

LAVWMA

QUARTERLY REPORT OF OPERATIONS

FY 2021-2022, 3rd Quarter



Prepared by



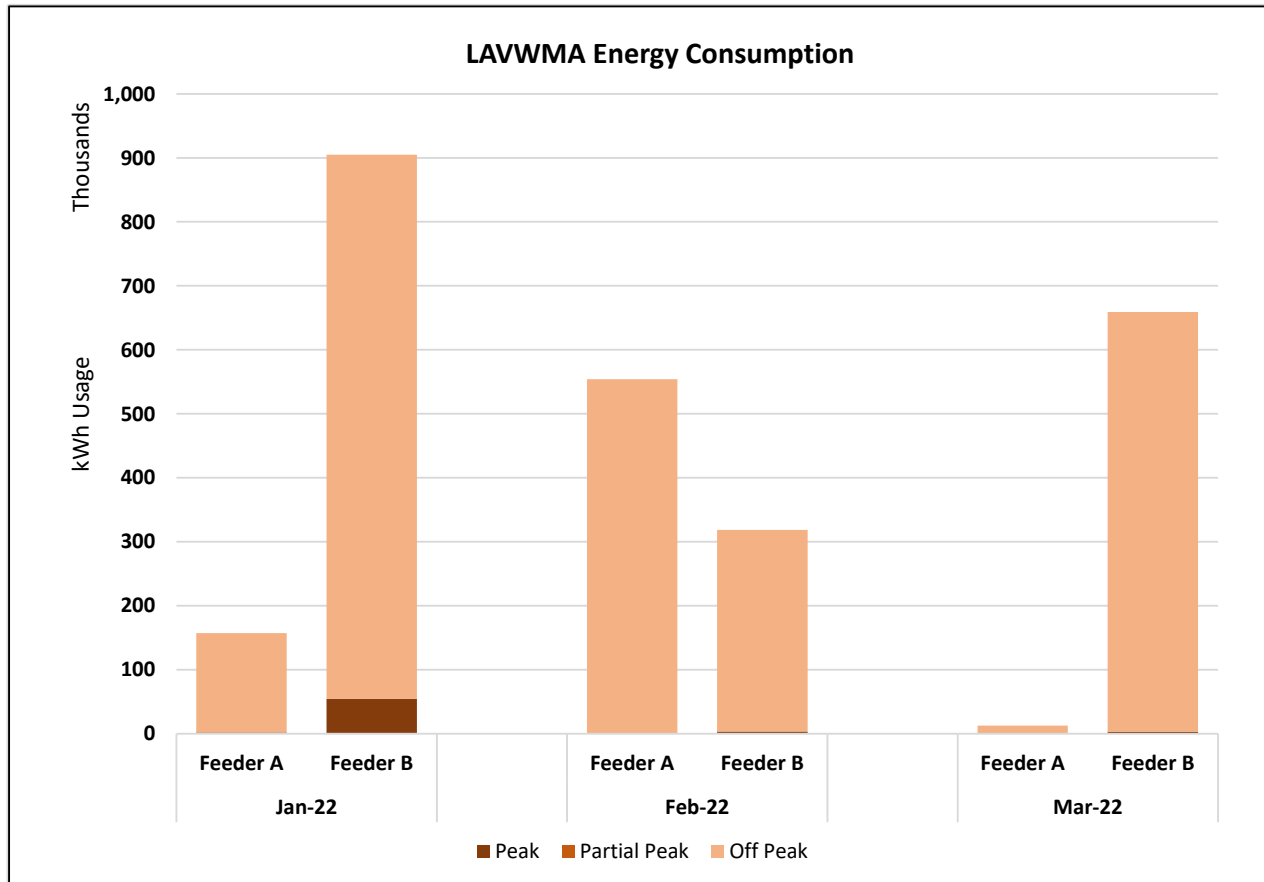
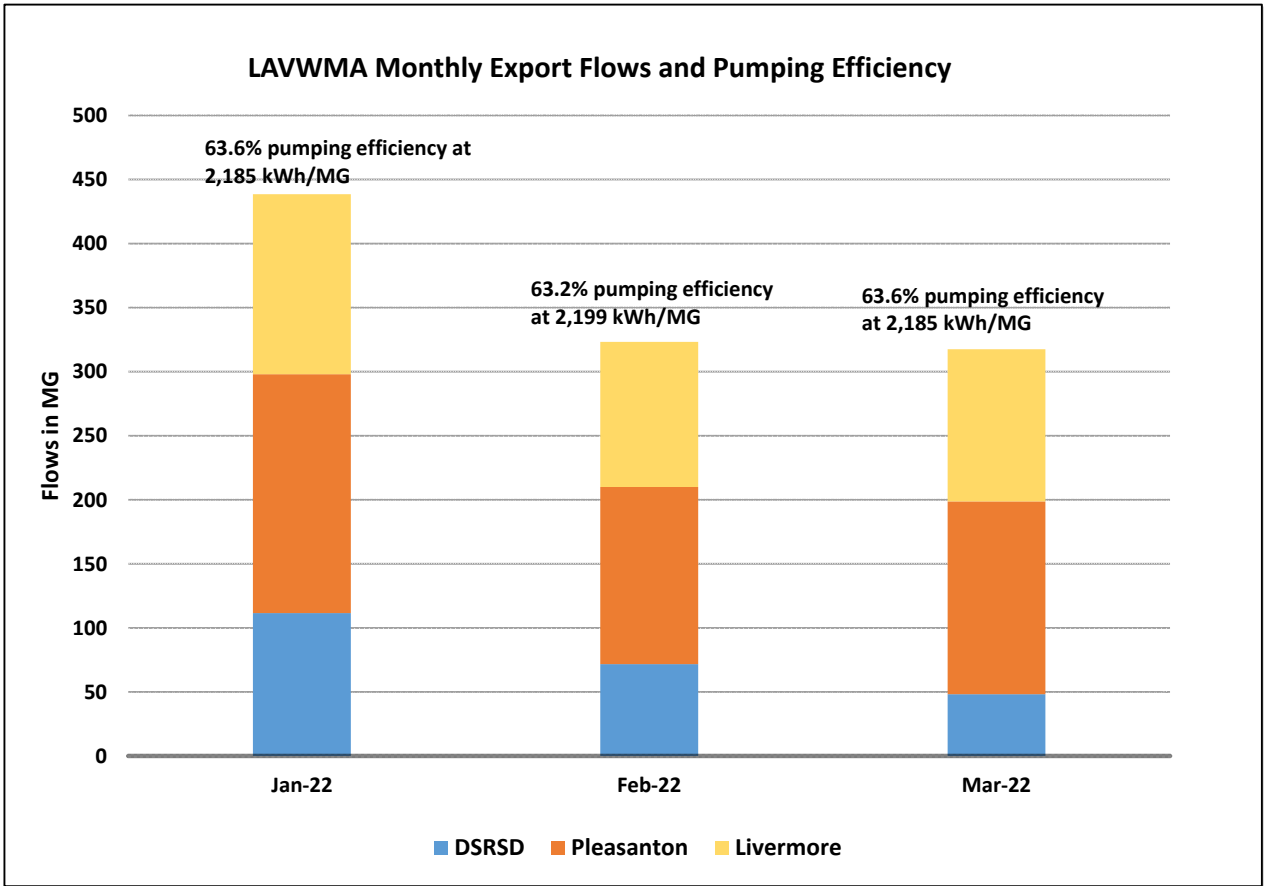
**Dublin San Ramon
Services District**

