Engineering Firm Selection Process

Recommendations for Small Public Water Systems Utilizing DWSRF Financing
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Why Do I Need Professional Engineering Services?

Public water systems often need professional engineering services when pursuing a new or updated planning document, or constructing new or replacement facilities. Large privately owned water systems, cities or water districts frequently have an engineer on staff or under contract. Smaller water systems generally hire engineers as the need arises.

The DWSRF Program under the Division of Financial Assistance designed this guide to help small water systems with limited experience hiring engineers. It will help you to decide what questions to ask and what criteria to use in choosing an engineer or engineering firm for your project. This guide also includes numerous sample forms and languages that you could use as templates for your project needs.

What Kind of Engineer Does My Water System Need?

There are many categories of engineering specialties. However, the engineer you select must be a professional engineer (PE) licensed by the state of California as a civil engineer, who has experience in design of public water systems or drinking water treatment facilities. It is not legal for engineers to undertake assignments they are not qualified to do.

What is a Professional Engineer?

A professional engineer is a person who has a specialized college education and engineering experience, passed the written state exams, and is currently licensed by the state of California. He or she will have a license number, which you can find on California Department of Consumer Affairs’ website: www.bpelsg.ca.gov to verify that the license is valid and current. The license number is included on the PE’s stamp that must appear on all your documents.

California Law

California law requires that a professional engineer shall utilize a written contract when providing professional engineering services. The contract shall be executed by the professional engineer and the client or his representative, prior to the engineer commencing work. California law requires that the written contract for engineering services shall include, but not be limited to, all of the following:

- A description of the services to be provided by the professional engineer
- A description of any basis of compensation applicable to the contract, and the method of payment agreed upon by the parties
- Name, address, and license or certificate number of the professional engineer, and the name and address of the client
- A description of the procedure that the professional engineer and the client will use to accommodate additional services
- A description of the procedure to be used by any party to terminate the contract

Why Use Qualification Based Selection for Professional Engineering Services?

Competitive bidding for engineering is not generally in the best interest of the public because it may lead to the employment of the least qualified firm rather than the most qualified, since the objective of bidding is low cost. California Law authorizes, and in some cases requires, public entities to procure professional services, including engineering services, through a qualification based selection process. Smaller water systems frequently do not have detailed scope of project prior to selection of the engineering firm. Only when the services or a product are known thoroughly in advance, so that the bid solicitation can describe the services needed in exact detail, and all interested engineering firms can bid on the same basis, should competitive bidding be considered.
The Six Simple Steps Qualification Based Selection Process

Step 1: Prepare a Preliminary Project Description

To begin the selection process, prepare a brief written description of the project. This helps interested engineering firms decide whether they are capable and qualified to perform the services needed. When the preliminary project description is properly written and communicated, it saves time, money and effort for both the water system and the interested firms.

The preliminary project description should include:

- The project name or identification and planned location
- Project description, including intended size, function, capacity and other general requirements. Is the project a renovation or modernization? Will it involve demolition, additions, new construction, or specialized studies?
- Preliminary project budget and anticipated funding sources.
- Key schedule milestones
- Unique requirements or restrictions such as zoning or known environmental problems.
- Special services to be provided by the engineering firm, such as feasibility studies, design, construction management, etc.

(See Exhibit A for Preliminary Project Description sample)

Step 2: Request Submission of Qualification Statements

Once the preliminary description of the project has been prepared, interested qualified engineering firms should be invited to submit statement of their professional qualifications. The water system should:

- Publish a legal notice in a newspaper of general circulation (See Exhibit B for Public Notice sample)
- Send the notice to local engineering firms which have been successfully utilized by local public works directors (cities, counties) for design of water projects within the past ten years
- Send the notice to area professional engineering organizations

The detailed request for Statement of Qualification should include:

- A preliminary project description
- Water system name and its project contact person (name, address, phone number, and/or email)
- A list of information each engineering firm must include in its Statement of Qualifications:
  - Names of engineering firm owners, years in business, services offered
  - Resumes and professional background for key personnel of the engineering firm who will be assigned to work on this project
  - A statement of the technical approach to be used in this project including potential alternatives.
  - Similar projects designed by the firm
  - Current and projected workload of the engineering firm that might affect the project
  - An estimate of the person hours needed for the engineering firm to complete the project work

- A statement indicating that the water system will review all proposals received and select the most advantageous proposals based on the evaluation criteria for oral interviews.
Information on the criteria used by the water system for review of the qualifications statements

- Qualifications and experience of the project engineer
- Past experience with this type of project
- Present and projected workloads
- Capability to meet time and project budget requirements
- Other specialized project needs such as environmental, geotechnical, etc.

