LAVWMA

Prepared by

Dublin San Ramon Services District

Water, wastewater, recycled water

QUARTERLY REPORT OF OPERATIONS

FY 2024-2025, 2nd Quarter

Quarterly Report of Operations
LAVWMA Pumping and Conveyance System

Table of Contents

Executive Summary

For the second 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. About 1,236 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 74.2% (Table 1; quarterly range FYEs 2023 & 2024 [n=8]: 66.0% to 74.0%), with an average electrical cost of $469 per MG, or $153 per acre-foot (AF; Table 1 or section Electrical Usage, Efficiency, & Cost for more details). Preventative maintenance (PM) work orders outnumbered corrective maintenance (CM) work orders 26.88 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 $1,373,250; Budget $3,530,499
- Utilities costs: YTD $767,288; Budget $2,065,755
- Labor costs: YTD $547,164; Budget $1,182,824
- Labor hours: YTD 2,487.50; Budget 5,411
- WOs last quarter: 351.9 hours 267 PMs and 34.5 hours 13 CMs
- WOs this quarter: 243.75 hours 215 PMs and 29.5 hours 8 CMs
- Pump Efficiency: Oct-75.8% | Nov-74.8% | Dec-73.8%

Current Quarter Metrics

Monthly export flow increased each month from Oct-Dec, which is normal for this period as DERWA recycled water irrigation demand decreases into fall and winter (Figure 1). Calculated flows for Dublin San Ramon (DSR) were zero only in October this quarter (Figure 1, left plot). Pump efficiency remained consistent each month between about 73 and 76%.

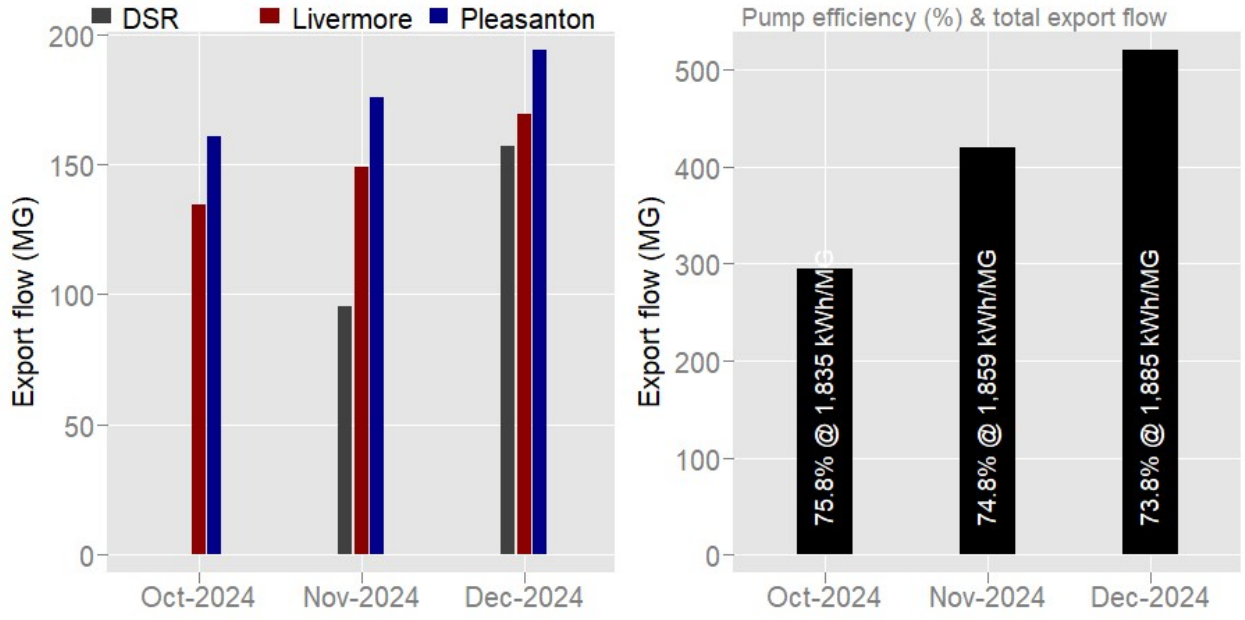

Figure 1 - LAVWMA Quarter 2 FYE 2025 export flows for Oct-2024, Nov-2024, & Dec-2024; monthly flows shown by source (left plot) and as total (right plot) with pump efficiency (%) at noted kilowatt hour (kWh) per million gallons (MG); NOTE: flow & pump efficiency data displayed by calendar month, not PG&E billing period

Most usage for either feeder (service) was 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.