Water, wastewater, recycled water

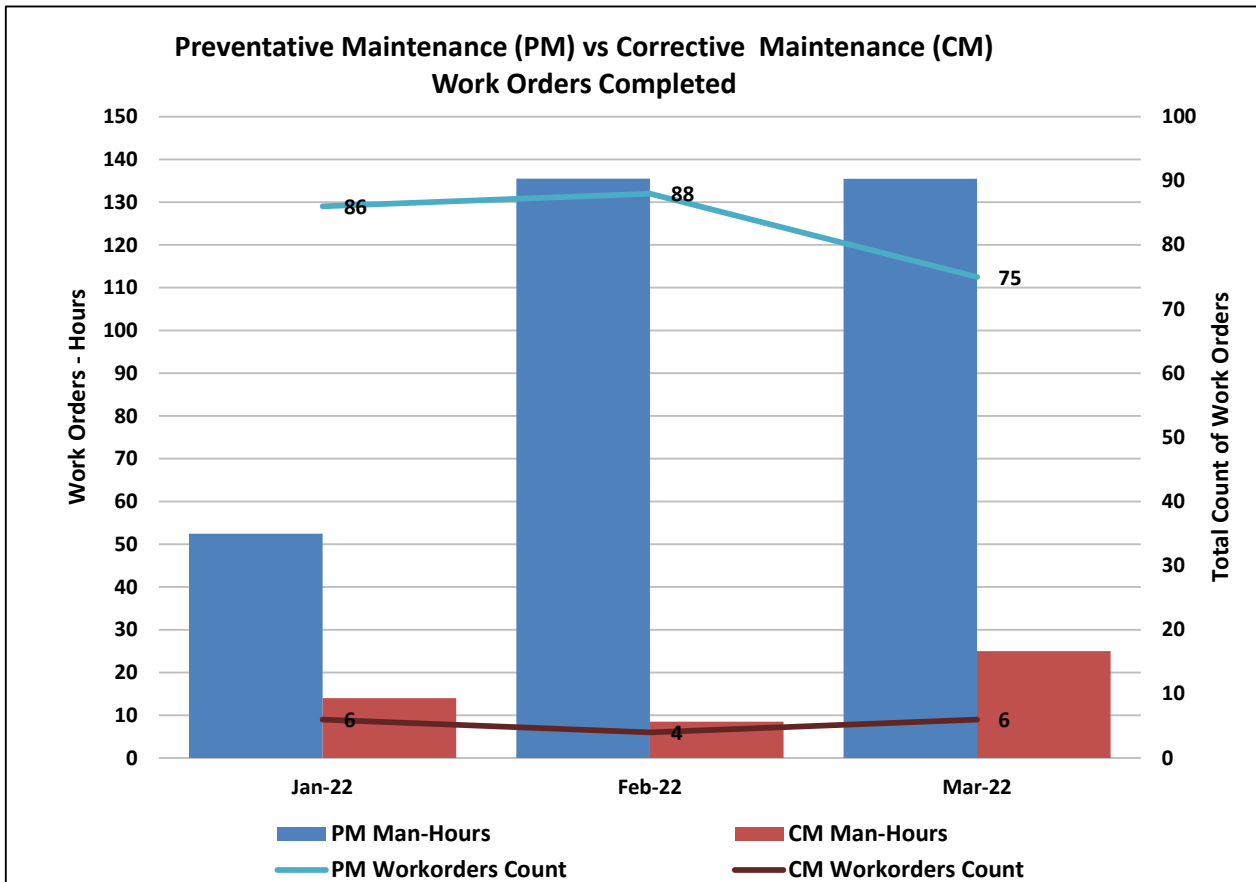
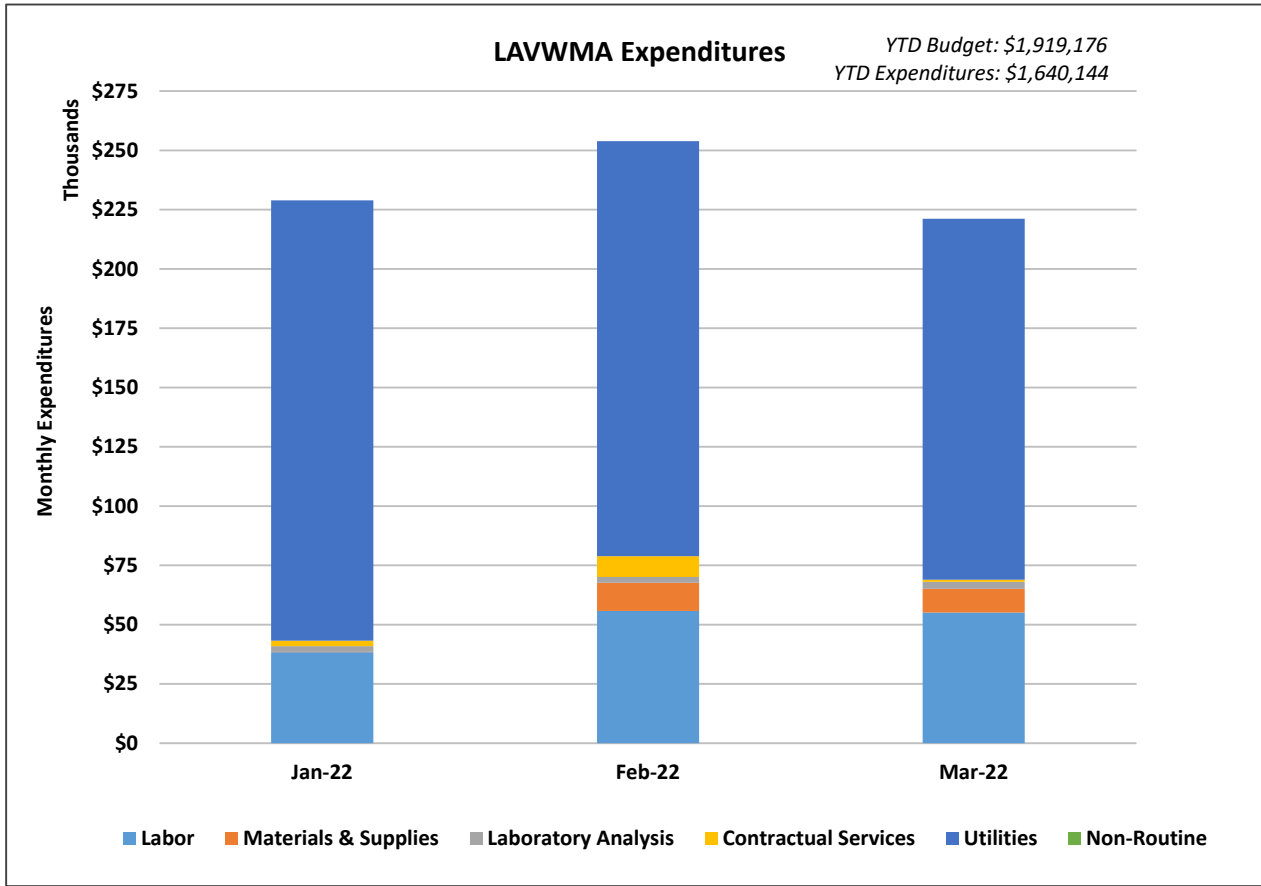
QUARTERLY REPORT OF OPERATIONS
LAVWMA PUMPING AND CONVEYANCE SYSTEM
3rd Quarter FY 2021-2022: January to March 2022

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LAVWMA FYE 2022 THIRD QUARTER AT A GLANCE



LAVWMA FYE 2022 THIRD QUARTER AT A GLANCE



QUARTERLY REPORT OF OPERATIONS
LAVWMA PUMPING AND CONVEYANCE SYSTEM
3rd Quarter FY 2021-2022: January to March 2022

1. EXECUTIVE SUMMARY

The Livermore-Amador Valley Water Management Agency (LAVWMA) pumping and effluent conveyance system operated normally during the third quarter of FY 2021-2022. During the quarter, a total of 1,079.31 million gallons 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); the overall efficiency of the pumping system averaged 64%, with an average electrical cost of \$421 per million gallons, or \$137 per acre-foot.

Total year-to-date operations and maintenance (O&M) expense is \$1,640,144 or 64.1% of the O&M annual budget amount of \$2,558,901 and the overall cost of operation is \$604 per million gallons pumped or \$197 per acre-foot.

2. OPERATIONS

Of the 1,079.31 million gallons of effluent conveyed through the LAVWMA system, approximately 373 million gallons was from the City of Livermore, 475 million gallons from City of Pleasanton and 232 million gallons from DSRSD. Monthly export flow summary is shown on Table 4. Monthly reports sent to EBDA which detail daily export flows and monitoring analysis of the treated effluent during the quarter are shown on Table 9.

Throughout the reporting period, staff endeavored to plan efficient pumping and to avoid pumping during partial peak and peak PG&E energy periods where feasible. LAVWMA's energy consumption in the third quarter reflects use of PG&E's seasonal "super off peak" rate, which is available during the spring months of March, April, and May between the hours of 9 AM and 2 PM.

