San Francisco Bay Regional Water Quality Control Board

October 25, 2023

Livermore-Amador Valley Water Management Agency (LAVWMA)
Chuck Weir, General Manager (weir@lavwma.com)
7176 Johnson Drive
Pleasanton, CA 94588

Subject: **Report of Inspection, LAVWMA Export and Storage Facility, Order R2-2021-0007 (NPDES Permit CA0038679), Pleasanton, Alameda County**

Dear Chuck Weir:

On September 29, 2023, Regional Water Board staff conducted a compliance evaluation inspection at the LAVWMA Export and Storage Facility. The details of the inspection are included in the attached report. If you have any questions concerning this report, please contact me at Natlie.Lee@waterboards.ca.gov.

Sincerely,

Natlie Lee
Environmental Scientist

cc: Michael Weiss, U.S. EPA, Weiss.Michael@epa.gov
Virgil Sevilla, Dublin San Ramon Services District, sevilla@dsrsd.com
Jackie Zipkin, EBDA, jzipkin@ebda.org
DJ Alejandro, SF Bay Regional Water Board, dandre.alejandro@waterboards.ca.gov

Attachment: NPDES Compliance Evaluation Inspection Report - LAVWMA

CW-236689

CIWQS Inspection ID: 52985752
Entered by: NL

NPDES Compliance Evaluation Inspection (CEI) Report

Facility Name and Location			Entry Date	Entry Time
Livermore-Amador Valley Water Management Agency (LAVWMA) Export and Storage Facilities 7176 Johnson Drive Pleasanton, CA 94588			09/29/23	12:00pm
			Permit Effective Date	Permit Expiration Date
			7/01/2021	6/30/2026
Mailing Address	Same as facility location?	Yes ☐ No ☒	Notified?	Yes ☒ No ☐
Dublin San Ramon Services District 7051 Dublin Blvd. Pleasanton, CA 94568			If no, rationale:	
CIWQS Inspection ID	52985752	Receiving Water Name	Lower San Francisco Bay	
NPDES Permit Number	CA0038679	County	Alameda	
Order Number	R2-2021-0007	Plant Classification	POTW	
Type of Discharge	Minor	CIWQS Place ID	236689	

Names and Titles of Onsite Representatives			
Name	Title	Phone	Email
Charles Weir	General Manager	510-410-5923	weir@lavwma.com
Virgil Sevilla	Operations Superintendent	925-875-2300	sevilla@dsrsd.com
Jacqueline Zipkin	EBDA General Manager	510-278-5910	jzipkin@ebda.org

Name and Title of Responsible Official	
Name Title Phone Email	Charles Weir LAVWMA General Manager (510) 410-5923 weir@lavwma.com
Does responsible official match permit-based contact information on file?	Yes ☒ No ☐
Does grade level comply with plant classification?	Yes ☒ No ☐
Inspector Information	Presented Credentials? Yes ☐ No ☒
Organization Name Title Phone Email	San Francisco Bay Regional Water Quality Control Board Natlie Lee Environmental Scientist (510) 622-2325 Natlie.Lee@waterboards.ca.gov
Organization Name Title Phone Email	San Francisco Bay Regional Water Quality Control Board DJ Alejandro Scientific Aid (510) 622-2308 Dandre.Alejandro@waterboards.ca.gov

I. PRE-INSPECTION PERMIT REVIEW

	Yes	No	N/A
Is the facility as described in the permit?	☒	☐	☐
Has the Water Board been notified of any process/production modifications?	☒	☐	☐
Was a permit reissuance application submitted to the Water Board on time?	☐	☐	☒
Was the permit modified prior to any facility or discharge changes?	☐	☐	☒

Discharge Points
The LAVWMA Export and Storage Facilities discharge secondary treated wastewater through the EBDA Common Outfall (Discharge Point 001 in the Dublin San Ramon Services District's NPDES permit, NPDES CA0037613) to Lower San Francisco Bay.

Facility Class	V		
Chief Plant Operator	Virgil Sevilla	Grade	V
Peak Design Flow	41.2 million gallons per day (MGD) – total capacity • 19.7 MGD – firm capacity • 21.5 MGD – interruptible capacity		

	Yes	No	N/A
Are current loads less than 80% of design loads?	☐	☐	☒
If no, does annual report describe timing of next plant expansion?	☐	☐	☒

Pre-inspection concerns that might affect inspection process
None.

