performed. In addition, the Statement of Qualifications submittal requirements are included for your reference.

Any questions or clarifications concerning the RFQ shall be directed to:

Michael J. Sullivan, P.E.
Utility Engineer
Oak Creek Water & Sewer Utility
170 W. Drexel Avenue
Oak Creek, WI 53154
Sullivan@water.oak-creek.wi.us

II. PROJECT DETAILS

The Water and Sewer Utility last had a complete master plan completed in 2002. This document comprehensively dealt with all areas of the Utility's business. Since that time the Utility has accomplished many of the improvements recommended in the plan. As a result of the changes in infrastructure and population, the Utility would like to update their master plan and associated hydraulic model.

This project will begin in early 2006 and the Utility is looking for a committed and aggressive team to complete the master plan as soon as practical. The successful consultant will be familiar with several modeling software including Bentley/Haestad Methods and MWH offerings. The control and supervision of all aspects of the work shall be performed by a consultant project manager with at least 5 years of hydraulic modeling and master planning experience.

Project progress will be monitored through biweekly meetings.

III. GENERAL SCOPE OF SERVICES

A general scope of services is presented below and will be refined with the successful consultant.

A. Existing Hydraulic Model Evaluation

Evaluate the existing hydraulic model components (pumps, tanks, nodes, pipes, demands, etc.). The consultant will determine the adequacy of the model.

B. Data Collection

This section will focus on collecting and organizing data to support the master plan update. The section will include the compiling of information provided by the Utility, as well as, gathered by the consultant. Such information may include daily treatment operator logs, growth and population projection, and distribution system components. The operator logs show hourly plant effluent and tower elevations. Additional information will be extracted from database files.

C. Water System Testing

The consultant shall recommend the number of tests and data to be collected and provide the equipment and staff to perform the tests. The consultant shall provide a written documentation of test procedures in detailed form, so that Utility staff can perform these tests in the future. Additionally, the consultant shall provide a written report and ESRI GIS formatted files of the actual test results conducted.

D. Population and Community Growth

This will include the collection of existing and projected population data from the City and SEWRPC and using those and other sources create growth projections for the future. This section will also evaluate the logical ultimate service area.

E. Water System Demands

Water system demands will be established to aid the system capacity analysis. The consultant shall review billing records to appropriately distribute demands to the nodes. The top 15 retail customers and 6 wholesale connections shall be evaluated separately from the rest of the demand to allocate them specific to their location in the City. The unaccounted for water demand shall be distributed equally to the nodes.

F. Water System Evaluation

Comprehensive analysis of the water system as a whole including the distribution system, storage, and plant capacity.

G. Water System Hydraulic Modeling

The consultant will review and evaluate the Utility's existing hydraulic model and create an accurate model of the distribution system including flow testing and calibration. This section will include a recommendation for a full pipe or skeleton model, as well as, aid the Utility with a model software purchase. The modeling shall include the evaluation of alternate operating scenarios both steady state and continuous simulations.

H. Recommended Distribution System Improvements

Identify and recommend improvements to the distribution system to improve capacity, reliability, and acceptable pressure with an emphasis on water quality.

I. Recommended Treatment Plant Capacity Improvements, including Storage

Identify and recommend improvements to the treatment plant to improve capacity, reliability, and acceptable pressure with an emphasis on water quality and energy conservation.

J. Demand Based Phasing of Improvements

Develop a matrix of improvements to accomplish the improvement goals in anticipation of the growth projected. The improvements shall be demand based over a 20-year period. The consultant shall establish cost estimates for each improvement and shall attempt to equalize the annual financial commitment considering inflation in future years.

K. Model Maintenance

The consultant shall recommend, through written procedures, a program to maintain the hydraulic model, including additional testing and importing new main segments.

L. Final Report

The consultant shall prepare a final report and executive summary detailing the results of the master plan update, including discussion on the existing conditions, assumptions made, demands forecasted, alternative demands considered, improvements, cost rational, alternate improvements, recommended improvements and phasing of improvements.

IV. SUBMITTAL REQUIREMENTS – STATEMENT OF QUALIFICATIONS

Candidates shall submit SOQs that thoroughly respond to the items listed below. For fairness and ease of review the proposal must be organized and presented in the exact order as outlined in this section.