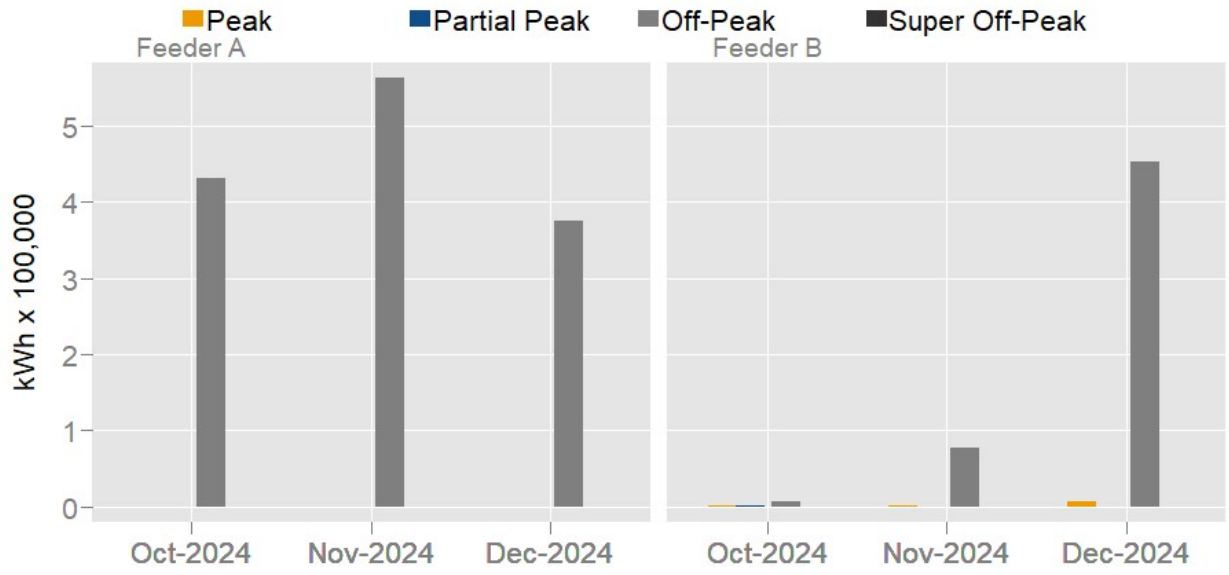

Figure 2 - LAVWMA Quarter 2 FYE 2025 electric usage as kilowatt hour (kWh) for PG&E billing cycles Oct-2024, Nov-2024, & Dec-2024; billing cycle usage displayed separately for feeder A (left) & feeder B (right) by time of use: peak, partial peak, off-peak; & super off-peak

Labor and utilities covered the largest fraction of overall cost in Q2 FYE 2025 (Figure 3, 3 left-most plots). There were no expenses for non-routine work this quarter.

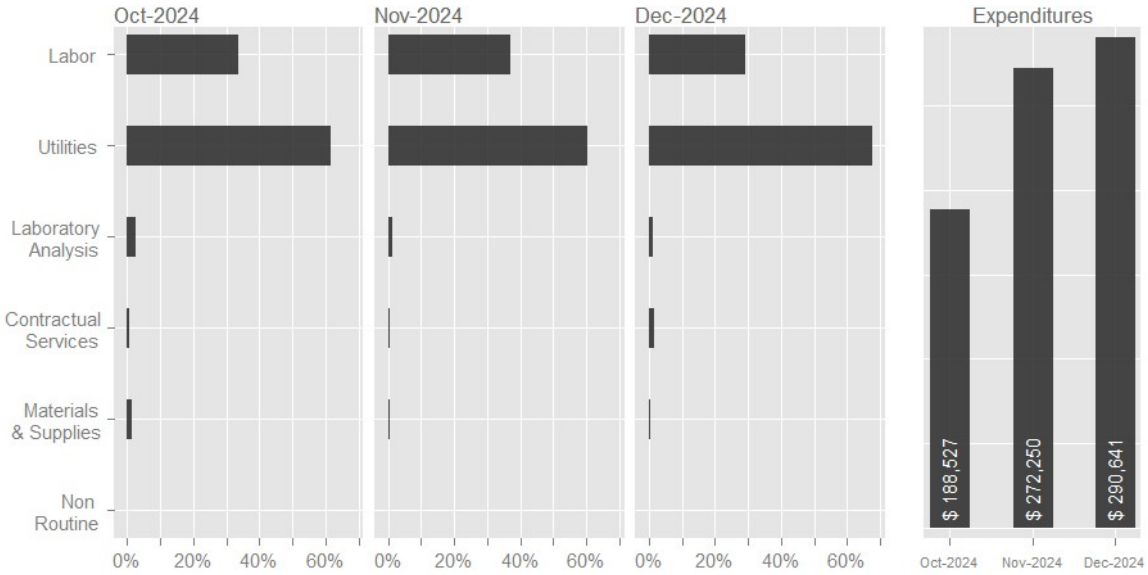

Figure 3 - LAVWMA Quarter 2 FYE 2025 expenditures for Oct-2024, Nov-2024, & Dec-2024 as percent of total cost by type (labor, utilizes, laboratory analysis, contractual services, materials & supplies, & non routine; left plot) and as monthly total (right plot)

There were no major equipment failures in Q2 FYE 2025, the pipeline and pumping plant ran without issue. Preventative maintenance (PM) work orders exceeded corrective maintenance (CM) work orders each month during Q2 FYE 2025 (Figure 4, right plot). There were no CM work orders for Oct-2024.