II. PRE-INSPECTION MONITORING REPORT REVIEW

Summary of effluent limit violations since last inspection			
Constituent	No. of Violations	Corrective Action Reported	No action reported
Chlorine, Total Residual	1	Violation occurred on March 9, 2023. The chlorine limit is 0.0 mg/L, and reported value was 0.7 mg/L. Operational staff created a standard process to perform weekly calcium thiosulfate delivery system testing and flushing and updated the flow totalizers to provide real-time data.	☐
			☐
			☐

Summary of receiving water violations since last inspection		
Parameter	No. of Violations	No action reported
Dissolved oxygen	None	☐
Turbidity	None	☐
pH	None	☐
Temperature	None	☐
Aesthetic issues (e.g., excessive algae, bottom deposits, etc.)	None	☐
Corrective Actions Reported		
Not applicable.		

Monitoring and Reporting Program violations since last inspection			
	Yes	No	N/A
Responsible person signs and certifies the DMRs and/or SMRs	☒	☐	☐
Discharger monitors at frequency required by permit	☒	☐	☐
All data collected are summarized	☒	☐	☐
Coliform concentrations are calculated as required by permit (median, mean, etc.)	☒	☐	☐
Detection limits are reported	☒	☐	☐
"Less than" and estimated values are properly carried through the calculations	☐	☐	☒
Flow measurement period used for load calculations brackets sampling period	☐	☐	☒
Loading rates are properly calculated	☐	☐	☒
Data reported in time frame and frequency required by permit	☒	☐	☐
Have any spills/bypasses been reported to the Regional Board?	☐	☐	☒
Dates and times of spills/bypasses			
N/A			

III. RECORDS AND REPORTS REVIEW

	Required onsite?		Available onsite?				
	Yes	No	Yes	No	N/A	Not Inspected	Comments
Current NPDES permit	☒	☐	☒	☐	☐	☐	
Permit modifications	☒	☐	☐	☐	☒	☐	
Permit amendments	☒	☐	☐	☐	☒	☐	
Compliance orders	☒	☐	☐	☐	☒	☐	
Monitoring and reporting program	☒	☐	☒	☐	☐	☐	
Standard provisions	☒	☐	☒	☐	☐	☐	
Industrial pretreatment program	☐	☐	☐	☐	☐	☒	
Maintenance records and log book	☒	☐	☐	☐	☐	☒	
Plant operation and maintenance manual	☒	☐	☒	☐	☐	☐	Online
Equipment manuals	☐	☐	☐	☐	☐	☒	
Plant engineering drawings	☐	☐	☐	☐	☐	☒	
Collection system drawings	☐	☐	☐	☐	☐	☒	
Maintenance records	☒	☐	☒	☐	☐	☐	
Spill and bypass records	☒	☐	☐	☐	☐	☒	
Biosolids disposal plan	☐	☐	☐	☐	☐	☒	
Biosolid farm map and disposal agreements	☐	☐	☐	☐	☐	☒	
Soil nutrient analyses	☐	☐	☐	☐	☐	☒	
Biosolids loading rate records	☐	☐	☐	☐	☐	☒	
Pollution prevention plan	☐	☐	☐	☐	☐	☒	
Pathogen/vector reduction records	☐	☐	☐	☐	☐	☒	
Contingency Plan	☒	☐	☒	☐	☐	☐	
Spill prevention control and countermeasure (SPCC) plan	☒	☐	☒	☐	☐	☐	
Operational logs	☒	☐	☒	☐	☐	☐	
Auxiliary power check logs	☒	☐	☒	☐	☐	☐	
Notes							
Because DSRSD operates the LAVWMA Export and Storage Facilities, LAVWMA's O&M Manual, Contingency Plan, and Spill Prevention Control and Countermeasure Plan are covered under DSRSD's plans.							

