



EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
FAX (510) 278-6547

A Joint Powers Public Agency

NOTICE: In compliance with AB 361 (2021), the Operations & Maintenance Committee meeting scheduled below will be accessible via Zoom video conferencing. Members of the public may participate in the meeting through the Zoom link or phone number below.

- Zoom link: <https://us02web.zoom.us/j/84250769407>
- Telephone dial-in: 1(669) 900-6833, meeting ID #842 5076 9407

ITEM NO. 18

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Tuesday, May 17, 2022

9:00 A.M.

**East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580**

Committee Members: Toy (Chair); Cutter

OM1. Call to Order

OM2. Roll Call

OM3. Public Forum

OM4. EBDA Permit Compliance

(The Committee will be updated on EBDA's NPDES compliance.)

OM5. Status Report

(The Committee will be updated on EBDA's O&M activities.)

OM6. Draft Renewal and Replacement Fund Project List for Fiscal Year 2022/2023

(The Committee will review the proposed RRF project list for FY 2022/2023.)

OM7. Motion Authorizing the General Manager to Execute Amendment 1 to Work Order No. 3 and Work Order No. 5 with Carollo Engineers, Inc. for Engineering Services, for a Total Contract Amount of \$194,452

(The Committee will consider the motion.)

OM8. Adjournment

Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or

Agenda Explanation
East Bay Dischargers Authority
O&M Agenda
May 17, 2022

ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.

In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, contact Juanita Villasenor at juanita@ebda.org or (510) 278-5910. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.

In compliance with SB 343, related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are posted on the East Bay Dischargers Authority website located at <http://www.ebda.org>.

