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**File #:** 2022-2459

**Agenda Date:** 12/7/2022

**Agenda Item No:** 6.

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**FROM:** James D. Herberg, General Manager  
Originator: Kathy Millea, Director of Engineering

**SUBJECT:**

**RETURN ACTIVATED SLUDGE DISCHARGE PIPING REPLACEMENT AT ACTIVATED SLUDGE PLANT NO. 1, PROJECT NO. FE20-03**

**GENERAL MANAGER'S RECOMMENDATION**

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1, Project No. FE20-03;
- B. Award a Construction Contract to GSE Construction Company Inc. for Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1, Project No. FE20-03, for a total amount not to exceed \$3,985,400; and
- C. Approve a contingency of \$398,540 (10%).

**BACKGROUND**

The Orange County Sanitation District (OC San) has three biological secondary treatment facilities at Plant No. 1, one of which is the Activated Sludge-1 facility. This process removes suspended and dissolved organic material using microorganisms, enabling OC San to meet ocean discharge permit limits and the required influent quality for the Groundwater Replenishment System (GWRS). The facility consists of a blower building, aeration basins, secondary clarifiers, a return activated sludge (RAS) pump station, and various utilities. This critical facility was built in 1973, expanded in 1999, and partially rehabilitated in 2008.

OC San completed a condition assessment of the RAS discharge lines and determined that many of the RAS pipelines were at the end of their useful life. OC San completed Project No. P1-129 in 2020, which replaced sections of the RAS pipelines at the RAS Pump Station and sections within the aeration basins. During Project No. P1-129 construction, other sections of the RAS system were discovered to also need replacement, but the extent of the work was determined to be too large to add as a change order. This project will replace the remaining sections of RAS pipelines within Aeration Basins No. 3 and No. 8, consisting of approximately 600 feet of 30-inch pipelines, appurtenances, pipe supports, and permanent bypass risers. The project is critical to ensure continued, efficient, and reliable operation of the Activated Sludge-1 facility at Plant No. 1.

**RELEVANT STANDARDS**

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Protect OC San assets
- Maintain a culture of improving efficiency to reduce the cost to provide the current service level or standard

**PROBLEM**

The existing conditions of the 30-inch RAS piping, pipe supports, and appurtenances within aeration basins 3 and 8 have been deteriorating and are at the end of useful life. The potential failure of the piping will require the shutdown of the Activated Sludge-1 facility and will adversely impact the capacity of Plant No. 1.

**PROPOSED SOLUTION**

Award a construction contract for RAS Discharge Piping Replacement at Activated Sludge Plant No. 1. The project will rehabilitate the deteriorated RAS piping within aeration basins 3 and 8 and will ensure the reliability of the Activated Sludge-1 Facility.

**TIMING CONCERNS**

The RAS piping is at the end of useful life. The timely pipe replacement will minimize potential risks of pipe failure and impact to the operation of the Activated Sludge-1 Facility.

**RAMIFICATIONS OF NOT TAKING ACTION**

If the project does not proceed, the deteriorating piping and appurtenances will remain as concerns. The failure of piping will require operation shutdown to repair the piping.

**PRIOR COMMITTEE/BOARD ACTIONS**

N/A

**ADDITIONAL INFORMATION**

OC San advertised Project No. FE20-03 for bids on August 11, 2022, and six (6) sealed bids were received on October 25, 2022. A summary of the bid opening follows:

Engineer's Estimate	\$ 4,833,167
<b>Bidder</b>	<b>Amount of Bid</b>
GSE Construction Company Inc.	\$3,985,400
Kiewit Infrastructure West Co.	\$4,041,000
J.R. Filanc Construction Co., Inc	\$4,074,000
Innovative Construction Solutions	\$4,172,500

Mehta Mechanical Co. Inc.	\$4,354,000
Abhe & Svoboda, Inc.	\$4,703,325

The bids were evaluated in accordance with the OC San's policies and procedures. Notices were sent to all bidders on November 17, 2022, informing them of the intent of OC San staff to recommend award of the Construction Contract.

OC San staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, GSE Construction Company Inc, for a total amount not to exceed \$3,985,400.

### **CEQA**

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations Section 15301. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San Board of Directors approval of the construction contract.

### **FINANCIAL CONSIDERATIONS**

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2022-2023 and 2023-24, Section 8, Page 47, Small Construction Projects Program, Project No. M-FE) and the budget is sufficient for the recommended action.

### **ATTACHMENT**

*The following attachment(s) may be viewed on-line at the OC San website ([www.ocsan.gov](http://www.ocsan.gov)) with the complete agenda package:*

- Supplemental Attachment - Pictures
- Construction Contract Agreement

DD:tk:sa