



OPERATIONS COMMITTEE

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Agenda Report

File #: 2025-4579

Agenda Date: 3/4/2026

Agenda Item No: 3.

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

SUBJECT:

TRICKLING FILTER ODOR CONTROL STUDY AT PLANT NO. 1, PROJECT NO. PS24-04

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Services Agreement with Black & Veatch Corporation to provide engineering services for the Trickling Filter Odor Control Study at Plant No. 1, Project No. PS24-04, for an amount not to exceed \$548,506; and
- B. Approve a contingency of \$54,851 (10%).

BACKGROUND

The Orange County Sanitation District (OC San) has long utilized trickling filters at Plant No. 1. Trickling filters provide secondary level treatment for wastewater. In 2006, OC San replaced its original four trickling filters with two new trickling filters and secondary clarifiers as part of Project No. P1-76, Trickling Filter Rehabilitation and New Clarifiers at Plant No. 1. These trickling filters are a key unit process to maintain plant operations and meet operational requirements.

The trickling filters at Plant No. 1 have had issues with the creation of nuisance odors. OC San has previously reviewed this issue in feasibility studies and as part of SP-166, Odor Control Master Plan. These efforts identified the installation of covers and associated foul air treatment systems as a potential solution; however, structural standards have changed and may impact the viability of cover installation. There are also significant operational impacts associated with cover installation that may require further modifications.

These trickling filters are currently scheduled to undergo media replacement and rehabilitation as part of Project P1-142, Trickling Filter Media Replacement at Plant No. 1.

RELEVANT STANDARDS

- Less than 12 events for the collection system, under normal operations
- Operate and maintain facilities to minimize impacts on surrounding communities, including odor, noise, and lighting

PROBLEM

During operation, the trickling filters at Plant No. 1 have been a source of nuisance odors and related complaints. These complaints have increased over time, and the operating capacity of the trickling filters has been reduced to mitigate odor generation.

PROPOSED SOLUTION

This Planning Study aims to explore short-term and long-term odor mitigation strategies for the trickling filters at Plant No. 1. It will evaluate the feasibility of adding covers to the trickling filter structures, including ventilation and odor control. It will also identify short-term mitigation measures without covering the structures and provide a conceptual design.

TIMING CONCERNS

N/A

RAMIFICATIONS OF NOT TAKING ACTION

Trickling filters operation may be reduced to avoid odor complaints. Reducing capacity of this process can lead to additional operational challenges. A clear plan of action to mitigate nuisance odors will not be in place to correct issues in the short- or long-term.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Consultant Selection:

Criterion	Weighting
Project Understanding and Approach	40%
Related Project Experience	30%
Project Team and Staff Qualifications	30%

OC San advertised for proposals for Trickling Filter Odor Control Study at Plant No. 1, Project No. PS24-04, on June 24, 2025. The following evaluation criteria were described in the Request for Proposals (RFP) and used to determine the most qualified Consultant.

Two proposals were received on August 18, 2025, and evaluated in accordance with the evaluation process set forth in OC San’s Purchasing Ordinance OC SAN-6 by a pre-selected Evaluation Team consisting of OC San staff: one project engineer, the Plant No. 1 Chief Plant Operator, and one maintenance supervisor. The Evaluation Team also included one non-voting representative from the Contracts Administration Division and one non-voting technical advisor.

The Evaluation Team scored the proposal on the established criteria as summarized in the table below:

Proposer	Project Understanding and Approach (Max. 40 Points)	Related Project Experience (Max. 30 Points)	Project Team and Staff Qualifications (Max. 30 Points)	Total Score (Max. 100 Points)
Black & Veatch Corporation	27	22	22	71
AtkinsRealis	32	19	18	69

Based on this scoring, both Consultants were invited for an interview on September 11, 2025. Following the interview, each member of the Evaluation Team scored the Consultants based on both the proposals and interviews using the evaluation criteria and weighting described above. Based on the scoring shown below, Black & Veatch Corporation was selected as the most qualified Consultant.

Below is the summary of the final scores:

Proposer	Reviewer			Total Score (Max. 100 Points)
	1	2	3	
Black & Veatch Corporation	90	80	90	87
AtkinsRealis	67	70	77	71

Black & Veatch Corporation submitted a clear and comprehensive approach that demonstrated a thorough understanding of the scope of work.

- The technical proposal was well-prepared, articulating a strong comprehension of OC San’s objectives and the level of effort necessary to conduct a detailed study.
- The proposed project team was well-organized and included representation from all relevant disciplines, reflecting the firm’s depth of experience.
- Furthermore, the interview reinforced Black & Veatch Corporation’s qualifications and confirmed their understanding of the scope of work.

Based on the strength of their proposal and interview performance, the Evaluation Team determined that Black & Veatch Corporation is the most qualified firm to execute the scope of work.

Review of Fee Proposal and Negotiations:

Proposals were accompanied by sealed fee proposals. In accordance with the Purchasing Ordinance, only the fee proposal submitted by the highest-ranked firm was opened, following

approval of the Evaluation Committee’s recommendation by the Director of Engineering.

Staff conducted initial negotiations with Black & Veatch Corporation to clarify the requirements of the scope of work, the assumptions used for the estimated level of effort, and the proposed approach to meet the goals and objectives for the study. During the negotiations and discussions, it was agreed upon to include optional TASK 4.2 - Electrical and Instrumentation and Control Concept Drawings in the scope or work to provide flexibility to implement a short-term solution quickly if required. This addition resulted in increased labor hours for the project compared to the original fee proposal.

In November 2025, the Operations & Maintenance Department informed the Engineering Department that trickling filter operational changes had been recently implemented, including turning off the fans, which resulted in reduced odors and improved treatment. Based on this information, the project scope was re-evaluated, and minor changes were made including to increase field odor sampling and AERMOD dispersion modeling, to reduce electrical and I&C concept design for both short-term and long-term solutions, and to provide high-level recommendations for long-term odor treatment and cover installation requirements. These efforts will help OC San identify the root cause of the odor by analyzing the modeling data and will support short-term and long-term odor control as required.

Based on the reduced scope and the re-negotiation, below is the revised level of effort and the final re-negotiated fee.

	Original	Initial Negotiated	Final Re-Negotiated
Labor Hours	2640	2832	1865
Consultant’s Fee	\$746,916	\$780,020	\$548,506

The Consultant’s fringe and overhead costs, which factor into the billing rate, have been substantiated.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San’s Purchasing Ordinance. This item has been budgeted (Budget FY 2024-25 and 2025-26, Section 8, Page 53, Planning Studies Program (M-Studies)) 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:

- Professional Services Agreement

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