**The next O&M Committee meeting will be held
Tuesday, June 14, 2022, at 9:00 a.m.**

ITEM NO. OM4 EBDA PERMIT COMPLIANCE

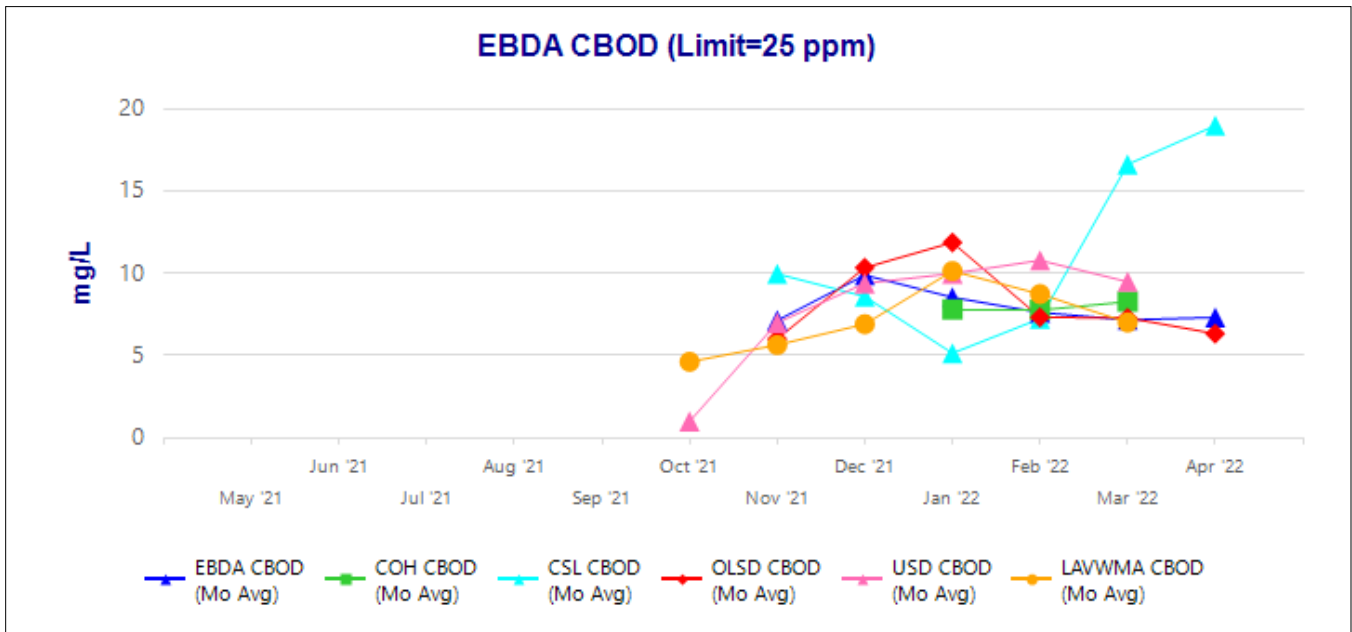
Recommendation

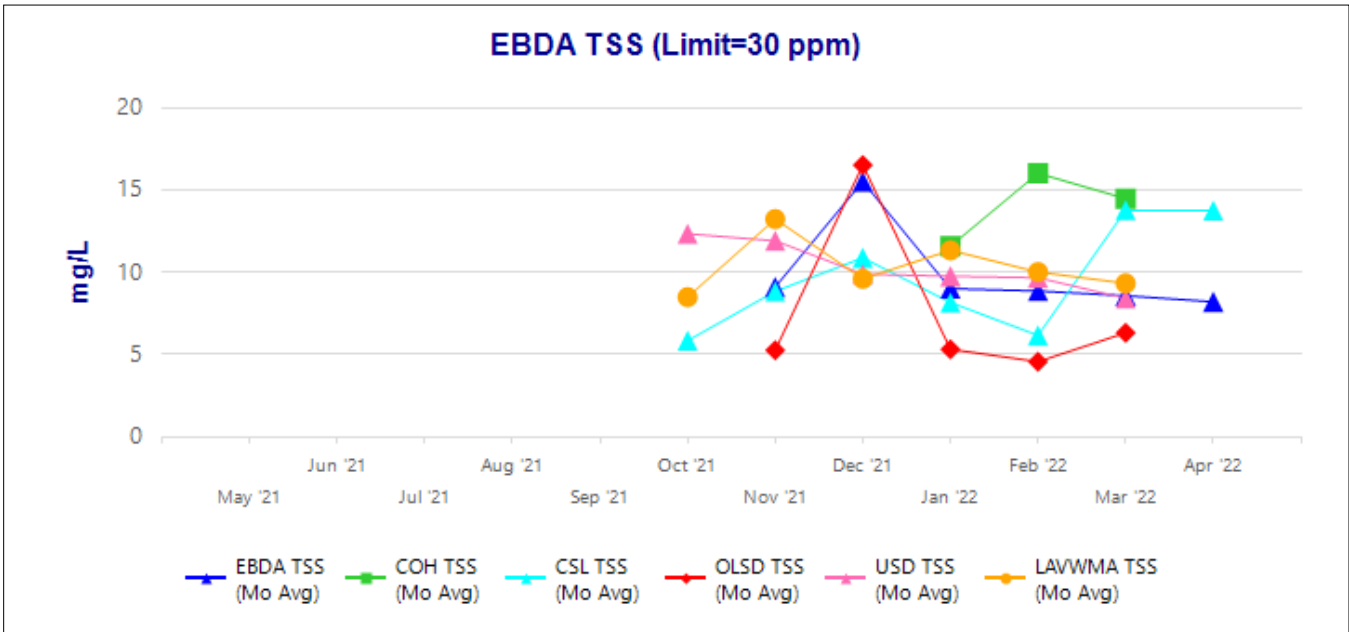
For the Committee’s information only; no action is required.

Discussion

There were no NPDES permit violations in March, and preliminary data from April are also free of permit exceedances. Member Agency CBOD and TSS performance are shown below. These graphs were generated using EBDA’s new Laboratory Information Management System (LIMS), XLIMS. EBDA began using the system in late 2021 and has been working with City of San Leandro staff and vendor Ethosoft to customize and implement the system. EBDA wishes to thank San Leandro Lab Manager, Angie Berumen and her team for all of the work that has gone into getting this system up and running. Staff notes that for the first time, LAVWMA CBOD and TSS data is now also included in the graphs.