During the months of February and March, staff observed fluctuating levels of energy use at both Feeder A and B (as evidenced by the LAVWMA Energy Consumption table on page 2). This is attributed to electrical upgrades performed on the feeders throughout the period, which required Operations staff to alternate relying upon one primary feeder at a time for the duration of the project.

In January, a third-party auditor conducted an audit of the Lab's quality system and all State accredited methods. The Lab received good feedback from the auditor and complimentary remarks on Lab staff and traceability. Audits are a part of maintaining State Certification and grant DSRSD the ability to analyze and submit regulatory data to the State. Certification is dependent on the lab's ability to pass proficiency tests and participate in State approved audits.

3. MAINTENANCE

During the quarter, 323 hours were spent to complete 249 preventative maintenance work orders and 48 hours to complete 16 corrective maintenance work orders on LAVWMA equipment and systems.

The following are some noteworthy maintenance activities during the quarter:

Electrical:

- Assisted with SLSS Rehab design field investigations
- Assisted with LAVWMA MCC SOR's, project closeout, punch list items, and training
- Assisted with Gate 34 actuator and valve replacement

Instrumentation and Controls:

- Completed Rectified P-10 as a test site to upgrade remote monitoring devices for all remote rectifier panels.
- Completed the power monitoring data mapping into iFIX for the new MCC upgrades
- Ongoing work with consultant for the new OSI PI installation
- Completed upgrade of the LAVWMA pump deck wet well level instruments to radar-type sensors
- Re-scaled the LAVWMA junction structure Cl2 analyzer per Ops request to make all analyzers the same scale
- Ongoing vibration sensor and monitoring equipment upgrades

Mechanical:

- Provided continued support for the LAVWMA San Leandro Sample Station (SLSS) rehabilitation design
- Installed Smart Detectors at three locations in the LAVWMA line prior to SLSS
- Began air valve maintenance on the pipeline between Livermore and SLSS
- Inspected LAVWMA pipelines located within residential properties

5. BUDGET VARIANCE AND EXPENSES

Third quarter labor expenses totaled \$149,279 for 736 man-hours of effort, an average of 1.4 full time equivalents (FTEs). O&M expenses for the quarter including labor, supplies, laboratory analysis, contractual services, and utilities totaled \$703,987 for an average cost of \$652 per million gallons pumped or \$213 per acre-foot. The total expense for the Livermore sole use pipeline for the quarter was \$605.

Operation and maintenance (O&M) expenses and budget utilization details are shown on Tables 5, 6, 7, and 8.

6. ITEMS OF INTEREST

There were no PG&E peak day pricing events that affected the LAVMWA facilities during the quarter. Additionally, January through March 2022 were unseasonably dry, with no significant storms taking place and an accumulated rainfall of 1.0 inches throughout the reporting period.

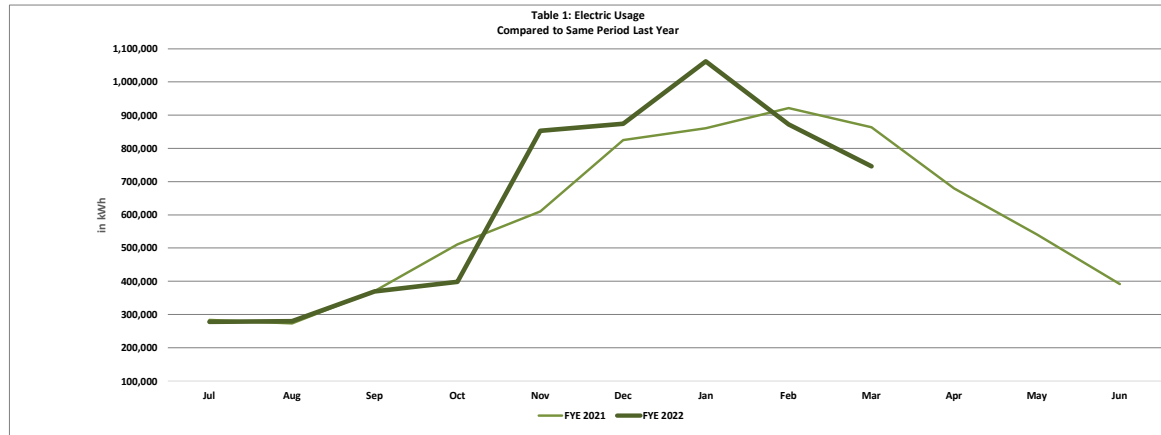
7. CAPITAL PROJECTS

As additional information, Table 11 provides a status summary of the capital projects that are primarily managed by the LAVWMA General Manager. The O&M budget and expenditures discussed in this quarterly report do not include capital projects.

TABLE 1 - Electric Usage, Efficiency and Costs

LAVVMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report

PG&E Service Accounts: Rate Schedule B20 starting March 2021																Total Export Flow ¹	Pumping			
Acct # 8482061923-1 Service A					Acct # 8440395259-5 Service B					Billing Days	Total			Energy	Cost		Efficiency			
Month	kWh	Peak	Partial Peak	Off Peak	\$	kWh	Peak	Partial Peak	Off Peak		Super Off Peak	\$	kWh	\$/kWh	\$	MG	kWh/MG	\$/MG	\$/AF	%
Jul-21	121,614	0	0	121,614	\$30,679	156,361	9,910	19,424	127,027		\$43,366	30	277,975	\$0.27	\$74,045	108	2,565	\$683	\$223	54.2%
Aug-21	121,695	0	52	121,643	\$26,843	158,567	10,283	22,241	126,043		\$43,175	32	280,262	\$0.25	\$70,019	105	2,667	\$666	\$217	52.1%
Sep-21	300,902	0	300	300,602	\$60,010	68,264	6,492	12,791	48,981		\$31,359	30	369,166	\$0.25	\$91,368	160	2,312	\$572	\$186	60.1%
Oct-21	389,192	0	0	389,192	\$67,279	9,593	1,768	828	6,997		\$8,793	29	398,785	\$0.19	\$76,072	182	2,191	\$418	\$136	63.5%
Nov-21	179,241	7,458	0	171,783	\$55,673	673,504	19,663	0	653,841		\$115,688	30	852,745	\$0.20	\$171,361	412	2,071	\$416	\$136	67.1%
Dec-21	93,222	0	0	93,222	\$36,104	780,566	11,465	0	769,101		\$125,342	31	873,788	\$0.18	\$161,446	413	2,117	\$391	\$127	65.7%
Jan-22	157,258	1,885	0	155,373	\$38,041	904,903	54,826	0	850,077		\$148,618	31	1,062,161	\$0.18	\$186,659	486	2,185	\$384	\$125	63.6%
Feb-22	553,887	144	0	553,743	\$111,751	318,562	3,510	0	315,052		\$60,750	28	872,449	\$0.20	\$172,501	397	2,199	\$435	\$142	63.2%
Mar-22	12,788	0	0	12,788	\$19,798	733,311	3,353	0	655,642	74,316	\$131,520	31	746,099	\$0.20	\$151,318	342	2,185	\$443	\$144	63.6%
Apr-22																				
May-22																				
Jun-22																				
Quarter																				
Average	241,311				\$56,530	652,259					\$113,629	30	893,570	\$0.19	\$170,159	408	2,190	\$421	\$137	63.5%
Total	723,933				\$169,589	1,956,776					\$340,888	90	2,680,709		\$510,477	1,224	6,569			
Minimum	12,788				\$19,798	318,562					\$60,750	28	746,099	\$0.18	\$151,318	342	2,185	\$384	\$125	63.2%
Maximum	553,887				\$111,751	904,903					\$148,618	31	1,062,161	\$0.20	\$186,659	486	2,199	\$443	\$144	63.6%
YTD																				
Average	214,422				\$49,575	422,626					\$78,735	30	637,048	\$0.21	\$128,310	289	2,277	\$490	\$160	61.5%
Total	1,929,799				\$446,178	3,803,631					\$708,611	272	5,733,430		\$1,154,788	2,604	20,492			
Minimum	12,788				\$19,798	9,593					\$8,793	28	277,975	\$0.18	\$70,019	105	2,071	\$384	\$125	52.1%
Maximum	553,887				\$111,751	904,903					\$148,618	32	1,062,161	\$0.27	\$186,659	486	2,667	\$683	\$223	67.1%



NOTES:

- 1) This Table 1 does not reflect what was the actual expenditures paid for the month and may not match what is in Table 8 Expenditures. The primary purpose of Table 1 is to show the electric usage and efficiency for the month it actually occurred.
- 2) To calculate pumping efficiency, read dates, electric usage, and export flows are **matched to PG&E billing periods:** 12/14 - 1/11 for January, 1/12 - 2/10 for February, and 2/11 - 3/14 for March.
- 3) Pumping efficiency is based on continuous average flows and a TDH of 442.8 feet, including static lift of 408.8 feet and piping losses of 34 feet (per Charlie Joyce, B&C, 2/12/07).