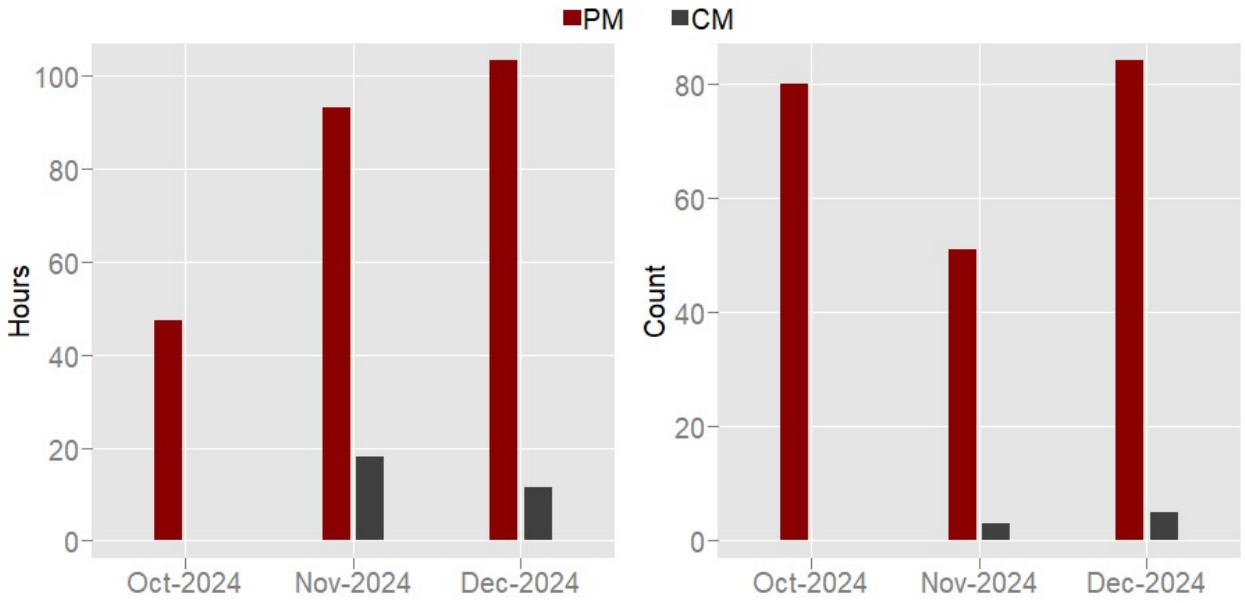

Figure 4 - LAVWMA Quarter 2 FYE 2025 preventative maintenance (PM) & corrective maintenance (CM) work order hours (left plot) and count (right plot) for Oct-2024, Nov-2024, & Dec-2024

Operations

Of the 1,236 MG of effluent conveyed through the LAVWMA system during the first quarter, 253 MG came from Dublin San Ramon (DSR), 453 MG from the City of Livermore, and 530 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 (year-round), 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 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 243.75 hours completing 215 preventative maintenance (PM) work orders and 29.5 hours completing 8 corrective maintenance (CM) work orders on LAVWMA equipment and systems. Refer to Figure 4 for monthly breakdown (work order data updated 27-Jan-2025).

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 is still out of service, the motor has been overhauled and returned but the pump is still being refurbished. We expect the pump to return in February 2025, then we will install and test.

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

Electrical

- Pump Station Motor #2 overhauled and ready for installation upon pump overhaul completion
- Troubleshot Pump Station Motor #7 due to noise
- Troubleshot Basin 1 valve actuator
- Troubleshot Basin 2 dewatering pump

Instrument & Controls

- Troubleshot Rectifiers P8, P10, P7, L1
- Replaced Combined chlorine sensor
- Troubleshot SLSS Thiosulfate level transmitter

Operations

- Reviewed and updated LAVWMA Wet Weather Strategy with DSRSD Operations staff
- Completed LAVWMA pipeline inspection; both export pipelines returned to service
- Conducted annual LAVWMA Wet Weather Strategy review meeting with external agencies, including Zone 7, ACWD, Alameda County Flood/ACPWA, EBDA, and the City of Livermore

Mechanical

- Normal business operations

Laboratory

- Collected sample to comply with the effluent characterization studies annual requirement (Per Order R2-2021-0007)

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).

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

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

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 Days	kWh	Flow (MG)	kWh/MG	Pump 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
Q2									
Oct-2024	29	441,763	229	1,932.11	72.0%	$116,266	$0.26	$509	$166
Nov-2024	32	642,764	355	1,809.32	76.8%	$163,208	$0.25	$459	$150
Dec-2024	30	836,322	444	1,882.69	73.8%	$194,743	$0.23	$438	$143
Q2									
Average		640,283	343	1,875	74.2%	$158,072	$0.25	$469	$153
Total	91	1,920,849	1,028	5,624		$474,217			
Minimum		441,763	229	1,809	72.0%	$116,266	$0.23	$438	$143
Maximum		836,322	444	1,932	76.8%	$194,743	$0.26	$509	$166
YTD									
Average		473,770	255	1,861	74.7%	$126,966	$0.28	$523	$170
Total	183	2,842,618	1,528	11,167		$761,796			
Minimum		286,133	153	1,792	72.0%	$81,928	$0.23	$438	$143
Maximum		836,322	444	1,932	77.6%	$194,743	$0.35	$662	$216