A table with bacterial indicators is also included.





EBDA Bacterial Indicators

Date	FECAL	ENTERO
	MPN/ 100mL	MPN/ 100mL
Limit (90th Percentile)	1100	
Limit (Geomean)	500	240
May 2021 Geomean	10	6
June 2021 Geomean	13	4
July 2021 Geomean	11	2
August 2021 Geomean	52	32
September 2021 Geomean	26	10
October 2021 Geomean	33	4
November 2021 Geomean	13	8
December 2021 Geomean	22	8
January 2022 Geomean	4	2
February 2022 Geomean	6	6
3/1/2022	11	10
3/2/2022	< 2	2
3/7/2022	5	4
3/8/2022	< 2	6
3/9/2022	2	4
3/14/2022	10	< 2
3/15/2022	22	3
3/21/2022	9	6
3/22/2022	< 2	2
3/28/2022	154	< 2
3/29/2022	8	5
March 2022 Geomean	7	4
4/4/2022	< 2	4
4/5/2022	< 2	2
4/6/2022	2	6
4/11/2022	< 2	15
4/12/2022	< 2	11
4/13/2022	2	10
4/18/2022	3	10
4/19/2022	< 2	6
4/20/2022	2	6
4/25/2022	4	15
4/26/2022	11	6
April 2022 Geomean	2	7

ITEM NO. OM5 STATUS REPORT

Union Effluent Pump Station (UEPS)

No change; all equipment is operational.

Hayward Effluent Pump Station (HEPS)

Effluent Pump Replacement Project

Project bid documents are still under review. Staff expects the project to go out to bid shortly, with installation of the new pumps occurring in late-2022.

Oro Loma Effluent Pump Station (OLEPS)

Emergency Outfall Evaluation

EBDA staff is working with Carollo Engineers (Carollo) on an evaluation of the OLEPS emergency outfall. The purpose of the evaluation is to determine the outfall's maximum capacity and whether modifications to the outfall weir would increase system detention time and delay or prevent an unanticipated bypass in the event of a catastrophic failure at OLEPS. The report was completed on March 28, 2022 and the findings were discussed at the April MAC Meeting. Carollo is recommending that the existing lumber weir be replaced with a permanent concrete weir at an increased elevation. Carollo will provide a one-page drawing and pertinent material specifications that can be used for construction of the new elevated weir. In addition, the drawing will include specifications and/or direction for the preparation of the existing concrete surface and associated reinforcing. EBDA staff will then request contractor quotes to construct the new weir. Funds for this project were approved by the Commission on a previous Renewal and Replacement Fund Project List.

Main Electrical Switchboard Upgrade

The new breakers have arrived at the contractor's warehouse in Livermore, and an electrical shutdown is scheduled for June 23, 2022 for their installation.

Skywest Pump Station

Recycled Water Production

During the month of April 2022, the Skywest Recycled Water System operated for two days and produced 1.1 million gallons of recycled water.

Marina Dechlorination Facility (MDF)

SBS Building Heating System Replacement

The SBS Storage Building is heated because the chemical SBS will crystalize in cold temperatures. As discussed at a previous Committee meeting, one of the heaters in the SBS Building failed, causing the main breaker to trip. With the failed heater electrically

isolated, the main breaker was reset. The SBS Building has two heaters, and the second heater is online at this time.

A project to replace both heaters and the heating control system is included on the FY 2022/2023 Renewal and Replacement Fund project list (see Item No. OM6). Pending approval of the project list, Calcon, EBDA's electrical and instrumentation contractor, will upgrade the electrical and the control system, and B. A. Morrison, EBDA's HVAC contractor, will replace both heaters in the SBS Storage Building.