Deadline for submitting Statement of Qualifications

These criteria will help the engineering firms understand your concerns and prepare to respond to them. The water system may include special statements in the published notice that it is not responsible for costs incurred in the preparation of their Qualification Statement and reserves the right to reject any and all proposals. The water system should allow adequate time in the project schedule for submission of Statement of Qualifications. A minimum of three weeks between announcement and deadline is suggested. Documentation of all aspects of the selection process should be kept on file at the water system for at least three years after the project completion.

(See Exhibit C for Request for Statement of Qualifications sample)

**Step 3: Evaluate Statement of Qualifications**

The water system should evaluate the engineering firms that submitted the *Statement of Qualifications* to narrow the field of interested firms to a “short-list” of three to five firms. The evaluation should be conducted by a committee consisting of no less than three members, if possible. Documentation of each step of the selection process should be maintained on file through the conclusion of the project construction.

Before meeting to perform the evaluations, the committee should check references of each firm under consideration. This check may not be limited to the references supplied by the firms (See Exhibits D and E for Evaluation Criteria and Reference Check samples). The firms’ engineering license status, recognition awards, potential pending lawsuits, and similar matters can be checked using online resources in many cases.

Each firm that submitted a statement of qualifications should be evaluated on the basis of its experience on similar projects, expertise of its key professional staff, its physical resources and facilities for conducting the necessary engineering work, references, and factors unique to the project scope, such as experience with contaminant removal treatment, seismic safety design, past performance on similar projects etc.

Based upon the evaluation of the statements of qualifications and reference checks, lesser-qualified firms can be disqualified, leaving a short-list of three (smaller projects) to five firms for further consideration. The short-listed firms should be officially notified that they have been selected for further consideration. As a courtesy, the water system should also send a letter of thanks to those firms not selected for further consideration (See Exhibit F for Sample Memo to “Short-Listed” Firms for an Interview)

**Step 4: Interview and Rank the Short-Listed Firms**

By interviewing representatives of each of the short-listed firms, the water system selection committee has the opportunity to compare each firm’s interpretation and understanding of the project. The interview provides an important insight into each engineering firm’s management style and communications abilities. When the firms are invited to the interview, request the staff who
will be working on the project attend. It helps to know the individuals who will be working with your system and what the philosophy of the engineering team members will be toward the project. For example, if the firm’s president attends the interview, but will not actually work with your water system during your planning, design, and construction phases, you may not have the outcome anticipated if you rely on the committee impression of the president.

It is helpful for the water system to conduct a tour of the project prior to the interview. The firm can better prepare their proposals in preparation for the interview. If site visits are provided, each firm should be given equal opportunity for a tour prior to the interview.

The following are suggested guidelines for setting up and conducting the interviews:

- Allow approximately one hour for each interview and at least 15 minutes between interviews. Set time limits for firm’s presentation (e.g. 30 to 40 minutes) and allow 10 to 15 minutes for questions from the committee. The time allowed for interviews should be tailored to the complexity of the project.
- Schedule all of the interviews on the same day if possible. This enables the committee to compare all of the interviewed firms while information is fresh in their minds and ensures consistent interview scoring.
- Ask each candidate firm the same questions (see Exhibit G for Sample Interview Questionnaires). This will give the committee members a better feel for differences or similarities in the approach and ability of each engineering firm.
- The water system should not discuss fees for professional services during the interview process.

**Final Ranking Process:**

It is critical that evaluation of the short list of firms be as fair and impartial as possible. For this reason the selection committee should rate each firm by using a standard form that lists the significant selection criteria. The selection committee chairman should notify the firm that is rated most highly overall that it has been selected to receive the contract, pending agreement on the scope of service and the fee for those services. The other short-listed firms should be notified of the final ranking, as well.

*(See Exhibit H for Sample Rating Form)*

**Step 5: Negotiate the Scope of Service**

As soon as the most qualified firm has been identified, the technically knowledgeable representatives of the water system and the selected highest ranked engineering firm staff (the engineer) start working together to define the Scope of Service and discuss the project in detail to gain better mutual understanding.

