



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 04-26-10

Approved

Date

4/27/10

COUNCIL DISTRICT: City-Wide

SUBJECT: ADOPTION OF A RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE FIRST AMENDMENTS TO THE MASTER AGREEMENTS WITH CAROLLO ENGINEERS, CH2M HILL, AND BLACK & VEATCH FOR ENGINEERING SERVICES FOR SAN JOSÉ WATER POLLUTION CONTROL PLANT CAPITAL IMPROVEMENT PROGRAM

RECOMMENDATION

Adopt a resolution authorizing the City Manager to negotiate and execute first amendments to the master agreements with:

- (a) Carollo Engineers for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by five percent;
- (b) CH2M Hill for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by five percent; and
- (c) Black & Veatch for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by four percent.

OUTCOME

Approval of this recommendation will provide the City with the ability to continue to obtain engineering services from Carollo Engineers, CH2M Hill, and Black & Veatch for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant (Plant) on an as-needed basis.

BACKGROUND

On March 25, 2008, following the competitive selection procedure outlined in the Qualification Based Consultant Selection policy, Council approved five master agreements with Black & Veatch, Brown and Caldwell, Carollo Engineers, CH2M Hill, and AECOM USA (successor through merger to Metcalf & Eddy) for engineering services for various capital improvement projects at the Plant. The not-to-exceed payable amount for each master agreement is as follows:

<u>Firm</u>	<u>Not to Exceed Amount</u>
1. Black & Veatch	\$1 million
2. Brown and Caldwell	\$5 million
3. Carollo Engineers	\$1 million
4. CH2M Hill	\$1 million
5. AECOM USA	\$1 million

All five consultant agreements were approved for terms continuing through June 30, 2013.

When Council originally approved the master agreements, staff had informed Council that in addition to the total \$9 million in the original agreements (sum of not-to-exceed amount listed in the table above), an additional \$9 million is anticipated to be added to the agreements, during the term of the agreements. This amount is consistent with recent assessments by Staff, on additional consultant services required over the next three years to meet the needs of the Plant.

ANALYSIS

The Need for Additional Services

Under these master agreements, the consultants perform services authorized by service (task) orders that detail the specific scope of work, schedule and compensation for individual projects or tasks. To date, City has authorized a total of \$3,234,356 for eighteen service orders associated with the five master agreements, as follows:

<u>Firm</u>	<u>Value of Service Orders Issued</u>
1. Black & Veatch	\$607,286
2. Brown and Caldwell	\$619,260
3. Carollo Engineers	\$999,700

4. CH2M Hill	\$765,666
5. AECOM USA	\$242,444

These service orders include assistance with performing condition assessments, environmental impact assessments, pre-design studies, detailed design, and providing engineering support during construction of capital improvement projects. The value of service orders issued under the Carollo, CH2M Hill, and Black & Veatch master agreements are close to the maximum payable amount allowed under the respective master agreements.

Since the approval of the original agreements, the value of construction projects scheduled in the Capital Program at the Plant has grown from \$184.9 million over the 2008-2012, to \$247.4 million for the 2010-2014 five-year period. Over the next three years starting in 2010-2011, about \$108.7 million worth of capital improvement projects has been identified and approved as part of the 2010-2014 CIP. This does not include the Electrical Reliability Improvements projects, for which the City has other specialized consultants to provide engineering support. The five-year CIP includes rehabilitation and replacement type projects to address the Plant's aging infrastructure as well as projects to improve energy efficiency, reliability, and operational flexibility. Some of these projects include digester rehabilitation, clarifier rehabilitation, chemical feed station addition, fine bubble membrane diffuser conversion and advanced automation and control. Consultant services required for development, design, and construction of these projects are estimated to be about \$9 million over the next 3 years.

City Staff Workload and In-sourcing

Due to the complexity and magnitude of work at the Plant, multi-engineering disciplines are needed to successfully implement Plant projects. Staff intends to utilize consultant expertise to support the more complex CIP projects at the Plant for which such expertise currently does not exist within City staff. Hiring and training for this expertise does not provide for a sustainable workload due to the intermittent nature of this need and the varied disciplines needed. Therefore, ESD and PW staff will continue to perform in-house design of recurring types of projects such as handrail replacement, pipeline rehabilitation and replacement, pumps and valves replacement. Staff will also continue to perform program management and construction management work. In addition, Staff will be spending more efforts towards pilot testing for the purpose of evaluating technology alternatives and provide specific design criteria input to ensure successful and optimized technology implementation.

The availability of multiple consultant master agreements has allowed the Plant greater flexibility to augment staff resources and better control of project delivery schedules. It has also proved effective in maximizing responsiveness and flexibility in meeting the Plant's variable needs. Staff is able 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. Compared to the last 10 years of capital program implementation, the use of multiple consultant master agreements has allowed for a 50% reduction in project implementation timeline, due to the availability of multiple master agreements and in turn increased staff productivity with the delivery of the capital program at the Plant.

Why these Three Firms?

Over the past two years, staff has worked successfully with these three firms on a number of CIP projects that are worth about \$34 million.

Black & Veatch performed pre-design studies, detailed design, and provided engineering support during construction of the Nitrification Gate and Channel Aeration Improvement project.

CH2M Hill is currently completing the pre-design study of the Secondary Air Plenum Filtration project, a project under the Plant Infrastructure Improvements category. CH2M Hill continues to assist the City with environmental engineering assessments on several South Bay Water Recycling projects funded by the American Recovery and Reinvestment Act (ARRA).

Carollo Engineers is providing engineering support for the soon to be completed Alternative Disinfection project. Carollo is also assisting staff with design of the Headworks Enhancement project.