Total Residual Chlorine (TRC) Effluent Limit Implementation and Automation Upgrades

As discussed previously, in 2021 the Regional Water Quality Control Board adopted a blanket permit amendment revising the TRC effluent limits for all wastewater dischargers to San Francisco Bay. The permit amendment raises EBDA's TRC effluent limit from 0.0 mg/L at all times to 0.98 mg/L measured as a one-hour average. It is expected to take effect in the next few months as soon as the EPA approves the underlying Basin Plan Amendment. As discussed in Item No. RA8, the new limit has also been included in EBDA's new NPDES permit, which is set to take effect in September 2022. Work continues on the programmable logic controller (PLC) programming and control system modifications necessary to implement this new effluent limit.

Force Main

No change; all equipment is operational.

Operations Center

No change; all equipment is operational.

Miscellaneous Items

Underground Service Alerts

EBDA received eleven (11) Underground Service Alert (USA) tickets during the month of April 2022. Four required an Electronic Positive Response (EPR) and calls/emails to the excavators, and two required field verification.

Wet Weather

During the month of April 2022, there were no significant rain events that required the operation of an OLEPS diesel pump.

COVID-19 Response

All EBDA staff members are fully vaccinated and boosted. Staff will continue to work with the Commission to determine, on a month-to-month basis, whether Commission and Committee meetings will continue to be conducted via Zoom or whether to resume in-person meetings. To continue conducting remote meetings, the Commission must adopt a resolution compliant with AB 361 – see Item No. 9.

Special Projects

Roof Replacement Projects

Recently, EBDA requested that The Garland Company, Inc. (Garland) complete an assessment of the roofs on the EBDA Office Building, the MDF SBS Storage Building, and OLEPS. EBDA selected Garland through a competitive bidding process managed by OMNIA Partners. Through this national bidding structure, local agencies can take advantage of bids issued by other local agencies in lieu of doing their own bidding for certain services. Garland has performed this type of assessment in the past and completed several roof replacement projects for EBDA's Member Agencies. Garland's past work includes OLSD's Administration Building roof which connects to EBDA's, allowing for consistency with warranties where the two roofs connect.

The assessment report was completed on April 4, 2022 and was discussed at the April MAC Meeting. On May 2, 2022, a job walk was completed that included three roofing contractors that are bidding on the roof replacement project. Garland will serve as the General Contractor overseeing the roofing contractor, using Garland's roofing products. Once the bids are received the last week of May, the cost will be included in the Renewal and Replacement Fund Project List for FY 2022/2023.

Disinfection Master Plan

Staff is continuing to work with Carollo on a Disinfection Master Plan with a goal to develop a strategy for sodium hypochlorite (hypo) dosing and monitoring to prevent bacteria outbreaks and ensure consistent permit compliance while optimizing chemical dosage – both for disinfection and for dechlorination. Carollo presented their findings to the MAC at its February meeting, and the draft report was shared with the MAC in early April. Recommendations will be discussed with this Committee after the MAC has reviewed and discussed the draft report. The goal is to implement recommendations in time for Summer, when bacteria levels tend to elevate with the heat. Because the Disinfection Master Planning process has stretched longer than originally scoped, Carollo is requesting an amendment to their task order for this project. See Item No. OM7.

Cargill Brine Project

Staff is continuing to work with the Authority's CEQA consultant, Ascent Environmental, to begin preparation of the Environmental Impact Report (EIR) for the project. A Notice of Preparation of the EIR will be released soon and will be posted on the website. EBDA staff and Cargill are also continuing to evaluate pipeline route options and discuss them with affected stakeholders.

Advanced Quantitative Precipitation Information (AQPI) Project

The regional AQPI project continues to move forward with a goal of improving prediction of rainfall events in the Bay Area. Installation of the radar at Rocky Ridge has faced some delays and is now planned for Summer 2022. A site tour is planned for May 20, 2022. A new East Bay AQPI Agreement will be circulated to extend the funding terms from the previous agreement, which has expired. National Oceanographic and Atmospheric

Administration (NOAA) staff is continuing to make refinements to the user interface, which EBDA member agencies can access now for precipitation data and projections.

