

STEERING COMMITTEE

Agenda Report

File #: 2025-4180

Agenda Date: 10/22/2025

Agenda Item No: 2.

FROM: Robert Thompson, General Manager
Originator: Mike Dorman, Director of Engineering

SUBJECT:

TRICKLING FILTER MEDIA REPLACEMENT AT PLANT NO. 1, PROJECT NO. P1-142

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Trickling Filter Media Replacement at Plant No. 1, Project No. P1-142;
- B. Award a Construction Contract Agreement to GSE Construction Company, Inc. for Trickling Filter Media Replacement at Plant No. 1, Project No. P1-142, for a total amount not to exceed \$21,565,292; and
- C. Approve a contingency of \$2,156,529 (10%).

BACKGROUND

Trickling Filter Nos. 1 and 2 at Plant No. 1 are part of Orange County Sanitation District's (OC San's) secondary treatment processes. This stage of the treatment uses naturally occurring microorganisms to break down and remove most of the organic material remaining in the wastewater after solids have been removed in primary treatment. These two filters were originally built in 2006 by Project No. P1-76, Trickling Filter Rehabilitation and New Clarifiers Plant No. 1.

Each trickling filter is a large circular structure that stands 30 feet tall and measures 166 feet in diameter. Inside, they contain over 800,000 cubic feet of specially designed plastic media. The media creates a large surface area that supports the growth of beneficial microorganisms. As wastewater flows over a 20-foot-tall bed of this honeycombed media, these microorganisms grow on the surface and feed on the organic pollutants, helping to clean the water. On average, each of the trickling filters treat about 10 million gallons of wastewater per day, with the ability to handle approximately 30 million gallons a day during peak wet weather conditions.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Ensure the public's money is wisely spent

- Sound engineering and accounting practices, complying with local, state, and federal laws
- Operate and maintain facilities to minimize impacts on surrounding communities, including odor, noise and lighting

PROBLEM

The trickling filter media has a life expectancy of 20-25 years. The media is nearly 20 years old and is showing signs that it is reaching the end of its useful life through reduction in removal efficiency and increased odor. Recent inspections performed inside of the vessels have identified areas where the protective liners have failed and need repair. Additionally, new drainage grating below the media is required to improve ventilation and water flow through the trickling filters.

PROPOSED SOLUTION

Award a Construction Contract Agreement to replace the trickling filter media, repair any damaged sections of the protective liners inside the trickling filters, and install new drainage grating.

TIMING CONCERNS

A future capital project will be rehabilitating Activated Sludge Facilities No. 1, another portion of the secondary treatment process at Plant No. 1. Work on the activated sludge facility cannot occur at the same time the trickling filters are offline for media replacement due to treatment capacity. Delaying this project could delay the start of the future project.

RAMIFICATIONS OF NOT TAKING ACTION

If the media remains in place beyond its expected service life, treatment performance will continue to decline, and odors are likely to persist or worsen. This could lead to potential operational challenges in meeting treatment goals and increased community complaints.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

OC San advertised Project No. P1-142 for bids on June 17, 2025, and six sealed bids were received on July 29, 2025. A summary of the bid opening follows:

Engineer's Estimate	\$ 30,200,000
<u>Bidder</u>	<u>Amount of Bid</u>
Innovative Construction Solutions	\$ 19,972,000
Shimmick Construction Company, Inc.	\$ 20,019,620
GSE Construction Company, Inc.	\$ 21,565,292
Garney Pacific, Inc.	\$ 22,949,801

Steve P. Rados	\$ 24,840,000
Olsson Construction, Inc.	\$ 27,582,689

The bids were evaluated in accordance with the OC San's policies and procedures. A notice was sent to all bidders on October 2, 2025, informing them of the intent of OC San staff to recommend award of the Construction Contract Agreement to GSE Construction Company, Inc. Both Innovative Construction Solutions and Shimmick Construction Company, Inc. were found to be non-responsive to the minimum solicitation requirements.

Staff recommends awarding a Construction Contract Agreement to the lowest responsive and responsible bidder, GSE Construction Company, Inc., for a total amount not to exceed \$21,565,292.

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 and State Clearinghouse after the OC San Board of Directors approval of the Construction Contract Agreement.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Budget Update FY 2025-26, Page A-6, Trickling Filter Media Replacement at Plant No. 1, Project No. P1-142), 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) with the complete agenda package:

- Construction Contract Agreement
- Presentation

OP:lb