



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 03-03-08

Approved

Christine J. Shippy

Date

3-6-08

SUBJECT: ENGINEERING SERVICES MASTER AGREEMENTS WITH BLACK & VEATCH, BROWN AND CALDWELL, CAROLLO ENGINEERS, CH2M HILL, AND METCALF & EDDY FOR SAN JOSÉ/SANTA CLARA WATER POLLUTION CONTROL PLANT CAPITAL IMPROVEMENT PROGRAM

RECOMMENDATION

Approval of consultant master agreements with the following firms for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant for a term commencing upon approval of the agreement and continuing through June 30, 2013 and for the amounts stated below, and providing the City with options to amend the agreements to increase the amounts payable in such amounts as may be approved by Council:

1. Black & Veatch in an amount not to exceed \$1 million.
2. Brown and Caldwell in an amount not to exceed \$5 million.
3. Carollo Engineers in an amount not to exceed \$1 million.
4. CH2M HILL in an amount not to exceed \$1 million.
5. Metcalf & Eddy in an amount not to exceed \$1 million.

OUTCOME

Approval of these master agreements provides the City with the ability to obtain engineering services for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant (Plant) on an as-needed basis. These consultant services are needed to assist City staff in addressing and delivering highly technical and specialized wastewater projects at the Plant, including rehabilitation of digesters and clarifiers, corrosion mitigation, liquid and solids process optimization, mechanical and electrical system reliability and other capital rehabilitation

and reliability projects, and implementation of alternative and/or sustainable energy projects that are part of the Plant 5-year Capital Improvement Program (CIP).

Including options in the agreements to allow the City to amend the agreements to increase the amounts payable in such amounts as may be approved by Council will ensure that if Council approves an amendment to any of the agreements, the consultant will be available at the rates specified in the original agreement. It is anticipated that an additional amount totaling \$9 million will need to be approved for the agreements to complete the capital projects that will be budgeted in the Plant five year CIP.

EXECUTIVE SUMMARY

Staff recommends the approval of five master agreements for engineering consultant services for the delivery of the 5-year CIP at the Plant. Selection of these consultant firms was carried out in accordance with Department of Public Works, "Qualifications Based Consultant Selection Policy." Under these agreements, consultant services will be initiated by authorized Service Orders specifying the services to be performed, the schedule, and the maximum amount of compensation for each service. Services will be tailored to meet the requirements of each CIP project and to complement City staff expertise which will enable effective application of in-house resources in the most efficient manner.

BACKGROUND

As presented to the Transportation and Environment Committee on March 3, 2007, the Infrastructure Condition Report (ICA), (CH2M Hill, City of San José, May 2007) for the Plant identified nearly \$1.0 billion in rehabilitation needs for the next 10 to 15 years with \$250 million in the next five years. Between 1995 and 2005, annual capital expenditures at the Plant have averaged \$11.0 million. The 2007-2008 Adopted Capital Budget, 2008 – 2012 Capital Improvement Program is budgeted at \$178 million in construction projects, which amounts to an average of \$36 million per year, with approximately \$58 million budgeted over the next five years for various Electrical Reliability Improvements projects. The remaining budget is for construction projects in the following categories: digester rehabilitation; structural rehabilitation; equipment replacement and rehabilitation; piping and valve projects; and other miscellaneous rehabilitation projects. Design and construction management services aside from Electrical Reliability projects are estimated to be between \$7 million and \$9 million over the next 5-years.

For many years, the Plant has been utilizing consultant services to assist City staff in providing design and construction management services for capital projects. Typically these services have been requested on an annual basis for the CIP projects for a particular year, or on a project by project basis, through a Request for Qualifications (RFQ) specific to the individual project. The process for acquiring consultant services for specific projects can take anywhere from 3 to 6 months for the award of the agreement, due to the rather lengthy process for advertising for

services, evaluation of proposals and award of the agreement. In an effort to streamline this process and to address the critical infrastructure needs and to deliver the significantly expanded capital improvement program, ESD explored the option of establishing multiple Master Services Agreements, under which consultant services could be provided through authorized service orders, thus eliminating the need for successive consultant selection and agreement processing timelines. With the wide variety and magnitude of work involving multi engineering disciplines as identified in the ICA report, acquiring multiple consultant master agreements will allow for greater flexibility to augment staff resources and better control of project delivery schedules.