**ITEM NO. OM6 DRAFT RENEWAL AND REPLACEMENT FUND PROJECT LIST
FOR FISCAL YEAR 2022/2023**

Recommendation

Review proposed Renewal and Replacement Fund (RRF) Project List and provide direction to staff.

Background

Each year, the Commission is asked to approve a list of capital projects to be undertaken in the upcoming fiscal year using funds from the Authority's Renewal and Replacement Fund. The project list is developed using the Authority's Asset Management Plan (AMP) with input from the Managers Advisory Committee (MAC).

Discussion

The Authority's draft RRF Project List for FY 2022/2023 is presented on the following page for the Committee's review and comment, with project explanations on the subsequent page. Staff plans to bring the final FY 2022/2023 project list to the Commission for consideration in June 2022. Per Item No. FM9, staff is recommending that the agencies' contribution to the RRF for FY 2022/2023 is \$750,000, consistent with the AMP 20-year projection of funding needs.

Because the Roof Replacement Project is currently out to bid, staff has not included an estimated budget for it in this agenda. The results of the bidding process will be included in the final RRF Project List in the June agenda.

Staff notes that work on several of the RRF projects approved in prior years will also continue this fiscal year. The following table provides some examples of the ongoing projects:

Project	Budget
HEPS Effluent Pump Replacement	\$400,000
OLEPS Electrical Upgrade	\$260,000 (\$100,000 of which is for the Main Electrical Switchboard Upgrade)
EBDA Office Upgrade	\$40,000
MDF Automation Upgrade	\$35,000

RRF Projects for FY 2022/2023

<u>Facility</u>	<u>Renewal Replacement Fund Items</u>	<u>Projected Completion Date</u>	<u>Estimated Costs</u>
UEPS	Payment #3 of 10 Per JPA	July 2022	\$ 420,000
OLEPS, MDF & EBDA Office	Roof Replacement Project	September 2022	Out to Bid
MDF	SBS Building Heating System Replacement	September 2022	\$ 25,000
		FY 2022/2023 Sub-Total	\$ TBD
		Small Projects Fund	\$ 100,000
		FY 2022/2023 Total	\$ TBD

UEPS – Payment #3 of 10 per JPA – \$420,000

The Amended and Restated Joint Powers Agreement (JPA) states that “in fiscal years from 2020/21 through 2029/30, the Authority will pay Union a total of Four Million, Two-Hundred Thousand dollars (\$4,200,000), divided in ten equal and annual installments, as a credit toward their annual budget contribution for Operation and Maintenance Costs, for all Capital Costs associated with the Union Effluent Pump Station during the Term of the Agreement.”

OLEPS, MDF & EBDA Office – Roof Replacement Project – Out to Bid

Installation of new roofs at OLEPS, MDF & EBDA Office. See Item No. OM5 for further details.

MDF – SBS Building Heating System Replacement – \$25,000

Installation of a new heating system in the SBS storage building at MDF. See Item No. OM5 for further details.

Small Projects Fund (formerly Contingency Fund) – \$100,000

The purpose of the Small Projects Fund is to provide additional funding for unidentified projects and/or equipment that may need to be replaced or refurbished in FY 2022/2023. Much of the smaller ancillary equipment and components that the Authority owns are operated with the intent to ‘run to failure’. This is a common practice at wastewater facilities with these types of assets, which include fans, valves, actuators, and small pumps and motors. While preventive maintenance is completed on a regular basis, forecasting an exact date of failure is not possible. The criteria for ‘run to failure’ are both that the equipment can be readily procured and that there is sufficient redundancy to meet system firm capacity. In some cases, staff will purchase critical items and have them on the shelf, reducing system equipment downtime.

ITEM NO. OM7 MOTION AUTHORIZING THE GENERAL MANAGER TO EXECUTE AMENDMENT 1 TO WORK ORDER NO. 3 AND WORK ORDER NO. 5 WITH CAROLLO ENGINEERS, INC. FOR ENGINEERING SERVICES, FOR A TOTAL CONTRACT AMOUNT OF \$194,452

Recommendation

Adopt the proposed motion to approve the amendment and new work order for Carollo Engineers, Inc.

