



Santa Clara Valley Water District

File No.: 22-0265

Agenda Date: 5/24/2022

Item No.: *7.3.

BOARD AGENDA MEMORANDUM

SUBJECT:

Approve the Consultant Agreement with Black & Veatch Corporation for Engineering and Environmental Planning Services for the SCADA Master Plan Implementation Project, Project No. 95044002, CAS File No. 5160, for a Not-to-Exceed Fee of \$2,999,864 (Countywide). *PREVIOUSLY LISTED AS ITEM 7.2.

RECOMMENDATION:

Approve the Consultant Agreement with Black & Veatch Corporation for engineering and environmental planning services for the SCADA Master Plan Implementation Project, Project No. 95044002, CAS File No. 5160, for a Not-to-Exceed Fee of \$2,999,864.

SUMMARY:

Santa Clara Valley Water District (Valley Water) is undertaking a comprehensive master planning effort for existing water utility treatment and distribution system infrastructure with three distinct projects: the Water Treatment Plant (WTP) Master Plan Implementation Project, Supervisory Control and Data Acquisition (SCADA) Master Plan Implementation Project, and Distribution System Master Plan Implementation Project. These three projects are intended to comprehensively evaluate water utility infrastructure and identify the improvements needed to address aging infrastructure, meet future demands, meet regulatory requirements, ensure reliability, and incorporate future supplies such as purified water.

The three projects will ultimately develop a plan of capital improvement projects to address the identified needs, will develop selected projects up to 10% design, and will prepare an associated Programmatic Environmental Impact Report (PEIR). Completing 10% design and a PEIR will facilitate future implementation of the proposed projects. The plans will be re-evaluated and updated every 5-10 years.

This item requests approval of a consultant services agreement for the SCADA Master Plan Implementation Project. The consultant will provide engineering, infrastructure planning, and environmental planning services needed to develop a 15-year program of recommended SCADA system capital improvement projects along with a PEIR for the Board's consideration.

The 15-year program will include projects to repair, replace, and/or upgrade the SCADA system infrastructure used throughout Valley Water's water conveyance and treatment systems, including at

its reservoirs, pumping plants, pipelines, and water treatment and purification plants. To enable the development of the PEIR, projects scheduled for implementation in the first five years of the 15-year planning horizon will be developed up to 10% design. Staff anticipates that development of the program, PEIR and 10% design will take approximately three years to complete. Implementation of recommended projects will continue over the 15-year planning horizon.

Project Background

On January 14, 2020, staff presented the three master plan implementation projects for the Board's consideration for inclusion in Valley Water's five-year CIP. The Board approved the three projects, and they were subsequently adopted as part of Valley Water's Fiscal Year 2021-25 CIP.

This project supports the Board Governance Policy and Water Supply (WS) Goal E-2.3 to protect and maintain existing water infrastructure; and the corresponding WS Objectives:

2.3.1. Plan for infrastructure maintenance and replacement to reduce risk of failure

2.3.2. Prioritize funding for maintenance and replacement of existing water infrastructure over investments in new infrastructure

2.3.3. Prepare for and respond effectively to water utility emergencies

Consultant Selection Process

On April 28, 2021, staff published a Request for Proposal (RFP) for the SCADA Implementation Project on Valley Water's Contract Administration System (CAS).

The RFP notification was sent to firms registered in CAS, under expertise code EL 11 - Control Systems and SCADA Engineering Services, as well as through the use of the Department of General Services small business enterprise search tool. Advertisements were also issued in the San Jose Post and SBEINC.com prior to publishing the RFP.

Valley Water received proposals from four consultant firms: Black & Veatch, Carollo Engineers, Inc., Tetra Tech, Inc., and West Yost.

An Evaluation Committee, consisting of subject matter experts from Valley Water and an external agency, evaluated and ranked the written proposals. All four firms were invited to participate in the subsequent virtual interviews conducted on July 13, 2021.

Based on the combined (written and interview) rating scores, the Evaluation Committee recommended staff to proceed with the highest-ranked firm, Black & Veatch (Consultant), for contract negotiations.