TABLE 2 - Pump Run Time Hours

LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report

Month	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	Pump	TOTAL	
	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	Run	Utilization
Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	%
Jul-21	0	29	87	204	0	0	0	200	84	26	631	8.5%
Aug-21	0	220	81	1	91	62	0	29	81	219	783	10.5%
Sep-21	0	2	110	3	359	240	1	352	1	0	1,067	14.8%
Oct-21	0	184	47	161	333	245	163	359	192	0	1,685	22.7%
Nov-21	0	481	90	367	37	55	481	38	369	32	1,951	27.1%
Dec-21	0	522	97	551	0	0	551	113	546	0	2,380	32.0%
Jan-22	0	376	230	105	233	236	355	357	235	223	2,349	31.6%
Feb-22	0	374	153	218	151	156	242	0	327	6	1,628	24.2%
Mar-22	0	444	0	459	0	0	165	0	440	0	1,508	20.3%
Apr-22											0	0.0%
May-22											0	0.0%
Jun-22											0	0.0%
Quarter												
Average	0	398	128	261	128	131	254	119	334	77	1,828	25.4%
Total	0	1,193	383	783	384	392	762	357	1,002	230	5,485	
Minimum	0	374	0	105	0	0	165	0	235	0	1,508	20.3%
Maximum	0	444	230	459	233	236	355	357	440	223	2,349	31.6%
YTD												
Average	0	292	100	230	134	110	218	161	253	56	1,165	16.0%
Total	0	2,632	896	2,069	1,204	994	1,959	1,448	2,273	507	13,982	
Minimum	0	2	0	1	0	0	0	0	1	0	0	0.0%
Maximum	0	522	230	551	359	245	551	359	546	223	2,380	32.0%

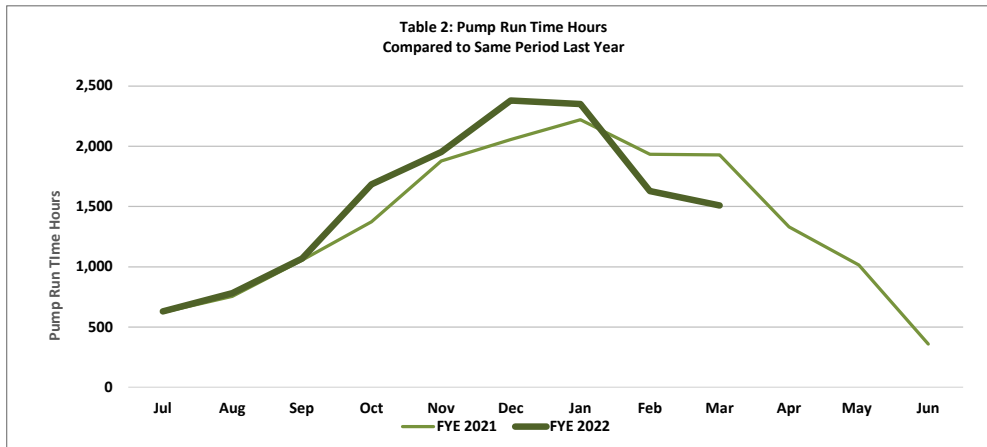
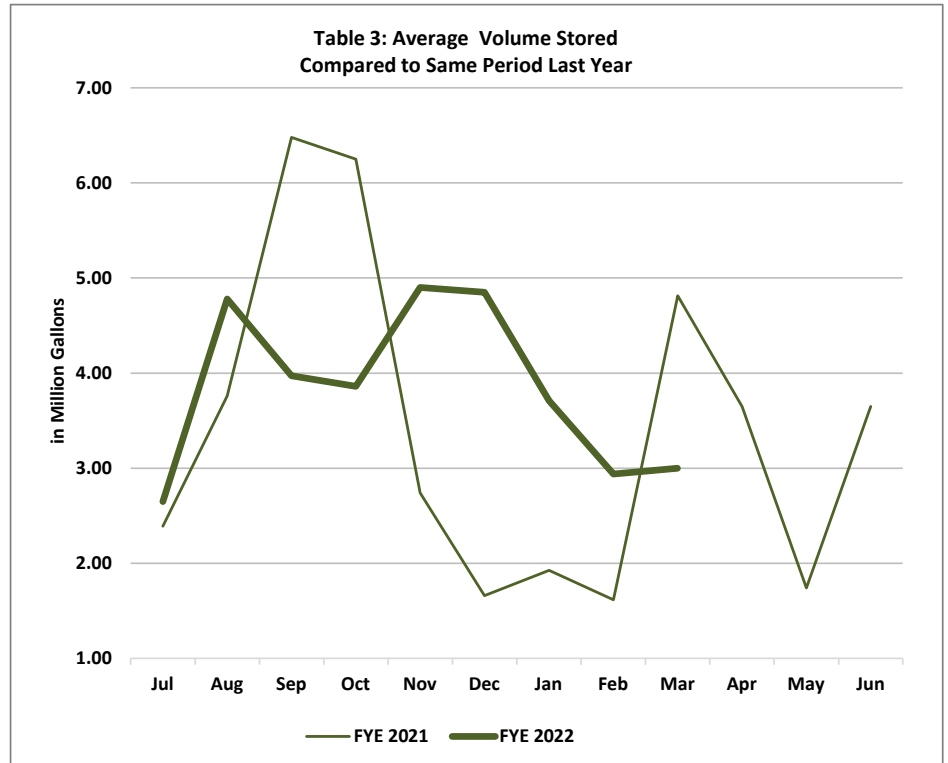


TABLE 3 - Monthly Average Storage Basin Levels and Volume

LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report

Month	Average Daily Volume			Average Volume Stored MG	Average Storage Available MG	Storage Basin Utilization %
	Basin No. 1	Basin No. 2	Basin No. 3			
	Feet	Feet	Feet			
Jul-21	2.17	0.22	3.19	2.65	18	14.7%
Aug-21	4.97	3.44	0.53	4.78	18	26.6%
Sep-21	4.19	2.35	1.08	3.97	18	22.1%
Oct-21	3.09	1.98	2.96	3.86	18	21.4%
Nov-21	1.56	1.78	5.97	4.90	18	27.2%
Dec-21	3.89	1.49	4.24	4.85	18	26.9%
Jan-22	3.81	0.32	3.47	3.71	18	20.6%
Feb-22	2.07	0.19	3.69	2.94	18	16.3%
Mar-22	2.95	0.20	2.98	3.00	18	16.7%
Apr-22					18	0.0%
May-22					18	0.0%
Jun-22					18	0.0%
Quarter						
Average	2.94	0.24	3.38	3.22		0.18
Minimum	2.07	0.19	2.98	2.94		0.16
Maximum	3.81	0.32	3.69	3.71		0.21
YTD						
Average	3.19	1.33	3.12	3.85		16.0%
Minimum	1.56	0.19	0.53	2.65		0.0%
Maximum	4.97	3.44	5.97	4.90		27.2%