Background

Carollo Engineers, Inc. (Carollo) is a Walnut Creek-based engineering consulting firm specializing in water and wastewater. Carollo has performed engineering services for the Authority for a number of years. Recent projects include development of a transport system hydraulic model and scenario analysis in preparation for Joint Powers Agreement (JPA) negotiations, and the Union Effluent Pump Station Cavitation Study.

In July 2020, the Authority entered into an agreement with Carollo to provide engineering services on a work order basis. The agreement provided a vehicle to engage Carollo to perform specific tasks on a time and materials basis, each of which would be outlined in a work order including a cost ceiling. Staff issued the first work order under this contract to Carollo in July 2020. Under that work order (Work Order No. 1), Carollo used their existing hydraulic model to perform scenario analyses associated with the Cargill brine project. The initial Work Order was for \$9,900.

In February 2021, the Commission approved an amendment to that work order, increasing the cost ceiling to \$19,900, all of which will be fully reimbursed by Cargill. At the same time, the Commission approved two additional Work Orders – one for General Engineering Services (Work Order 2) and one for the Disinfection Master Plan (Work Order 3) – bringing the contract total to \$105,626.

In October 2021, the Commission approved Amendment 2 to Work Order No. 1 to increase scope for Cargill Project to include additional hydraulic modeling and initial lab testing to determine the chlorine demand of the Cargill brine. At the same time, the Commission approved Work Order No. 4 for Emergency Outfall Evaluation, looking at EBDA's emergency near-shore outfall at OLEPS. These revisions brought the overall contract total to \$160,710.

Discussion

Under the proposed motion, staff is asking the Commission to consider two actions associated with the Carollo agreement:

Approve Amendment 1 to Work Order No. 3 to Cover Additional Project Management for the Disinfection Master Plan

Carollo has been developing a Disinfection Master Plan for EBDA with a goal of optimizing chlorine and sodium bisulfite use while maintaining compliance with bacteria limits. Carollo has gone through a thorough process of visiting each site and documenting current

disinfection practices, performing hydraulic modeling to assess travel times in each force main segment as a means to consider regrowth of bacteria in the system, and documenting recommendations in a draft report. Because of the significant engagement with EBDA and Member Agency staff, the project has been of longer duration than originally anticipated. Carollo has requested additional funds to cover project management and meetings associated with the longer duration.

Staff is proposing to increase the Work Order scope by \$5,871, for a total scope of \$71,597.

Approve Work Order No. 5 for OLEPS Bypass Evaluation

Under Work Order 5, staff is proposing that Carollo use their hydraulic model and design capabilities to evaluate the cost and feasibility of routing flows around OLEPS during most conditions, with a view to using OLEPS as a wet weather-only station at some point in the future. The project will consider the necessity and capital cost of upsizing the bypass line as well as installing new Oro Loma effluent pumps and will evaluate the overall net cost or savings of bypassing OLEPS. Staff is recommending a cost ceiling of \$22,000 for this work, per the attached proposal.

The following table summarizes the proposed contract budget, with the new items for approval outlined in red:

Work Order #	1	2	3	4	5
Source of Funds	Cargill (Fund 15)	RRF (Fund 31)	Special Studies (Fund 13)	RRF (Fund 31)	RRF (Fund 31)
Topic	Cargill	General Engineering	Disinfection Master Plan	Emergency Outfall Evaluation	OLEPS Bypass Evaluation
	\$ 9,900	\$ 20,000	\$ 65,726	\$ 12,100	\$ 22,000
Amendment 1	\$ 10,000		\$ 5,871		
Amendment 2	\$ 42,984				
Total	\$ 62,884	\$ 20,000	\$ 71,597	\$ 12,100	\$ 22,000
			May 2022 Increase	\$ 27,871	
			Contract Total	\$ 194,452	