The engineer will need to learn about the water system priorities and objectives for the project. Questions to be answered may include what the water system place greatest importance on in development of the project: control construction cost, reliability, long term operating cost, time for completion, etc. Are there unique social (community) environmental, or political issues impacting the project? Is it possible the facility will need to be expanded or modified in the future?

The water system also needs to understand exactly what can and cannot be expected as a result of the engineer’s work. If necessary, the members of the selection committee should now request that the engineering firm to clarify any element of the contract which is not clear, including scope, inclusions, exclusions, and costs, prior to finalizing and signing the contract.
These discussions can take several days on a major project. The outcome is development of a detailed scope of service, the written document that specifies services to be provided by the engineer. This document is the foundation of the contract between the two parties.

**Step 6: Negotiate the Fee**

**Establishing Engineering Fees**

When the detailed Scope of Service is agreed upon, the engineer is in a position to develop and submit a detailed fee proposal to the water system.

Consulting engineers use one of three basic methods to calculate fees for their water system infrastructure services. No matter which of these fee methods is used, the water system has a right to expect that the engineering firm will be able to fully document the proposed fee.

- **Lump Sum (Fixed fee):** is the most common fee structure in use. The engineer and water system agree in advance on the total compensation that will be paid for the agreed upon services. Lump Sum is best used when all of the project tasks and required services are well defined and can be mutually agreed upon during negotiations.

- **Time-plus-expense:** Most firms have developed a standard hourly fee rate for each of their professional employees. Project fees are estimated by multiplying the estimated number of hours projected for the project times the standard hourly rate (hours x “cost per hour”). The number is then multiplied by a factor to cover the firms indirect cost (items such as rent, computer design equipment and software, telecommunications, taxes, fringe benefits and other “overhead” plus profit). Frequently time plus expense contract will provide for a “not to exceed” maximum fee.

  Note that subsequent to concluding the engineering fee for a project by either method above, renegotiation of the fee must occur if additional work not included in the original scope of service is required of the engineer, or, conversely, should the original scope of service be reduced.

- **Per diem:** under this method, the water system agrees to pay the engineer a predetermined fee each day, or part of a day, the engineer devotes to the project. Per diem is most frequently utilized when the work is personal, of limited time duration or somewhat irregular. (e.g. specialized areas such as appraisals, feasibility studies, investigation of conditions, collection of data, court or public hearing testimony).

**Negotiation Process:**

Most small water systems benefit from having an attorney involved in the negotiating process to be sure they are fully represented and their interests are protected. Your board, attorney, and engineer should carefully review the Work Plan to make certain you understand:

- What work will be performed by the engineer,
- What services will be provided by the engineer, and
- What items are the water system’s responsibility

If the fee proposed by the engineer is significantly beyond what the water system has budgeted, representatives of the system and engineering firm meet to review options for modifying the scope of services in order to reduce the fee (see Exhibit I for Contract Negotiation Sample Questions). The engineer will advise the water system of any risks or problems which might result from the change(s) in the scope of service, and a revised fee is agreed upon. This kind of communication greatly enhances the likelihood of a successful project outcome.
On occasion, the representatives will be unable to reach a contract agreement, despite good faith negotiation. This happens infrequently because Qualifications Based Selection fosters excellent communication and understanding between the water system and the engineering firm. If an impasse is reached, the water system should terminate discussions with the first ranked firm and invite the firm ranked second on the short-list to enter into contract negotiations. At no time should the water system reenter negotiations with a firm with whom negotiations have been terminated.

It is prudent to consider use of a standard contract form, such as from a professional engineering association. These have stood the test of legal and court challenges, and can bring to your attention business matters which it is in the best interest of both the water system and the engineering firm to address prior to work on the project proceeding.
Exhibit A
Preliminary Project Description

Name of Project .................................................................

Project Owner ................................................................

Project Location ................................................................

Contact Person .............................................................. Title .................................................................

Address ...........................................................................

Phone .............................................................................

Description of Proposed Project ..............................................

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Additional information regarding this project, such as __________________________

(i.e., maps, studies)

will be made available upon request.

Preliminary Budget Estimate .........................................................

Preliminary Financing Plan ............................................................

Project Schedule:

Planned Date of Design Startup ......................................................

Planned Date of Design Completion ................................................

Planned Date of Construction Startup ............................................

