



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

DATE: February 21, 2012

Approved

Date

2/27/12

SUBJECT: MASTER AGREEMENT WITH BLP ENGINEERS, INC. FOR TECHNICAL LEAD AND QUALITY ASSURANCE/CONTROL SUPPORT FOR THE DIGESTER REHABILITATION PROGRAM AT THE SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT

RECOMMENDATION

Adopt a resolution authorizing the City Manager to:

- (a) Negotiate and execute a Master Service Agreement with BLP Engineers, Inc. for technical lead and quality assurance/control support for the Digester Rehabilitation Program at the San José/Santa Clara Water Pollution Control Plant for an amount not to exceed \$2,200,000 for an initial term commencing upon approval of the agreement and continuing through June 30, 2014
- (b) Execute up to three additional one-year options and to increase the compensation in an amount not to exceed \$1,100,000 for each additional one-year term, subject to the annual appropriation of funds by Council.

OUTCOME

Approval of this master agreement provides the City with the ability to obtain a technical lead and quality assurance/control support for the Digester Rehabilitation Program at the San José/Santa Clara Water Pollution Control Plant (Plant) on an as-needed basis.

BACKGROUND

Since 2007, the Plant has been engaged in a comprehensive master planning effort to identify the short-term and long-term capital improvement investments needed to address the Plant's aging infrastructure and reduced reliability due to facility conditions. Several key process units,

including the Plant's anaerobic digesters, digester gas pipeline conveyance system, dissolved air flotation thickeners (DAFT) and related support facilities, have been identified as priorities for rehabilitation due to capacity, safety and performance issues.

In 2008, the City initiated a Digester Rehabilitation Program focused on process optimization and modernization of sixteen existing anaerobic digesters for solids stabilization, dewatering, drying and final disposal and/or re-use. The goals include co-digestion of sludge, scum and fats, oils, and grease, better mixing and gas production, energy recovery and odor control. The firm of Brown & Caldwell was retained to develop a comprehensive pre-design study and implementation plan for the Digester Rehabilitation Program. The study concluded in October 2011, resulting in final recommendations to upgrade a total of ten digesters with new covers and mixing systems along with other significant upgrades to the digester gas manifold and tunnels, DAFT units, and digester heating systems. Due to operating constraints, the rehabilitation work will need to be completed in three phases: Phase 1 – initial four digesters; Phase 2 – additional four digesters; and Phase 3 – the remaining 2 digesters.

An Implementation Plan has been prepared for the Digester Rehabilitation Program and identifies seven major construction elements:

1. Digester Gas Manifold and Tunnel Improvements
2. Digester Cover and Mixing Upgrades
3. Digester Mixing Equipment 1
4. Digester Mixing Equipment 2
5. DAFT Final Upgrades
6. Digester Heating Upgrades
7. Struvite Control Chemical Feed

The City is in the process of engaging two consultant firms, Black & Veatch and Brown & Caldwell, through existing master agreements, to prepare construction bid documents for the Phase 1 work. Black & Veatch will be responsible for designing the digester gas manifold and tunnel improvements, and Brown & Caldwell will be responsible for designing the digester cover and mixing system improvements, along with the DAFT modifications and heating system upgrades. The result will be two concurrently designed bid packages with the possibility that the designs may be combined into one bid package. Design and bidding services are estimated to take two years following issuance of a Notice to Proceed, which is tentatively scheduled for April 2012.

Given the size and disruptive nature of the project and the need for significant emphasis on the safety related to the lone digester gas pipeline that carries methane gas, coordination required between the various aspects of the projects and current Plant operations, staff identified the need for an engineering consulting firm to provide technical leadership and QA/QC support services for the Digester Rehabilitation Program. Implementation of this program will require coordination with multiple stakeholders including the design consultants; Plant engineering and operations and maintenance staff; and other Plant or City projects such as the on-going Plant Master Plan to ensure projects will be implemented for the long-term needs of the Plant.

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For the initial term of the agreement, the technical lead consultant will be responsible for overseeing the Phase I work, from the design of the projects up to and including the bidding phase. Any necessary support services during construction and commissioning phases will be developed at a later date in the City's sole discretion subject under the additional option years. Specific tasks to be completed by this consultant include:

