



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. 12**

### **OPERATIONS & MAINTENANCE COMMITTEE AGENDA**

**Tuesday, October 19, 2021**

**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. Review of Draft Administrative Appeals Policy**

(The Committee will review the draft policy and provide feedback to staff.)

**OM7. Motion Authorizing the General Manager to Execute Amendment 2 to Work Order No. 1 and Work Order No. 4 With Carollo Engineers, Inc. for Engineering Services, for a Total Contract Amount of \$160,710**

(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

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East Bay Dischargers Authority  
O&M Agenda  
October 19, 2021

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 Villaseñor at [juanita@ebda.org](mailto: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>.

<p><b>The next O&amp;M Committee meeting will be held Tuesday, November 16, 2021, at 9:00 a.m.</b></p>
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## ITEM NO. OM4 EBDA PERMIT COMPLIANCE

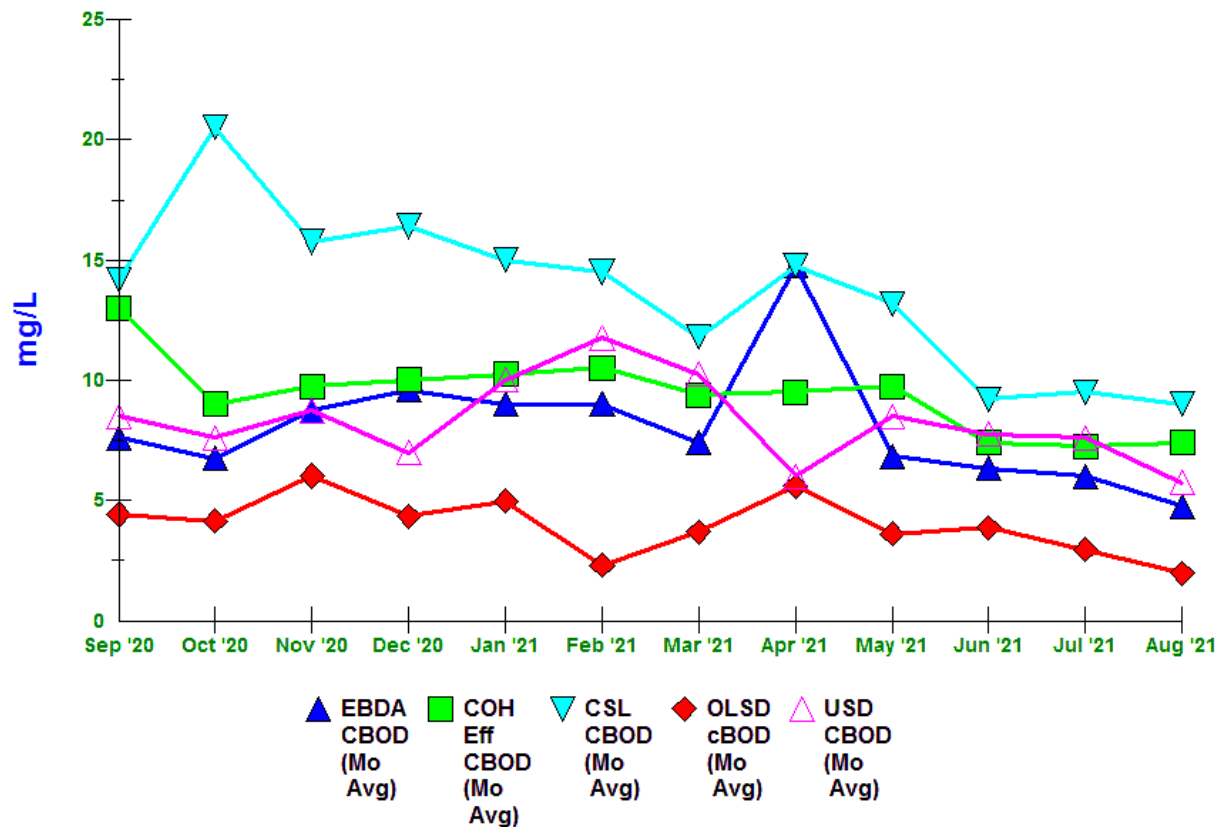
### Recommendation

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

### Permit Compliance Issues

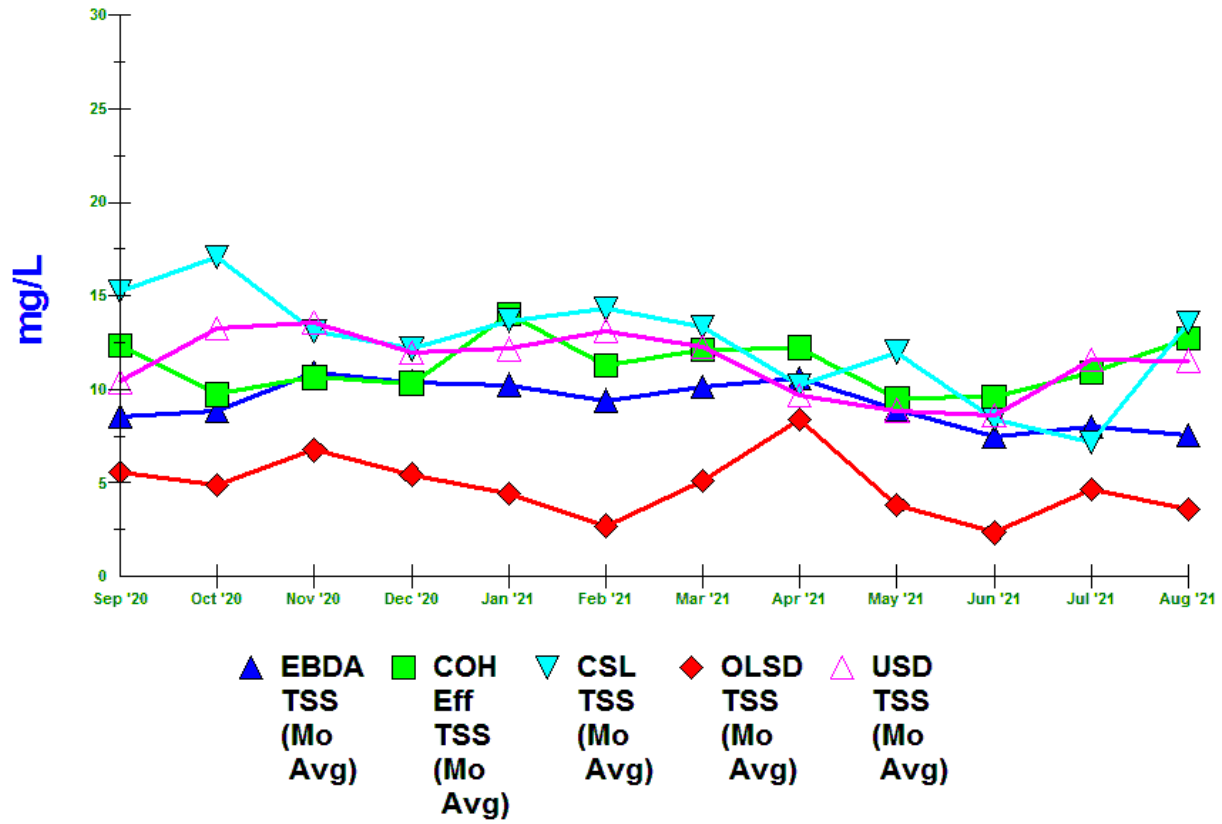
There were no NPDES permit violations in August, and preliminary data from September are also free of permit exceedances. Member Agency CBOD and TSS performance are shown below. A table with bacterial indicators is also included. While values for bacterial indicators did increase as expected during the warm summer conditions, EBDA was never in compliance jeopardy.