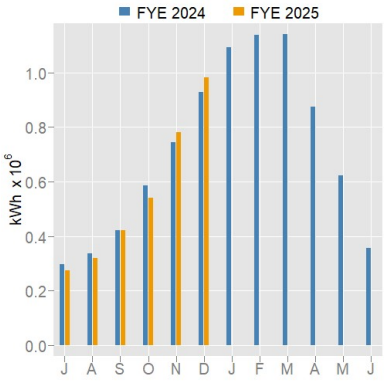

Figure 5 - LAVWMA monthly kWh usage FYE 2024 & FYE 2025 through Dec-2024

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				
	Peak (kWh)	Partial Peak (kWh)	Off-Peak (kWh)	Super Off-Peak (kWh)	Cost ($)	Peak (kWh)	Partial Peak (kWh)	Off-Peak (kWh)	Super Off-Peak (kWh)	Cost ($)
Q1										
Jul-2024	0	0	110,784	0	$34,670	2,028	1,778	185,003	0	$71,017
Aug-2024	0	0	127,927	0	$35,306	2,160	0	154,258	1,788	$46,622
Sep-2024	0	0	325,319	0	$90,559	2,056	1,689	6,978	0	$9,404
Q2										
Oct-2024	0	0	430,837	0	$106,617	2,166	1,214	7,546	0	$9,649
Nov-2024	0	0	562,453	0	$126,340	2,387	0	77,924	0	$36,868
Dec-2024	0	0	375,946	0	$85,202	7,354	0	453,022	0	$109,542
Q2										
Average	0	0	456,412	0	$106,053	3,969	405	179,497	0	$52,020
Total	0	0	1,369,236	0	$318,159	11,907	1,214	538,492	0	$156,059
Minimum	0	0	375,946	0	$85,202	2,166	0	7,546	0	$9,649
Maximum	0	0	562,453	0	$126,340	7,354	1,214	453,022	0	$109,542
YTD										
Average	0	0	322,211	0	$79,782	3,025	780	147,455	298	$47,184
Total	0	0	1,933,266	0	$478,694	18,151	4,681	884,731	1,788	$283,102
Minimum	0	0	110,784	0	$34,670	2,028	0	6,978	0	$9,404
Maximum	0	0	562,453	0	$126,340	7,354	1,778	453,022	1,788	$109,542

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 Q2 (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
Q2											
Oct-2024	272	0	266	18	279	195	0	179	24	195	1,428
Nov-2024	511	0	172	165	504	0	158	0	431	0	1,942
Dec-2024	519	0	289	544	438	72	0	0	537	0	2,398
	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
Q2											
Average Hours	434	0	242	242	407	89	53	60	330	65	1923
Std Dev Hours	140.3	0.0	61.8	271.4	116.0	98.6	91.5	103.5	270.5	112.7	485.2
Hours	1,302	0	726	727	1,221	267	158	179	991	195	5,768
Min Hours	272	0	172	18	279	0	0	0	24	0	1428
Max Hours	519	0	289	544	504	195	158	179	537	195	2398
Total Average Hours	304	0	183	126	271	90	30	79	229	79	1391
Total Std Dev Hours	184.1	0.0	77.5	214.0	171.7	112.4	63.1	120.0	220.4	122.0	674.0
Total Hours	1,825	0	1,098	756	1,624	538	181	473	1,373	474	8,343
Total Min Hours	102	0	93	0	94	0	0	0	0	0	654
Total Max Hours	519	0	289	544	504	261	158	277	537	271	2398

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%
Q2	
Oct-2024	21.3%
Nov-2024	30.0%
Dec-2024	35.8%
Q1	
Average Pump Utilization	13.0%
Min Pump Utilization	9.8%
Max Pump Utilization	17.0%
Q2	
Average Pump Utilization	29.0%
Min Pump Utilization	21.3%
Max Pump Utilization	35.8%
Total Average Pump Utilization	21.0%
Total Min Pump Utilization	9.8%
Total Max Pump Utilization	35.8%

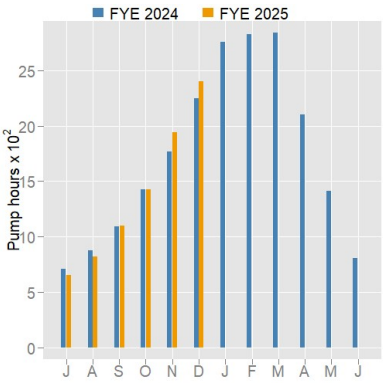

Figure 6- LAVWMA FYE 2024 & FYE 2025 monthly total pump hours through Dec-2024

[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 (in feet) 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
Q2				
Oct-2024	2.87	0.09	2.95	1.97
Nov-2024	3.75	0.11	3.30	2.39
Dec-2024	4.78	0.11	4.19	3.03
Q2				
Average	3.80	0.11	3.48	2.46
Minimum	2.87	0.09	2.95	1.97
Maximum	4.78	0.11	4.19	3.03
YTD				
Average	3.31	0.10	3.25	2.22
Minimum	2.01	0.08	2.38	1.49
Maximum	4.78	0.11	4.19	3.03

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 Ramon (MG)	Livermore (MG)	Pleasanton (MG)	Combined 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
Q2	**252.75**	**452.93**	**530.04**	**1,235.72**
Oct-2024	0.00	134.64	160.50	295.15
Nov-2024	95.51	149.06	175.53	420.11
Dec-2024	157.24	169.22	194.01	520.47
Total	252.75	777.97	749.29	1,780.01
Q2				
Average	84.25	150.98	176.68	411.91
Minimum	0.00	134.64	160.50	295.15
Maximum	157.24	169.22	194.01	520.47
YTD				
Average	42.13	129.66	124.88	296.67
Minimum	0.00	103.27	42.54	145.81
Maximum	157.24	169.22	194.01	520.47

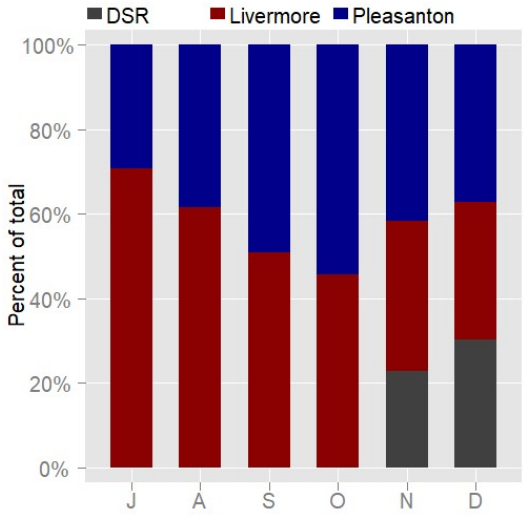

Figure 7- LAVWMA FYE 2025 through Dec-2024 monthly export flows by region as a percent of total; DSR = Dublin San Ramon

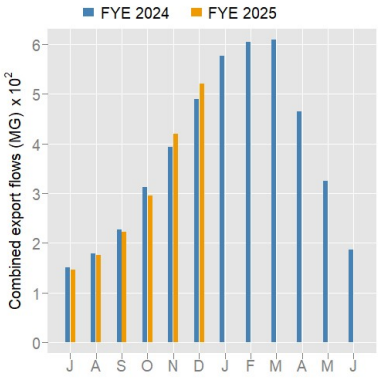

Figure 8 - LAVWMA FYE 2024 & FYE 2025 through Dec-2024 monthly combined export flows (MG)

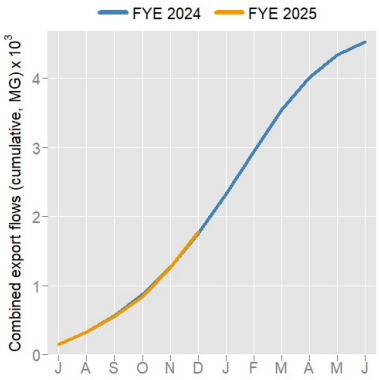

Figure 9 - LAVWMA FYE 2024 & FYE 2025 through Dec-2024 monthly cumulative combined export flows (MG)

Expenditures & Budget Utilization: Labor & O&M

Expenses this quarter included backflow testing. Overall O&M expenses increased slightly in Q2 compared to Q1.

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 Expenses	A/P Expenses	O&M 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
Q2	**$249,426**	**$501,993**	**$751,418**	**$608**	**$198**
Oct-2024	$63,070	$125,457	$188,527	$639	$208
Nov-2024	$101,340	$170,910	$272,250	$648	$211
Dec-2024	$85,015	$205,626	$290,641	$558	$182
Total	$547,164	$826,085	$1,373,250	$771	$251
Q2					
Average	$83,142	$167,331	$250,473	$615	$200
Minimum	$63,070	$125,457	$188,527	$558	$182
Maximum	$101,340	$205,626	$290,641	$648	$211
YTD					
Average	$91,194	$137,681	$228,875	$892	$291
Minimum	$63,070	$88,786	$188,527	$558	$182
Maximum	$107,893	$205,626	$290,641	$1,392	$453

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

	O&M YTD Expenses	O&M Budget Utilization	O&M Budget Remaining	Labor YTD Expenses	Labor Budget Utilization	Labor Budget Remaining
Q1						
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
Q2						
Oct-2024	$810,358	23.0%	$2,720,141	$360,809	30.5%	$822,015
Nov-2024	$1,082,608	30.7%	$2,447,891	$462,149	39.1%	$720,675
Dec-2024	$1,373,250	38.9%	$2,157,250	$547,164	46.3%	$635,660

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 Hours	FTE Equivalent
Q1	**1,349.5**	
Jul-2024	383.5	2.2
Aug-2024	471.5	2.7
Sep-2024	494.5	2.9
Q2	**1,138.0**	
Oct-2024	286.5	1.7
Nov-2024	464.0	2.7
Dec-2024	387.5	2.2
Total	2,487.5	
Q2		
Average	379.3	2.2
Minimum	286.5	1.7
Maximum	464.0	2.7
YTD		
Average	414.6	2.4
Minimum	286.5	1.7
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
Q2			
Oct-2024	$401	$0	$401
Nov-2024	$1,203	$657	$1,860
Dec-2024	$401	$812	$1,213
	Labor	A/P	Total
Q1			
Total	$0	$2,040	$2,040
Average	$0	$680	$680
Minimum	$0	$609	$609
Maximum	$0	$745	$745
Q2			
Total	$2,004	$1,469	$3,474
Average	$668	$490	$1,158
Minimum	$401	$0	$401
Maximum	$1,203	$812	$1,860
Total Total	$2,004	$3,509	$5,513
Total Average	$334	$585	$919
Total Minimum	$0	$0	$401
Total Maximum	$1,203	$812	$1,860

Detailed YTD O&M Budget Comparison to Actual Expenses

	LAVWMA														
	BUDGET COMPARISON TO ACTUAL EXPENSES: GOODS & SERVICES													Current FY Period:	6
	ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&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	Budget
Project Total:	**Labor**															
lavcost	Staff	$1,182,824	$84,522	$105,323	$107,893	$63,070	$101,340	$85,015							$547,164	$591,412
LAVWMA	**Subtotal**	**$1,182,824**	**$84,522**	**$105,323**	**$107,893**	**$63,070**	**$101,340**	**$85,015**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$547,164**	**$591,412**
	Materials & Supplies															
Phase Total:	Operations Supplies	$21,400	546	$679	$242	$20	$26	$140							$1,653	$10,700
supply	Mechanical Supplies	$31,890	$527	$911	$294	$863	$1,530	$263							$4,387	$15,945
	Electrical Supplies	$38,900	$15		$10,743	$2,112		$372							$13,243	$19,450
	Subtotal	**$92,190**	**$1,088**	**$1,589**	**$11,279**	**$2,995**	**$1,556**	**$775**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$19,282**	**$46,095**
Analysis	**Laboratory Analysis**															
Biochemical Oxy	Compliance Testing	$11,300	$1,435	$1,148	$1,148	$1,317	$1,148	$1,148							$7,344	$5,650
Demand & Total	Operational Support Testing	$4,900	$628	$628	$628	$628	$628	$628							$3,768	$2,450
Langelier Index	Special Sampling	$29,400	$2,485	$788	$2,288	$2,860	$2,288	$2,288							$12,997	$14,700
	Subtotal	**$45,600**	**$4,548**	**$2,564**	**$4,064**	**$4,805**	**$4,064**	**$4,064**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$24,109**	**$22,800**
	Contractual Services															
	Sub-surface Repairs	$15,750													$0	$7,875
	Street Sweeping	$5,000													$0	$2,500
	Cathodic Protection Survey & Repairs	$47,250													$0	$23,625
	Underground Service Alert	$4,800	$610												$610	$2,400
	SCADA software maintenance contract	$10,000	$5,365												$5,365	$5,000
Phase Total:	Remote monitoring annual service for PS and Re	$1,950					$115								$115	$975
cservi	HVAC Maintenance/Repairs	$800													$0	$400
	Termite/Pest Control	$950													$0	$475
	Landscape/weed maintenance	$11,200						$3,854							$3,854	$5,600
	Smartmeter Covers	$1,800														$900
	Janitorial Service	$10,000		$1,950		$975	$975	$975							$4,875	$5,000
	Other Services	$3,130													$0	$1,565
	Misc Professional/Contractual Services	$31,500			$317	$270									$587	$15,750
	Subtotal	**$144,130**	**$5,976**	**$1,950**	**$317**	**$1,245**	**$1,090**	**$4,829**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$15,406**	**$72,065**
	Utilities															
	Electricity (PG&E)	$2,062,355	$106,398	$82,537	$100,649	$116,266	$163,865	$195,556							$765,272	$1,031,178
Phase Total:	Water & Sewer (Pleasanton)	$1,100			$195		$190								$385	$550
utilit	Water (EBMUD)	$1,300	$236		$264			$256							$756	$650
	Telephone/communications	$1,000	$146	$146	$146	$146	$146	$146							$875	$500
	WW Treatment (DSRSD)	$0													$0	$0
	Subtotal	**$2,065,755**	**$106,780**	**$82,683**	**$101,254**	**$116,412**	**$164,200**	**$195,958**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$767,288**	**$1,032,878**
	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**	**$188,527**	**$272,250**	**$290,641**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,373,250**	**$1,765,250**
	YTD Total	**$3,530,499**	**$202,915**	**$397,024**	**$621,831**	**$810,358**	**$1,082,608**	**$1,373,250**	**$1,373,250**	**$1,373,250**	**$1,373,250**	**$1,373,250**	**$1,373,250**	**$1,373,250**		
	Combined Export Flow, mg	**3356**	**146**	**176**	**222**	**295**	**420**	**520**							**1,780**	**1,678**
	Pumping Efficiency		**74.1%**	**76.7%**	**73.2%**	**75.8%**	**74.8%**	**73.8%**								
	Monthly Cost, $/mg		**$1,392**	**$1,103**	**$1,011**	**$639**	**$648**	**$558**	-	-	-	-	-	-		
	YTD Running Cost, $/mg	**$1,052**	**$1,392**	**$1,234**	**$1,142**	**$965**	**$860**	**$771**	-	-	-	-	-	-	**$771**	

