

August 29, 2016

NOTICE TO PROVIDERS OF PROFESSIONAL SERVICES

SDWB-PS-FY17-01-MF

The Department of Health, Safe Drinking Water Branch (SDWB) is seeking the services of a qualified professional engineer (Consultant) to provide consultant services to develop an appropriate regulatory review and approval procedure to evaluate the effectiveness of Alternative Filtration Technologies for public drinking water systems. The source water may be surface water, ground water under the direct influence of surface water, brackish water or seawater.

The Scope of Work will require the development of regulatory review and approval procedures in two (2) phases. Qualifications and Services needed include, but are not limited to, the following:

Phase I

The Consultant shall conduct a literature search of review and approval processes, including test protocols, for Alternative Filtration Technologies that are extant in at least five (5) states and any such review and approval processes included in U.S. Environmental Protection Agency (EPA) and National Sanitation Foundation (NSF) literature. For example, the literature search may include California's Drinking Water Membrane Testing Protocol for California Department of Public Health Conditional Acceptance Pilot Testing (February 2010), the U.S. EPA's Membrane Filtration Guidance Manual and the NSF/ANSI Standard 419: Public Drinking Water Equipment Performance - Filtration.

At a minimum, the literature search shall answer the following questions:

- Do other states require pilot testing on the State's most challenging waters to determine log removal credits for *Giardia lamblia*, *Cryptosporidium* and viruses for a particular membrane manufacturer and module?
- Do other states require pilot testing for each project? Is the goal of this testing to determine log removal credits for *Giardia lamblia*, *Cryptosporidium* and viruses for the project or is the goal to optimize treatment for the project?
- Do other states accept challenge testing performance through NSF/ANSI Standard 419?

In addition, the Consultant shall conduct discussion meetings with SDWB staff on current and past review and approval practices for Alternative Filtration Technologies in the State of Hawaii.

The Consultant shall summarize the findings of the literature search and discussions with SDWB staff in a draft report. The draft report shall be reviewed by SDWB staff and any comments shall be addressed in a final report completed by the Consultant.

Phase II

The Consultant shall develop and recommend a Review and Approval Procedure for Alternative Filtration Technologies (Procedure) for the SDWB to adopt. The Procedure shall, at a minimum, meet all Federal and State safe drinking water standards, including but not limited to the Surface Water Treatment Rule (e.g. Interim Enhanced, Long Term 1 and Long Term 2 SWTR, etc.) and detail how to

determine log removal credits for *Giardia lamblia*, *Cryptosporidium* and viruses with related possible conditions to each approval, including pressure decay testing and maximum instantaneous flux rates. The Procedure shall include a Pilot Testing Protocol for 1) determination of log-removal credits for the membrane module and/or 2) treatment optimization for the project.

The Procedure shall be flexible to allow for various technologies to treat various source waters (e.g. submerged or pressurized microfiltration or ultrafiltration membranes for surface water and nanofiltration or reverse osmosis membranes for brackish water and seawater).

There are 11 surface water treatment plants in the State of Hawaii regulated under the Federal Safe Drinking Water Act. In developing the Procedure, the Consultant shall review relevant water quality data for the existing 11 regulated surface water treatment plants. The Consultant shall provide a list of desired water quality data to the SDWB.

The draft Procedure shall be reviewed by SDWB staff and any comments shall be addressed in a final Procedure completed by the Consultant.

Minimum Qualifications:

- At least 10 years of design and/or research experience of drinking water treatment facilities, utilizing alternative filtration technologies with a minimum capacity of 5 million gallons per day (MGD).
- The Consultant's principal staff person on the Contract shall have a Professional Engineer (P.E.) registration in a state of the United States of America.
- Experience and professional qualifications relevant to project type.
- Past performance on projects of similar scope for public agencies
- Participation in at least three (3) pilot tests of alternative filtration technologies.
- Capacity to accomplish the work in the required time.
- Any other criteria as determined by the selection committee to be relevant or necessary.

Under the requirements of Section 103D-304, Hawaii Revised Statutes, the SDWB Chief is authorized to invite interested individuals or firms engaged in providing professional services for inclusion on a list of qualified professionals. Individuals or firms interested in being considered for this project, and have the necessary experience and qualifications, are invited to submit a letter of interest, three (3) copies of their DPW form 120, and three (3) copies of their resume by October 14, 2016, to:

Ms. Joanna L. Seto, P.E.

Safe Drinking Water Branch Chief

919 Ala Moana Boulevard, Room 308

Honolulu, Hawaii 96814-4920

Only those perspective individuals or firms who submit the above required documents by the deadline will be considered.

DPW form 120 may be downloaded from <http://hawaii.gov/formscentral/department-of-accounting-and-general-services/cip-dpw-120/view>.

If there are any questions regarding the nature of the assignment please contact Mr. Alan S. Dillon, General Professional IV, Safe Drinking Water Branch at (808) 586-4258.