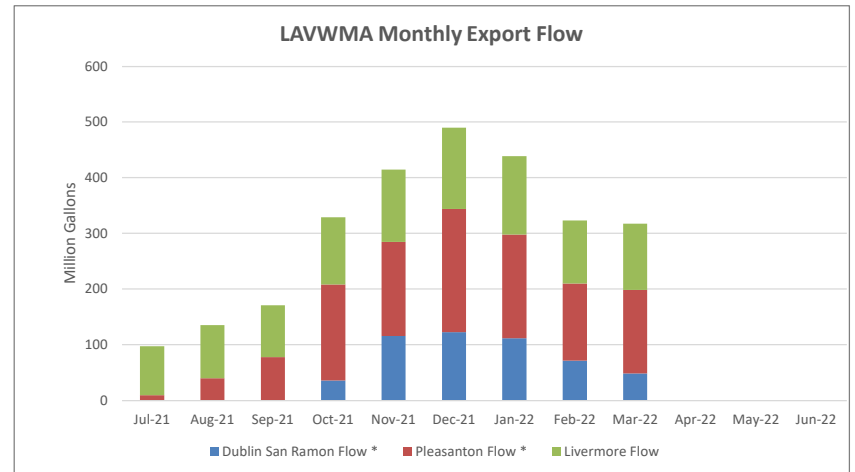
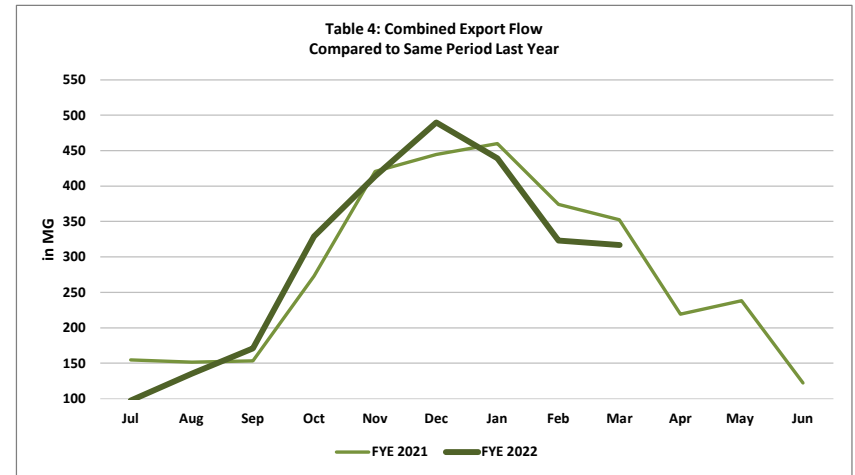


Note: Total available storage volume is 18 million gallons.

TABLE 4 - Monthly Export Flow

LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report
 Estimated Flow: 3,358 MG

Month	Dublin San Ramon	Pleasanton	Livermore	Combined Export	Total for Quarter
	Flow * MG	Flow * MG	Flow MG	Flow MG	
Jul-21	0.00	9.24	88.11	97.35	403.69
Aug-21	0.00	39.90	95.49	135.39	
Sep-21	0.00	77.99	92.97	170.96	
Oct-21	35.96	172.01	120.69	328.65	1,233.19
Nov-21	115.46	169.49	129.52	414.47	
Dec-21	122.90	221.07	146.09	490.06	
Jan-22	111.59	186.52	140.47	438.58	1,079.31
Feb-22	71.73	138.22	113.30	323.25	
Mar-22	48.25	150.44	118.79	317.48	
Apr-22	0.00	0.00			0.00
May-22	0.00	0.00			
Jun-22	0.00	0.00			
Quarter					
Total	231.58	475.17	372.56	1,079.31	
Average	77.19	158.39	124.19	359.77	
Minimum	48.25	138.22	113.30	317.48	
Maximum	111.59	186.52	140.47	438.58	
YTD					
Total	505.89	1,164.87	1,045.42	2,716.19	Budgeted Flow: 3,358 MG
Average	42.16	97.07	116.16	301.80	
Minimum	0.00	0.00	88.11	97.35	
Maximum	122.90	221.07	146.09	490.06	



* Monthly totals do not include flows diverted for recycling use by DERWA and Pleasanton.

TABLE 5 - Labor Effort, Expenditures, and Budget Utilization

LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report

FY Labor Budget \$968,151

Month -----	Billed	FTE Equiv -----	Labor Invoice -----	YTD	Budget Utilization -----	Labor	Export	
	Labor Hours -----			Labor Expense -----		Budget Remaining -----	MG	AF
Jul-21	353.5	2.0	\$59,266	\$59,266	6.1%	\$908,885	97.35	299
Aug-21	279.5	1.6	\$48,140	\$107,406	11.1%	\$860,745	135.39	416
Sep-21	256.2	1.5	\$43,940	\$151,346	15.6%	\$816,805	170.96	525
Oct-21	436.0	2.5	\$75,273	\$226,619	23.4%	\$741,532	328.65	1,009
Nov-21	323.5	1.9	\$55,760	\$282,379	29.2%	\$685,772	414.47	1,272
Dec-21	273.0	1.6	\$47,017	\$329,396	34.0%	\$638,755	490.06	1,504
Jan-22	189.0	1.1	\$38,367	\$367,763	38.0%	\$600,388	438.58	1,346
Feb-22	272.0	1.6	\$55,773	\$423,536	43.7%	\$544,615	323.25	992
Mar-22	274.5	1.6	\$55,139	\$478,675	49.4%	\$489,476	317.48	974
Apr-22								
May-22								
Jun-22								
QUARTER								
Total	735.5		\$149,279				1,079.31	3,313
Average	245.2	1.4	\$49,760				359.77	1,104
Minimum	189.0	1.1	\$38,367				317.48	974
Maximum	274.5	1.6	\$55,773				438.58	1,346
YTD								
Total YTD	2,657.2		\$478,675		49.4%	\$489,476	2,716.19	8,336
Average YTD	295.2	1.7	\$53,186				301.80	926
Minimum	189.0	1.1	\$38,367				97.35	299
Maximum	436.0	2.5	\$75,273				490.06	1,504

Notes:

TABLE 6 - O&M Expenditures and Budget Utilization

LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report

Total O&M Budget: **\$2,558,901**

Month	Labor Expenses	A/P Expenses	Total O&M Expenses	YTD O&M Expenses	Budget Utilization	O&M Budget Remaining	Overall O&M Cost		Export Flow	
							\$/MG	\$/AF	MG	AF
Jul-21	\$59,266	\$51,654	\$110,921	\$110,921	4.3%	\$2,447,980	\$1,139	\$371	97.35	299
Aug-21	\$48,140	\$102,505	\$150,645	\$261,566	10.2%	\$2,297,335	\$1,113	\$363	135.39	416
Sep-21	\$43,940	\$96,666	\$140,606	\$402,171	15.7%	\$2,156,730	\$822	\$268	170.96	525
Oct-21	\$75,273	\$75,803	\$151,076	\$553,247	21.6%	\$2,005,654	\$460	\$150	328.65	1,009
Nov-21	\$55,760	\$181,762	\$237,522	\$790,769	30.9%	\$1,768,132	\$573	\$187	414.47	1,272
Dec-21	\$47,017	\$98,370	\$145,388	\$936,156	36.6%	\$1,622,745	\$297	\$97	490.06	1,504
Jan-22	\$38,367	\$190,537	\$228,904	\$1,165,061	45.5%	\$1,393,840	\$522	\$170	438.58	1,346
Feb-22	\$55,773	\$198,131	\$253,904	\$1,418,965	55.5%	\$1,139,936	\$785	\$256	323.25	992
Mar-22	\$55,139	\$166,040	\$221,179	\$1,640,144	64.1%	\$918,757	\$697	\$227	317.48	974
Apr-22										
May-22										
Jun-22										
QUARTER										
Total	\$149,279	\$554,708	\$703,987				\$652	\$213	1,079.31	3,313
Average	\$49,760	\$184,903	\$234,662						359.77	1,104
Minimum	\$38,367	\$166,040	\$221,179				\$522	\$170	317.48	974
Maximum	\$55,773	\$198,131	\$253,904				\$785	\$256	438.58	1,346
YTD										
Total YTD	\$478,675	\$1,161,468	\$1,640,144		64.1%	\$918,757	\$604	\$197	2,716.19	8,336
Average YTD	\$53,186	\$129,052	\$182,238							
Minimum	\$38,367	\$51,654	\$110,921				\$297	\$97	97.35	299
Maximum	\$75,273	\$198,131	\$253,904				\$1,139	\$371	490.06	1,504

Notes:

a) A/P expenses dipped in December due to applied credit of \$89,058.20 to PG&E bill.

TABLE 7 - O&M Expenditures and Budget Utilization for Livermore Sole Use Facilities

LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report

Livermore Sole Use Facilities			
Month	Labor Expenses	A/P Expenses	Total Expenses
Jul-21	\$0	\$167	\$167
Aug-21	\$0	\$151	\$151
Sep-21	\$0	\$166	\$166
Oct-21	\$0	\$196	\$196
Nov-21	\$0	\$168	\$168
Dec-21	\$0	\$186	\$186
Jan-22	\$0	\$194	\$194
Feb-22	\$0	\$215	\$215
Mar-22	\$0	\$196	\$196
Apr-22			
May-22			
Jun-22			
<u>Quarter</u>			
Total	\$0	\$605	\$605
Average	\$0	\$202	\$202
Minimum	\$0	\$194	\$194
Maximum	\$0	\$215	\$215
<u>YTD</u>			
YTD Total	\$0	\$1,639	\$1,639
YTD Average	\$0	\$182	\$182
YTD Minimum	\$0	\$151	\$151
YTD Maximum	\$0	\$215	\$215

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES: GOODS & SERVICES

Current FY Period: 9

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 2021-2022	2021	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2022	TOTAL	Budget	
Labor																
Staff	\$968,151	\$59,266	\$48,140	\$43,940	\$75,273	\$55,760	\$47,017	\$38,367	\$55,773	\$55,139		\$0	\$0	\$0	\$478,675	\$726,113
Subtotal	\$968,151	\$59,266	\$48,140	\$43,940	\$75,273	\$55,760	\$47,017	\$38,367	\$55,773	\$55,139	\$0	\$0	\$0	\$478,675	\$726,113	
Materials & Supplies																
Operations Supplies	\$13,000	\$10	\$47	\$10	\$7	\$10	\$0	\$70	\$10	\$10				\$174	\$9,750	
Mechanical Supplies	\$25,000		\$1,039			\$3,723	\$724		\$524					\$6,011	\$18,750	
Electrical Supplies	\$59,400		\$3,177	\$540	\$1,776	\$2,398	\$12,097	\$52	\$11,347	\$9,956				\$41,343	\$44,550	
Subtotal	\$97,400	\$10	\$4,263	\$550	\$1,783	\$6,131	\$12,821	\$122	\$11,881	\$9,966	\$0	\$0	\$0	\$47,528	\$73,050	
Laboratory Analysis																
Compliance Testing	\$10,000	\$792	\$792	\$990	\$792	\$792	\$990	\$792	\$792	\$990				\$7,722	\$7,500	
Operational Support Testing	\$4,000	\$366	\$366	\$366	\$366	\$366	\$366	\$366	\$366	\$366				\$3,294	\$3,000	
Special Sampling	\$22,000	\$1,288	\$1,610	\$1,288	\$1,288	\$1,610	\$1,288	\$1,288	\$1,288	\$1,610				\$12,558	\$16,500	
Subtotal	\$36,000	\$2,446	\$2,768	\$2,644	\$2,446	\$2,768	\$2,644	\$2,446	\$2,446	\$2,966	\$0	\$0	\$0	\$23,574	\$27,000	
Contractual Services																
Sub-surface Repairs	\$15,000													\$0	\$11,250	
Street Sweeping	\$5,000		\$500	\$400	\$400	\$500	\$300		\$1,000					\$3,100	\$3,750	
Cathodic Protection Survey & Repairs	\$30,000													\$0	\$22,500	
Underground Service Alert	\$4,500		\$896											\$896	\$3,375	
SCADA software maintenance contract	\$17,000	\$5,029												\$5,029		
Remote monitoring annual service for PS and Rec	\$5,000													\$0		
Med voltage switchgear 3-yr PM (FY22, \$18k)	\$20,000													\$0		
HVAC Maintenance/Repairs	\$750													\$0	\$563	
Termite/Pest Control	\$900													\$0	\$675	
Landscape/weed maintenance	\$10,000				\$2,941				\$6,862					\$9,802	\$7,500	
Janitorial Service	\$9,500		\$1,220		\$425			\$1,275		\$850				\$3,770	\$7,125	
Fire Extinguisher Maintenance	\$200													\$0	\$150	
Postage/Shipping Charges	\$0													\$0	\$0	
Professional Services, misc	\$30,000			\$876			\$922	\$1,005	\$922					\$3,726	\$22,500	
Subtotal	\$147,850	\$5,029	\$2,616	\$1,276	\$3,766	\$500	\$1,222	\$2,280	\$8,784	\$850	\$0	\$0	\$0	\$26,324	\$110,888	
Utilities																
Electricity (PG&E)	\$1,301,600	\$43,818	\$92,858	\$91,816	\$67,808	\$171,817	\$81,683	\$185,245	\$175,020	\$151,847				\$1,061,911	\$976,200	
Water & Sewer (Pleasanton)	\$900	\$154		\$163		\$341		\$238		\$199				\$1,094	\$675	
Water (EBMUD)	\$1,000	\$197		\$217		\$206		\$206		\$212				\$1,038	\$750	
Telephone/communications	\$6,000													\$0	\$4,500	
WW Treatment (DSRSD)	\$0													\$0	\$0	
Subtotal	\$1,309,500	\$44,169	\$92,858	\$92,196	\$67,808	\$172,363	\$81,683	\$185,689	\$175,020	\$152,257	\$0	\$0	\$0	\$1,064,043	\$982,125	
Non-Routine																
	\$0													\$0	\$0	
	\$0													\$0	\$0	
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Monthly Total		\$110,921	\$150,645	\$140,606	\$151,076	\$237,522	\$145,388	\$228,904	\$253,904	\$221,179	\$0	\$0	\$0	\$1,640,144	\$1,919,176	
YTD Total	\$2,558,901	\$110,921	\$261,566	\$402,171	\$553,247	\$790,769	\$936,156	\$1,165,061	\$1,418,965	\$1,640,144	\$1,640,144	\$1,640,144	\$1,640,144			
Combined Export Flow, mg	3358	97	135	171	329	414	490	439	323	317				2,716	2,519	
Pumping Efficiency		54.2%	52.1%	60.1%	63.5%	67.1%	65.7%									
Monthly Cost, \$/mg		\$1,139	\$1,113	\$822	\$460	\$351	\$485	\$522	\$785	\$697						
YTD Running Cost, \$/mg	\$762							\$589	\$617	\$626				\$604		

Q2 Notes:

a) December PG&E bill for Feeder B includes \$89,058.20 credit

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES: LABOR

Current FY Period: 9

ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M														
FY 2021-2022	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	YTD TOTAL	YTD Budget
<i>Estimated Personnel Hours</i>														
Division 50 - Ops Admin	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Division 51 - FOD	40	-	-	-	-	-	-	-	-	-	-	-	-	30.00
Water/Wastewater Sys Lead Op	0													-
Water/Wastewater Sys OP IV-On Call	0													-
Water/Wastewater Sys OP IV	30													22.50
Water/Wastewater Sys OP III	0													-
Water/Wastewater Sys OP II	10													7.50
Maintenance Worker	0													-
Supervisor	0													-
Division 52 - WWTP	3,080	180.50	123.50	127.19	283.00	144.50	93.50	59.00	130.00	72.00	-	-	1,213.19	2,310.00
Process Lead Operator IV/V	150			2.50				8.00					10.50	112.50
Senior WWTP Operator III	720	22.50	22.00	23.00	126.00	39.00	29.50	29.00	55.50	22.00			368.50	540.00
Operator In Training	400												-	300.00
Operator II	1,700	158.00	101.50	104.19	154.50	105.50	64.00	30.00	66.50	50.00			834.19	1,275.00
Operator II (SLSS)	0												-	-
Operations Superintendent	110												-	82.50
Division 53 - MECH	1,230	129.50	126.50	95.50	124.00	142.50	113.00	76.50	131.50	178.50	-	-	1,117.50	922.50
Senior Mechanic-Crane Cert	60	43.50	47.50	32.00	28.00	42.00	35.50	44.50	57.50				353.50	45.00
Senior Mechanic - USA	80	1.50		1.00	7.00		7.50	9.50	4.00				30.50	60.00
Maintenance Worker	60												-	45.00
Mechanic I/II	980	18.00			12.00	23.00	11.00	4.00	9.00	30.50			107.50	735.00
Mechanic II-Crane Cert	0	44.50	50.00	48.50	54.00	57.50	18.50	59.50	72.50				450.50	-
Mechanic I/II - USA	0						4.00		1.00				5.00	-
Mechanic II-Crane Cert - USA	0	22.00	29.00	14.00	23.00	20.00	5.00	14.50	17.00				170.50	-
Supervisor	50												-	37.50
Division 54 - ELEC	1,130	43.50	28.00	31.00	24.50	34.00	51.50	8.00	23.50	-	-	-	301.00	847.50
Senior Instrument/Controls Tech	30					15.00	8.00	4.00	4.00				31.00	22.50
Instrumentation & Controls Tech I/II	300	2.50	28.00	20.00	24.50	32.00	43.50	4.00	2.50				199.00	225.00
OPS Control Sys Spec	300												-	225.00
Senior Electrician	30	13.00		4.00					8.00				25.00	22.50
Electrician I/II	440	27.00		5.00		2.00			8.00				42.00	330.00
Principal Eletrical Engineer	30	1.00		2.00					1.00				4.00	22.50
Division 26 - SAFETY	60	-	-	-	-	-	-	-	-	-	-	-	-	45.00
Safety Officer	60	-	-	-	-	-	-	-	-	-	-	-	-	45.00
Division 40 - ENG	260	-	1.50	2.50	4.50	2.50	9.50	2.00	2.50	0.50	-	-	25.50	195.00
Senior Engineer-Supervisory	0												-	-
Associate/Senior Civil Engineer-SME	100		1.50	2.50	4.50	2.50	9.50	2.00	2.50	0.50			25.50	75.00
Construction Inspector I	80												-	60.00
Engineering Technician II	40												-	30.00
GIS Analyst	40												-	30.00
Total Estimated Personnel Hours	5,800													
FTE	2.8													
Total Monthly Hours	353.50	279.50	256.19	436.00	323.50	273.00	189.00	272.00	274.50	-	-	-	2,657.19	4,350.00

