



EAST BAY DISCHARGERS AUTHORITY
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A Joint Powers Public Agency

ITEM NO. 16

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Tuesday, October 15, 2019

10:30 A.M.

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

Committee Members: Cutter (Chair); Walters

OM1. Call to Order

OM2. Roll Call

OM3. Public Forum

OM4. EBDA Performance

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

OM5. Status Report

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

OM6. 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 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, please contact the Administrative Assistant at the EBDA office at (510) 278-5910 or kyambao@ebda.org. 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, November 19, 2019, at 9:00 a.m.**

ITEM NO. OM4 EBDA PERFORMANCE

The detailed package is included in the Regulatory Affairs Committee agenda. The NPDES report shows that EBDA continues to operate within the normal compliance range.

Please see the Regulatory Affairs Committee agenda, Item No. RA4 for the August permit compliance data.

ITEM NO. OM5 STATUS REPORT

Alvarado Effluent Pump Station (AEPS)

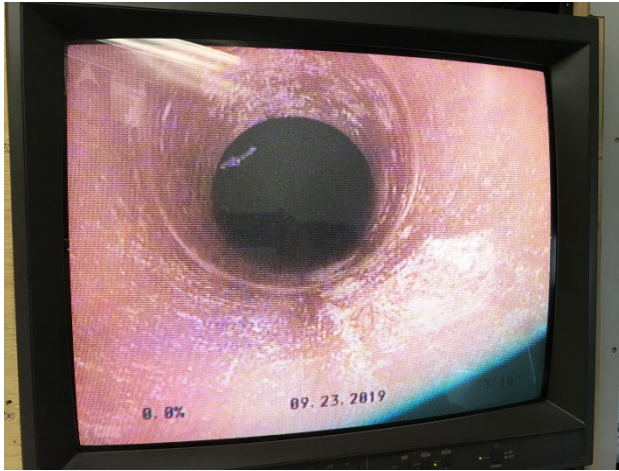
Pump Cavitation Study & Station Optimization

On September 23, 2019, EBDA received the Draft Cavitation Study Project Memorandum. EBDA will provide comments to Carollo and, after the comments are incorporated, the report will be sent to the MAC for review and a meeting will be scheduled with USD staff to review the memorandum.

Hayward Effluent Pump Station (HEPS)

Motor Control Center (MCC) Replacement Project

GSE Construction, Inc. (GSE) and Central Sierra Electric (Central Sierra) completed installation of new valves on the discharge piping from each of the four pumps at HEPS. The installation of the valves on Pumps No. 2, 3, and 4 required two shutdowns of the pump station to complete. During the second shutdown, the pump station discharge header was drained and COH staff inspected the inside of the above ground discharge header and a portion of the underground force main. The force main was observed to be in good condition, but the above ground discharge header was found to have coating issues with the top half of the pipe. This finding was consistent with Brown & Caldwell's previous inspection at HEPS.



Underground Force Main



Above Ground Discharge Header

After the new valves were installed, Frank Olsen Co. assisted with calibration and testing. Central Sierra and KBL Associates connected the new valves and the existing pumps to the new Programmable Logic Controller (PLC). Calcon integrated all existing pumps and new valves into the new PLC.

GSE completed excavation and installation of the new HDPE pond diversion piping from the pump station header to the previously installed underground pipe. This section of the diversion pipe was intentionally installed later because it was located under the old PG&E transformer. The old transformer was removed after the new electrical service was installed, thus allowing installation of the remainder of the pipe.



HDPE Pond Diversion Piping

GSE also poured concrete pads which will support the new stairs leading into the MCC building and installed handrails on the dissipator structure.

Upcoming activities include demolition of the old HEPS MCC and PLC, grading and paving, and installation of the permanent fence around the pump station. The project is expected to be substantially complete by mid-November.

Oro Loma Effluent Pump Station (OLEPS)

Wet Well Preventative Maintenance Activities

During the weeks of September 16th and 23rd, staff coordinated with the OLSD Operations and Maintenance Departments to isolate and pump down the North and South wet wells at OLEPS to facilitate preventative maintenance activities and to install new discharge valve gear drives and actuators for the No. 1 & 4 Effluent Pumps.

While the wet wells were pumped down, the OLSD Maintenance Department performed confined space entries to inspect the heat exchangers on the No. 2 & 3 Effluent Pumps. The heat exchangers were found to be in good condition. Staff would like to thank the OLSD Operations and Maintenance Departments for their assistance completing these preventative maintenance activities.

