



# Orange County Sanitation District

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## OPERATIONS COMMITTEE

### Agenda Report

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**File #:** 2019-553

**Agenda Date:** 11/6/2019

**Agenda Item No:** 9.

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**FROM:** James D. Herberg, General Manager  
Originator: Rob Thompson, Assistant General Manager

**SUBJECT:**

**PLANT NO. 2 MAIN SEWAGE PUMPS MOTOR OVERHAUL**

**GENERAL MANAGER'S RECOMMENDATION**

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Award a service contract to R.A. Reed Electric Company to provide Plant No. 2 Main Sewage Pump Motor Overhaul, Specification No. S-2019-1089BD, for a total amount not to exceed \$430,680; and
- B. Approve a contingency of \$43,068 (10%).

**BACKGROUND**

The Orange County Sanitation District (Sanitation District) has seven Main Sewage Pumps (MSP) at Plant No. 2 Headworks to pump all the influent wastewater entering the plant for further treatment. The MSP motors are 700 horsepower WEG electric motors and were installed during the construction of P2-66 Headworks Improvements at Plant No. 2, which lasted from 2005 to 2013.

Project No. P2-122, Headworks Modification at Plant No. 2 for GWRS Final Expansion, which supports the GWRS by segregating Plant No. 2 Headworks into reclaimable and non-reclaimable sections, will modify three of the seven pumps to a lower hydraulic capacity for more efficient pumping. The project will use the existing motors for the new pumps.

**RELEVANT STANDARDS**

- Protect Orange County Sanitation District assets
- Maintain a proactive asset management program
- 24/7/365 treatment plant reliability

**PROBLEM**

The enclosure type of the MSP motors is WP11, where cooling air is drawn from open atmosphere. Air baffles are installed inside to prevent foreign materials from entering the motor, but over the long-term, foreign material tends to build up, requiring a thorough cleaning. This cleaning requires disassembly of the motors. The MSP motors have not been cleaned and tested since installation.

## **PROPOSED SOLUTION**

Staff recommends a turnkey solution with R.A. Reed Electric Company for on-site field services to remove, clean, shop overhaul, test, re-install, and commission the motors.

## **TIMING CONCERNS**

Construction of Project No. P2-122, Headworks Modification at Plant No. 2 for GWRS Final Expansion, is scheduled to start in summer of 2020. This work requires that the existing three motors be removed from their bases. Current plans call for completing the reconditioning of those three motors before the project begins work in the area. The remaining four motors can be reconditioned one at a time by coordinating with the Operations and Maintenance Department and the P2-122 project team.

## **RAMIFICATIONS OF NOT TAKING ACTION**

There is an increased risk of failure due to loss of air cooling and consequences of rigging the motors during the P2-122 construction. The availability of the MSPs directly correlates to the plant's capacity and there is also an increased risk of being unable to fully support GWRS expansion.

## **PRIOR COMMITTEE/BOARD ACTIONS**

N/A

## **ADDITIONAL INFORMATION**

The Sanitation District advertised a Request for Bids on August 23, 2019, Specification No. S-2019-1089BD. Six firms showed interest and were present at the pre-bid meeting. One bid was submitted. Based on the Sanitation District's standard evaluation process and pursuant to government codes, staff recommends approval of a service contract with R.A. Reed Electric Company for an amount not to exceed \$430,680.

A ten percent contingency is recommended to address potential unknown conditions that may be uncovered during the overhaul of the motors.

## **CEQA**

N/A

## **FINANCIAL CONSIDERATIONS**

This request complies with authority levels of the Sanitation District's Purchasing Ordinance. This recommendation would be funded under the Repairs and Maintenance line item for Operations and Maintenance Department (Budget Update Fiscal Year 2019-20, Page 49), and the available funding is sufficient for this action.

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<u>Date of Approval</u>	<u>Contract Amount</u>	<u>Contingency</u>
11/20/2019	\$430,680	\$43,068

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**ATTACHMENT**

*The following attachment(s) may be viewed on-line at the OCSD website ([www.ocsd.com](http://www.ocsd.com)) with the complete agenda package:*

- Service Contract