



Orange County Sanitation District

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Agenda Report Details (With Text)

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Title: HEADWORKS MODIFICATIONS AT PLANT NO. 2 FOR GWRS FINAL EXPANSION, PROJECT NO. P2-122
Sponsors: Kathy Millea
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Date	Ver.	Action By	Action	Result
1/22/2020	1	BOARD OF DIRECTORS		

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

SUBJECT:

HEADWORKS MODIFICATIONS AT PLANT NO. 2 FOR GWRS FINAL EXPANSION, PROJECT NO. P2-122

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Headworks Modifications at Plant No. 2 for GWRS Final Expansion, Project No. P2-122;
- B. Award a Construction Contract to Shimmick Construction Co., Inc. for Headworks Modifications at Plant No. 2 for GWRS Final Expansion, Project No. P2-122, for a total amount not to exceed \$14,487,735; and
- C. Approve a contingency of \$1,448,773 (10%).

BACKGROUND

Sewage from four trunk lines is blended in the Orange County Sanitation District's (Sanitation District) Plant No. 2 Headworks. One of the trunk lines is non-reclaimable because it includes flows from the Santa Ana River Interceptor and non-reclaimable side streams generated at Plant No. 1 and the Orange County Water District (OCWD). Several Plant No. 2 side streams are also non-reclaimable.

This project is necessary for the final expansion of the Groundwater Replenishment System (GWRS) and will be reimbursed by OCWD per an existing agreement dated March 2019.

RELEVANT STANDARDS

- Meet volume and water quality needs for the GWRS
- Use all practical and effective means for resource recovery
- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsible bidder

PROBLEM

Reclaimable and non-reclaimable flows are currently combined in the Plant No. 2 Headworks, which makes all of Plant No. 2 effluent non-reclaimable. To recover reclaimable flows, the two streams must be separated.

PROPOSED SOLUTION

Award a Construction Contract for Headworks Modifications at Plant No. 2 for GWRS Final Expansion, Project No. P2-122. This contract will modify the Headworks by installing new gates and a diversion pipe to separate flows, replacing three of the main sewage pumps, adding recirculation piping, and rerouting internal non-reclaimable side stream flows.

TIMING CONCERNS

If awarded in January 2020, substantial completion of this project would be expected in December 2022.

OCWD's GWRS Final Expansion projects will be completed by December 2022 but cannot be placed into service until portions of three of the Sanitation District's projects, including all of this project, are completed. At present, the critical path for startup of the GWRS Final Expansion is completion of the Plant Water Pump Station expected in June 2023 under Outfall Low Flow Pump Station, Contract No. J-117B.

RAMIFICATIONS OF NOT TAKING ACTION

Not awarding this project would not allow recovery of 30 mgd of reclaimable flow.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Construction Contract Solicitation

The Sanitation District advertised Project No. P2-122 for bids on October 10, 2019 and five sealed

bids were received on December 17, 2019. A summary of the bid opening follows:

Engineer's Estimate: \$24,900,000

<u>Bidder</u>	<u>Amount of Bid</u>
Shimmick Construction Co., Inc.	\$14,487,735
PCL Construction, Inc.	\$16,413,000
Steve P. Rados Inc.	\$16,726,000
J.F. Shea Construction, Inc.	\$18,268,000
Myers and Sons Construction, Inc.	\$21,395,000

The bids were evaluated in accordance with the Sanitation District's policies and procedures. A notice was sent to all bidders on December 31, 2019 informing them of the intent of Sanitation District staff to recommend award of the Construction Contract to Shimmick Construction Co., Inc.

Staff recommends awarding a construction contract to the lowest responsive bidder, Shimmick Construction Co., Inc. for Headworks Modifications at Plant No. 2 for GWRS Final Expansion, Project No. P2-122, for a total amount not to exceed \$14,487,735.

Staff, in consultation with the design consultant, have reviewed the Engineer's Estimate to identify reasons for the large difference between the estimate and the bids. Some of the identified factors include a \$1.8 million escalation calculation error, conservative shoring system cost assumptions, and equipment and material suppliers offering contractors lower prices than quoted to the design consultant. Other factors may be specific to the low bidder, such as self-performing work that most general contractors subcontract out and overhead savings due to already being mobilized on site for other construction projects. Staff believes that the low bid is valid and recommends award as stated above.

Groundwater Replenishment System (GWRS)

The Sanitation District and OCWD have partnered to enable the GWRS to provide a reliable water supply for Orange County. Currently, the Sanitation District provides all the secondary effluent (100 mgd) from Plant No. 1 to GWRS. The final expansion of GWRS will increase production capacity from 100 million gallons per day (mgd) to 130 mgd by using effluent from Plant No. 2. The Effluent Reuse Study/GWRS Final Expansion Implementation Plan, Project No. SP-173, recommended modifying Plant No. 2 to separate reclaimable and non-reclaimable flows.

The Sanitation District is implementing these modifications through two capital projects. The Plant Water Pump Station is being relocated by Outfall Low Flow Pump Station, Contract No. J-117B; and Headworks modifications and rerouting of side stream flows will be performed by this project. Per an existing agreement, OCWD will reimburse the Sanitation District for the cost of these projects up to \$50 million.

CEQA

To comply with the California Environment Quality Act, the Sanitation District as a responsible agency approved the lead agency OCWD Program EIR/EIS GWRS Final Expansion Project Addendum No. 6 on November 16, 2016. This addendum covered Project No. P2-122.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of the Sanitation District's Purchasing Ordinance. This item has been budgeted (FY 2019-20 Budget Update, Appendix A, Page A-9). The budget is sufficient for the recommendation action.

Costs for this project will be reimbursed by OCWD per the current GWRS agreement dated March 2019.

ATTACHMENT

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

- Construction Contract

SN:dm:sa