### EBDA CBOD (Limit=25 ppm)



EBDA CBOD

## EBDA TSS (Limit 30 ppm)



EBDA EFF TSS

## EBDA Bacterial Indicators

Date	FECAL	ENTERO
	MPN/ 100mL	MPN/ 100mL
Limit (90th Percentile)	1100	
Limit (Geomean)	500	240
<b>October 2020 Geomean</b>	<b>30</b>	<b>9</b>
<b>November 2020 Geomean</b>	<b>11</b>	<b>4</b>
<b>December 2020 Geomean</b>	<b>9</b>	<b>2</b>
<b>January 2021 Geomean</b>	<b>5</b>	<b>3</b>
<b>February 2021 Geomean</b>	<b>6</b>	<b>3</b>
<b>March 2021 Geomean</b>	<b>5</b>	<b>3</b>
<b>April 2021 Geomean</b>	<b>13</b>	<b>3</b>
<b>May 2021 Geomean</b>	<b>10</b>	<b>6</b>
<b>June 2021 Geomean</b>	<b>13</b>	<b>4</b>
<b>July 2021 Geomean</b>	<b>11</b>	<b>2</b>
8/2/2021	435	6
8/3/2021	38	14
8/4/2021	540	17
8/9/2021	4	2
8/10/2021	130	25
8/16/2021	68	582
8/17/2021	33	141
8/23/2021	273	345
8/24/2021	17	51
8/30/2021	12	15
8/31/2021	14	25
<b>August 2021 Geomean</b>	<b>52</b>	<b>32</b>
9/6/2021	4	6
9/7/2021	4	7
9/8/2021	79	86
9/13/2021	7	10
9/14/2021	4	< 2
9/15/2021	14	26
9/20/2021	16	8
9/21/2021	23	4
9/22/2021	2400	22
9/27/2021	40	6
9/28/2021	240	16
<b>September 2021 Geomean</b>	<b>26</b>	<b>10</b>

## **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**

On September 7, 2021, HEPS Effluent Pump No. 4 was removed. The objective of removing Pump No. 4 was to visually inspect the condition of the interface between the pump base and other pump station infrastructure. The pump station record drawings and photos of the Pump No. 4 base were sent to a structural engineer to determine the level of effort necessary to construct the new pump bases. Structural calculations were completed, and that information will be used to prepare the bid documents. Staff expects to issue the bid documents by the end of calendar year 2021, with installation occurring in late-2022.

### **Oro Loma Effluent Pump Station (OLEPS)**

#### **Main Electrical Switchboard Upgrade**

Schneider Electric is in the process of manufacturing the new Main Electrical Switchboard breakers. The tentative ship date for the new breakers was the last week of September, but due to the pandemic, the delivery of the new breakers is delayed. EBDA is still awaiting confirmation of a new ship date. As with a lot of newly manufactured equipment, the pandemic has extended lead times. Once the ship date is confirmed, another OLEPS PG&E electrical shutdown will be scheduled to install the new breakers, the new Main Electrical Switchboard front panels, and upgraded power monitoring equipment, which will allow OLEPS instantaneous power usage to be displayed on EBDA's SCADA system. Due to the impending start of wet weather, the installation of the new breakers will most likely be postponed until the Spring of 2022.

#### **OLEPS Bypass**

On October 7, 2021, during OLSD's four-day local outfall test, the San Leandro Force Main Crew opened the OLEPS bypass valve and closed the valve that connects the UEPS and HEPS flows to OLEPS. This change in valving forced the UEPS and HEPS flows to bypass OLEPS during high flows and high tide. The bypass system functioned without any issues.

### **Skywest Pump Station**

#### **Recycled Water Production**

During the month of September 2021, the Skywest Recycled Water System operated for three days and produced 1.6 million gallons of recycled water.

## **Marina Dechlorination Facility (MDF)**

### **Pavement Repair**

On September 23, 2021, the San Leandro Street Department Paving Crew replaced some asphalt at MDF that created a tripping hazard on the approach to the front door. As with a lot of buildings at wastewater treatment facilities, the buildings are on piles. Over time, the ground around the buildings starts to settle but the buildings do not. This differential settling causes safety issues, and this pavement repair eliminated those issues at this site.