ANALYSIS

Staff began a qualification based consultant selection process with a RFQ, which was advertised on the City's Bid Hotline and ESD's RFPs/Bids website in October 2007. The RFQ was specifically focused on CIP projects other than Electrical Reliability Improvements projects, since the desirable qualifications and targeted proposers for the electrical projects is significantly different than that of typical wastewater engineering projects. Of the seven companies who responded to the RFQ and submitted a Statement of Qualifications (SOQ), the top six were screened for interviews by a panel consisting of representatives from the Department of Public Works (DPW), ESD, and the City of Milpitas, representing a tributary agency and the Plant Technical Advisory Committee (TAC). A separate panel also consisting of representatives from DPW, ESD and a representative from the City of Santa Clara, representing a tributary agency and TAC, conducted oral interviews with each of the top six firms.

The overall selection criteria were: the proposing firm's experience and/or expertise in the area of major wastewater facilities rehabilitation including innovative technologies; proposed staffing; project management and construction management qualifications and experience; and Local/Small Business Enterprise (LBE/SBE) status. All responding consulting firms qualified for the LBE preference.

The individual evaluations from the SOQ screening and oral interview panel were compiled using a scoring system based upon a maximum of 500 total points of which 200 points maximum were assigned to the submitted SOQ and 300 points maximum to the oral interview. Total point scores and the resulting rankings of each firm are summarized below:

<u>Consultant Firm</u>	<u>Scores</u>	<u>Rank</u>	<u>Expertise</u>
Black & Veatch	397	1	Energy, Alternative Project Delivery
CH2M HILL	397	1	Infrastructure Rehabilitation
Brown And Caldwell	389	3	Digester Rehabilitation
Carollo Engineers	388	4	Construction Support
Metcalf & Eddy	379	5	Waste to Energy Technology
Parsons	314	6	General Engineering

The selection panel recommended that the top five ranked firms be chosen for negotiations of master consultant agreements, as each of these firms offers unique technical expertise, and capitalizing upon their combined strengths would best benefit the Plant's capital project delivery needs. In addition, the overall scores of the top five ranked firms are also very close to each other, indicating that they are very comparable and represent some of the very best consultants in the wastewater engineering industry.

In summary, Black & Veatch demonstrated their project team's experience and expertise in the area of alternative or sustainable energy, design-build project delivery and construction management, while CH2M Hill who recently completed the ICA report, demonstrated extensive experience in assessment and approach for the Plant's aging infrastructure, underground piping repair, and corrosion mitigation work. Brown and Caldwell presented a highly experienced team specializing in large digester rehabilitation and upgrade for co-digestion of scum, and fat, oils and grease (FOG). They were also the original design consultants for the first set of digesters built at the Plant and are currently under contract with the City as a sub-consultant for the Plant Master Plan. Carollo Engineers, is currently under contract with the City for the almost complete Plant Reliability Improvements contract and also the Plant Master Plan. They demonstrated their familiarity of the Plant, experience with construction management support and expertise in energy generation from digesters and co-generation. Metcalf & Eddy is an internationally renowned firm in the design of wastewater facilities and during the interview demonstrated unique experience and expertise in the field of waste-to-energy conversion technology that fits well into the innovative technology qualifications specified in the RFQ.

Staff has obtained and negotiated the fees schedule to be included in these agreements that are comparable with other existing similar contracts in the City and the Bay area. The fee schedules will apply to any amendments approved by Council. The fee schedule being proposed and agreed to by all the consultants were found to be competitive in the Bay area market place and an annual rate adjustment of a maximum of 4.5% has been agreed to by all parties. Similar rates and contract terms have been provided by these firms to local bay area water and wastewater agencies such as East Bay Municipal Utility District, Central Contra Costa Sanitary District, Santa Clara Valley Water District, and San Francisco Public Utilities Commission.

The scope of work under the master agreements includes various technical services, but is not limited to: engineering studies, detailed design, value engineering, preparation of construction bid documents, construction management support, operation and maintenance (O&M) manual preparation for newly constructed or rehabilitated facilities, facility start-up assistance, and training as part of the Plant CIP projects. These projects are typically related to Plant modernization, infrastructure rehabilitation, mechanical and electrical equipment and system reliability improvements, liquid and solids process improvements, and energy efficiency and optimization. Implementation of these projects typically involves a multi-phase and multi-year approach and may also require coordination with 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.

Under these agreements, consultant service will be initiated by Service Orders detailing the specific scope of work, schedule and compensation for individual projects or tasks. Staff will determine the award of individual service order to each of the consultant firms based on their expertise and availability. Having multiple firms available will enable staff to issue a Service Order to the firm most able to complement staff expertise in a specific technical discipline, ensuring the most cost effective and efficient use of staff and consultant resources.

City staff therefore recommends the approval of master agreements with these five firms, for varying amounts to match with their expertise and the project needs in the 2007-2012 CIP.

EVALUATION AND FOLLOW UP

These master agreements will provide staff with the ability to engage the services of engineering consultants on an as-needed basis, thereby enabling a more cost effective and timely delivery of projects. No additional follow up action with the Council is expected at this time. Amendment to the agreements to increase the compensation payable, as needed, will be subject to Council approval at a later date.

POLICY ALTERNATIVES

Alternative 1: An alternative approach to accomplish this effort would be for all work to be performed by City staff in lieu of the proposed effort with outside professional engineering consultants.

Pros: The work would be done by City staff.

Cons: Lack of technical expertise; need for engineering skills in various disciplines; and lack of sufficient resources.

Reason for not recommending: The lack of expertise and staff resources in the varied engineering disciplines required for the CIP delivery thereby leading to ineffective, incomplete and delayed designs and implementation.

Alternative 2: Solicit consultant services for each individual projects.

Pros: Possibility of more competition and more proposals received.

Cons: Delayed timelines on project implementation as the process for each contract award could take up to 6-months. Significant contract process burden on engineering staff.

Reason for not recommending: With a significantly expanded CIP for the Plant, individual RFQs are not an efficient means for project delivery. With existing staff resources, this would divert staff away from design development and implementation to contract processing.

PUBLIC OUTREACH/INTEREST

- Criteria 1:** Requires Council action on the use of public funds equal to \$1 million or greater; **(Required: Website Posting)**
- Criteria 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)**
- Criteria 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)**

The RFQ for consultant services was advertised on the ESD RFP's/Bids Internet website and the City of San José's Bid Line on the City of San José Capital Project Management System.

This award memo will be posted on the City's website for the March 18, 2008 Council Agenda.

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 13, 2008 Treatment Plant Advisory Committee (TPAC) meeting.

FISCAL/POLICY ALIGNMENT

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

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: \$ 9 Million

2. COST OF AGREEMENT WITH EACH CONSULTANT:

BLACK & VEATCH	\$ 1 Million
BROWN AND CALDWELL	\$ 5 Million
CAROLLO ENGINEERS	\$ 1 Million
CH2M HILL	\$ 1 Million
METCALF & EDDY	\$ 1 Million

TOTAL AGREEMENT AMOUNT: \$ 9 Million

3. SOURCE OF FUNDING: 512 – San José/Santa Clara Treatment Plant Operating Fund.

4. FISCAL IMPACT: No additional funding is necessary to approve these master agreements. Funds have already or will be appropriated as needed for the various capital projects through the Plant Capital Improvement Program.

CEQA

Not a project.



JOHN STUFFLEBEAN
Director, Environmental Services Department

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