LAVWMA

BUDGET COMPARISON TO ACTUAL EXPENSES: LABOR

														Current FY Period:	6
		ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M													
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD	YTD
FY 2024-2025		2024	2024	2024	2024	2024	2024	2025	2025	2025	2025	2025	2025	TOTAL	Budget
Estimated Personnel Hours															
Division 51 - FOD	50	20.00	-	-	-	38.00	-	-	-	-	-	-	-	58.00	25.00
Water/Wastewater Sys Lead Op	0													-	-
Water/Wastewater Sys OP IV-On Call	0					17.00								17.00	-
Water/Wastewater Sys OP IV														-	-
Water/Wastewater Sys OP III	0													-	-
Water/Wastewater Sys OP I/II	43	20.00				21.00								41.00	21.50
Maintenance Worker	0													-	-
Supervisor	7													-	3.50
Division 52 - WWTP	2,832	148.00	176.50	251.50	164.00	172.00	180.00	-	-	-	-	-	-	1,092.00	1,416.00
Process Lead Operator IV/V	289	15.00	32.00	33.00	13.00	13.00	24.00							130.00	144.50
Senior WWTP Operator III	1,013	45.00	46.50	67.50	52.50	49.00	34.00							294.50	506.50
WWTP Supervisor		3.50												3.50	
Operator In Training	0													-	-
Operator II	1,431	84.50	98.00	151.00	98.50	110.00	122.00							664.00	715.50
Operator II (SLSS)	0													-	-
Operations Superintendent	99													-	49.50
Ops Director															
Division 53 - MECH	1,107	176.00	250.50	155.00	85.00	213.50	174.50	-	-	-	-	-	-	1,054.50	553.50
Senior Mechanic-Crane Cert	54	41.50	85.00	53.00	24.50	78.00	43.00							325.00	27.00
Senior Mechanic - USA	72	4.00	9.00	21.00	20.00	11.00	18.00							83.00	36.00
Maintenance Worker	54													-	27.00
Mechanic I/II	882	111.50	141.00	59.50	28.00	99.00	88.50							527.50	441.00
Mechanic II-Crane Cert	0													-	-
Mechanic I/II - USA	0	19.00	15.50	21.50	12.50	25.50	25.00							119.00	-
Mechanic II-Crane Cert - USA	0													-	-
Supervisor	45													-	22.50
Division 54 - ELEC	1,080	34.50	42.50	88.00	34.50	37.50	32.00	-	-	-	-	-	-	269.00	540.00
Senior Instrument/Controls Tech	45	7.50	6.00	9.00	10.50	4.50	7.50							45.00	22.50
Instrumentation & Controls Tech I/II	504	17.00	12.50	31.00	16.00	20.50	16.50							113.50	252.00
Ice Supervisor		2.00	3.50	2.00	1.00	1.00								9.50	-
Senior Electrician	45	3.00	11.00	4.00	1.00	4.00	2.00							25.00	22.50
Electrician I/II	441	4.00	5.00	36.00	4.00	6	6.00							61.00	220.50
Principal Eletrical Engineer	45	1.00	4.50	6.00	2.00	1.50								15.00	22.50
Division 55 - Laboratory	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EC Inspector II-Pretreatment	0													-	-
Laboratory Technician	0													-	-
Supervisor	0													-	-
Division 26 - SAFETY	54	-	-	-	-	-	-	-	-	-	-	-	-	-	27.00
Safety Officer	54	-	-	-	-	-	-	-	-	-	-	-		-	27.00
Division 40 - ENG	288	5.00	2.00	-	3.00	3.00	1.00	-	-	-	-	-	-	14.00	126.00
Senior Civil Engineer-SME	36														-
Associate Engineer	108	5.00	2.00		3.00	3.00	1.00							14.00	54.00
Construction Inspector I/II	72													-	36.00
Engineering Technician II	36													-	18.00
GIS Analyst	36													-	18.00
Total Estimated Personnel Hours	5,411														
FTE	2.6														
Total Monthly Hours		383.50	471.50	494.50	286.50	464.00	387.50	-	-	-	-	-	-	2,487.50	2,687.50

EBDA Monthly Reports

Parameter	Flow	CBOD Qual	CBOD	TSS Qual	TSS	pH	pH	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 (Mean)		SM 5210 B-2011		SM 2540 D-2011	Instant Min	Instant Max	Daily Average (	Daily Average (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
10/1/2024	7.13					7.52	7.66	0.77			17	<	10
10/2/2024	6.43		2.1		6.6	7.56	7.85	0.51					
10/3/2024	7.32					7.39	7.79	0.33					
10/4/2024	6.51					7.36	7.89	0.25					
10/5/2024	8.38					7.33	7.57	0.56					
10/6/2024	9.61					7.34	7.58	0.79					
10/7/2024	7.15					7.34	7.60	0.72					
10/8/2024	8.21					7.49	7.67	0.48			80	<	10
10/9/2024	7.67		5.1		11	7.65	7.84	0.17					
10/10/2024	7.84					7.60	7.86	0.27					
10/11/2024	7.95					7.62	7.75	1.59					
10/12/2024	11.00					7.57	7.75	1.62					
10/13/2024	10.52					7.57	7.66	0.92					
10/14/2024	10.73					7.63	7.79	0.61					
10/15/2024	10.66					7.63	7.79	0.72			4	<	10
10/16/2024	9.01		4.2		9.2	7.70	7.79	0.67					
10/17/2024	8.03					7.73	8.15	0.53					
10/18/2024	8.23					7.63	7.90	0.70					
10/19/2024	9.58					7.62	7.89	0.80					
10/20/2024	10.30					7.62	7.81	0.72					
10/21/2024	9.77					7.56	7.82	0.58					
10/22/2024	9.89					7.57	7.75	0.46			27		20
10/23/2024	8.74		4.5			7.46	7.90	0.38					
10/24/2024	10.71					7.60	7.86	0.26					
10/25/2024	9.41					7.55	7.79	0.48					
10/26/2024	12.27					7.52	7.77	0.53					
10/27/2024	11.07					7.55	7.65	0.53					
10/28/2024	11.73					7.52	7.70	0.29					
10/29/2024	13.40					7.47	7.70	0.98			50		10
10/30/2024	13.30		4.1		7.8	7.44	7.70	0.63					
10/31/2024	13.23					7.43	7.60	0.61					