Due to the satisfactory services provided and the respective expertise of these three firms as it relates to the adopted 2010-2014 Capital Improvement Program (CIP), staff anticipates engaging these consultants in additional work for the duration of the agreements. Since there is balance remaining in the Brown and Caldwell and AECOM master agreements, staff will maintain these two master agreements as-is.

Ensuring Quality and Value

Under these master agreements, the consultants perform services authorized by service orders. Funds are encumbered when service orders are issued. To ensure that the scope of work under each service order is adequate and comprehensive, assigned resources are appropriate, and costs are reasonable, each scope of work will be reviewed by staff in the various sections of ESD and PW as follows:

- Pre-design Studies – Operations and Maintenance sections (ESD), Process Engineering (ESD) and Laboratory (ESD) staff
- Condition Assessment – Operations and Maintenance sections, Process Engineering, Mechanical Engineering (ESD), CIP Engineering (ESD/PW) and Structural Engineering (PW)
- Detail Design – Operations and Maintenance sections, Process Engineering, Mechanical Engineering, CIP Engineering, Structural Engineering, Process Control (ESD) and Electrical Engineering (CIP)
- Construction Management Support – CIP Engineering

In addition, each service order is reviewed by ESD Fiscal section to ensure that sufficient budget is available in the appropriation. Each service order is also reviewed by the City Attorney's Office to ensure that the service order meets the terms and conditions of the master agreement and that the scope of work is clearly defined.

The current agreements allow for an annual adjustment to the hourly rates of up to 4.5 percent. Since the agreements were approved in 2008, Black and Veatch's hourly rates have not increased and Carollo Engineers and CH2M Hill's hourly rates have increased one percent. To further control and reduce expenditures in light of current economic uncertainty, Carollo Engineers, CH2M Hill, and Black & Veatch have agreed to assist the City through reduction in their hourly rates. Under these amendments, Carollo Engineers and CH2M Hill's hourly rates will be reduced by 5 percent and Black and Veatch's hourly rates will be reduced by 4 percent, until December 31, 2010. After December 31, 2010, the consultants' hourly rates will be eligible for increases of up to 4.5 percent, at the discretion of the City.

Conclusion

Based on the above analysis, staff believes that the recommended approval to increase the amount payable for the Carollo, CH2M Hill, and Black & Veatch master agreements by \$3 million each provides the most efficient and effective tools for the City to deliver the significant CIP at the Plant. This will allow Staff to continue to obtain engineering services from these three firms, for various capital improvements project, on an as-needed basis.

EVALUATION AND FOLLOW-UP

Approval of this recommendation will provide staff with the ability to continue to engage the services of CH2M Hill, Carollo Engineers, and Black & Veatch on an as-needed basis, thereby enabling a more cost-effective and timely delivery of projects. No additional follow up actions with the Council is expected at this time.

POLICY ALTERNATIVES

Alternative # 1: Deny approval of the amendments for the CH2M Hill, Carollo Engineers, and Black & Veatch master agreements and utilize either City staff or other consultant master agreements to perform the required tasks.

Pros: Some of the work would be done by City staff.

Cons: City staff does not possess the appropriate technical capability across the broad range of required expertise to perform the work. Reduced availability of consultant resources and expertise to perform tasks.

Reasons for not recommending: The City would need to hire staff to cover diverse areas of professional expertise. Because the demand for services varies, the workload generated is projected to be intermittent and would not be sustainable throughout the year. Project schedules subject to consultant availability. Additionally, having multiple firms available enables staff to issue a service orders to the firm most able to complement staff expertise in a specific technical discipline, thus ensuring the most cost-effective and efficient use of staff and consultant resources.

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Alternative # 2: Deny approval of the amendments for the CH2M Hill, Carollo Engineers, and Black & Veatch and direct staff to conduct another solicitation process to seek consultants services

Pros: Provides opportunity for more firms to compete and possibly provide better hourly rates

Cons: Staff time to develop the Request for Proposal and complete the selection process; possible selection of consultants not qualified or unable to deliver the complex projects at the Plant

Reasons for not recommending: Proceeding with an alternate source of consultants agreements may not result in any cost savings as professional services agreements are selected based on qualifications. The risk negotiating cheaper rates with an alternate consultants firm with lesser qualifications could result in compromised designs and failed projects

PUBLIC OUTREACH/INTEREST

- ✓ **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)**

This memo meets Criterion 1 and will be posted on the City's website for the May 18, 2010 Council Agenda.

COORDINATION

This project and memorandum have been coordinated with the City Manager's Budget Office, and the City Attorney's Office. This item is scheduled to be heard at the May 13, 2010 Treatment Plant Advisory Committee 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: \$12,000,000

2. COST AGREEMENT WITH EACH CONSULTANT:

Carollo Engineers	
Agreement	\$ 1,000,000
First Amendment	\$ 3,000,000
CH2M Hill	
Agreement	\$ 1,000,000
First Amendment	\$ 3,000,000
Black & Veatch	
Agreement	\$ 1,000,000
First Amendment	\$ 3,000,000

TOTAL AGREEMENT AMOUNT \$ 12,000,000

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

* Funding for these Master Agreements will come from the San José/Santa Clara Treatment Plant Capital Fund. In 2009-2010, appropriations for construction projects in this fund, not including the Electrical Reliability Improvements Project, total \$41.2 million. Costs for these contracts to be incurred in future fiscal years are subject to Council approval of the funding.

CEQA

Not a project.

/s/

JOHN STUFFLEBEAN

Director, Environmental Services

For questions please call Bhavani Yerrapotu, Division Manager Technical Support Services, Environmental Services Dept., at (408) 945-5321.