Consultant Agreement & Scope of Services

The Consultant will conduct a needs assessment and gap analysis of existing SCADA systems supporting water utility infrastructure, benchmark technology alternatives, develop technology

standards, identify recommended projects to meet needs, and develop a detailed 15-year phasing and implementation plan including estimated costs for the projects. To help expedite implementation, the Consultant will also prepare a PEIR for the recommended program of improvements. To enable the development of the PEIR, a recommended suite of projects will be developed up to 10% design.

Depending on the criticality of the findings, certain projects may be fast-tracked for early execution, to be implemented before completion of the 15-year plan. Two such projects have already been identified for early implementation:

- Upgrade of communications cables installed during original pipeline construction from copper to fiber
- Establishment of a fully redundant alternate control center for the raw water conveyance system

These two projects were identified in a previous SCADA master planning effort undertaken in 2011 but have not been implemented due to need for additional capital planning and coordination with other planning efforts.

A 15-year planning horizon will be used for the SCADA Master Plan Implementation Project, which is shorter than the 30-year horizon used for the Water Treatment Plant and Distribution System Projects. This shorter planning horizon is needed because SCADA assets have shorter useful lives and technology changes quickly. Some of the larger projects such as pipeline fiber construction may take up to 15 years to complete due to the need to phase improvements in a way that does not impact operations and water delivery. Other more technology-focused upgrade projects, such as server hardware and application software refreshes, may be done two or three times within the 15-year period.

At key decision-making junctures throughout the project, staff and the Consultant team will bring the plan to key stakeholders, the CIP Committee, and the Board for updates and policy guidance as needed.

The Cost Breakdown below (Table 1) provides a list of tasks included in the scope of services, the associated not-to-exceed fees for each task, and the total for the agreement.

Table 1: COST BREAKDOWN		
Task	Description	Not-to-Exceed Fees
1	Project Management	\$388,272
2	Project Goal Definition, Need	\$785,279
3	Technology Evaluation and S	\$717,439

4	Projects and Program Definition	\$673,135
5	Prepare Programmatic Environment	\$163,024
6	Supplemental Services	\$272,715
Total Not-to-Exceed Fees		\$2,999,864

Potential Future Program Management Supplemental Services

The scope of services also includes potential program management support if needed for implementing the 15-year program of SCADA capital improvement projects. At the completion of the development of the 15-year program and PEIR, Valley Water may request the Consultant to perform these program management services. If this option is exercised, staff will negotiate the additional services and associated costs with the Consultant and propose an amendment to the agreement at that time.

ENVIRONMENTAL JUSTICE IMPACT:

Further analysis is necessary to determine the Environmental Justice impacts associated with this item. During the development of project goals, environmental justice objectives will be established and will be included in the SCADA Master Plan Implementation Project updates to the Board during the project.

FINANCIAL IMPACT:

The SCADA Master Plan Implementation Project, Project No. 95044002, is included in the FY 2023-27 Five-Year Capital Improvement Plan (CIP) and in the Board-adopted FY 2022-23 & FY 2023-24 Rolling Biennial Budget. There are adequate funds in the project's Board-adopted FY 2022 Budget to encumber the initial planned expenditures for the consultant agreement this fiscal year. The consultant agreement total not-to-exceed (NTE) fee of \$2,999,864 does not change the overall total project cost reflected in the CIP. Funds to cover the remaining consultant services in subsequent fiscal years will be recommended by staff during the biennial budget process or through budget adjustment(s). The Project is funded through the Water Utility Enterprise Fund (Fund 61), with 84.6% of the costs allocated to North County Zone W-2, and South County Zones as follows; 11.8% to Zone W-5, 3.3% to Zone W-7, and 0.3% to Zone W-8. Long term forecasts for Fund 61 includes placeholder capital projects costs for implementation of the developed plan. Those forecasts will be revised as the plan is developed and the funding will be requested in future CIPs and budgets.

CEQA:

The recommended action to approve the Agreement does not constitute a project under the California Environmental Quality Act (CEQA) because it does not have the potential to result in direct or reasonably foreseeable indirect physical change in the environment.

The scope of services for this agreement includes the development and completion of a

Programmatic EIR, and the developed plan will not be implemented until completion and certification of the Programmatic EIR.

ATTACHMENTS:

Attachment 1: Agreement

Attachment 2: PowerPoint

UNCLASSIFIED MANAGER:

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