

Prepared by



Dublin San Ramon Services District Water, wastewater, recycled water

QUARTERLY REPORT OF OPERATIONS FY 2024-2025, 1st Quarter



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Executive Summary

For the first quarter fiscal year ending (FYE) 2025, the Livermore-Amador Valley Water Management Agency (LAVWMA) export conveyance system operated well without any major outages or disruptions. Just over 544 million gallons (MG) of fully treated secondary effluent were pumped to San Francisco Bay via the East Bay Dischargers Authority (EBDA) outfall diffuser and San Leandro Sample Station (SLSS; Table 6 or section Export Flow for more details).

This quarter the overall efficiency of the pumping system averaged 75.3% (Table 1; quarterly range FYEs 2023 & 2024 [n=8]: 66.0% to 74.0%), with an average electrical cost of \$577 per MG, or \$188 per acrefoot (AF; Table 1 or section Electrical Usage, Efficiency, & Cost for more details). Preventative maintenance (PM) work orders outnumbered corrective maintenance (CM) work orders 20.54 to 1 (quarterly range FYEs 2023 & 2024 [n=8]: 9.57 to 23.45; section Maintenance for more details).

For convenience, some year-to-date (YTD) values compared to budgeted are shown below (section Expenditures & Budget Utilization: Labor & O&M for more details).

- Overall costs: YTD \$621,831; Budget \$3,530,499
- Electrical costs: YTD \$290,717; Budget \$2,065,755
- Labor costs: YTD \$297,739; Budget \$1,182,824
- Labor hours: YTD 1,349.50; Budget 5,411
- WOs last quarter: 422.6 hours 215 PMs and 39.5 hours 12 CMs
- WOs this quarter: 351.9 hours 267 PMs and 34.5 hours 13 CMs
- Pump Efficiency: July-74.1% August-76.7% September-73.2%

Current Quarter Metrics

Monthly export flow increased each month from Jul-Sep, which is sometimes observed for this period as DERWA recycled water demand decreases into late summer and early fall (Figure 1). Calculated flows for Dublin San Ramon (DSR) were zero each month this quarter (Figure 1, left plot). Pump efficiency remained consistent each month at about 73-77%.





Most usage for either feeder (service) was done during non-peak hours (Figure 2). Feeder B provides power to the building, so there will always be minor charges for building equipment during peak and (if applicable) partial peak periods.



Figure 2 - LAVWMA Quarter 1 FYE 2025 electric usage as kilowatt hour (kWh) for PG&E billing cycles Jul-2024, Aug-2024, & Sep-2024; billing cycle usage displayed separately for feeder A (left) & feeder B (right) by time of use: peak, partial peak, off-peak; & super off-peak

Labor and utilities covered the largest fraction of overall cost in Q1 FYE 2025 (Figure 3, 3 left-most plots). There were no expenses for non-routine work this quarter.



Figure 3 - LAVWMA Quarter 1 FYE 2025 expenditures for Jul-2024, Aug-2024, & Sep-2024 as percent of total cost by type (labor, utilizes, laboratory analysis, contractual services, materials & supplies, & non routine; left plot) and as monthly total (right plot)

There were no major equipment failures in Q1 FYE 2025, the pipeline and pumping plant ran without issue. Preventative maintenance (PM) work orders exceeded corrective maintenance (CM) work orders each month during Q1 FYE 2025 (Figure 4, right plot).



Figure 4 - LAVWMA Quarter 1 FYE 2025 preventative maintenance (PM) & corrective maintenance (CM) work order hours (left plot) and count (right plot) for Jul-2024, Aug-2024, & Sep-2024

Operations

Of the 544 MG of effluent conveyed through the LAVWMA system during the first quarter, 0 MG came from Dublin San Ramon (DSR), 325 MG from the City of Livermore, and 219 MG from the City of Pleasanton. Refer to section Export Flow for more details.

PG&E's current rate plan has four time-of-use (TOU) periods (in order of decreasing rates): peak (yearround), partial peak (June-September), off-peak (year-round), and super off-peak (March-May). Whenever possible, staff implement an efficient pumping plan to avoid pumping during higher rate periods (i.e., peak and partial peak).

Over the past quarter, DSRSD staff strategically managed LAVWMA's holding basins to minimize the number of pumps running during a given billing cycle. Such an approach was based on anticipated flows from the City of Livermore and DSRSD's wastewater treatment facilities. Refer to section Electrical Usage, Efficiency, & Cost for more information about energy use.

Maintenance

During the quarter, staff logged 351.85 hours completing 267 preventative maintenance (PM) work orders and 34.5 hours completing 13 corrective maintenance (CM) work orders on LAVWMA equipment and systems. Refer to Figure 4 for monthly breakdown (work order data updated 21-Oct-2024).

Since pumps 1, 3, and 5 have been installed, we have maximized their operation to see if there will be any deficiencies within the warranty period. So far, the pumps have operated without any major issue and export pump number 2 has been pulled and we are sending the motor out to be overhauled and are awaiting bids for rebuilding the pump.

The following are some additional noteworthy maintenance activities during the quarter:

Electrical

- Disconnected Pump 2 in preparation for pump inspection
- Troubleshot wash down motor at Pump Station
- Performed maintenance on outdoor lighting at the LAVWMA pumping plant

Instrument & Controls

- Performed routine preventive maintenance and calibrations on chlorine and pH analyzers
- Troubleshot and replaced combined chlorine sensor
- At SLSS troubleshot and repaired discharge pressure transmitter tubing

Operations

• Drained back 42-inch pipeline and removed pumps 1-5 from service in support of export pipeline inspection; pumps remained out of service until inspection complete, during which time exports flowed through the 36-inch pipeline

Mechanical

- Removed Pump 2 from service (07-Sep-2024) for disassembly and rebuilding
- Resumed pipeline inspections with National Plant (24-Sep-2024); dewatering was required for condition assessment; inspections done in sections beginning with pressure side (pumping station to before gravity feed)

Electrical Usage, Efficiency, & Cost

Monthly pump efficiency (O_e) was estimated as the fraction of a calculated kWh/MG given full efficiency (i.e., 100%) to the actual kWh/MG (see equations below).

$$O_e = \frac{\text{full efficiency kWh}}{\text{actual kWh}} \times 100$$

Full Efficiency kWh =
$$\frac{\overline{GPM} \times TDH}{3960} \times 0.746 \times d \times 24h$$

where

•
$$\overline{GPM} = \frac{Export Flow (MG) \times 10^6}{d \times 1440 \min/d}$$

- TDH (total dynamic head) = 442.8 ft (static lift = 408.8 ft, piping losses = 34 ft)
- 3960 = units conversion constant for water between 40° F and 220° F
- 0.746 = horsepower to kW conversion constant (0.746 hp / kW)
- *d* = number of days
- *h* = indicates hour (as 24 hours/day)

Table 1 - LAVWMA FYE 2025 quarterly kWh usage, export flow, pump efficiency, & cost for PG&E-based billing cycle; current quarter & year-to-date (YTD) summaries provided below monthly values

	Billing		Flow		Pump				
	Days	kWh	(MG)	kWh/MG	Efficiency	Cost (\$)	\$/kWh	\$/MG	\$/AF
Q1									
Jul-2024	31	299,594	160	1,876.20	74.1%	\$105,687	\$0.35	\$662	\$216
Aug-2024	31	286,133	153	1,874.75	74.2%	\$81,928	\$0.29	\$537	\$175
Sep-2024	30	336,042	187	1,792.35	77.6%	\$99,963	\$0.30	\$533	\$174
Q1									
Average		307,256	167	1,848	75.3%	\$95,859	\$0.31	\$577	\$188
Total	92	921,769	500	5,543		\$287,578			
Minimum		286,133	153	1,792	74.1%	\$81,928	\$0.29	\$533	\$174
Maximum	I	336,042	187	1,876	77.6%	\$105,687	\$0.35	\$662	\$216
YTD									
Average		307,256	167	1,848	75.3%	\$95,859	\$0.31	\$577	\$188
Total	92	921,769	500	5,543		\$287,578			
Minimum		286,133	153	1,792	74.1%	\$81,928	\$0.29	\$533	\$174
Maximum		336,042	187	1,876	77.6%	\$105,687	\$0.35	\$662	\$216

Table 2 - LAVWMA FYE 2025 quarterly kWh usage and cost for PG&E-based billing cycle separately for Service A & Service B

	Service A							Service B					
		Partial			Super C	Off-			Partial		Super Off		
	Peak	Peak	0	ff-Peak	Peak			Peak	Peak	Off-Peak	Peak		
	(kWh)	(kWh)	()	kWh)	(kWh)		Cost (\$)	(kWh)	(kWh)	(kWh)	(kWh)	Cost (\$)	
Q1													
Jul-2024	C)	0	110,784		0	\$34,670	2,028	1,778	185,003	0	\$71,017	
Aug-2024	C)	0	127,927		0	\$35,306	2,160	0	154,258	1,788	\$46,622	
Sep-2024	C)	0	325,319		0	\$90,559	2,056	1,689	6,978	0	\$9,404	
Q1													
Average	C)	0	188,010		0	\$53,512	2,081	1,156	115,413	596	\$42,348	
Total	C)	0	564,030		0	\$160,535	6,244	3,467	346,239	1,788	\$127,043	
Minimum	C)	0	110,784		0	\$34,670	2,028	0	6,978	0	\$9,404	
Maximum	C)	0	325,319		0	\$90,559	2,160	1,778	185,003	1,788	\$71,017	
YTD													
Average	C) (0	188,010		0	\$53,512	2,081	1,156	115,413	596	\$42,348	
Total	C)	0	564,030		0	\$160,535	6,244	3,467	346,239	1,788	\$127,043	
Minimum	C)	0	110,784		0	\$34,670	2,028	0	6,978	0	\$9,404	
Maximum	C)	0	325,319		0	\$90,559	2,160	1,778	185,003	1,788	\$71,017	



Figure 5 - LAVWMA monthly kWh usage FYE 2024 & FYE 2025 through Sep-2024

Pump Run Time

Monthly pump utilization (U_m) was calculated as the fraction of total pump hours given the total hours possible if nine.¹ pumps ran continuously (i.e., 24 hours per day; equation below, where h = total hours, m = given month, d = days in month). Pump utilization increased each month in Q1 (Table 4).

$$U_m = \frac{h_m}{9 \times 24 \times d_m} \times 100$$

Table 3 - LAVWMA FYE 2025 monthly pump hours by pump and total; quarterly and YTD summaries provided below monthly values

Hours											
	Pump 1	Pump 2	Pump 3	Pump 4	Pump 5	Pump 6	Pump 7	Pump 8	Pump 9	Pump 10	Total
Q1											
Jul-2024	108	0	144	28	94	2	13	1	263	1	654
Aug-2024	313	0	135	1	213	8	10	16	119	6	820
Sep-2024	102	0	93	0	97	261	0	277	0	271	1,102
	Pump 1	Pump 2	Pump 3	Pump 4	Pump 5	Pump 6	Pump 7	Pump 8	Pump 9	Pump 10	Total
Q1											
Average Hours	174	0	124	10	134	90	7	98	127	93	859
Std Dev Hours	120.3	0.0	27.1	16.2	67.7	147.9	6.6	155.5	131.7	154.6	226.4
Hours	523	0	372	29	403	271	22	294	382	279	2,576
Min Hours	102	0	93	0	94	2	0	1	. 0	1	654
Max Hours	313	0	144	28	213	261	13	277	263	271	1102
Total Average Hours	174	0	124	10	134	90	7	98	127	93	859
Total Std Dev Hours	120.3	0.0	27.1	16.2	67.7	147.9	6.6	155.5	131.7	154.6	226.4
Total Hours	523	0	372	29	403	271	22	294	382	279	2,576
Total Min Hours	102	0	93	0	94	2	0	1	. 0	1	654
Total Max Hours	313	0	144	28	213	261	13	277	263	271	1102

Table 4 - LAVWMA FYE 2025 monthly percent pump utilization; quarterly and YTD summaries provided below monthly values

	Pump
	Utilization
Q1	
Jul-2024	9.8%
Aug-2024	12.2%
Sep-2024	17.0%
Q1	
Average Pump Utilization	13.0%
Min Pump Utilization	9.8%
Max Pump Utilization	17.0%
Total Average Pump Utilization	13.0%
Total Min Pump Utilization	9.8%
Total Max Pump Utilization	17.0%



Figure 6- LAVWMA FYE 2024 & FYE 2025 monthly pump hours through Sep-2024

¹ Ten pumps total, but one in reserve as a back-up to the other nine

Basin Levels

Table 5 - LAVWMA FYE 2025 monthly average levels (ft) by basin and overall (total); current quarter and YTD summaries provided below monthly values

Average				
	Basin 1	Basin 2	Basin 3	Total
Q1				
Jul-2024	2.01	0.08	2.38	1.49
Aug-2024	3.35	0.08	3.48	2.31
Sep-2024	3.09	0.09	3.21	2.13
Q1				
Average	2.82	0.08	3.02	1.97
Minimum	2.01	0.08	2.38	1.49
Maximum	3.35	0.09	3.48	2.31
YTD				
Average	2.82	0.08	3.02	1.97
Minimum	2.01	0.08	2.38	1.49
Maximum	3.35	0.09	3.48	2.31

Export Flow

Combined export flow includes Dublin San Ramon, the City of Livermore, and the City of Pleasanton. Monthly totals do not include flows diverted for recycling use by DERWA and Pleasanton. Budgeted FYE 2025 flow is 3,356 MG at an estimated cost of \$1,052 / MG.

Table 6 - LAVWMA FYE 2025 monthly export flows in million gallons (MG) for Dublin San Ramon, Livermore, & Pleasanton; current quarter and YTD summaries provided below monthly values; note totals (quarterly & YTD) provided in with monthly summary

	Dublin San	Livermore	Pleasanton	Combined
	Ramon (MG)	(MG)	(MG)	Export (MG)
Q1	0.00	325.05	219.24	544.29
Jul-2024	0.00	103.27	42.54	145.81
Aug-2024	0.00	108.55	67.49	176.04
Sep-2024	0.00	113.23	109.21	222.44
Total	0.00	325.05	219.24	544.29
Q1				
Average	0.00	108.35	73.08	181.43
Minimum	0.00	103.27	42.54	145.81
Maximum	0.00	113.23	109.21	222.44
YTD				
Average	0.00	108.35	73.08	181.43
Minimum	0.00	103.27	42.54	145.81
Maximum	0.00	113.23	109.21	222.44



Figure 7- LAVWMA FYE 2025 through Sep-2024 monthly export flows by region as a percent of total; DSR = Dublin San Ramon



Figure 8 - LAVWMA FYE 2024 & FYE 2025 through Sep-2024 monthly combined export flows (MG)



Figure 9 - LAVWMA FYE 2024 & FYE 2025 through Sep-2024 monthly cumulative combined export flows (MG)

Expenditures & Budget Utilization: Labor & O&M

Expenses this quarter included crane inspections, SCADA software maintenance, and underground service alert. Overall O&M expenses increased slightly in September compared to the previous two months.

Table 7 - LAVWMA FYE 2025 monthly expenditure for labor, accounts payable (A/P), and overall (O&M); cost per export flow (MG and acre-foot [AF]) provided for reference; quarterly and YTD summaries provided below monthly values; note totals (quarterly & YTD) provided in with monthly summary

	Labor	A/P	O&M		
	Expenses	Expenses	Expenses	\$/MG	\$/AF
Q1	\$297,739	\$324,092	\$621,831	\$1,142	\$372
Jul-2024	\$84,522	\$118,392	\$202,915	\$1,392	\$453
Aug-2024	\$105,323	\$88,786	\$194,109	\$1,103	\$359
Sep-2024	\$107,893	\$116,914	\$224,807	\$1,011	\$329
Total	\$297,739	\$324,092	\$621,831	\$1,142	\$372
Q1					
Average	\$99,246	\$108,031	\$207,277	\$1,168	\$381
Minimum	\$84,522	\$88,786	\$194,109	\$1,011	\$329
Maximum	\$107,893	\$118,392	\$224,807	\$1,392	\$453
YTD					
Average	\$99,246	\$108,031	\$207,277	\$1,168	\$381
Minimum	\$84,522	\$88,786	\$194,109	\$1,011	\$329
Maximum	\$107,893	\$118,392	\$224,807	\$1,392	\$453

Table 8 - LAVWMA FYE 2025 YTD expenditures (O&M & labor) with percent budgetutilized and budget remaining

		0&M	0&M	0&M	Labor	Labor	Labor Budget	
		YTD	Budget	Budget	YTD	Budget		
		Expenses	Utilization	Remaining	Expenses	Utilization	Remaining	
C	21							
	Jul-2024	\$202,915	5.7%	\$3,327,584	\$84,522	7.1%	\$1,098,302	
	Aug-2024	\$397,024	11.2%	\$3,133,475	\$189,846	16.1%	\$992,978	
	Sep-2024	\$621,831	17.6%	\$2,908,668	\$297,739	25.2%	\$885,085	

Table 9 - LAVWMA FYE 2025 billed labor hours and full-time employment equivalent; quarterly and YTD summaries provided below monthly values; note billed labor hour totals (quarterly & YTD) provided with monthly summary

	Billed Labor	FTE
	Hours	Equivalent
Q1	1,349.5	
Jul-2024	383.5	2.2
Aug-2024	471.5	2.7
Sep-2024	494.5	2.9
Total	1,349.5	
Q1		
Average	449.8	2.6
Minimum	383.5	2.2
Maximum	494.5	2.9
YTD		
Average	449.8	2.6
Minimum	383.5	2.2
Maximum	494.5	2.9

Expenditures: Livermore Sole Use Facilities

Table 10 - LAVWMA FYE 2025 expenditures (labor & accounts payable [A/P]) for Livermore sole use facilities; quarterly and YTD (Total) summaries provided below monthly values

Expenses				
	Labor	A/P		Total
Q1				
Jul-2024	\$	0	\$745	\$745
Aug-2024	\$	0	\$609	\$609
Sep-2024	\$	0	\$686	\$686
	Labor	A/P		Total
Q1				
Total	\$	0	\$2,040	\$2,040
Average	\$	0	\$680	\$680
Minimum	\$	0	\$609	\$609
Maximum	\$	0	\$745	\$745
Total Total	\$	0	\$2,040	\$2,040
Total Average	\$	0	\$680	\$680
Total Minimum	\$	0	\$609	\$609
Total Maximum	\$	0	\$745	\$745