IV. OPERATIONS AND MAINTENANCE REVIEW

		Yes	No	N/A	Not Inspected
Were all records and reports required by permit organized and available?		☐	☐	☐	☒
Was influent flow meter calibration available onsite?		☒	☐	☐	☐
Date of last calibration	07/10/2023				
Calibration performed by…	DSRSD staff				
Was effluent flow meter calibration available onsite?		☒	☐	☐	☐
Date of last calibration	07/25/2023				
Calibration performed by…	DSRSD staff				
Were flow measurement records maintained for past 3 years?		☐	☐	☐	☒
Is a maintenance management program in place?		☐	☐	☐	☒
Number of open work orders	9 (corrective maintenance only)				
Oldest date of open work order	June 6, 2023				
Are entries to the operational logs made in pen?		☒	☐	☐	☐
Were all operational log entry modifications made with suitable cause?		☒	☐	☐	☐
Were reported spills and bypasses recorded in operational logs?		☐	☐	☐	☒
Is the facility staffing requirement described in O&M manual?		☐	☐	☐	☒
Is the facility staffed in accordance with O&M manual?		☐	☐	☐	☒
Were there auxiliary power check logs?		☒	☐	☐	☐
Air Board permit number	Not inspected				

Notes

The oldest open work order at the Facility is a request to add a pressure reading display on a surge tank.

V. MONITORING RECORDS REVIEW

		Yes	No	N/A	Not Inspected
Are monitoring records and laboratory reports retained for 5 years?		☒	☐	☐	☐
Are data reported on DMRs/SMRs consistent with analytical results?		☒	☐	☐	☐
Is the onsite laboratory ELAP certified?		☒	☐	☐	☐
Certification Number	1272				
Expiration Date	8/31/2024				

	N/A	Not Inspected
Parameters measured onsite	☐	☐

The DSRSD Laboratory analyzes LAVWMA effluent. Parameters measured onsite can be found here: https://www.waterboards.ca.gov/drinking_water/certlic/labs/documents/elap_certs/615.pdf

Additional parameters used for internal monitoring and process control	☐	☒

Constituents analyzed with hand-held equipment	☐	☒
	Most recent calibration date	Standard expiration date

Monitoring and Records Review Notes

VI. MONITORING REPORT REVIEW

	Yes	No	N/A	Not Inspected
Are loading calculations prepared correctly?	☐	☐	☒	☐
Are contract laboratory records and chains of custody available?	☒	☐	☐	☐
Do sampling and analytical records include:				
a. Dates, times, and locations of sampling	☒	☐	☐	☐
b. Names of individuals performing sampling	☐	☐	☐	☒
c. Analytical methods	☒	☐	☐	☐
d. Results of analyses	☒	☐	☐	☐
e. Dates of analyses	☒	☐	☐	☐
f. Times of analyses, as necessary to verify holding times	☒	☐	☐	☐
g. Analysts names or initials	☒	☐	☐	☐
h. Instantaneous flow at grab sample locations, if required	☐	☐	☐	☒
MONITORING PROCEDURES				
Are adequate equipment and procedures used for onsite analyses?				
pH	☐	☐	☐	☒
Dissolved oxygen	☐	☐	☐	☒
Temperature	☐	☐	☐	☒
Turbidity	☐	☐	☐	☒
UV transmittance	☐	☐	☐	☒
Other	☐	☐	☐	☒
Is refrigeration satisfactory?	☐	☐	☐	☒
Are grab samples collected during representative discharge conditions?	☐	☐	☐	☒

Do monitoring locations appear to be appropriate?	☒	☐	☐	☐
Do composite sampling procedures comply with the permit?	☒	☐	☐	☐
Are automatic samplers properly cleaned and maintained?	☒	☐	☐	☐
Are samples adequately preserved?	☐	☐	☐	☒
Are sample containers appropriate for the samples collected?	☐	☐	☐	☒
Are samples collected using appropriate protocols?	☐	☐	☐	☒
Are coliform samples collected directly into sterile containers?	☐	☐	☒	☐
Does coliform sampling occur after the last introduction of wastes?	☐	☐	☒	☐
Is the number of discharge points as described in the permit?	☒	☐	☐	☐
Are the locations of the discharge outfalls as described in the permit?	☒	☐	☐	☐
Is the name of the receiving water as described in the permit?	☒	☐	☐	☐
Is site free of any evidence of spills or bypasses?	☒	☐	☐	☐
Do the sampling and monitoring appear representative of the discharge?	☒	☐	☐	☐
Are groundwater monitoring wells capped and locked?	☐	☐	☐	☒

Notes

Because LAVWMA's discharge is limited mostly to wet weather, composite sampling is less frequent. Therefore, the composite sampler was offline at the time of inspection.

VII. FINAL EFFLUENT AND RECEIVING WATER MONITORING

APPEARANCE OF FINAL EFFLUENT	Yes	No	Not Inspected
Condition during the inspection			
Clear (not cloudy)	☒	☐	☐
Colorless	☒	☐	☐
Free of sheen	☒	☐	☐
Free of scum	☒	☐	☐
Free of foam	☒	☐	☐
Other	☐	☐	

Notes

APPEARANCE OF RECEIVING WATER	Yes	No	Upstream condition is similar	Not Inspected
Condition during the inspection				
Free of distinctly visible plume	☐	☐	☐	☒
Free of foam and sheen	☐	☐	☐	☒
Free of snails	☐	☐	☐	☒
Free of erosion at the discharge point	☐	☐	☐	☒
Free of bottom deposits	☐	☐	☐	☒

Free of filamentous algae growth		☐	☐	☐	☒
Free of microbial layers on aquatic plants		☐	☐	☐	☒
Other		☐	☐	☐	

Notes

The Facility was not discharging out of its local outfalls, so Regional Water Board staff could not observe the receiving water in San Lorenzo Creek or Alamo Canal with discharge. Regional Water Board staff also could not observe the receiving water near the deepwater outfall because the effluent flows to the Marina Dechlorination Facility (separate from LAVWMA's facilities), and the proceeding EBDA Common Outfall is 37,000 feet offshore.

VIII. SITE WALK INSPECTION

Weather and site conditions present during time of inspection

The weather was partly cloudy, and the Facility site was clean and walkable without any obstructions.

Treatment Process (described in permit)	Appeared Compliant	Not Present	Non-Operational	Lacking Maintenance	Not Inspected
LAVWMA Export Pump Station	☒	☐	☐	☐	☐
Equalization Basins	☒	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

Notes

Background:
LAVWMA is a Joint Powers Agency comprised of the Dublin San Ramon Services District, City of Livermore, and City of Pleasanton. The Dublin San Ramon Services District (DSRSD) operates the Export and Storage Facilities (Facility), which receives secondary-treated wastewater from the Dublin San Ramon Services District and City of Livermore wastewater treatment plants. The treated wastewater from the two treatment plants flows by gravity to the LAVWMA Export Pump Station, where the wastewater is combined and equalized in the Facility's three flow-equalization basins that together provide 18 million gallons (MG) of storage. The LAVWMA Export Pump Station pumps the combined wastewater over the Dublin Grade where it connects to the East Bay Dischargers Authority (EBDA) forcemain in San Leandro. It is then pumped to the EBDA Marina Dechlorination Facility (near the San Leandro Marina) for dechlorination and discharge through a deepwater outfall in Lower San Francisco Bay. During wet weather, LAVWMA's Wet Weather NPDES Permit allows the Facility to sometimes discharge treated effluent to San Lorenzo Creek and Alamo Canal. LAVWMA has a contract with EBDA that specifies the terms and conditions of its discharge through the EBDA system. This contract was renewed on May 19, 2021, and is in effect for 20 years.

Observations:
In September and October 2020, DSRSD inspected 28,000 feet (5.3 miles, or approximately 20 percent) of the LAVWMA pipeline via closed-circuit television. The inspection was performed by a contractor, National Plant Services, and was supervised and coordinated by DSRSD staff. The inspection revealed a structural defect flagged as severity 4, with the highest possible level being severity 5, in the proximity of a siphon. According to LAVWMA's General Manager in follow-up correspondence, DSRSD staff intend to inspect all the siphon sections in the pipeline for further defects in Spring 2024 before fixing the severity 4 structural defect and continuing to inspect the remainder of the LAVWMA pipeline.