Notes: Senior Mechanic position is missing under Division 53. Hours charged to this position are entered under Senior Mechanic-Crane Cert

Enter only numerical data in the result columns and only qualifiers in the qualifier columns. Any other comments should go in the corresponding cell on the Comments tab.

Parameter	Flow	CBOD	TSS	pH	pH	Total Residual Chlorine	Total Residual Chlorine	Fecal Coliforms	Enterococci
Units	MGD	mg/L	mg/L	SU	SU	mg/L	mg/L	MPN/100mL	MPN/100mL
Test Method	Daily Average (M)	SM 5210 B-2011	SM 2540 D-2011	SM 4500-H+B-2011	SM 4500-H+B-2011	Daily Average (N)	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		3.0	4.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
1/1/2022	16.42			7.46	7.56	9.378	0.001		
1/2/2022	17.75			7.44	7.56	7.712	0.001		
1/3/2022	15.73			7.48	7.56	6.092	0.001		
1/4/2022	17.04			7.48	7.56	8.808	0.001	<2	<10
1/5/2022	14.15	10	10.7	7.46	7.59	8.167	0.001		
1/6/2022	15.59			7.46	7.53	5.765	0.001		
1/7/2022	13.73			7.48	7.55	2.974	0.001		
1/8/2022	16.96			7.49	7.57	2.763	0.001		
1/9/2022	13.07			7.49	7.57	2.812	0.001		
1/10/2022	17.38			7.44	7.56	2.845	0.001		
1/11/2022	11.44			7.48	7.61	3.288	0.001	50	<10
1/12/2022	13.15	7.4	9.4	7.49	7.62	4.585	0.001		
1/13/2022	13.89			7.53	7.61	3.755	0.001		
1/14/2022	13.61			7.53	7.63	3.610	0.001		
1/15/2022	15.22			7.53	7.65	3.573	0.001		
1/16/2022	16.84			7.55	7.62	4.015	0.001		
1/17/2022	14.34			7.51	7.63	4.134	0.001		
1/18/2022	13.98			7.53	7.66	4.886	0.001	2	<10
1/19/2022	14.23	15.8	16.6	7.49	7.66	5.619	0.001		
1/20/2022	13.61			7.49	7.63	5.563	0.001		
1/21/2022	13.28			7.49	7.60	4.500	0.001		
1/22/2022	12.90			7.49	7.59	4.684	0.001		
1/23/2022	13.75			7.44	7.60	4.621	0.001		
1/24/2022	11.95			7.47	7.60	3.944	0.001		
1/25/2022	13.42			7.49	7.58	3.642	0.046	7	10
1/26/2022	12.91	7.4	8.7	7.51	7.61	3.707	0.040		
1/27/2022	13.95			7.53	7.63	3.167	0.022		
1/28/2022	12.21			7.53	7.65	3.596	0.011		
1/29/2022	12.15			7.51	7.65	3.763	0.002		
1/30/2022	12.06			7.51	7.65	3.519	0.001		
1/31/2022	11.86			7.55	7.65	3.515	0.001		

Note:
 Column E - pH Minimum; online
 Column F - pH Maximum; online



Enter only numerical data in the result columns and only qualifiers in the qualifier columns. Any other comments should go in the corresponding cell on the Comments tab.

Parameter	Flow	CBOD	TSS	pH	pH	Total Residual Chlorine	Total Residual Chlorine	Fecal Coliforms	Enterococci
Units	MGD	mg/L	mg/L	SU	SU	mg/L	mg/L	MPN/100mL	MPN/100mL
Test Method	Daily Average (M)	SM 5210 B-2011	SM 2540 D-2011	SM 4500-H+B-2011	SM 4500-H+B-2011	Daily Average (N)	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		3.0	4.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
2/1/2022	13.21			7.56	7.67	4.462	0.001		
2/2/2022	13.80	10.2	9.7	7.56	7.72	4.455	0.005	<2	<10
2/3/2022	11.81			7.53	7.65	3.363	0.021		
2/4/2022	13.12			7.55	7.66	2.482	0.009		
2/5/2022	14.49			7.58	7.69	1.947	0.005		
2/6/2022	12.12			7.56	7.70	1.987	0.004		
2/7/2022	11.49			7.54	7.67	2.349	0.005		
2/8/2022	13.74			7.54	7.66	2.564	0.004	<2	<10
2/9/2022	13.01	6.5	9.7	7.55	7.71	2.931	0.004		
2/10/2022	10.60			7.47	7.64	2.686	0.001		
2/11/2022	11.16			7.45	7.61	2.971	0.001		
2/12/2022	12.31			7.49	7.61	3.328	0.002		
2/13/2022	10.81			7.47	7.58	4.648	0.002		
2/14/2022	11.55			7.51	7.61	3.967	0.002		
2/15/2022	12.83			7.55	7.64	3.935	0.003	<2	<10
2/16/2022	10.86	9.5	9.7	7.47	7.62	2.671	0.003		
2/17/2022	9.49			7.45	7.57	3.245	0.002		
2/18/2022	11.09			7.47	7.60	4.265	0.004		
2/19/2022	9.98			7.47	7.60	3.929	0.005		
2/20/2022	8.36			7.50	7.60	3.125	0.003		
2/21/2022	10.01			7.48	7.60	2.740	0.004		
2/22/2022	11.84			7.49	7.60	2.650	0.005	<2	<10
2/23/2022	11.75	8.8	11.0	7.51	7.61	3.160	0.005		
2/24/2022	12.74			7.47	7.62	4.504	0.004		
2/25/2022	10.90			7.44	7.60	3.075	0.004		
2/26/2022	8.37			7.46	7.60	3.738	0.003		
2/27/2022	8.60			7.44	7.57	3.128	0.003		
2/28/2022	13.21			7.39	7.55	3.024	0.003		

Note:
 Column E - pH Minimum; online
 Column F - pH Maximum; online

Enter only numerical data in the result columns and only qualifiers in the qualifier columns. Any other comments should go in the corresponding cell on the Comments tab.