Detailed YTD O&M Budget Comparison to Actual Expenses

LAVWMA BUDGET COMPARISON TO ACTUAL EXPENSES: GOODS & SERVICES

														Current	t FY Period:	3
					ACTUAL	EXPENSES I	SILLED TO LA	VWMA FOR F	REGULAR O8	M						
		Budget	July	August	September	October	November	December	January	February	March	April	May	June	YTD	YTD
		FY 2024-2025	2024	2024	2024	2024	2024	2024	2025	2025	2025	2025	2025	2025	TOTAL	Budaet
Project Total:	Labor				-			-							-	J. J
lavcos	Staff	\$1,182,824	\$84,522	\$105,323	\$107,893										\$297,739	\$295,706
LAVWMA	Subtotal	\$1,182,824	\$84,522	\$105,323	\$107,893	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$297,739	\$295,706
	Materials & Supplies															
Phase Total	Operations Supplies	\$21,400	546	\$679	\$242										\$1,467	\$5,350
supply	Mechanical Supplies	\$31,890	\$527	\$911	\$294										\$1,732	\$7,973
	Electrical Supplies	<u>\$38,900</u>	\$15	* 4 500	<u>\$10,743</u>		**		**				**		<u>\$10,759</u>	<u>\$9,725</u>
	Subtotal	\$92,190	\$1,088	\$1,589	\$11,279	\$0	\$0	\$0	\$0	\$0	\$0	\$U	\$0	\$U	\$13,957	\$23,048
Analysis	Laboratory Analysia															
Biochemical Oxy	Compliance Testing	\$11.300	\$1,435	\$1,148	\$1,148										\$3,731	\$2,825
Demand & Total	Operational Support Testing	\$4,900	\$628	\$628	\$628										\$1,884	\$1,225
Langelier Index	Special Sampling	\$29,400	\$2,485	\$788	\$2,288										\$5,561	\$7,350
	Subtotal	\$45,600	\$4,548	\$2,564	\$4,064	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,176	\$11,400
	Contractual Services													_		
	Sub-surface Repairs	\$15,750													\$0	\$3,938
	Street Sweeping	\$5,000													\$0	\$1,250
	Cathodic Protection Survey & Repairs	\$47,250	\$610												\$0	\$11,813
	SCADA software maintenance contract	\$10,000	\$5,365											•	\$5.365	\$2,500
Discourt Total	Remote monitoring annual service for PS and Re	\$1,950													\$0	\$488
Phase Total:	HVAC Maintenance/Repairs	\$800													\$0	\$200
CSETVI	Termite/Pest Control	\$950													\$0	\$238
	Landscape/weed maintenance	\$11,200													\$0	\$2,800
	Smartmeter Covers	\$1,800		¢1 050											\$1.050	\$450
	Other Services	\$3 130		φ1,900											\$1,950 \$0	\$783
	Misc Professional/Contractual Services	\$31,500			\$317										\$317	\$7.875
	Subtotal	\$144,130	\$5,976	\$1,950	\$317	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,242	\$36,033
	Utilities															
	Electricity (PG&E)	\$2,062,355	\$106,398	\$82,537	\$100,649										\$289,585	\$515,589
Phase Total	Water & Sewer (Pleasanton)	\$1,100			\$195										\$195	\$275
utilit	Water (EBMUD)	\$1,300	\$236		\$264										\$500	\$325
	Telephone/communications	\$1,000	\$146	\$146	\$146										\$437	\$250
	Subtotal	\$2.065.755	\$106.780	\$82.683	\$101.254	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$290.717	\$516.439
	Non-Routine															
Phase Total:		\$0													\$0	\$0
nonrou		\$0													\$0	\$0
	Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Monthly Total		\$202,915	\$194,109	\$224,807	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$621,831	\$882,625
	YTD Total	\$3,530,499	\$202,915	\$397,024	\$621,831	\$621,831	\$621,831	\$621,831	\$621,831	\$621,831	\$621,831	\$621,831	\$621,831	\$621,831		
	Combined Export Flow, mg	3356	146	176	222									T	544	839
	Pumping Efficiency		74.1%	76.7%	73.2%											
	Monthly Cost, \$/mg		\$1,392	\$1,103	\$1,011		-	-	-	-	-	•	-			
	YTD Running Cost, \$/mg	\$1,052	\$1,392	\$1,234	\$1,142	-	-	-	-	-	-	-	-	-	\$1,142	

LAVWMA BUDGET COMPARISON TO ACTUAL EXPENSES: LABOR

													Current	FT Period:	3
				ACTUAL E	XPENSES	BILLED TO	LAVWMA F	OR REGUL	AR O&M		_				
	EV 0004 000	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD	YTD
E-Aire - A- d	FY 2024-2025	2024	2024	2024	2024	2024	2024	2025	2025	2025	2025	2025	2025	TOTAL	Budget
Division 51 - FOD	Personner Hours	20.00												20.00	40.50
Water/Wastewater Sys Lead On	<u>50</u>	20.00	<u> </u>											20.00	12.00
Water/Wastewater Sys OP IV-On C	all (-
Water/Wastewater Sys OP IV	T														-
Water/Wastewater Sys OP III															-
Water/Wastewater Sys OP I/II	43	20.00												20.00	10.75
Maintenance Worker	-	20.00												20.00	10.75
Supervisor	7	,													- 1.75
Division 52 - WWTP	2 9 2 2	1/8 00	176 50	251 50	_	F								576.00	708.00
Process Lead Operator IV/V	2,032	15.00	32.00	33.00										80.00	72.25
Senior WW/TP Operator III	1 013	45.00	46 50	67.50										150.00	253.25
WM/TP Supervisor	1,013	3 50	40.00	07.00										3.50	200.20
Operator In Training	•	0.00												3.50	-
Operator II	1 424	84.50	08.00	151.00										333.50	357.75
Operator II (SLSS)	1,431	04.50	90.00	131.00										333.30	551.15
Operations Superintendent														· ·	24.75
Ons Director	55													-	24.75
Division 53 - MECH	1 107	176.00	250 50	155.00										581 50	276 75
Senior Mechanic-Crane Cert	<u>1,107</u>	41.50	85.00	53.00	<u> </u>									170.50	13.50
Senior Mechanic - USA	79	41.50	00.00	21.00										34.00	18.00
Maintenance Worker	12	4.00	9.00	21.00										34.00	12.50
Mechanic I/II	001	111 50	141.00	50 50										312.00	220.50
Mechanic II-Crane Cert	002	. 111.50	141.00	39.30										512.00	220.50
Mechanic I/II - USA		10.00	15 50	21 50										56.00	-
Mechanic II-Crane Cert - USA		19.00	15.50	21.50										30.00	-
Supervisor	46													-	- 11.25
Division 54 - ELEC	4:	34 50	42 50	88.00	_									165.00	270.00
Senior Instrument/Controls Tech	1,080	7.50	6.00	9.00										22.50	11.25
Instrumentation & Controls Tech //		17.00	12 50	31.00										60.50	126.00
Ice Supervisor		2.00	3.50	2 00										7.50	120.00
Senior Electrician	45	2.00	11.00	2.00										18.00	- 11.25
Electrician I/II	40	4.00	5.00	4.00										45.00	110.25
Principal Eletrical Engineer	44	4.00	4 50	6.00										43.00	11.25
Division 55 - Laboratory		-	4.50	0.00	_	_	_	_	-	_	_	_	_	-	-
EC Inspector II-Pretreatment	<u>-</u>														
Laboratory Technician															_
Supervisor														-	_
Division 26 - SAFETY	54	-	_	-	-	_	_	_	-	_	_	_			13 50
Safety Officer	54														13.50
Division 40 - ENG	285	5.00	2.00	-	-	-	-	-	-	_	-	-		7.00	63.00
Senior Civil Engineer-SME	36														
Associate Engineer	108	5.00	2.00											7.00	27.00
Construction Inspector I/II	72	0.00	2.00											-	18.00
Engineering Technician II	36														9.00
GIS Analyst	36														9.00
Total Estimated Personnel F	lours 5 411														0.00
	FTF 26	-													

Total Monthly Hours 383.50 471.50 494.50 - - - - - - - - - - - - 1,349.50 1,343.75

EBDA Monthly Reports

Parameter	Flow	CBOD Qual	CBOD	TSS Qual	TSS	pН	рН	Total Residual Chlorine	Total Residual Chlorine	Fecal Qual	Fecal Coliforms	Entero Qual	Enterococci
Units	MGD		mg/L		mg/L	SU	SU	mg/L	mg/L		MPN/100mL		MPN/100mL
Test Method	Daily Average (N	lean)	SM 5210 B-2011		SM 2540 D-2011	Instant Min	Instant Max	Daily Average (I	Daily Average	e (Mean)	SM 9221 C,E-2006		Enterolert
MDL			2.0		1.2								
RL			2.0		4.5						2		10
Location	LAVWMA-EXP		LAVWMA-EXP		LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS		SLSS		SLSS
7/1/2024	6.10					6.99	7.84	1.41					
7/2/2024	3.95					7.52	8.14	1.45			22		10
7/3/2024	2.96		3.6		9.2	7.60	8.12	0.39					
7/4/2024	3.12					7.21	8.02	0.03					
7/5/2024	2.69					6.28	7.93	0.71					
7/6/2024	5.52					7.42	8.19	1.04					
7/7/2024	4.99					7.46	7.81	2.70					
7/8/2024	5.22					7.58	7.98	2.06					
7/9/2024	4.36					7.75	8.16	1.84			170		30
7/10/2024	4.77		4.9		8.0	6.61	7.94	1.75					
7/11/2024	3.91					7.49	7.82	2.21					
7/12/2024	3.87					7.19	8.28	1.94					
7/13/2024	5.31					7.59	8.19	1.73					
7/14/2024	5.55					7.66	7.98	2.38					
7/15/2024	4.71					7.71	8.27	1.68					
7/16/2024	4.36					7.51	7.98	1.30				<	10
7/17/2024	3.69		2.5		8.0	6.87	7.89	1.35					
7/18/2024	1.56					7.51	7.95	0.76					
7/19/2024	4.61					7.39	8.10	0.00					
7/20/2024	6.00					7.63	8.28	0.51					
7/21/2024	5.56					7.44	7.90	3.46					
7/22/2024	4.79					7.53	7.82	4.41					
7/23/2024	4.88					7.58	7.88	2.50			50		10
7/24/2024	3.48		2.8		6.6	7.56	7.85	1.44					
7/25/2024	3.56					7.68	8.02	0.98					
7/26/2024	3.27					7.95	7.95	1.00					
7/27/2024	4.59					7.82	8.37	1.00					
7/28/2024	6.90					7.44	7.89	0.68					
7/29/2024	6.48					7.32	7.79	0.68					
7/30/2024	5.80					7.49	7.82	0.45		<	2	<	10
7/31/2024	4.58		2.8		6.2	7.49	7.81	0.24					
Note:													
Column G - pH	Minimum; online												
Column H - pH	Maximum; online	2											

Parameter	Flow	CBOD Qual	CBOD	TSS Qual	TSS	рН	рН	Total Residual Chlorine	Total Residual Chlorine	Fecal Qual	Fecal Coliforms	Entero Qual	Enterococci
Units	MGD		mg/L		mg/L	SU	SU	mg/L	mg/L		MPN/100mL		MPN/100mL
Test Method	Daily Average (N	lean)	SM 5210 B-2011		SM 2540 D-2011	Instant Min	Instant Max	Daily Average (I	Daily Average	e (Mean)	SM 9221 C,E-2006		Enterolert
MDL			2.0		1.2								
RL			2.0		4.5						2		10
Location	LAVWMA-EXP		LAVWMA-EXP		LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS		SLSS		SLSS
8/1/2024	3.92	ĺ				7.37	7.75	0.11					
8/2/2024	3.54					7.57	7.96	0.27					
8/3/2024	6.45					7.50	8.38	0.51					
8/4/2024	6.67					7.47	8.14	1.02					
8/5/2024	5.40					7.37	7.71	0.58					
8/6/2024	4.68					7.57	7.90	0.22					10
8/7/2024	4.47		3.1		9.0	7.65	8.15	0.29					
8/8/2024	4.86					7.85	8.19	1.02					
8/9/2024	4.03					7.92	8.23	0.61					
8/10/2024	4.68					7.69	8.22	0.44					
8/11/2024	6.15					7.49	8.04	0.77					
8/12/2024	5.10					7.29	7.98	0.40					
8/13/2024	5.64					7.61	7.94	0.56					10
8/14/2024	6.00		3.9		8.4	7.70	7.98	0.75					
8/15/2024	6.23					7.80	8.04	0.38					
8/16/2024	5.47					7.55	8.20	0.09					
8/17/2024	6.82					7.32	7.89	0.15					
8/18/2024	6.99					7.58	7.73	0.09					
8/19/2024	5.15					7.58	7.95	0.02					
8/20/2024	6.67					7.68	8.04	0.00				<	10
8/21/2024	5.71		4.4		8.2	7.76	7.99	0.20					
8/22/2024	5.31					7.82	8.04	0.10					
8/23/2024	5.88					7.61	7.93	0.01					
8/24/2024	7.00					7.63	7.90	0.92					
8/25/2024	7.86					7.56	7.73	1.10					
8/26/2024	6.04					7.63	7.90	0.17					
8/27/2024	7.59					7.41	7.73	0.04				<	10
8/28/2024	6.15		7.7		14	7.42	7.66	0.01					
8/29/2024	4.17					7.44	7.79	0.01					
8/30/2024	4.25					7.47	7.82	0.00					
8/31/2024	7.98					7.40	7.76	0.58					
Note:													
Column G - pH	Minimum; online												
Column H - pH	Maximum; online	5											