The San Leandro Sample Station (SLSS), which is 16 miles from the DSRSD treatment plant, measures discharges to San Lorenzo Creek and is being upgraded for improved sampling and monitoring capabilities. Regional Water Board staff did not visit SLSS during this inspection.

LAVWMA discharged on March 9, 2023, to San Lorenzo Creek as part of its permitted discharge exercises to ensure that the discharge line was flushed and the discharge gate and dechlorination equipment were operational. LAVWMA discharged approximately 44,500 gallons during this exercise. The San Lorenzo Creek discharge exercise revealed an operational issue with the calcium thiosulfate pumps, which did not deliver adequate product for dechlorination, resulting in a measured residual chlorine of 0.7 mg/L. As a corrective action, DSRSD staff created a standard process to perform weekly calcium thiosulfate delivery system testing and flushing and updated the flow totalizers to provide real-time data. LAVWMA's last discharge exercise was to Alamo Canal on March 29, 2023, discharging approximately 35,000 gallons. The Facility did not encounter any issues with this second exercise.

During the inspection, the facility appeared well-kept and the LAVWMA Export Pump Station appeared in good working order, consisting of four 5 million gallon-per-day (MGD) and six 4.5 MGD pumps that provide up to 47 MGD of total pumping capacity. According to LAVWMA's General Manager, the Facility will replace Pumps 1, 3, and 5 in October 2023 because the pumps are approaching the end of their lifespan. The new pumps are expected to have improved efficiency and a longer lifespan than rebuilt pumps.

The only chemical stored onsite, calcium thiosulfate, was within a double-lined container. During the inspection, the Operations Superintendent demonstrated operating the SCADA system, which could control operations at both the DSRSD treatment plant and the Facility. A hardcopy of the Facility's Wet Weather Operation Strategy was posted next to the SCADA control station. The Facility last updated the Wet Weather Operation Strategy on December 13, 2022, and plans to review it again in November 2023.

EMERGENCY OPERATION	Yes	No	N/A	Not Inspected
Is available back-up power appropriate for emergency conditions?	☒	☐	☐	☐
Are there alarms systems for power and equipment failure?	☒	☐	☐	☐
Are treatment control procedures established for emergencies?	☒	☐	☐	☐

Notes

The General Manager stated there is no need for standby power for pumps because the Facility has an onsite storage capacity of 18 million gallons. In the event of a prolonged power failure, the Facility will rent a 200 kW generator that can run four pumps at a time. This generator can be obtained within 24 hours of request.

CHEMICALS ONSITE	MSDS Available? Yes	MSDS Available? No	Secondary Containment? Yes	Secondary Containment? No	Not Inspected
Calcium thiosulfate	☐	☐	☒	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

	Yes	No	N/A	
Is spill clean-up and containment equipment available?	☒	☐	☐	☐

Notes

IX. SITE WALK OPERATION AND MAINTENANCE INSPECTION

	Yes	No	N/A	Not Inspected
Maintenance program appears to be in place and being followed	☒	☐	☐	☐
Lift stations appear properly maintained and have back-up power	☐	☐	☐	☒
Odors are adequately controlled, including…	☒	☐	☐	☐
Ponds	☐	☐	☒	☐
Headworks	☐	☐	☒	☐
Sludge processing facilities	☐	☐	☒	☐
Storage appears to control leachate and runoff	☒	☐	☐	☐
Public access to storage is prevented	☒	☐	☐	☐
No safety concerns were observed that might interfere with proper O&M or monitoring	☒	☐	☐	☐
Flow devices appear to be property installed and maintained, and operating without interference	☐	☐	☐	☒

Notes

Stormwater handling description

All onsite stormwater is sent to the DSRSD treatment plant headworks.

Photo Log

September 29, 2023

Figure 1. LAVWMA pump station.

Figure 2. Fully treated wastewater from the City of Livermore and DSRSD treatment plants is combined and then flows through the middle gate (Figure 3), which equalizes wastewater flows between the Facility's equalization basins.

Figure 3. Middle gate of equalization basin.

Figure 4. Calcium thiosulfate, for dechlorinating wastewater during wet weather discharges or discharge exercises, was stored within a double-lined container.

Figure 5. One of LAVWMA's two wet weather outfalls. This one discharges to Alamo Canal.