



EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: January 29, 2026

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager 

FROM: Serge V. Terentieff, Director of Engineering and Construction 

SUBJECT: Orinda Water Treatment Plant Disinfection and Chemical Systems Safety Improvements Project Update and Agreement Amendments – Follow-up

SUMMARY

At the November 12, 2025 Planning Committee meeting, staff provided an update on the Orinda Water Treatment Plant (WTP) Disinfection and Chemical Systems Safety Improvements Project (Project) and the need for amendments to agreements for engineering services during construction (ESDC) and as-needed construction management (CM) and inspection services, which were subsequently authorized at the November 25, 2025 Board meeting. During its November 25, 2025 meeting, the Board requested information about staffing and packaging of the Project. In addition, and not directly related to the Project, the Board requested information on the use of as-needed CM and inspection services and any meetings held with the unions. This memorandum provides the requested information.

DISCUSSION

On January 25, 2022, construction and ESDC agreements for the Project were authorized for Flatiron West, Inc. (Flatiron); Arcadis U.S., Inc. (Arcadis); Carollo Engineers, Inc. (Carollo); and Stantec Consulting Services, Inc. (Stantec). Amendments to the Arcadis and Stantec agreements were authorized at the November 25, 2025 Board meeting.

Project Staffing

The Project is being constructed by Flatiron and managed by the District with construction support from a blended team composed of internal staff and consultants. The Project relies on key subject matter expertise from both internal and consultant staff. The District manages and directs all consultant activities and is responsible for the overall safety, quality, schedule, cost, and community relations for the Project. Arcadis is providing CM and inspection support, and Carollo and Stantec are the design engineers of record who are providing ESDC.

Successful delivery of the Project requires additional support services and specialized subject matter expertise that staff do not possess, such as deep excavations, chemical system design, and ultraviolet disinfection. Long-term CIP workload did not support hiring additional staff with the high degree of specialization needed to complete the Project.

Table 1 shows a total of 12.3 full-time equivalent (FTE) of District staff needed to lead and manage consultants for the Project. Tables 2, 3 and 4 show the total FTE provided by District consultants to supplement staff needed to perform ESDC and CM services. Consultant services represent 15.1 FTE comprised of several subject matter experts, specialized discipline engineers, specialty inspectors, and other staff.

Project Packaging

The Project includes two major improvements – the disinfection improvements was designed by Carollo and the chemical systems safety improvements was designed by Stantec. During the design process, the District elected to combine the two design packages into a single construction contract to limit impacts and risks to District operations and scheduling, and to reduce the potential for contractor conflicts and contractor claims. In addition, the two projects have overlapping scope, and because of the constrained Project site, the sequencing and coordination between the two projects under a single construction contract was critical. The decision also allowed the Project to share a common management team to reduce staffing needs and costs.

Union Notification

Unrelated to the Project, the Board asked for an update regarding the use of as-needed CM and inspection services and meetings with Local 2019 and Local 21. The District continues using as-needed contracts to manage peak workload, and to supplement District teams. The as-needed contracts are utilized for multiple projects, as listed in Table 5. The overall project management for all these projects is being overseen by District staff; however, due to high workload volume, staff augmentation is required to manage these projects. As summarized in Table 5, only 5 of the District's 20 current projects under construction are relying on additional CM and inspection services. The other 15 projects are primarily staffed using District staff. Since Board authorization of the agreement amendments on November 25, 2025, Local 2019 and Local 21 did not raise additional questions or concerns.