Parameter	Flow	CBOD Qual	CBOD	TSS Qual	TSS	рН	рН	Total Residual Chlorine	Total Residual Chlorine	Fecal Qual	Fecal Coliforms	Entero Qual	Enterococci
Units	MGD		mg/L		mg/L	SU	SU	mg/L	mg/L		MPN/100mL		MPN/100mL
Test Method	Daily Average (N	lean)	SM 5210 B-2011		SM 2540 D-2011	Instant Min	Instant Max	Daily Average (I	Daily Average	e (Mean)	SM 9221 C,E-2006		Enterolert
MDL			2.0		1.2								
RL			2.0		4.5						2		10
Location	LAVWMA-EXP		LAVWMA-EXP		LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS		SLSS		SLSS
9/1/2024	8.74	1				7.42	7.61	2.53					
9/2/2024	6.11					7.48	7.65	1.65					
9/3/2024	6.01					7.46	7.66	0.91			12	<	10
9/4/2024	5.79		4.2		10	7.40	7.58	1.01					
9/5/2024	5.36					7.31	7.63	0.86					
9/6/2024	6.46					7.30	7.57	0.99					
9/7/2024	6.04					7.25	7.68	0.99					
9/8/2024	6.45					7.39	7.56	0.77					
9/9/2024	6.34					7.30	7.61	0.44					
9/10/2024	7.40					7.41	7.66	0.33			50	<	10
9/11/2024	6.93		3.9		7.6	7.32	7.61	0.07					
9/12/2024	8.14					7.34	7.53	0.44					
9/13/2024	6.79					7.28	7.61	0.47					
9/14/2024	6.86					7.18	7.65	0.24					
9/15/2024	8.24					7.22	7.61	0.26					
9/16/2024	7.44					7.36	7.62	0.09					
9/17/2024	7.41					7.43	7.57	0.05			30	<	10
9/18/2024	8.14		6.3		7.7	7.15	7.55	0.10					
9/19/2024	8.69					7.42	7.53	0.06					
9/20/2024	8.10					7.33	7.63	0.04					
9/21/2024	8.14					7.19	7.56	0.13					
9/22/2024	9.41					7.28	7.47	0.29					
9/23/2024	8.03					7.36	7.51	0.20					
9/24/2024	7.65					7.23	7.52	0.08			2		10
9/25/2024	8.10		4.4		6.7	7.42	7.63	0.03					
9/26/2024	8.18					7.42	7.62	0.25					
9/27/2024	7.28					7.33	7.66	0.43					
9/28/2024	7.70					7.44	7.62	0.48					
9/29/2024	8.41					7.47	7.68	0.41					
9/30/2024	6.70					7.40	7.68	0.32					
Note:													
Column G - pH	Minimum; online												
Column H - pH	Maximum; online	2											

Langelier Saturation Index Report (Livermore, DSRSD, LAVWMA)

The Langelier Saturation index is used to predict corrosion potential on the export pipeline. Keeping a Langelier index between -0.5 - 0.5 is a good target.

CITY OF LIVERMORE LIVERMORE WATER RECLAMATION PLANT

Collection	TDS	Temp	Ca Hardness	Alkalinity	pН	pН	Langlier				
DATE	(mg/L)	(°C)	(mg/L CaCO ₃)	(mg/L CaCO ₃)	(Actual)	Saturation	Index				
07/08/24	529	23.0	73	286	7.7	7.6	0.1				
08/07/24	504	23.0	62	300	7.6	7.6	0.0				
09/04/24	560	27.0	63	353	7.4	7.5	0.0				
MAXIMUM	560	27.0	73	353	7.7	7.6	0.1				
MINIMUM	504	23.0	62	286	7.4	7.5	0.0				
AVERAGE	531	24.3	66	313	7.6	7.6	0.0				

Livermore - 3rd Quarter 2024 Langelier pH Saturation Index

DUBLIN SAN RAMON SERVICES DISTRICT WASTEWATER TREATMENT FACILITY

DSRSD -3rd Quarter 2024 Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (℃)	Ca Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	pH (Actual)	pH Saturation	Langlier Index
07/16/24	731	25.3	118	341	7.4	7.2	0.2
08/10/24	710	26.7	121	280	7.3	7.3	0.0
09/07/24	626	26.9	94	236	7.2	7.4	-0.2
MAXIMUM	731	26.9	121	341	7.4	7.4	0.2
MINIMUM	626	25.3	94	236	7.2	7.2	-0.2
AVERAGE	689	26.3	111	286	7.3	7.3	0.0

DUBLIN SAN RAMON SERVICES DISTRICT WASTEWATER TREATMENT FACILITY

LAVWMA - 3rd Quarter 2024 Langelier pH Saturation Index

Collection	TDS	Temp	Ca Hardness	Alkalinity	pН	рН	Langlier	
DATE	(mg/L)	(°C)	(mg/L CaCO ₃)	(mg/L CaCO ₃)	(Actual)	Saturation	Index	
07/16/24	600	25.8	93	284	7.4	7.4	0.0	
08/10/24	883	25.2	182	410	7.5	7.0	0.5	
09/07/24	652	25.5	97	268	7.3	7.4	-0.1	
MAXIMUM	883	25.8	182	410	7.5	7.4	0.5	
MINIMUM	600	25.2	93	268	7.3	7.0	-0.1	
AVERAGE	712	25.5	124	321	7.4	7.3	0.1	