Note:
Column G - pH Minimum; online
Column H - pH Maximum; online

Parameter	Flow	CBOD Qual	CBOD	TSS Qual	TSS	pH	pH	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 (Mean)		SM 5210 B-2011		SM 2540 D-2011	Instant Min	Instant Max	Daily Average (	Daily Average (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
11/1/2024	14.35					7.49	7.67	0.69					
11/2/2024	11.14					7.43	7.63	0.75					
11/3/2024	15.66					7.44	7.66	0.86					
11/4/2024	14.50					7.39	7.65	0.71					
11/5/2024	12.24					7.41	7.63	0.47			13	<	10
11/6/2024	9.10		6.4		11.0	7.00	7.70	1.18					
11/7/2024	9.48					7.49	7.79	1.18					
11/8/2024	11.97					7.52	7.75	1.60					
11/9/2024	11.12					7.57	7.78	1.09					
11/10/2024	14.99					7.55	7.80	1.15					
11/11/2024	13.69					7.55	7.73	0.79					
11/12/2024	12.04					7.63	7.73	0.89			8		10
11/13/2024	15.23		6.3		8.8	7.56	7.75	1.11					
11/14/2024	14.64					7.53	7.72	1.15					
11/15/2024	13.15					7.57	7.75	1.74					
11/16/2024	14.88					7.55	7.75	2.63					
11/17/2024	13.24					7.59	7.77	2.91					
11/18/2024	14.57					7.57	7.70	1.57					
11/19/2024	14.80					7.59	7.71	1.51			7		20
11/20/2024	13.57		5		7.0	7.62	7.75	1.84					
11/21/2024	13.57					7.68	7.91	1.73					
11/22/2024	15.43					7.68	7.87	1.21					
11/23/2024	15.42					7.52	7.83	0.89					
11/24/2024	15.98					7.53	7.68	0.64					
11/25/2024	18.78					7.63	7.68	0.46					
11/26/2024	15.42		4.6		5.6	6.85	7.89	0.59		<	2	<	10
11/27/2024	14.66					7.57	7.75	1.06					
11/28/2024	15.47					7.54	7.73	1.96					
11/29/2024	15.96					7.52	7.71	1.80					
11/30/2024	15.09					7.60	7.89	1.53					

Note:
Column G - pH Minimum; online
Column H - pH Maximum; online

Parameter	Flow	CBOD Qual	CBOD	TSS Qual	TSS	pH	pH	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 (Mean)		SM 5210 B-2011		SM 2540 D-2011	Instant Min	Instant Max	Daily Average (	Daily Average (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
12/1/2024	16.74					7.53	7.79	1.64					
12/2/2024	14.11					7.55	7.78	1.84					
12/3/2024	14.53					7.53	7.79	1.30			11	<	10
12/4/2024	16.27		7.0		10	7.51	7.96	1.34					
12/5/2024	15.31					7.49	7.78	1.36					
12/6/2024	15.21					7.59	8.25	1.06					
12/7/2024	15.65					7.46	7.78	1.21					
12/8/2024	12.91					7.45	7.72	1.17					
12/9/2024	12.63					7.50	7.72	1.05					
12/10/2024	13.12					7.55	7.79	1.59			4	<	10
12/11/2024	15.62		6.2		9.0	7.48	7.90	1.85					
12/12/2024	16.36					7.47	7.70	1.72					
12/13/2024	15.91					7.50	7.64	1.67					
12/14/2024	21.78					7.33	7.62	1.48					
12/15/2024	19.79					7.37	7.56	1.79					
12/16/2024	19.49					7.05	7.61	1.85					
12/17/2024	20.54					7.45	7.59	1.27		<	2	<	10
12/18/2024	16.95		4.5		5.2	7.44	7.69	1.41					
12/19/2024	17.51					7.47	7.67	1.57					
12/20/2024	16.38					7.45	7.64	2.20					
12/21/2024	16.73					7.41	8.10	1.87					
12/22/2024	17.40					7.04	7.49	2.04					
12/23/2024	14.72					7.00	7.50	1.74					
12/24/2024	18.57		5.2		6.0	7.35	7.63	1.40			2	<	10
12/25/2024	19.01					7.52	7.64	1.29					
12/26/2024	17.12					7.41	7.67	1.43					
12/27/2024	19.12					7.14	7.60	1.64					
12/28/2024	19.12					7.22	7.35	1.95					
12/29/2024	18.86					7.18	7.37	1.87					
12/30/2024	17.44					7.14	7.41	1.69					
12/31/2024	16.99					7.26	7.44	1.77		<	2	<	10

Note:
Column G - pH Minimum; online
Column H - pH Maximum; online

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

Livermore - 4th Quarter 2024
Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
10/01/24	562	25.0	80	338	7.6	7.5	0.2
11/06/24	576	20.0	75	298	7.7	7.6	0.1
12/04/24	592	21.0	71	353	7.6	7.5	0.0
MAXIMUM	592	25.0	80	353	7.7	7.6	0.2
MINIMUM	562	20.0	71	298	7.6	7.5	0.0
AVERAGE	577	22.0	75	330	7.6	7.5	0.1

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

DSRSD - 4th Quarter 2024
Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
10/05/24	608	27.3	104	282	7.5	7.3	0.2
11/09/24	788	23.7	320	385	7.5	6.8	0.7
12/15/24	662	20.8	214	251	7.3	7.1	0.2
MAXIMUM	788	27.3	320	385	7.5	7.3	0.7
MINIMUM	608	20.8	104	251	7.3	6.8	0.2
AVERAGE	686	23.9	213	306	7.4	7.1	0.4

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

LAVWMA - 4th Quarter 2024
Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
10/05/24	614	26.6	96	272	7.6	7.4	0.2
11/09/24	680	22.6	96	272	7.5	7.4	0.1
12/15/24	622	19.2	196	256	7.4	7.2	0.2
MAXIMUM	680	26.6	196	272	7.6	7.4	0.2
MINIMUM	614	19.2	96	256	7.4	7.2	0.1
AVERAGE	639	22.8	129	267	7.5	7.3	0.2