A. Statement of Qualifications

1. Summary of firm's general qualifications, background, number of employees, office locations, etc.
2. Identify the office that will handle this project, introduce the team, and show a team organizational chart.
3. Discuss the team's approach for this project, including any variations to the scope or additional considerations. This section should be used to discuss the proposed schedule for the work and communication plan. The SOQ shall contain a work flow diagram for all anticipated tasks.
4. Detail the firm's quality control program and ability to keep projects on schedule and within budget.
5. Provide a detailed summary of the team members. Include resumes and clearly show all projects of similar size and scope handled by the team within the last three years. Only projects accomplished by the team, or to a lesser degree individual team members, will be considered as appropriate experience. The firm's experience on similar projects is not relevant in this analysis. Include 3 references for recent completed projects in hydraulic modeling and master planning.
6. Outline the performance of projects handled by the team for the projects identified above, and include project consultant fees, project schedule performance, extras added to the contract, system size, and a reference name, address, email address, and phone number.
7. Discuss sub-consultants that may be used and their expertise.
8. Outline the consultant's liability and professional responsibility insurance. The consultant's financial stability and capacity to carry out the scope and extent of the work needed.

V. CONSULTANT EVALUATION AND SELECTION PROCESS

The Oak Creek Water & Sewer Utility will evaluate and select the best-qualified consultant for our project.

We understand that ranking a consultant based on qualifications far outweighs other considerations. However, final consultant selection will be based on critical factors, such as: project approach, past performance, and consultant's staff qualifications. Once the highest ranked consultant is identified, we will begin negotiations of work scope and compensation.

A. Preliminary Screening

Candidates shall submit two copies of their SOQ to Michael J. Sullivan, P.E., Oak Creek Water & Sewer Utility, 170 W. Drexel Avenue, Oak Creek, Wisconsin 53154, by 2 p.m., Friday February 10, 2006. Packages shall be clearly marked "Water System Master Plan Update".

Envelopes or packages that are received after the date and time stated above will not be considered.

After the SOQs are evaluated the Utility may schedule follow-up meetings with a narrowed candidate list. The project is anticipated to begin in early 2006.

RATING CRITERIA

- Quality and adequacy of the response.
- Qualifications of the team and sub-consultants and their ability to work well with Utility staff.
- Experience and performance on past projects of similar size and scope.
- Project approach, quality assurance review procedures, and new ideas.
- Proposed communication plan to provide progress reports.
- Project schedule and committed staff.

B. Contract Negotiations and Approval

After the review period is complete, the Utility will begin negotiating with the top-ranked firm. If an agreement is reached, a consulting agreement will be presented to the Utility Commission for approval. If an agreement cannot be reached with the top-ranked firm on any items, the second-ranked firm will be considered, and the same process will continue.

VI. AVAILABLE INFORMATION

The Utility has the responsibility to provide our customers with a safe and reliable water source. To this end security of the Utility's facilities and operations are extremely important. Materials provided to the consultant shall be held strictly confidential and returned to the Utility upon completion of the project. Access to Utility facilities will need to be coordinated with Mike Sullivan and will be allowed with Utility staff present.

All distribution testing will be done under Utility staff supervision. Only Utility staff are allowed to operate valves and hydrants.

The existing hydraulic model will not be available for the purposes of preparing the SOQ. However, the Utility generally has a system comprised of:

Treatment Plant:	1
Raw Water Pumps:	6
High lift Pumps:	6
Ave. Annual Day Demand (MGD):	8.3
Max. Day Demand (MGD):	15.7
Distribution Pump Stations:	2
Pumps:	8
Pressure Zones:	2
Piping (miles):	180
Piping Over 12" Diameter (miles):	44
Average Age (years):	21
Elevated Tanks:	2
Ground Storage Reservoir:	1
Area Served (sq miles):	70
Population Served:	65,000

The existing model (WaterCAD) has 629 pipes for a total of 113 miles with 41 miles being sized over 12".

To request additional information please contact Michael J. Sullivan, at Sullivan@water.oak-creek.wi.us.