Santa Clara Valley Water District

File No.: 18-1124

Agenda Date: 3/12/2019
Item No.: 5.1.

BOARD AGENDA MEMORANDUM

SUBJECT:
Design-Build Method for the Coyote Pumping Plant Adjustable Speed Drive Replacement Project and Consultant Agreement with Brown and Caldwell, Inc. for the Project's Planning and Preliminary Design Services for a Not-to-Exceed Fee of $906,705, Project No. 91234002 (Morgan Hill) (District 1).

RECOMMENDATION:
A. Approve implementing the design-build project delivery method for the Coyote Pumping Plant Adjustable Speed Drive Replacement Project; and

B. Approve a Consultant Agreement with Brown and Caldwell, Inc. for planning and preliminary design services for the Project for a not-to-exceed fee of $906,705.

SUMMARY:
The objectives of the Coyote Pumping Plant Adjustable Speed Drive (ASD) Replacement Project (Project) are to plan, design, and construct improvements to replace the plant's six ASDs and associated mechanical, electrical, and control equipment at the Coyote Pumping Plant.

Staff recommends this Project be designed and constructed using the design-build (DB) delivery method for the reasons discussed in this memo. Staff also recommends approval of a consultant agreement to complete the Project's planning and preliminary design to be used for contracting with a DB entity. The scope of services includes performing field investigations, developing and evaluating alternatives, preparing a Planning Study Report, preliminary 30 percent design, a California Environmental Quality Act (CEQA) document, and providing design-build procurement support.

Project Background

The District operates and maintains the Coyote Pumping Plant, which is owned by the United States Bureau of Reclamation (USBR) and is a part of the USBR's San Felipe Division of the Central Valley Project. The Coyote Pumping Plant is a pump station that boosts the pressure in pipelines conveying raw water from San Luis Reservoir to the District's raw water distribution system and to Anderson Reservoir; and from Anderson Reservoir to the raw water distribution system. The Coyote Pumping Plant Adjustable Speed Drive (ASD) Replacement Project (Project) will replace the ASDs, instrumentation and control equipment, and electrical distribution system components. The Project

will improve plant operation and reliability and reduce operation and maintenance costs.

The planning phase of the Project includes evaluating the following major equipment for replacement:

- Existing obsolete ASDs including associated electrical, instrumentation and control systems;

- Supervisory Control and Data Acquisition system (SCADA), Heating, Ventilation and Air Conditioning (HVAC) system, Hydraulic Valves, and substation distribution equipment.

Design-Build (DB) Delivery Method

The District has had statutory authority to implement the design-build (DB) method since 2002, but state law limited the types of facilities that could be built using this approach, specifically prohibiting "water resources facilities and infrastructure" projects. In 2017, the District pursued a change in state law to broaden the types of eligible projects, and a new code was enacted effective January 1, 2018, which will only remain in effect until January 1, 2025, unless extended prior to that date. Current state law now authorizes the District to use the DB contracting process, upon approval by the Board, for delivery of the following types of capital public works projects: flood protection improvements, habitat restorations or enhancements, groundwater recharge or storage facilities, water treatment facilities, and the retrofit, repair, or expansion of existing surface water storage facilities.

DB may provide certain benefits over the traditional District practice of contracting by design-bid-build for capital public works projects. The fundamental difference is that the District would award only one contract to a DB entity for a project's design and construction, with a single point of responsibility and accountability. The designer and builder work as a team to prepare the final design plans and construct the project. This team approach requires collaborative problem-solving and innovation, and can result in higher construction quality, fewer change orders, and cost and time savings.

Staff recommends the Project be designed and constructed using the DB delivery method for the following reasons:

1. Time Savings: long lead items, such as the ASDs and switchgear, can be selected and ordered at the earlier stages of design, thereby shortening the overall Project schedule.

2. Improves Project Coordination: the Project includes the design and installation of complex electrical, mechanical, and control systems that require a system integrator. In the traditional design-bid-build delivery method, such systems are "designed" by the design engineer and then installed/integrated by the construction contractor. The installation/integration as performed by the contractor can result in strong differences of opinion between the designer and contractor, resulting in change orders for resolution and extended time for completion of work. In the DB approach, the construction contractor's integrator would already be working on the Project during final design, and would work with the designer to resolve issues before construction begins. This could result in both time and cost savings as well as a better quality system for long-term operations.

3. Optimizes Plant Shutdowns: plant shutdowns will be required to install the new ASDs and associated equipment and perform system integration. With the DB approach, the District and DB entity would evaluate alternative ways to sequence and optimize the work to be completed during each shutdown. This would benefit day-to-day water supply operations and could potentially reduce the construction duration.

Consultant Selection Process

On February 15, 2018, a Request for Proposals (RFP) for planning and preliminary design services was sent to firms on the District's self-registered list of Electrical Engineering consultants. In addition, the RFP was posted on the District's Contract Administration System internet portal and advertised in the Silicon Valley/San Jose Business Journal. An optional pre-proposal meeting and site visit was held on March 1, 2018 that was attended by seven consultant firms.

During the proposal period, staff issued three addenda to clarify details in the RFP and to respond to questions received from interested consultants. Three (3) proposals were received in response to the RFP.

A Consultant Review Board (CRB), consisting of three (3) District subject matter experts and one external subject matter expert, evaluated the written proposals, and all three proposing firms were invited for an oral presentation and interview with the CRB, held on April 12, 2018. Brown and Caldwell, Inc. was ranked highest by the CRB and was subsequently selected for agreement negotiations.

Consultant Agreement Scope of Services

The recommended Consultant Agreement with Brown and Caldwell, Inc. (Consultant) includes the required tasks to perform planning up through 30 percent design. In a DB process, this effort constitutes the preparation of a "project definition report" that is used for the DB procurement. The Consultant Agreement's terms preclude the Consultant from participating in the Project's DB phase; however, the Agreement does include an optional task for providing DB procurement support to the District. A summary of the tasks and fees for this Agreement is presented in Table 1.

Table 1 - Summary of Tasks and Fees for Proposed Consultant Agreement with Brown and Caldwell, Inc.

Task	Description	Not-to-Exceed Fee
1	Project Management	$92,455
2	Background and Data Collection	$18,660
3	Define Problems or Purposes, Constraints, and Opportunities for System Improvement	$56,963
4	Conceptual/Feasible Alternatives Analysis	$86,987
5	Staff-Recommended Alternative	$14,254
6	Transition Report and Planning Study Report Preparation	$22,761
7	Preliminary 30 Percent Design Preparation	$380,245
8	Design-Build Procurement Support	$116,114
9	Supplemental Services	$118,266
	Total Not-to-Exceed Fee	**$906,705**

FINANCIAL IMPACT:
The not-to-exceed fee of the proposed Consultant Agreement is $906,705. There are adequate funds in the Board-adopted FY2019 budget to encumber the anticipated Consultant effort ($450,000) through the end of FY2019. Funds to cover the remaining Consultant services in FY2020 will be requested through the FY2020 budget process.

CEQA:
The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

ATTACHMENTS:
Attachment 1: Agreement

UNCLASSIFIED MANAGER:
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