Planned Date of Construction Completion ...................................

Special Restrictions or Conditions (if known)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Professional Services Anticipated ....................................................

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
ENGINEERING FIRM CONSULTANTS

(Project Name) RFQ ### (Internal RFQ)

ABC Water Company (ABC) in (county name)County, California is requesting (Request for Qualifications) from engineering firms to provide construction plans, specifications, bid documents, contract administration, and inspection services for one project consisting of

(Provide brief description, including:
Description of the project
Location of project
Purpose of the project / What does project accomplish
Section process for the project)

Request for (Request for Qualifications) packets may be obtained at (Location), through the (Title of Person or Department responsible for distribution of RFP or RFQ). All proposals must be received at (Location Name), (Street Address for Submittal), no later than (Time AM/PM), on (Day of Week), (Month, Date, Year).

ABC reserves the right to reject any or all (Request for Qualifications) received.
If you have any questions please contact (Name), at (Phone Number, Extension) or (email)

Possible notification / distribution:

- Post at library
- Post at community center
- Copy to town manager or county public works
- Copy to interested vendors
- Web site
Exhibit C

SAMPLE REQUEST FOR STATEMENT OF QUALIFICATIONS

TO: ________________________________
    (Engineering Firm)

FROM: ________________________________
    (Water System)

PROJECT: ________________________________

PROJECT LOCATION: ________________________________

RE: REQUEST FOR STATEMENT OF QUALIFICATIONS

Your firm is invited to submit your Statement of Qualifications to become eligible to be selected to provide professional services. Your Statement of Qualifications should include the following information:

1) Name, address and brief description of firm.
2) Resumes of key personnel to be assigned to this project.
3) A one-page narrative as to firm’s interest, particular abilities and qualifications related to this project.
4) Description of other projects designed by this firm and key personnel pertinent to this project. Include reference contact information.
5) Examples of knowledge, expertise and/or experience with other related work.

For firms that are Short-listed for an interview, a tour of the facility and/or site will be arranged if necessary.

____ copies of your Statement of Qualifications should be forwarded to the following address – and must be received no later than ______ a.m./p.m. on ________

(time) (date)

TO: ________________________________
    (Contact person) ________________________________
    (Title)

    ________________________________
    (Address) ________________________________
    (City) ___________ (State) ___________ (Zip)

    ________________________________
    (Telephone Number)
Exhibit D
Sample Evaluation Criteria

The primary considerations are *relevant experience* in the types of services needed and *demonstrated ability to serve in a timely and effective manner*. The basic criteria you will be evaluating during the evaluation process include:

**Knowledge** – The engineer should have specialized education or training in the aspect of public water system planning or engineering that the small water system needs.

**Experience** – The engineer should have professional engineering experience with similar water system projects for a similar size system. If your system has a specific issue, such as a violation of Maximum Contaminant Level, then the engineering firm selected should have specific knowledge and experience with the treatment technologies available to remove such contaminants.

**Ability to Serve** – The engineer should demonstrate that sufficient uncommitted time and other resources are available to perform the services within the time needed by the water system.

**Communication** – The engineer should demonstrate the ability to communicate in a thorough and timely manner as needed to keep the water system fully and satisfactorily informed.

**References** – The engineer should provide three or more references from previous clients for water system engineering performed. In addition to a contact person, you may want to ask for information about the type of project, the year the project was undertaken, the total actual versus estimated cost of the project, and the name of the engineer in charge of the project.
Exhibit E
Sample Reference Check

This form is designed for the Selection Committee to check references of “short-listed” firms.

Project

(for which the selection is being made)

Engineering Firm

(for which the reference check is being conducted)

Reference Information:
Water System __________________________ Project Referenced __________________________
Address __________________________ Person Contacted __________________________
_____________________________ Email __________________________
Phone __________________________ Fax __________________________

SAMPLE QUESTIONS:
1. What was the scope of this firm’s services? (soil investigations, design work, construction phase services, studies, other (specify) __________________________

2. Who was this firm’s Project Manager or primary contact? __________________________

3. When was the project completed? __________________________

COMMENTS
4. Was the project completed on time? YES NO
5. Was the project completed within budget? YES NO
6. Did this firm and you (the owner) work well as a team? YES NO
7. Did this firm cover all of the project’s requirements? YES NO
8. Would you use this firm on a similar project in the future? YES NO
9. Do you or your system have a personal relationship with this engineering firm key personnel? YES NO
10. How would you rate this firm’s qualifications and fee structure? POOR AVERAGE GOOD
11. What is your overall evaluation of this firm based on your experience? __________________________
12. Other questions/comments? __________________________
TO: ____________________________________________________________

(Engineering Firm)

FROM: __________________________________________________________

(Water System)

PROJECT: ___________________________________________________________________________________________________

RE: INTERVIEW SCHEDULE AND REQUIREMENTS FOR SHORT-LISTED FIRMS

Congratulations! Your firm has been chosen to be interviewed by our Selection Committee. Please find the following attached:

Copies of __________________________________________________________________ for your information and review

(name of studies, reports, or site map)

Each firm will be allowed approximately 45 minutes to present their qualifications and answer questions. At the completion of the interviews, the committee will rank the firms. The firm deemed to be most qualified will then be invited to define the scope of work and negotiate contract terms. If contract terms cannot be reached, the firm deemed the next most qualified will be invited for scope definition and contract negotiation.

A tour of the site (if appropriate) will be held on ______________________ at ________

(Date) a.m./p.m.

Interviews will be held at ________________________________________________________________________________________

(Location)

The date and time of interview is: ______________________ at ______________________

(Date) a.m./p.m.

Confirm arrangements with __________________________ at ( ) ________________

(Contact name) (Phone number)
Exhibit G
Sample Interview Questionnaires

- What experience does your firm have in working with water system such as ours?
- What other water system have you worked with in the state?
- Are you familiar with our situation and the local area to know some of the particular needs we have?
- What is the design philosophy of your firm? Are you willing to look at innovative and/or alternative designs?
- What do you see as your duty as part of this project? Are there specific or itemized services that you do not provide? Detail services you will provide in addition to design plans and specifications.
- Are you familiar with the various funding programs in the state for water as they relate to water system/special districts? What has been your experience in working with these funding agencies before? Has your firm assisted water system/special districts with grant writing and the application preparation? What has been success rate of those applications?
- Who specifically in your firm would be working directly with our board? Have they worked with other water system/special districts?
- What other projects are you currently working on that could take precedence and time away from our project? Is your firm under any time constraints for this year?
- How much of the work on our project would be subcontracted?
- If we select your firm, would it be acceptable for the firm to accept liability for the design of the project? If so, what would you have to do to assume that liability?
## Exhibit H
### Sample Rating Form

**RFP Selection Rating for:**

*Project Name/Identifier*

**(Name of Public Water System)**

---

**Engineering Firm:**

---

### Evaluation Criteria to be Rated by Scorers

<table>
<thead>
<tr>
<th>Category</th>
<th>Scoring Criteria</th>
<th>Scale</th>
<th>Score</th>
<th>Weight (%)</th>
<th>Weighted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Past Performance</strong></td>
<td>Performance evaluation score averages from Reference Check</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality score for similar work from reference check.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schedule score from reference check.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsiveness score from reference check.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capacity of Team to do Work</strong></td>
<td>Evaluation of the team's personnel and equipment to perform the project on time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Availability of more than adequate capacity that results in added value.</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate capacity to meet the schedule.</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insufficient available capacity to meet the schedule.</td>
<td>-1</td>
<td></td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td><strong>Team’s Demonstrated Qualifications</strong></td>
<td>Technical expertise: Unique Resources that yield a relevant added value or efficiency to the deliverable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrated outstanding expertise and resources identified for required services for value added benefit.</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrated high level of expertise and resources identified for required services for value added benefit.</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expertise and resources at appropriate level.</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insufficient expertise and/or resources.</td>
<td>-3</td>
<td></td>
<td>-3</td>
<td></td>
</tr>
<tr>
<td><strong>Project Manager</strong></td>
<td>Predicted ability to manage the project, based on: experience in size, complexity, type, subs, documentation skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrated outstanding experience in similar type and complexity.</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrated high level of experience in similar type and complexity.</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience in similar type and complexity shown in resume’.</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience in different type or lower complexity.</td>
<td>-1</td>
<td></td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insufficient experience</td>
<td>-3</td>
<td></td>
<td>-3</td>
<td></td>
</tr>
<tr>
<td><strong>Approach to Project</strong></td>
<td>Project Understanding and Innovation that provides cost and/or time savings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High level of understanding and viable innovative ideas proposed.</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High level of understanding of the project.</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic understanding of the project.</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of project understanding.</td>
<td>-3</td>
<td></td>
<td>-3</td>
<td></td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Location of assigned staff office relative to project.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within 50 mi.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>51 to 150 mi.</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>151 to 500 mi.</td>
<td>-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greater than 500 mi.</td>
<td>-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Weighted Sub-Total:**

---

**Signature:**

---

**Print Name:**

---

**Title:**

---

**Date:**

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Engineering Firm Selection Process – August 2012
Exhibit I

Contract Negotiation Sample Questions

- Will travel time be an additional charge and, if so, at what rate?
- Will the fee include all consultations, or will each meeting above a set number be an additional charge?
- How will the water system be charged if State Water Board requires changes or additions to the engineer’s submittal?
- Will a particular pay option provide incentives for the engineer to save money for the water system?
- Are there specific or itemized services that the engineer will not provide?
- What are the services the engineer will provide in addition to design plans and specifications?
- Who specifically from the engineer firm will be working directly with your system? What are the qualifications and experience of this person?
- How much of the work on the project would be subcontracted?
- Is the engineer familiar with the various funding programs in the state for water systems such as yours? What is the engineer’s experience in working with these funding agencies? Has the firm assisted water systems on grant writing and the application preparation?
Exhibit J – Miscellaneous Samples

Types of services commonly performed by an engineer

There is no set package of services that engineers perform. The services are tailored to the specific needs of each small water system. However, there are generally three phases of a design and construction project that the engineer maybe involved in: planning and preliminary design, final design, and construction.

**Planning and Preliminary Design Phase** - Involves studying the problem, determining alternate solutions, outlining the basic concept, making preliminary cost estimates, and establishing project feasibility. The water system should not go into a project with a preconceived idea of the project. The engineer should actually perform an analysis of alternatives and include recommendations.

**Final Design Phase** - Includes design, field work, preparation of construction documents and cost estimate, preparation of construction bid documents, as well as submittal to all regulating agencies, including local and county jurisdictions, and agencies overseeing waste handling.

**Construction Phase** - May involve construction staking, managing the hiring of a contractor, surveillance and inspection of the contractor’s work during construction, review of contractor’s progress payment requests, and other matters required to assist the system in the construction phase.

An engineer may perform the following services regarding the planning, design, and construction of water systems:

- Identifying source, storage, treatment, or water distribution system problems.
- Analyzing alternate solutions to these problems.
- Assuring that the system designed will function properly and be efficient, economical, and reliable.
- Preparing detailed design and construction documents to implement the selected solution to the problems.
- Helping the system get plan approval from the State Water Board – Division of Financial Assistance
  - Planning and Preliminary Design Phase
  - Final Design Phase
- Helping the system solicit and evaluate bids from contractors to perform the work.
- Inspecting and testing the quality of a contractor’s work and making necessary reports and recommendations to the water system.
SAMPLE SCHEDULE OF ACTIVITIES

The following professional selection schedule has been established by:

(Water System)

(Project)

Dates

Step 1 - The owner establishes evaluation criteria

___ A preliminary scope of services in general terms is developed
___ Owner identifies firms to receive Request for Statement of Qualifications (RFQ)
___ Mail Request for Statement of Qualifications (RFQ)
___ Statement of Qualifications due, allow a minimum of 10 to 15 working days for firms to submit
___ Develop a short list of three to five firms to be interviewed. Selection will be based on qualifications, references and experience compatible with the owner’s project
___ Memo mailed to shortlisted firms advising them of the date for interview and pre-interview tour of site, if appropriate. Include interview questions and score sheet with Memo
___ Memo mailed to all firms not shortlisted, informing them of firms selected for an interview and expressing appreciation for their interest
___ Tour of site, if appropriate, should be scheduled at least 10 days prior to date of interview to allow for preparation
___ Check references prior to the interview
___ Interviews with shortlisted firms, ranking of firms and selection of the highest ranked firm
___ Mail Memo to firms not selected, informing them of the results of the interviews and expressing appreciation for their involvement

Step 2 - Meet with highest ranked firm to define scope of the work

___ Negotiate contract terms

Step 3 - Selected firm submits fee proposal based on finalized scope of work and contract terms

___ Obtain approval from Board of Directors
___ Execute contract with selected firm