Parameter	Flow	CBOD	TSS	pH	pH	Total Residual Chlorine	Total Residual Chlorine	Fecal Coliforms	Enterococci
Units	MGD	mg/L	mg/L	SU	SU	mg/L	mg/L	MPN/100mL	MPN/100mL
Test Method	Daily Average (M)	SM 5210 B-2011	SM 2540 D-2011	SM 4500-H+B-2011	SM 4500-H+B-2011	Daily Average (N)	Daily Average	SM 9221 C,E-2006	Enterolert
MDL									
RL		3.0	4.5					2	10
Location	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	LAVWMA-EXP	SLSS	SLSS	SLSS
3/1/2022	11.77			7.42	7.56	2.452	0.003	50	<10
3/2/2022	8.61	6.6	8.4	7.44	7.56	2.864	0.002		
3/3/2022	11.47			7.48	7.56	3.063	0.002		
3/4/2022	9.33			7.49	7.61	2.480	0.002		
3/5/2022	9.71			7.51	7.60	2.585	0.002		
3/6/2022	11.71			7.49	7.61	2.660	0.001		
3/7/2022	12.47			7.34	7.65	2.398	0.001		
3/8/2022	11.14			7.47	7.60	3.134	0.001	13	<10
3/9/2022	9.35	6.0	9.4	7.51	7.64	4.919	0.001		
3/10/2022	9.57			7.46	7.61	4.015	0.001		
3/11/2022	11.25			7.48	7.62	4.297	0.001		
3/12/2022	10.94			7.49	7.64	4.882	0.001		
3/13/2022	8.15			7.46	7.59	5.163	0.001		
3/14/2022	10.17			7.47	7.68	5.304	0.001		
3/15/2022	10.59			7.44	7.55	5.215	0.001	4	<10
3/16/2022	9.96	6.3	10.7	7.42	7.61	4.726	0.001		
3/17/2022	9.28			7.47	7.56	4.261	0.001		
3/18/2022	9.87			7.45	7.57	4.467	0.001		
3/19/2022	9.53			7.44	7.56	4.110	0.001		
3/20/2022	9.55			7.48	7.57	3.892	0.001		
3/21/2022	11.18			7.44	7.61	3.567	0.001		
3/22/2022	11.08			7.37	7.50	3.175	0.001	22	<10
3/23/2022	11.97	5.5	8.7	7.37	7.59	2.691	0.001		
3/24/2022	10.59			7.40	7.58	2.666	0.001		
3/25/2022	8.30			7.47	7.57	2.464	0.001		
3/26/2022	8.43			7.48	7.61	2.614	0.001		
3/27/2022	9.27			7.47	7.56	2.461	0.001		
3/28/2022	9.24			7.44	7.59	1.829	0.001		
3/29/2022	11.01			7.47	7.58	2.699	0.001	30	<10
3/30/2022	11.06	10.7	9.5	7.42	7.60	2.597	0.001		
3/31/2022	10.90			7.41	7.52	2.148	0.001		

Note:
 Column E - pH Minimum; online
 Column F - pH Maximum; online

*DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY*

LAVWMA - 1st Quarter 2022

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (°C)	Ca Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	pH (Actual)	pH Saturation	Langlier Index
01/11/22	754	19.6	128	372	7.5	7.2	0.2
02/08/22	728	18.7	126	376	7.4	7.2	0.2
03/22/22	732	20.6	116	328	7.4	7.3	0.1
MAXIMUM	754	20.6	128	376	7.5	7.3	0.2
MINIMUM	728	18.7	116	328	7.4	7.2	0.1
AVERAGE	738	19.6	123	359	7.4	7.3	0.2

*DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY*

DSRSD - 1st Quarter 2022

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (°C)	Ca Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	pH (Actual)	pH Saturation	Langlier Index
01/11/22	772	19.3	150	380	7.6	7.2	0.4
02/08/22	819	19.8	153	388	7.2	7.1	0.1
03/22/22	774	21.4	132	358	7.5	7.2	0.3
MAXIMUM	819	21.4	153	388	7.6	7.2	0.4
MINIMUM	772	19.3	132	358	7.2	7.1	0.1
AVERAGE	788	20.2	145	375	7.4	7.2	0.3

TABLE 10

**CITY OF LIVERMORE
LIVERMORE WATER RECLAMATION PLANT**

Langelier pH Saturation Index

Collection DATE	TDS (mg/L)	Temp (°C)	Ca Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	pH (Actual)	pH Saturation	Langlier Index
01/06/22	633	19.0	79	351	7.6	7.6	0.0
02/02/22	650	18.0	83	369	7.6	7.5	0.0
03/04/22	630	19.0	82	333	7.6	7.6	0.0
MAXIMUM	650	19.0	83	369	7.6	7.6	0.0
MINIMUM	630	18.0	79	333	7.6	7.5	0.0
AVERAGE	638	18.7	81	351	7.6	7.6	0.0

LAVWMA Action Item List

Month: May-22

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for May/June 2022 LAVWMA Board Meeting.	SAG	NA	May 18, 2022 Meeting cancelled due to COVID issues and will be rescheduled. May 11, 2022 SAG meeting also cancelled and will be rescheduled. Primary items the FY2022/23 O&M and Capital Project Budget and updates on current capital projects.	
Operations Coordination Committee Task	Responsible Party	Due Date	Status	Completion Date
FYE21 Replacement Projects: See Items Below	Weir/Zavadil/Delight	Various dates	Refer to information below.	
MCC and Soft Starter Replacement Project. Carryover from FYE20 and into FYE21. Estimated design cost \$250,000. Project now includes Electrical Improvements to the Main Switchgear at the Pump Station. Total estimated cost \$2,300,000 - \$2,500,000.	Weir/Atendido	12/31/2021	Project is nearly complete. Remaining items are all punch list related and include some programming of instrumentation and controls. Anticipate completion before the end of this fiscal year.	Expected by 6/30/22
Purchase Three New Pumps and Rebuild Two Associated Motors. Estimated cost has increased to \$460,000	Weir/Quinlan	9/30/2022	A second submittal was received and reviewed by the design engineer. The last item to be included is the testing procedure. Once that is received the actual manufacture of the pumps can proceed.	9/30/2022
Resealing of all Three Storage Basins. Estimated cost \$200,000	Quinlan	12/31/2020	Project is complete. Some issues due to water getting under some of the seal areas. Area has been cleaned and all three basins are in service and will be fine through the winter. Solutions will be reevaluated after wet weather.	6/30/2021
San Leandro Sample Station Design Improvements. Estimated cost \$1,000,000 plus engineering costs of \$230,000 for a total of \$1,230,000	Weir	10/30/2022	The 75% design drawings, revised cost estimate, and technical specs were received May 9, 2022 and are under review by DSRSD staff. Livermore and Pleasanton are also welcome to review and comment.	10/30/2022
Road Drainage Improvements at the Pump Station. Estimated cost \$35,000	TBD	12/31/2020	To be combined with similar projects at DSRSD.	
Cathodic Protection Projects. Estimated cost \$185,000	Weir/Atendido	12/31/2020	Corrpro has completed most items that did not require any excavation. Permits have been received for three projects needing excavation and were provided to Corrpro. No word from Corrpro in the last several months.	
PLC Upgrade at the Pump Station. Estimated cost \$300,000	TBD	6/30/2021	Will be included in DSRSD SCADA project, which is design build. Project has begun. Scoping meetings with staff have been held and the project is still in development.	
Pipeline Inspection. Estimated cost \$100,000	TBD	6/30/2021	Scope will be based on the results and recommendations of the HydroScience (National Plant Services) inspection project. Inspection site selection will begin soon. A planning meeting with DRSD staff was held in early November. The project will likely occur after the rainy season.	
Smart Detectors on High Maintenance Air/Vac and Air Release Valves. Estimated cost \$40,000	TBD	6/30/2021	The smart detectors are intended to help prevent leaks from the valves along the forcemain system. Three have been installed for testing and have proven to be beneficial. Three additional units have been installed.	
Rewiring the actuators on the pump deck. Estimated cost \$50,000.	Atendido	12/31/2021	Royal Electric provided a change order estimate of \$10,500, which has been issued.	
Other Items				
Wet Weather Issues	Sevilla	10/31/2020	DSRSD Operations successfully managed the storm on October 24 and 25, 2021. The basins were emptied in advance of the storm. Both MCCs happened to be available. A maximum of seven pumps were run to send flow to EBDA. Operations has indicated that had MCC-P1 not been available they still would have been able to manage the storm through a combination of pumping and storage.	
Live test of SLSS system	Sevilla/Atendido	TBD	A test was conducted on November 3, 2021. There were no significant issues encountered during the test. The SLSS design engineer was on site and gathered valuable information that will assist in the upgrade design.	
Live test of Alamo Canal discharge during wet weather	Carson/Sevilla	TBD	Test postponed due to COVID-19. Was planning on this winter, but will likely be delayed until 2022 due to COVID-19.	
Wet Well Isolation Gates	Quinlan	6/30/2019	Gate is in good shape but won't fully close. No date set, perhaps this winter.	
EBDA Enterococcus Issue	Sevilla		No issues at this time.	
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	No issues at this time. PG&E switched Feeder B back to the old rate schedule and overcharged \$89,000, which has been credited back to LAVWMA.	