- Coordination and facilitation of internal and external project meetings and workshops to review roles, responsibilities, and communications protocol, discuss fundamental design decisions and criteria, set standards and conventions for project design documents, and review schedule and budget commitments, technical review workshops at the 10-30-60-90 percent design stages, and monthly progress meetings with City's two design consultants.
- Technical review of major design submittals, detailed design review at 10-30-60-90-100 percent submittals covering multiple disciplines including general/civil, process/mechanical, structural/demolition, building/mechanical, electric/power, process equipment and sizing, controls systems and strategies. Review of construction cost estimate at 10-30-60-90-100 percent submittals. Coordination of common technical requirements and design interfaces between the two design bid packages, identification and resolution of potential conflicts. Coordination and review of the Process Hazard Analysis at the 30 percent design stage.
- Evaluation of technical issues and piloting assistance/field studies related to: digester mixing alternative, Struvite resistant material, gas compressors and DAFT upgrades and heat exchanger capacity.
- Equipment evaluation, selection, and procurement and review of the pre-purchase contract documents to be developed by City's design consultants at the 60 percent design stage; assist City with negotiation of the sole source purchase agreements where appropriate including evaluation of warranty options; coordinate and monitor pre-purchase equipment delivery schedule; in coordination with City's design consultants, inspect and confirm delivered product for compliance with pre-purchase contract documents; in coordination with City staff and design consultants, develop proper equipment storage plan until installation.

ANALYSIS

Staff began a qualification-based consultant selection process with a Request for Qualifications (RFQ), which was advertised on BidSync in November 2011. Three companies responded to the RFQ and submitted a Statement of Qualifications (SOQ). A panel consisting of representatives from the Environmental Services Department, the City of Sunnyvale and the West Valley Sanitation District evaluated the SOQs. The same panel also conducted oral interviews with all three firms.

The overall selection criteria were: the proposing firm's program approach; the project manager's qualifications and experience; the technical lead's qualifications experience; the specialty subconsultants' experience; the proposing firm's technology implementation and

testing experience; the proposing firm's communications skills; and Local/Small Business Enterprise (LBE/SBE) status.

The individual evaluations from the SOQ screening, oral interview, and LBE/SBE status were compiled using a scoring system based upon a maximum of 100 points of which 54 points maximum were assigned to the submitted SOQ, 36 points maximum to the oral interview, and 10 points to the LBE/SBE status. The total point scores and the resulting rankings of each firm are summarized below:

Consulting Firm	Score	Rank
BLP Engineers, Inc.	87.7*	1
Whitley Burchett & Associates	62.7	2
PSOMAS	56.3	3

* Includes ten points for LBE/SBE preference.

All work to be provided under the master agreement will be negotiated and authorized on a service order basis and will conform to the scope of work described under the background section of this memorandum. City may choose to seek additional services related to project management and project controls and support during construction, based on the need and how many concurrent construction projects would be happening at the same time as the Digester Rehabilitation project.

EVALUATION AND FOLLOW-UP

This master agreement will provide staff with the ability to engage the services of the consultant on an as-needed basis, thereby enabling a cost effective and timely delivery of the Digester Rehabilitation Program. No additional follow-up action with the Council is expected at this time.

PUBLIC OUTREACH

- Criterion 1:** Requires Council action on the use of public funds equal to \$1 million or greater. **(Required: Website Posting)**
- Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or

a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

COORDINATION

This project and memorandum have been coordinated with Risk Management, Equality Assurance, the City Manager's Budget Office, and the City Attorney's Office. As part of the "contracting-in" evaluation, this project was approved for outsourcing by the City's Contracting-In Committee due to the lack of technical skills required to implement this project within the City. This item is scheduled to be heard at the March 8, 2012 Treatment Plant Advisory Committee meeting.

FISCAL/POLICY ALIGNMENT

This agreement is consistent with the Council-approved budget strategy to focus on rehabilitating aging Plant infrastructure, improve efficiency, and reduce operating costs. This agreement is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: \$2,200,000
2. COST ELEMENTS OF MASTER AGREEMENT: The master agreement's consultant services are reimbursed based on an hourly rate schedule in the master agreement for the involved consultant personnel.
3. SOURCE OF FUNDING: 512 – San José/Santa Clara Treatment Plant Capital Fund. Funds will be encumbered, as needed, from the Digester Rehabilitation appropriation when service orders are developed. All encumbrances will be subject to the appropriation of funds.

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BUDGET REFERENCE

The table below identifies the fund and appropriation proposed to fund the agreement recommended as part of this memorandum.

Fund #	Appn. #	Appn. Name	RC #	Total Appn.	Amt. for Master Agreement	2011-2012 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
Current Funding Available							
512	4127	Digester Rehabilitation	144943	\$12,820,000	\$2,200,000	V-163	6/21/2011; Ord. No. 28928

CEQA

Statutorily Exempt, File No. PP10-066 (d), CEQA Guidelines Section 15262, Feasibility and Planning Studies.

/s/

KERRIE ROMANOW

Acting Director, Environmental Services Department

For questions, please contact Bhavani Yerrapotu, Deputy Director, Environmental Services Department, at (408) 945-5321.