CCC:SVT:tpk

Attachment: Staffing of Project in Full Time Equivalents (FTE) and List of Projects

Staffing of Projects in Full Time Equivalents (FTE) and List of Projects

Table 1 – District forces Staffing of Project in FTE

Position	Classification	FTE
Project Manager	Senior Civil Engineer	0.7
Construction Managers	Associate Civil Engineer	1.8
Field Engineers	Assistant Engineer	1.8
Construction Inspectors	Senior Construction Inspector	2.1
Office Engineer	Assistant Engineer	0.8
Operations Coordinator	Water Treatment Supervisor	0.4
Electricians	Electrical Technician	0.6
Supervising Plant Inspector	Supervising Plant Inspector	0.2
Plant Inspectors	Plant Inspector	1.9
Commissioning Engineer	Assistant Engineer	0.5
Other	Various	1.5
Total District FTE		12.3

Source data is from labor hour reports. Positions with less than 0.2 FTE are not included in the table.

Table 2 – Consultant Staffing of Project in FTE for Arcadis Construction Management and Inspection Services Support Agreement

Position	Nearest District Equivalent Classification	FTE
Field Engineer	Assistant Engineer	0.9
Quality Assurance Officer	Senior Civil Engineer	0.8
Environmental Compliance Coordinator	Senior Environmental Health and Safety Specialist	0.3
Environmental Compliance Monitors	Senior Environmental Health and Safety Specialist	0.5
Construction Safety Representative	Senior Environmental Health and Safety Specialist	0.6
Construction Schedule Review	Senior Civil Engineer	0.2
Communications Assistant	Public Information Representative I	0.9
Specialty Inspectors	Senior Construction Inspector/Assistant Engineer	0.3
Coating Inspectors	Senior Construction Inspector/Assistant Engineer	0.3
Waterproofing Inspectors	Senior Construction Inspector/Assistant Engineer	0.4
Underground & Structural Inspector	Senior Construction Inspector/Assistant Engineer	1.1
Trenchless Inspector	Senior Construction Inspector/Assistant Engineer	1.0
Total Arcadis		7.3

Table 3 – Consultant Staffing of Project in FTE for Carollo Engineering Services During Construction Agreement (for Disinfection Improvements portion of Project)

Position	Nearest District Equivalent Classification	FTE
Lead Process Engineers	Senior Civil Engineer	0.3
Principal Process Engineers	Senior Civil Engineer	0.3
Principal Structural Engineer	Senior Civil Engineer	0.2
Senior Civil Engineers	Senior Civil Engineer	0.8
Various Discipline Engineers and Drafters	Assistant or Associate Engineer	3.9
Total Carollo		5.5

Table 4 – Consultant Staffing of Project in FTE for Stantec Engineering Services During Construction Agreement (for CSSIP portion of Project)

Position	Nearest District Equivalent Classification	FTE
Civil Designer	Engineering Designer I/II	0.2
Civil Engineer – Engineer in Training (EIT)	Assistant Engineer	0.2
Electrical Engineer	Associate Engineer	0.2
Electrical Engineer – EIT	Assistant Engineer	0.3
Structural Engineer Management	Senior Civil Engineer	0.7
Electrical Engineering Technician/Technologist	Associate Electrical Engineer	0.4
Various Discipline Engineers and Drafters	Assistant or Associate Engineer	0.3
Total Stantec		2.3

Table 5 – Projects Using As-Needed Construction Management and Inspection Services Contracts

Project	Notes
Administration Building Roofing Systems Rehabilitation – Upper Terraces	Supplemental Construction Management and Inspection Services
Happy Valley and Sunnyside Pumping Plants and Pipelines	Supplemental Construction Management and Inspection Services
USL WTP Maintenance and Reliability and USL and Sbrante WTPs CSSIPs	Supplemental Construction Management, 3 rd Party Cost Estimation, 3 rd Party Schedule Review, Claims consulting, Audit Support, Quality Assurance Management, Safety Support, Environmental Support, and Inspection Services
Lafayette and Walnut Creek WTPs CSSIP	3 rd Party Cost Estimation, 3 rd Party Schedule Review, Claims consulting, Audit Support, Quality Assurance Management, and Inspection Services
Oakland Administration Building Fiber Optic Backbone System Upgrade	Supplemental Construction Management and Inspection Services