No. 1 & 4 Effluent Pump Discharge Valve Actuator Replacement Project

During the period that the wet wells were pumped down for preventative maintenance activities described above, Calcon completed the installation of the No. 1 & 4 Effluent Pump discharge valve gear drives and actuators. MRC Global provided a technician to assist with commissioning the new actuators. Staff worked with Calcon and MRC to test the new actuators, and they are now in service.



Old Gear Drive & Actuator

New Gear Drive & Actuator

Electrical Improvements

On September 20, 2019, EBDA received a Memorandum from Beecher Engineering, Inc. (Beecher), EBDA's contract Electrical Engineer, indicating that OLSD can provide the required standby power to OLEPS. The OLSD standby power would only be used in the event of a PG&E power failure and a failure of the OLEPS emergency generator. After discussions with OLSD and the MAC, EBDA received a quote to install the two electrical conduits, a one-inch #1 water line, and a two-inch #4 water line under the asphalt from OLEPS to OLSD.

One of the electrical conduits is for the OLEPS standby power and the other is to replace the Skywest main electrical feed. The Skywest main electrical feed was hit by the contractor working on OLSD's Nutrient Optimization Project and was found to be in need of replacement. If EBDA is going to continue to operate the Skywest system for years to come, the main power feed will need to be replaced. Bringing a conduit under the asphalt from OLEPS to the OLSD wall at this time is cost-effective for Skywest and will reduce the cost of the backup power conduit for EBDA.

The #1 water line supplies water to the OLEPS safety shower and eyewash station and was broken several times by the OLSD contractor. The #4 water line will be used in the event the OLEPS water system fails. The current contingency plan if the OLEPS water system fails is for OLSD staff to drag hoses from OLEPS to OLSD for the pump gear drive cooling water. The new #4 water line will eliminate that need. The #4 water will also be used to hose the OLEPS wet wells when they are taken down for maintenance activities.

San Leandro Effluent Pump Station (SLEPS)

Emergency Generator Starter Failure

On September 16, 2019, at 0225 hours, during a short power outage, the SLEPS emergency generator failed to start. This failure appeared to be similar to a failure that occurred in July of this year when the starter was replaced. Peterson Power inspected the generator on September 17 and determined that the new starter was defective. Peterson Power replaced the starter slave relay, reinstalled the old starter, and the generator is now fully functional. EBDA is working with Peterson Power to address the repair under warranty and receive a credit on the starter.

Skywest Pump Station

Recycled Water Production

During the month of September 2019, the Skywest Recycled Water System produced 8.3 million gallons of recycled water.

Marina Dechlorination Facility (MDF)

No change; all equipment is operational.

Force Main

No change; all equipment is operational.

Operations Center

Cyber Security

On September 20, 2019, EBDA received the updated IT/SCADA System Cybersecurity Vulnerability Assessment Report. The first Quarterly Network Security Management & Coordination meeting is scheduled for October 9, 2019. The meeting will be attended by EBDA, OLSD, Woodard & Curran, Calcon (EBDA's SCADA consultant) and Cayuga Information Systems (EBDA's business IT consultant). The meeting objectives are to establish communication channels, develop a common understanding of upcoming projects and potential interactions, and outline the future network architecture. The agenda for the first meeting includes discussion of network security and remote access issues for EBDA's new SCADA system and EBDA's communication system upgrade.

SCADA System Upgrade Project

EBDA staff is now using the new SCADA system and the project is scheduled to be completed in the next month.

Miscellaneous Items

Underground Service Alerts

EBDA received twenty-five (25) Underground Service Alert (USA) tickets during the month of September 2019. Three required field verification.

Special Projects

PG&E Large Integrated Audit Program

On September 27, 2019, EBDA participated in a conference call to discuss PG&E's Large Integrated Audit (LIA) program. The LIA Program is a PG&E-sponsored assessment of customer facilities, as a service of the Public Purchase Program surcharge paid for by PG&E customers. The goal of the effort is to provide customers with an energy action plan, which identifies and prioritizes potential energy and demand savings from energy conservation, energy efficiency, time-of-use management, demand response, and self-generation measures. EBDA's study will be conducted by Alternative Energy Systems Consulting, Inc. The basic process is as follows:

- Site visit/walk – scheduled for October 10, 2019
- Initial measures list
- Workshop with key staff to discuss benefits/potential pitfalls of measures. End the day with a list of measures the team would like to move forward with more detailed calculations/assessments.
- Energy & process monitoring for ~1 month to determine baseline system profile
- Detailed analysis of each measure
 - Process impact
 - Energy savings potential
 - Maintenance impact
 - Cost analysis
 - Implementation cost
 - Chemical/maintenance savings
 - Utility incentive
 - Financial metrics (payback, ROI, etc)
- Secure incentives for all measures from PG&E

Transport System Seismic Reliability Plan

On September 3, 2019, Brown & Caldwell (BC) submitted a preliminary draft of the Transport System Seismic Reliability Plan. The draft permitting section had previously been forwarded to Kermani Consulting Group to be incorporated in EBDA's Disaster Cost Recovery Plan. Staff is reviewing the full Draft Transport System Seismic Reliability Plan and providing feedback to BC.

EBDA Facilities Electrical Evaluation

On August 23, 2019, EBDA staff met with Todd Beecher from Beecher Engineering, Inc. to provide comments to be incorporated in the draft report. A final draft will be delivered following completion of the OLEPS standby power assessment discussed above.

Disaster Cost Recovery Planning Services

EBDA staff is continuing to work with Kermani Consulting Group (KCG) on disaster cost recovery planning. KCG delivered an updated draft of EBDA's Disaster Cost Recovery Plan for review on August 14, 2019, which incorporates staff's feedback on the initial July draft. Staff is in the process of reviewing the latest draft. Following refinement of the Plan, the project will conclude with an overview session for member agency staff, likely in early 2020, per the MAC's request.

Advanced Quantitative Precipitation Information (AQPI) Project

As discussed previously, AQPI is a Bay Area regional project funded by the California Department of Water Resources (DWR) aimed at improving prediction of precipitation, streamflow, and storm surge through data gathering and model improvement. EBDA is part of a consortium of East Bay agencies working to install a permanent radar, in time for the 2019/20 wet season. The plan is for each of the participating agencies to approve a Memorandum of Understanding (MOU) with Sonoma Water as the contracting agency. The MOU would commit to funding the installation through the end of the grant in December 2021. EBDA staff is still waiting for all agencies to complete legal review on the MOU document, and then will bring the MOU to the Commission for consideration. Based on the most recent negotiation, the EBDA contribution to this two-year project is \$29,000, which is included in EBDA's FY2019/20 budget. The current target is for the East Bay radar to be installed by January 2020.

It is expected that a broader regional MOU or JPA will be developed for post-grant funding beyond 2021. EBDA staff is representing the East Bay agencies in a regional committee that is beginning to discuss the long-term funding and governance plan. The group is working on a Planning Agreement that staff would sign by November 2019, documenting intent to work together toward a long-term agreement. The Planning Agreement would contain no funding commitments.

EAST BAY DISCHARGERS AUTHORITY
MONTHLY OPERATION AND MAINTENANCE REPORT
Sep-2019

1. Summary sheets from the NPDES Report submitted to the RWQCB and EPA are attached for the month of: Aug-19
2. Number of violations reported in the above NPDES Report: **None to Report**
3. The violations included the following: **None Noted**
4. Preventive Maintenance for the month of: Aug-19

LOCATION	NO. TASKS SCHEDULED	NO. TASKS COMPLETED	# TASKS UNFINISHED	PERCENT COMPLETED
San Leandro Pump Station	12	12	0	100%
Oro Loma Pump Station	54	54	0	100%
Sky West Pump Station	14	14	0	100%
Hayward Pump Station	24	24	0	100%
Alvarado Pump Station	30	30	0	100%
Marina Dechlorination Facility	99	99	0	100%
EBDA Responsibility	26	26	0	100%
Force Main - USD	4	4	0	100%
Force Main - San Leandro	68	68	0	100%
Total	331	331	0	100%

5. Unscheduled Maintenance for the month of: Sep-19

LOCATION	NO. OF WORK ORDERS
San Leandro Pump Station	1
Oro Loma Pump Station	1
Hayward Pump Station	1
Alvarado Pump Station	1
Marina Dechlorination Facility	0
Skywest Pump Station	0
Force Main	0

6. Other Items of significance: Sep-19

- a. FM: Transport System Seismic Reliability Plan
- b. AEPS: Pump Cavitation Study & Station Optimization
- c. OLEPS: Effluent Pumps No. 1 & 4 Discharge Valve Actuators & Gear Drives
- d. MDF: No Items
- e. HEPS: MCC Replacement Project
- f. SLEPS: Emergency Generator Repair