### **Force Main**

No change; all equipment is operational.

### **Operations Center**

#### **New Phone System**

On September 17, 2021, EBDA implemented a new phone system using Ring Central. This is the same phone system recently installed by OLSD. The new system will save EBDA approximately 50% on the monthly cost of phone service. In approximately 12 months, the monthly savings will cover the equipment and installation cost. This system is also more flexible, as it integrates with staff cell phones.

### **Miscellaneous Items**

#### **Underground Service Alerts**

EBDA received ten (14) Underground Service Alert (USA) tickets during the month of September 2021. Nine required an Electronic Positive Response (EPR), and of the nine, seven required calls/emails to the excavators, and four required field verification.

#### **COVID-19 Response**

All EBDA staff members are fully vaccinated. Staff will 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. 15.

### **Special Projects**

#### **Disinfection Master Plan**

Staff is continuing to work with Carollo Engineers 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. A draft report has been provided to staff and will be reviewed with the MAC in November.

### **Cargill Brine Project Due Diligence**

EBDA staff is continuing to work with Cargill to develop strategies to address the risks of adding brine to the EBDA transport system. In the Corrosion Protection Evaluation Project, Brown & Caldwell screened a multitude of potential mitigation options for protecting vulnerable sections of the force main from corrosion associated with brine addition and then evaluated four in-pipe options in more detail. Preliminary indications are that segmental sliplining of the vulnerable sections of the transport pipe is the most robust and lowest cost in-pipe approach, with an estimated cost of \$74 million.

Cargill has also continued to evaluate a “parallel pipe” option, in which Cargill’s pipe would be extended to a connection point further downstream in EBDA’s system where there is greater dilution and less open channel flow. This parallel pipe option appears feasible and likely lower-cost than sliplining. Work to assess the preferred route for this pipeline is ongoing.

The CEQA review process is currently underway and will be expanded to include not only the original pipeline from Cargill’s facility to EBDA’s southernmost point in Union City, but also the extension to Oro Loma. EBDA staff, consultants, and legal counsel are currently evaluating whether a mitigated negative declaration is appropriate or whether an Environmental Impact Report may be needed to address the expanded scope.

### **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. In April 2021, Sonoma Water’s Board of Directors approved the agreements for the East Bay radar deployment and for the lease with American Tower. Installation of the radar at Rocky Ridge has faced some delays and is now planned for December 2021. Staff is also working with the team at the National Oceanographic and Atmospheric Administration (NOAA) to schedule training for EBDA and member agency staff on accessing precipitation data and projections through the AQPI system.



## **ITEM NO. OM6 REVIEW OF DRAFT ADMINISTRATIVE APPEALS POLICY**

### **Recommendation**

Review the draft policy and provide feedback to staff.

### **Background**

The Authority's Amended and Restated Joint Exercise of Powers Agreement (JPA), which went into effect on July 1, 2020, includes several instances in which the General Manager (GM) is authorized to make a determination, which can then be appealed to the Commission by any Member Agency disagreeing with that determination. Specifically, the GM may determine whether a Failure of the Transport System has occurred and which member agencies are responsible for an unpermitted discharge or other permit violation.

### **Discussion**

Working with the attorneys from Hanson Bridgett, who assisted in drafting the JPA, staff has developed the attached draft Policy outlining how such appeals of GM decisions would be handled. Because the financial consequences to the Member Agencies may be significant, tensions are likely to be high when this process is invoked. The intent of adopting this Policy in advance is to ensure that the process has been agreed to by all parties, thereby allowing any disagreements to be focused on the substance of the issues.

This draft has been reviewed and supported by the Managers Advisory Committee. Pending feedback from the Operations and Maintenance Committee, staff intends to bring the Policy to the Commission for adoption.

**POLICY NUMBER:** 8

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**NAME OF POLICY:** Administrative Appeals Policy

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**LAST REVISED:**

**PREVIOUSLY REVISED:** N/A

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**PURPOSE:** Policy Establishing the Administrative Appeals Procedures Applicable to Certain Determinations of the General Manager

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**POLICY:**

**I. Application**

Pursuant to the East Bay Dischargers Authority (Authority) Amended and Restated Joint Exercise of Powers Agreement (JPA) effective July 1, 2020, the General Manager is authorized to make certain determinations which affect the rights and responsibilities of the Authority member agencies.

In particular, the General Manager is authorized to determine whether a Failure of the Transport System has occurred and which member agencies are responsible for an unpermitted discharge or other permit violation.

In the event the General Manager makes such a determination, the affected member agencies will have the right to appeal the determination to the Authority's Commission, pursuant to the procedures set forth in this Policy. In no event will a member agency's decision to pursue an appeal impact its obligation to immediately comply with any remediation measures imposed by a regulatory agency. The affected member agency must implement the remediation measures before pursuing, or concurrent with, any appeal.

**II. Preliminary Request for Reconsideration**

Prior to submitting an appeal to the Commission, the member agency must present a written request for reconsideration to the General Manager. The request must be submitted within 60 days of the date the agency receives notice of the General

Manager's determination and must include data and documentation supporting the member agency's position. Any member agency disputing the General Manager's determination that a Failure has occurred in the Transport System must provide an engineering report to support its position.

The General Manager will review all data and documentation and provide the member agency with a written final determination.

### **III. Time for Filing an Appeal with the Commission**

Within 30 calendar days of the date of the General Manager's final determination, the affected member agency may submit a written appeal to the Commission. The Commission, by unanimous approval, may extend this time period upon a showing of good cause. The appeal request should include a brief summary of the member agency's position, document compliance with the above reconsideration procedures, and include the date of the Commission meeting at which the member agency requests the Commission hear the appeal. In no event will the Commission hear an appeal more than 90 calendar days from the date the member agency files its appeal.

### **IV. Statement of the Basis of Appeal and Supporting Documentation**

At least 14 calendar days before the meeting at which the appeal will be heard, the member agency must submit a statement of the basis for appeal, including supporting data and documentation, for inclusion in the Commission's agenda packet. An agency may not raise any matters on appeal that were not presented to the General Manager for reconsideration.

The General Manager will prepare a summary of the basis for his/her determination, including supporting data and documentation, for inclusion in the Commission's agenda packet.

### **V. Appeal**

The Commission will hear the appeal at a public meeting and, upon consideration of the statements and facts presented, will make its determination. The determination of the Commission is final.

### **VI. Dispute Resolution**

For any dispute which is within the scope of this Policy, exhaustion of these administrative appeals procedures is a prerequisite to pursuing the dispute resolution procedures of Section 19 of the JPA. Upon completion of these administrative appeals procedures, a member agency will be deemed to have met its obligation to informally negotiate to resolve the dispute, as described in Section 19 of the JPA, and the member agency may proceed directly to non-binding mediation, arbitration, or judicial determination.

**VII. Waiver**

The Commission may suspend or waive the requirements of this Policy in any instance when the Commission deems it in the best interest of the Authority to do so.

DRAFT

**ITEM NO. OM7 MOTION AUTHORIZING THE GENERAL MANAGER TO EXECUTE AMENDMENT 2 TO WORK ORDER NO. 1 AND WORK ORDER NO. 4 WITH CAROLLO ENGINEERS, INC. FOR ENGINEERING SERVICES, FOR A TOTAL CONTRACT AMOUNT OF \$160,710**

**Recommendation**

Adopt the proposed motion to approve the two new work orders 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. That work order (Work Order No. 1) was to use 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.

**Discussion**

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

**Approve Amendment 2 to Work Order No. 1 to Increase Scope for Cargill Project**

As part of the Cargill project due diligence process, Carollo will perform two additional tasks:

- Additional hydraulic modeling (\$9000). Carollo will perform a sensitivity analysis, looking at whether the extent of pipe that may be under conditions conducive to corrosion with the presence of increased chlorides changes as effluent flows potentially decrease in the future.
- Disinfection impacts assessment (\$33,984). The Carollo team currently performing the Disinfection Master Plan will assess potential impacts to disinfection from brine addition, including options for addressing those impacts to be included in the Cargill contract.

Staff is proposing to increase the Work Order scope by \$42,984, for a total scope of \$62,884. Any work performed under this Work Order will be reimbursed by Cargill.

Approve Work Order No. 4 for Emergency Outfall Evaluation

EBDA maintains an emergency near-shore outfall at Oro Loma. This outfall is authorized for use during high flows that exceed system capacity, and it is also available in emergencies. It was last used in May 2020 during an unanticipated failure of primary and back-up power at OLEPS. Under this proposed Work Order, Carollo would evaluate the hydraulics of raising the weir at the emergency outfall so that discharge is even less frequent. If deemed feasible and favorable, Carollo would design weir improvements. Staff is recommending a cost ceiling of \$12,100 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
Source of Funds	Cargill (Fund 15)	RRF (Fund 31)	Special Studies (Fund 13)	RRF (Fund 31)
Topic	Cargill	General Engineering	Disinfection Master Plan	Emergency Outfall Evaluation
	\$ 9,900	\$ 20,000	\$ 65,726	\$ 12,100
Amendment 1	\$ 10,000			
Amendment 2	\$ 42,984			
Total	\$ 62,884	\$ 20,000	\$ 65,726	\$ 12,100
		October 2021 Increase		\$ 55,084
		Contract Total		\$ 160,710

October 13, 2021

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

Subject: Cargill Assessment

Dear Miss Zipkin,

In accordance with your request, Carollo Engineers, Inc. (Carollo), is pleased to provide you with the scope and estimated fee required to complete an assessment of the effluent discharge from Cargill salt being added to the Transport System. The scope of work includes the following tasks.

### **Task 1 – Assessment of Chlorine Demand**

Jar testing to assess chlorine demand and bacterial load impacts of the Cargill effluent will be performed by Carollo's Water ARC® in Boise, Idaho. The jar testing will include four runs that are representative of the potential future Cargill blending locations in the Transport system. The first two runs will be performed with MDF combined effluent with and without brine addition. The second two runs will be performed with USD combined effluent with and without brine addition. These runs will determine the baseline chlorine demand without brine and the impact the anticipated ratio of Cargill effluent addition has on chlorine demand. Bacterial enumeration of fecal coliforms and *enterococci* are included in the testing to evaluate the bacterial load impact of the brine addition at both blending locations. Testing results from these tasks are anticipated to be available approximately 14 days from the sampling date.

Once the demand impacts are understood, the same runs described above will be run with a target residual set point (value TBD) followed by dechlorination to evaluate the impact on bisulfite dosing at the MDF.

### **Task 2 – Development of Disinfection Options**

Carollo will develop two chlorination disinfection options including the pros and cons of each option. The two options are:

- a) Requiring Cargill to maintain a residual in their effluent at the EBDA connection; and
- b) Requiring Cargill to compensate EBDA for the addition of supplemental chlorine to account for the demand.

The chlorine cost for both of these options can be estimated based on the results from Task 1. Carollo will prepare a draft and final technical memorandum of the disinfection options including the testing results from Task 1.

### **Task 3 – Technical Support**

Carollo will provide technical support as needed for negotiating contract language with Cargill related to this topic.

### **Task 4 – Project Management and Meetings**

This task includes time for management of the project and three (3) project meetings. It has been assumed that the project duration will be approximately three (3) months and that the meetings will occur virtually.

Jackie Zipkin  
East Bay Dischargers Authority  
October 13, 2021

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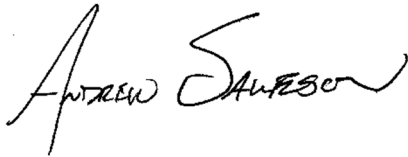
### Fee Estimate -

Carollo will complete the tasks above for a total of not to exceed value of \$33,984. Carollo can complete the proposed scope of work within thirteen (13) 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.

A handwritten signature in black ink that reads "Andrew Salveson". The signature is fluid and cursive, with the first name "Andrew" and last name "Salveson" clearly distinguishable.

Andrew Salveson  
Wastewater Disinfection Chief Technologist

AuthorInitials:naf

Enclosures: List Enclosures

cc:



September 7, 2021

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

Subject: 2021 Low Flow Evaluations

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 will be updated based on as-built drawings provided by EBDA staff. Carollo will work directly with EBDA staff to provide hydraulic grade line (HGL) profiles of the discharge system to estimate where pipelines within the system do not flow completely full at low flows and reduced low flows. The scope of work includes the following tasks.

### **Task 1 – Review and Update Model Pipeline Data**

Carollo will meet with Brown & Caldwell to review and revise the hydraulic model pipeline alignment and elevation data based on as-built drawing information provided by EBDA staff.

### **Task 2 – Conduct Hydraulic Analysis**

Carollo will use the updated hydraulic model to conduct an analysis of reduced low flows throughout the system. Carollo will run a minimum of 2 (but up to 4) reduced low flow scenarios including the following:

- Low flows reduced by 25%
- Low flows reduced by 50%

Carollo will provide the results in tabular format as well as HGL profile plots showing segments of the system with the top of the inside of the pipe exposed, and will attend two virtual meetings to summarize the results and findings.

### **Task 3 – On-call Modeling Work**

As a part of this task, Carollo will provide ongoing modeling support related to Task 2. Modeling support will be provided as directed by EBDA staff and could include updating model pipeline alignments or running additional low flow scenarios. This task assumes a not-to-exceed value of five thousand dollars (\$5,000).

### **Fee Estimate**

Carollo will complete the three tasks above for a total not to exceed value of nine thousand dollars (\$9,000). Carollo can complete the proposed scope of work within two weeks of the notice to proceed assuming all requested information can be delivered to Carollo within one week of the initial request.

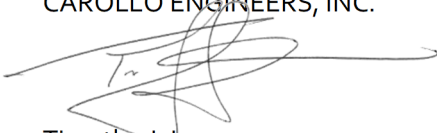
Should you need additional information, or have questions regarding this proposal, please do not hesitate to call us. We look forward to hearing from you.

Mr. Howard Cin  
East Bay Dischargers Authority  
September 7, 2021

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Sincerely,

CAROLLO ENGINEERS, INC.

A handwritten signature in black ink, appearing to read 'TJL', with a long horizontal flourish extending to the right.

Timothy J. Loper  
Project Manager  
Vice President

TJL:ro

Enclosures:

April 8, 2021

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

Subject: As-Needed Engineering Services - Emergency Outfall 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 evaluation of the emergency outfall located at Oro Loma Sanitary District (OLSD). At some point in the past, lumber was installed to increase the weir elevation by one foot. EBDA is exploring the option of replacing the lumber with concrete and possibly, increasing the weir elevation. The analysis will be conducted based on as-built drawings and photos provided by EBDA staff. The scope of work includes the following tasks:

#### **Task 1 – Hydraulic Evaluation**

Carollo will evaluate the maximum flow of the emergency outfall as it is currently configured and provide recommendations regarding an increase of the weir elevation. If an increase of the weir elevation is recommended, maximum flow will also be provided with the new configuration. When evaluating the maximum flow, the weir section (and the section of the outfall under the road) will be evaluated separately, with the maximum flow provided for both sections to determine which section is the limiting factor. Once the weir elevation and the outfall restriction analysis is complete, Carollo will calculate the associated increase in detention time/volume. Findings and recommendations will be summarized in a brief memorandum.

#### **Task 2 – Weir Design**

If an increase of the weir elevation is recommended and/or determined to be of benefit, 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 existing concrete surface and associated reinforcing.

#### **Fee Estimate**

Carollo will complete the two tasks above for a total not to exceed value of twelve thousand one hundred dollars (\$12,100), and a breakdown is shown in the attached table as Exhibit A. Carollo can complete the proposed scope of work within four weeks of the notice to proceed assuming any additionally 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.



Mike Zappone  
Principal Mechanical Engineer  
Vice President  
MLZ:sm