Amendment No.1 to Work Order Number 3 Disinfection Master Plan

TASK / DESCRIPTION		Technical Advisor	Project Professional	Total Hours	Labor Cost	PECE	Total ODC	Total Cost
Labor Rate ⁽¹⁾		\$273.00	\$188.00			\$ 13		
Task 4 - Meetings and Management								
4.1	Meetings and PM (See note 2)	7	19	26	\$ 5,530	\$ 341	\$ 341	\$ 5,871
	Subtotal - Task 4	7	19	26	\$ 5,530	\$ 341	\$ 341	\$ 5,871
	TOTAL	7	19	26	\$ 5,530	\$ 341	\$ 341	\$ 5,871

Notes:

- 1 Labor rates from original contract.
- 2 Original scope duration 8 months. Current project is 15 months through May 2022. Seven additional months of PM and meetings.

May 5, 2022

Mr. Howard Cin
East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA 94580

Subject: OLEPS Flow Bypass Evaluation

Dear Mr. Cin,

In accordance with your request, Carollo Engineers, Inc., (Carollo) is pleased to provide you with the scope and estimated fee required to complete an analysis of EBDA's discharge system utilizing the hydraulic model developed as part of the System Flow Master Plan. The model was updated in 2021 to reflect current conditions and system configurations. EBDA staff have asked Carollo to evaluate alternatives to route system flows around the Oro Loma Effluent Pump Station (OLEPS) during normal operations. The goal is to determine if all discharge flows from OLSD, UEPS, and HEPS can be routed around OLEPS to allow for a limited operation of OLEPS. The analysis would also determine necessary upgrades to the 42-inch bypass line and the flow triggers that would facilitate the need to operate OLEPS during peak flow conditions, such as wet weather events.

Task 1 – Configure OLEPS Bypass Model

Carollo will include the OLSD near shore effluent pump station in the model and simulate the pumping capacity. In the updated model, OLSD's current effluent pumps or new/additional effluent pumps will connect to the forcemain that bypasses OLEPS from HEPS and UEPS. Carollo will use the pump curves and system operational parameters for the pump station within the model. The assumptions would include OLSD flows capped at 30 mgd, HEPS flows capped at 15 mgd, and UEPS flows capped at 42.9 mgd.

Task 2 – Conduct Hydraulic Analysis

Carollo will use the updated hydraulic model to conduct an analysis of the flows in the Discharge System with the bypass of OLSD, UEPS, and HEPS flows around OLEPS. Carollo will use the model to conduct analysis to determine the following:

- The amount of flow that can bypass OLEPS through the existing bypass line, and through an upsized bypass line if necessary.
- The most efficient way to upsize the bypass line, if required.
- The amount of time that OLEPS can be shutdown with flow bypassing the pump station.
- High level costs for upsizing the OLEPS bypass line and new OLSD effluent pumps.
- High level net operational savings at OLEPS as the result of bypassing flow, taking into account the cost of additional operation of OLSD's effluent pumps, HEPS and UEPS.

Mr. Howard Cin
East Bay Dischargers Authority
May 5, 2022

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Task 3 – Project Reporting

Carollo will develop a letter report to summarize the findings of the model update and the analysis. Carollo will document the main findings, and results from the analysis. Carollo will develop a draft letter report. Carollo will incorporate EBDA comments on the analysis and develop a final letter report.

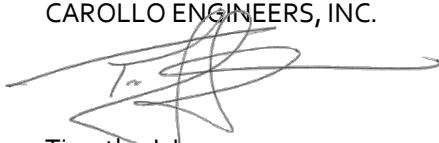
Fee Estimate

Carollo will complete the three tasks above for a total not to exceed value twenty-two thousand dollars (\$22,000). Carollo can complete the proposed scope of work within four weeks of the notice to proceed assuming all requested information can be delivered to Carollo within one week of the initial request.

Should you need additional information, or have questions regarding this proposal, please do not hesitate to call us. We look forward to hearing from you.

Sincerely,

CAROLLO ENGINEERS, INC.



Timothy J. Loper
Project Manager
Vice President

TJL:ro

Enclosures: