# LAVWMA

QUARTERLY REPORT OF OPERATIONS FY 2021-2022, 1st Quarter

Prepared by

Dublin San Ramon Services District

*Water, wastewater, recycled water*

# QUARTERLY REPORT OF OPERATIONS
# LAVWMA PUMPING AND CONVEYANCE SYSTEM
### 1st Quarter FY 2021-2022: July to September 2021

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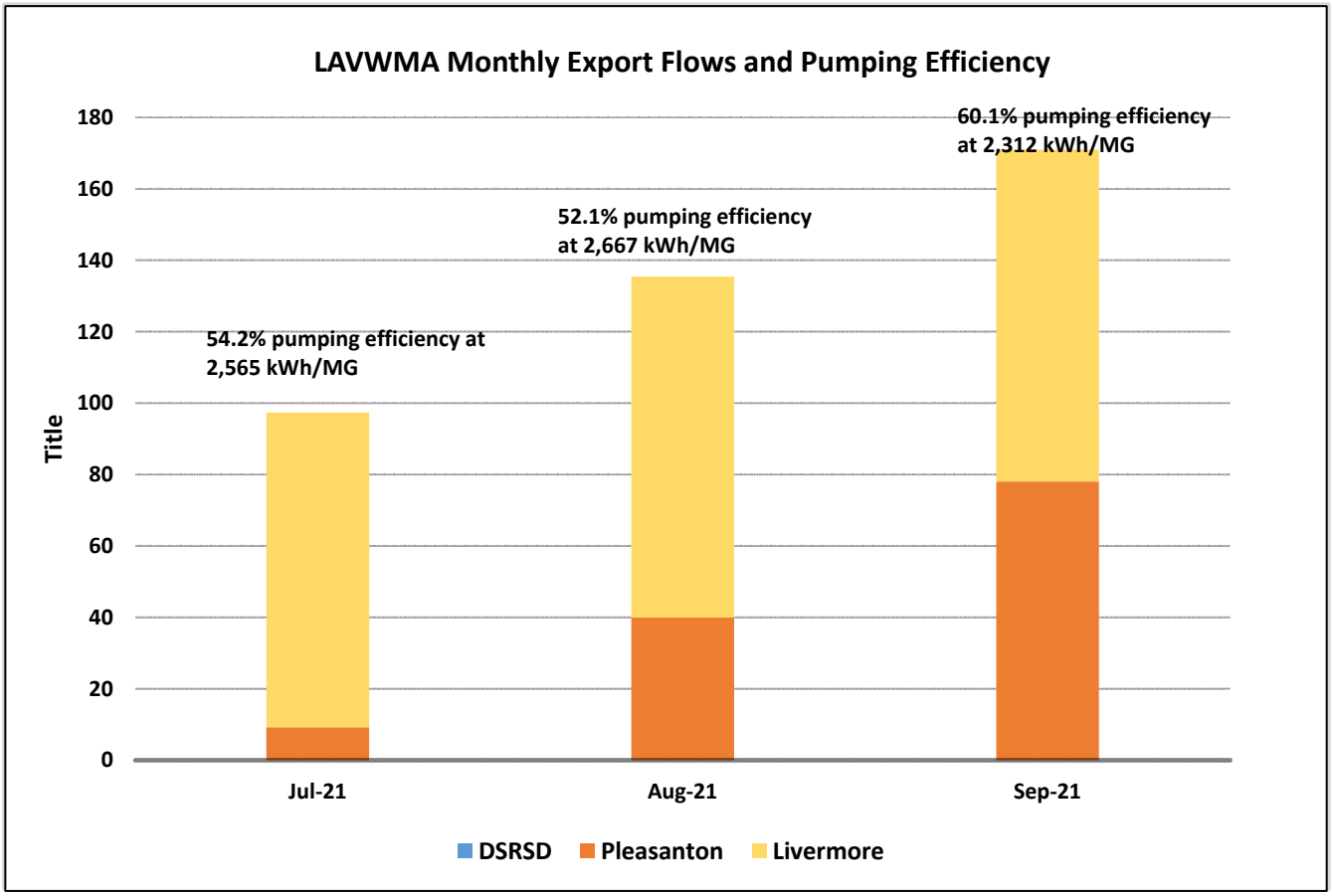
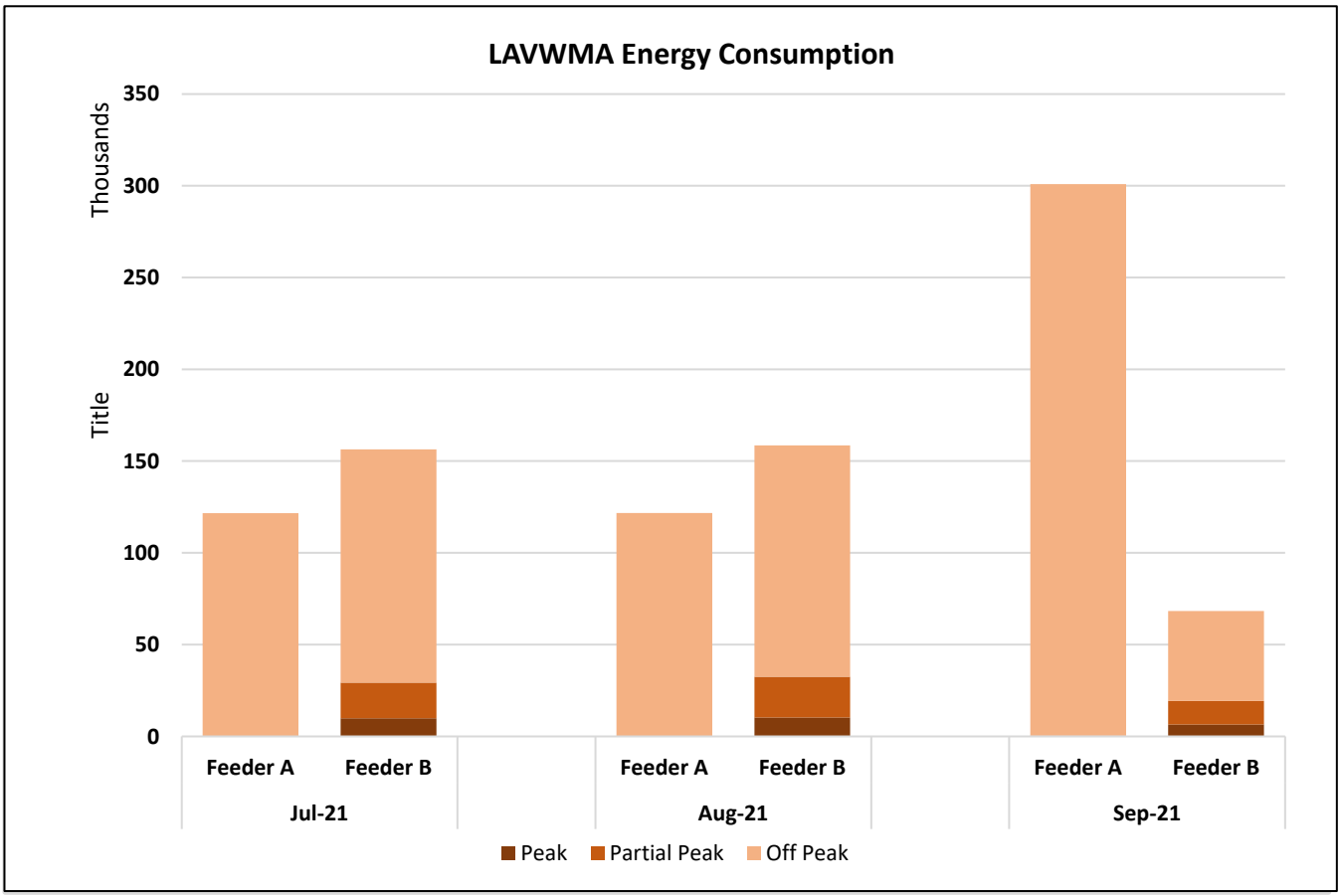
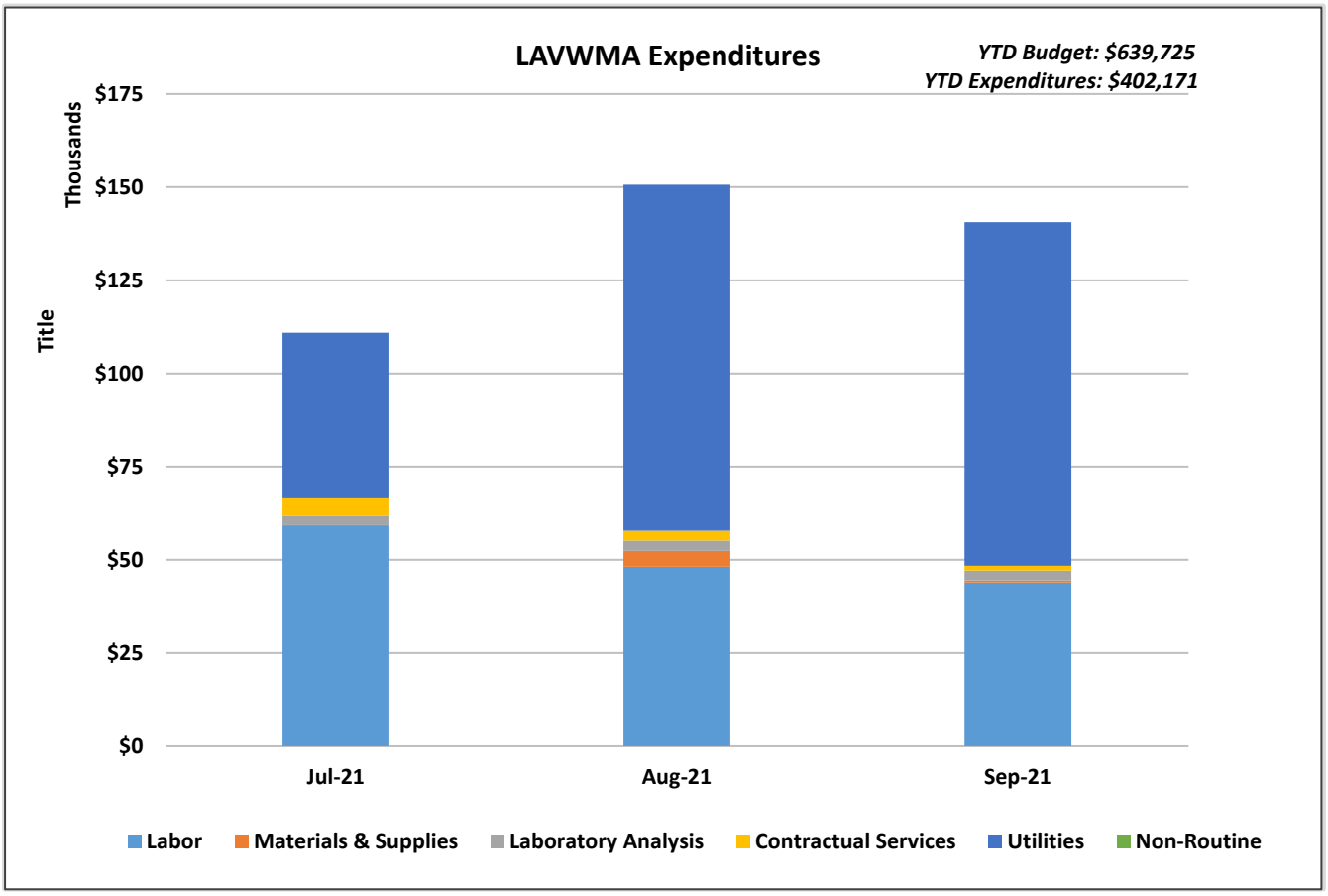
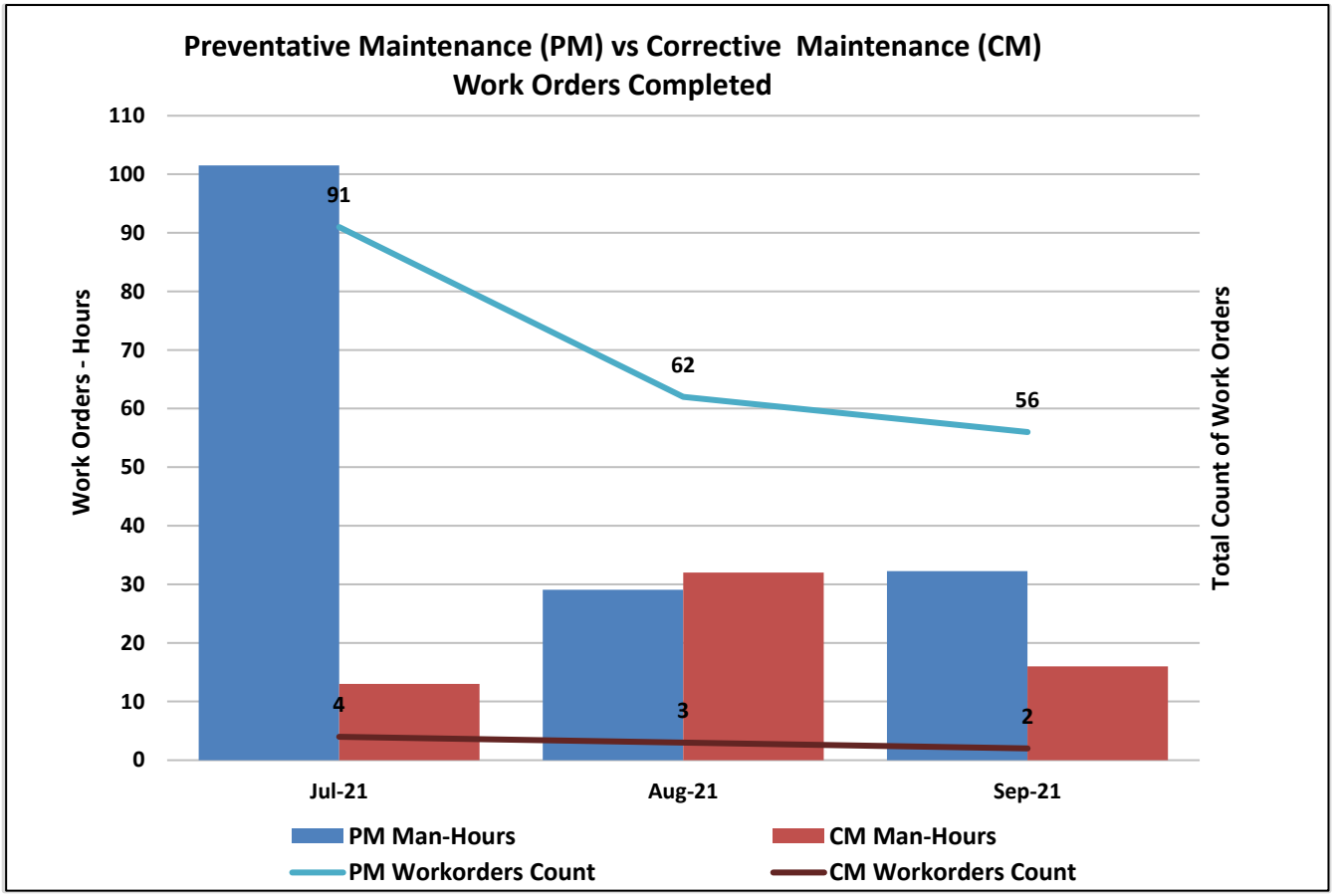

LAVWMA Monthly Export Flows and Pumping Efficiency
180
160
140
120
100
80
60
40
20
0
Title
54.2% pumping efficiency at 2,565 kWh/MG
52.1% pumping efficiency at 2,667 kWh/MG
60.1% pumping efficiency at 2,312 kWh/MG
Jul-21
Aug-21
Sep-21
DSRSD
Pleasanton
Livermore


LAVWMA Energy Consumption
Thousands
350
300
250
200
150
100
50
0
Title
Feeder A
Feeder B
Jul-21
Feeder A
Feeder B
Aug-21
Feeder A
Feeder B
Sep-21
Peak
Partial Peak
Off Peak


LAVWMA Expenditures
YTD Budget: $639,725
YTD Expenditures: $402,171
Thousands
Title
$175
$150
$125
$100
$75
$50
$25
$0
Jul-21
Aug-21
Sep-21
Labor
Materials & Supplies
Laboratory Analysis
Contractual Services
Utilities
Non-Routine


Preventative Maintenance (PM) vs Corrective Maintenance (CM)
Work Orders Completed
Work Orders - Hours
Total Count of Work Orders
110
100
90
80
70
60
50
40
30
20
10
0
91
62
56
4
3
2
Jul-21
Aug-21
Sep-21
PM Man-Hours
CM Man-Hours
PM Workorders Count
CM Workorders Count

**QUARTERLY REPORT OF OPERATIONS**
**LAVWMA PUMPING AND CONVEYANCE SYSTEM**
***1st Quarter FY 2021-2022: July to September 2021***

## 1. EXECUTIVE SUMMARY

The Livermore-Amador Valley Water Management Agency (LAVWMA) pumping and effluent conveyance system operated normally during the first quarter of FY 2021-2022. During the quarter, a total of 403.69 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 56%, with an average electrical cost of $641 per million gallons, or $209 per acre-foot.

## 2. OPERATIONS

Of the 403.69 million gallons of effluent conveyed through the LAVWMA system for the fiscal year to date, approximately 277 million gallons was from the City of Livermore, 127 million gallons from City of Pleasanton and none 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.

Operators successfully managed the least number of pumps in service each month during PG&E Time-of-Use Summer Peak corresponding to the volume of treated water pumped to the Bay via EBDA.

PG&E's new Time of Use Schedule took effect on March 1, 2021. The new schedule includes a peak demand period from 4:00 - 9:00 p.m. every day of the year. In addition, there is a partial peak period from 2:00 - 4:00 p.m. and 9:00 - 11:00 p.m. during the summer period from June 1 to September 30. Operations staff were successful in not pumping during both the partial peak and peak periods.

Unfortunately, PG&E inexplicably reverted to the old schedule for Feeder B during the months of May – August, 2020. PG&E has corrected this error and has credited the account $89,058.20. The PG&E cost data shown in the Table 1 does not yet reflect that credit. The table will be updated in the second quarter report.

## 3. MAINTENANCE

During the quarter, 163 hours were spent to complete 209 preventative maintenance work orders and 61 hours to complete 9 corrective maintenance work orders on LAVWMA equipment and systems.

The following are some noteworthy maintenance activities during the quarter:

Electrical:

- LAVWMA PS MCC Replacement construction support
- LAVWMA SLSS Rehab design support

Instrumentation and Controls:

- Repaired the LAVWMA PS chlorine analyzer
- Continuing the planning and design of the upgrade of remote monitoring devices for all remote rectifier panels. The new system is to replace Samsara.

- Continuing the planning and design of the web interface to allow 3rd party agencies to see LAVWMA PS data remotely. The new system is to replace Samsara.
- Modified SCADA trends per Ops requests to add additional data for monitoring (levels, line pressures)
- LAVWMA PS MCC Replacement construction support
- Corrected a problem with the iFIX Alarms & Events database which was causing some applications to lock up
- LAVWMA SCADA server upgrade (VM and Windows Server OS)
- LAVWMA SLSS Rehab design support
- Confirmed that the TOU change to Fall/Winter worked on October 1st.

Mechanical:

- The 30" flow control valve that controls flow to EBDA had a sump pump failure in the valve vault causing flooding in the vault which submerged the actuator and drive motor mechanical replaced the sump pump and contacted city of San Leandro to make repairs on water sprinkler system that failed creating the excess water intrusion to vault.

## 5. BUDGET VARIANCE AND EXPENSES

First quarter labor expenses totaled $151,346 for 889 man-hours of effort, an average of 1.7 full time equivalents (FTEs). O&M expenses for the quarter including labor, supplies, laboratory analysis, contractual services, and utilities totaled $402,171 for an average cost of $966 per million gallons pumped or $325 per acre-foot. The total expense for the Livermore sole use pipeline for the quarter was $484.

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 three PG&E peak day pricing events that affected the LAVMWA facilities during the quarter on the following dates: July 29, August 12, and September 8.

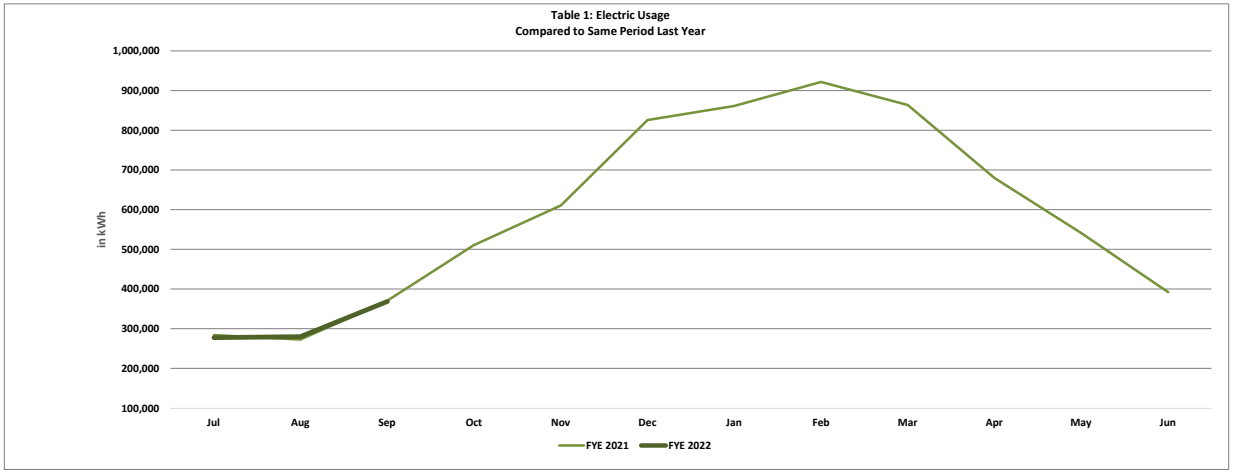
## 6. CAPITAL PROJECTS

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

**LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report**

| | PG&E Service Accounts: Rate Schedule B20 starting March 2021 | | | | | | | | | | | | | | Total | Pumping | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Acct # 8482061923-1 Service A | | | | | Acct # 8440395259-5 Service B | | | | | Billing | Total | | | Export | Energy | Cost | | Efficiency |
| Month | kWh | Peak | Partial Peak | Off Peak | $ | kWh | Peak | Partial Peak | Off Peak | $ | Days | kWh | $/kWh | $ | Flow[1] 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 | | | | | | | | | | | | | | | | | | | |
| Nov-21 | | | | | | | | | | | | | | | | | | | |
| Dec-21 | | | | | | | | | | | | | | | | | | | |
| Jan-22 | | | | | | | | | | | | | | | | | | | |
| Feb-22 | | | | | | | | | | | | | | | | | | | |
| Mar-22 | | | | | | | | | | | | | | | | | | | |
| Apr-22 | | | | | | | | | | | | | | | | | | | |
| May-22 | | | | | | | | | | | | | | | | | | | |
| Jun-22 | | | | | | | | | | | | | | | | | | | |
| **Quarter** | | | | | | | | | | | | | | | | | | | |
| Average | 181,404 | | | | $39,177 | 127,731 | | | | $39,300 | 31 | 309,134 | $0.25 | $78,477 | 124 | 2,515 | **$641** | **$209** | **55.5%** |
| Total | 544,211 | | | | $117,532 | 383,192 | | | | $117,900 | 92 | 927,403 | | $235,432 | 373 | 7,545 | | | |
| Minimum | 121,614 | | | | $26,843 | 68,264 | | | | $31,359 | 30 | 277,975 | $0.25 | $70,019 | 105 | 2,312 | $572 | $186 | 52.1% |
| Maximum | 300,902 | | | | $60,010 | 158,567 | | | | $43,366 | 32 | 369,166 | $0.27 | $91,368 | 160 | 2,667 | $683 | $223 | 60.1% |
| **YTD** | | | | | | | | | | | | | | | | | | | |
| Average | 181,404 | | | | $39,177 | 127,731 | | | | $39,300 | 31 | 309,134 | $0.25 | $78,477 | 124 | 2,515 | $641 | $209 | 55.5% |
| Total | 544,211 | | | | $117,532 | 383,192 | | | | $117,900 | 92 | 927,403 | | $235,432 | 373 | 7,545 | | | |
| Minimum | 121,614 | | | | $26,843 | 68,264 | | | | $31,359 | 30 | 277,975 | $0.25 | $70,019 | 105 | 2,312 | $572 | $186 | 52.1% |
| Maximum | 300,902 | | | | $60,010 | 158,567 | | | | $43,366 | 32 | 369,166 | $0.27 | $91,368 | 160 | 2,667 | $683 | $223 | 60.1% |




**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 occured.**

2) To calculate pumping efficiency, read dates, electric usage, and export flows are **matched to PG&E billing periods**: 6/15 - 7/14 for July, 7/15 - 8/15 for August, and 8/16 - 9/14 for September.

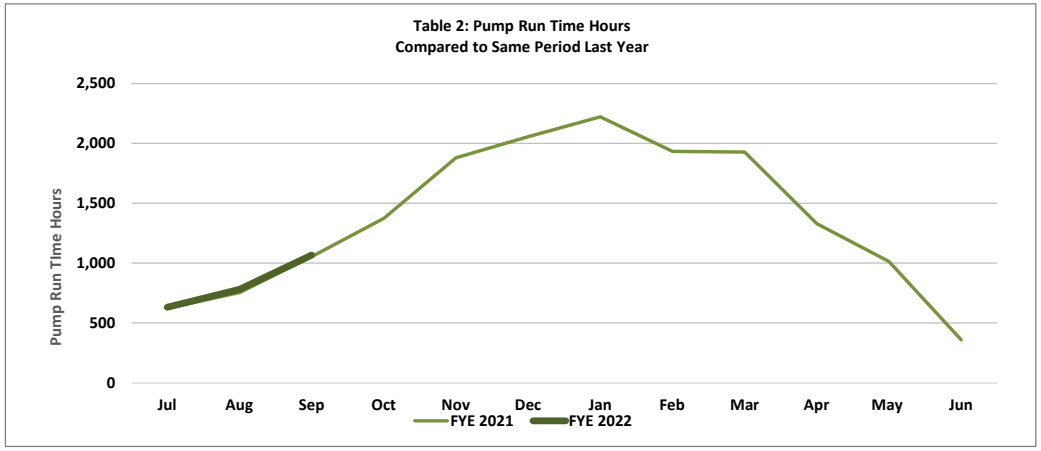
3) Pumping efficiency is based on continuous average flows and a TDH of 442.8 feet, including static lift of 408.8 feet and piping losses of 34 feet (per Charlie Joyce, B&C, 2/12/07).

4) Low pumping efficiency in October is related to the pipeline inspection when the system was pumping at odd times and also repumping water due to the need to drain the lines to allow inspection.

## TABLE 2 - Pump Run Time Hours

**LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report**

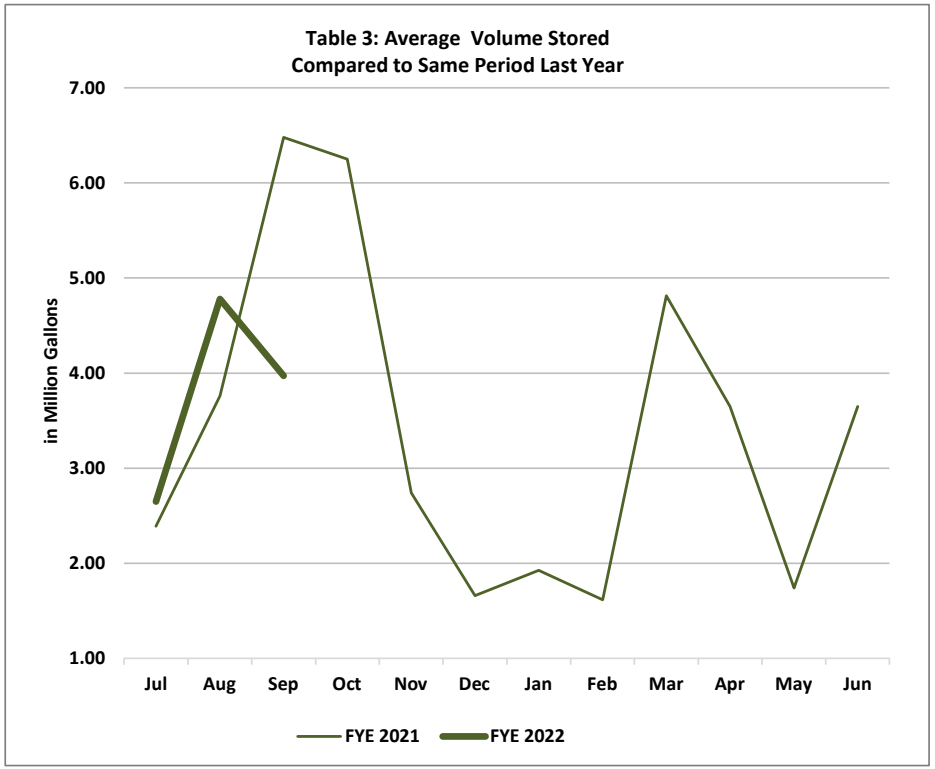
| Month | Pump No. 1 Hours | Pump No. 2 Hours | Pump No. 3 Hours | Pump No. 4 Hours | Pump No. 5 Hours | Pump No. 6 Hours | Pump No. 7 Hours | Pump No. 8 Hours | Pump No. 9 Hours | Pump No. 10 Hours | TOTAL Pump Run Hours | TOTAL Pump Utilization % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 0.0% |
| Nov-21 | | | | | | | | | | | 0 | 0.0% |
| Dec-21 | | | | | | | | | | | 0 | 0.0% |
| Jan-22 | | | | | | | | | | | 0 | 0.0% |
| Feb-22 | | | | | | | | | | | 0 | 0.0% |
| Mar-22 | | | | | | | | | | | 0 | 0.0% |
| Apr-22 | | | | | | | | | | | 0 | 0.0% |
| May-22 | | | | | | | | | | | 0 | 0.0% |
| Jun-22 | | | | | | | | | | | 0 | 0.0% |
| **Quarter** | | | | | | | | | | | | |
| Average | 0 | 84 | 93 | 69 | 150 | 101 | 1 | 194 | 55 | 82 | 827 | 11.3% |
| Total | 0 | 251 | 278 | 208 | 449 | 302 | 2 | 581 | 165 | 245 | 2,481 | |
| Minimum | 0 | 2 | 81 | 1 | 0 | 0 | 0 | 29 | 1 | 0 | 631 | 8.5% |
| Maximum | 0 | 220 | 110 | 204 | 359 | 240 | 1 | 352 | 84 | 219 | 1,067 | 14.8% |
| **YTD** | | | | | | | | | | | | |
| Average | 0 | 84 | 93 | 69 | 150 | 101 | 1 | 194 | 55 | 82 | 207 | 2.8% |
| Total | 0 | 251 | 278 | 208 | 449 | 302 | 2 | 581 | 165 | 245 | 2,481 | |
| Minimum | 0 | 2 | 81 | 1 | 0 | 0 | 0 | 29 | 1 | 0 | 0 | 0.0% |
| Maximum | 0 | 220 | 110 | 204 | 359 | 240 | 1 | 352 | 84 | 219 | 1,067 | 14.8% |



# TABLE 3 - Monthly Average Storage Basin Levels and Volume

**LAVWMA SYSTEM: Fiscal Year 2021-2022, Quarterly Report**

| | Average Daily Volume | | | Average | | Storage |
|---|---|---|---|---|---|---|
| | Basin | Basin | Basin | Volume | Storage | Basin |
| | No. 1 | No. 2 | No. 3 | Stored | Available | Utilization |
| Month | Feet | Feet | Feet | MG | MG | % |
| **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 | | | | | 18 | 0.0% |
| Nov-21 | | | | | 18 | 0.0% |
| Dec-21 | | | | | 18 | 0.0% |
| Jan-22 | | | | | 18 | 0.0% |
| Feb-22 | | | | | 18 | 0.0% |
| Mar-22 | | | | | 18 | 0.0% |
| Apr-22 | | | | | 18 | 0.0% |
| May-22 | | | | | 18 | 0.0% |
| Jun-22 | | | | | 18 | 0.0% |
| **Quarter** | | | | | | |
| Average | 3.78 | 2.00 | 1.60 | 3.80 | | 0.21 |
| Minimum | 2.17 | 0.22 | 0.53 | 2.65 | | 0.15 |
| Maximum | 4.97 | 3.44 | 3.19 | 4.78 | | 0.27 |
| **YTD** | | | | | | |
| Average | 3.78 | 2.00 | 1.60 | 3.80 | | 5.3% |
| Minimum | 2.17 | 0.22 | 0.53 | 2.65 | | 0.0% |
| Maximum | 4.97 | 3.44 | 3.19 | 4.78 | | 26.6% |

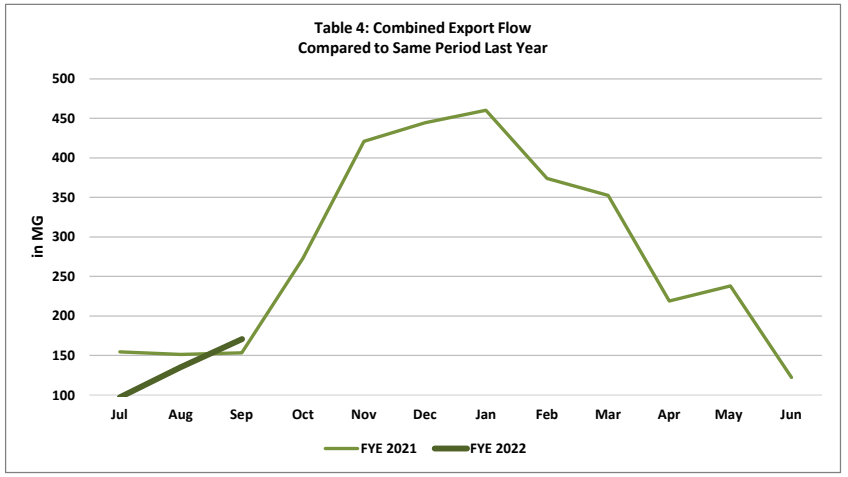


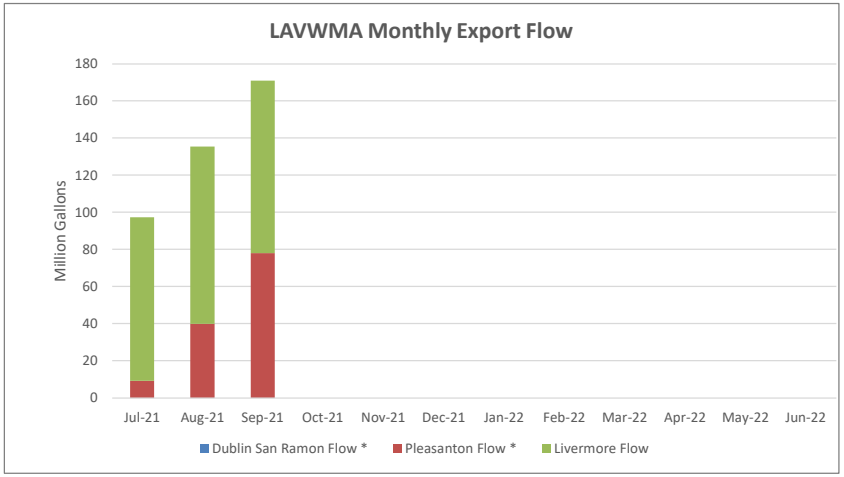

**Note:** Total available storage volume is 18 million gallons.

## TABLE 4 - Monthly Export Flow

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

| Month | Dublin San Ramon Flow * MG | Pleasanton Flow * MG | Livermore Flow MG | Combined Export Flow MG | Total for Quarter |
|---|---|---|---|---|---|
| **Jul-21** | **0.00** | **9.24** | **88.11** | **97.35** | |
| **Aug-21** | **0.00** | **39.90** | **95.49** | **135.39** | |
| **Sep-21** | **0.00** | **77.99** | **92.97** | **170.96** | **403.69** |
| Oct-21 | 0.00 | 0.00 | | | |
| Nov-21 | 0.00 | 0.00 | | | |
| Dec-21 | 0.00 | 0.00 | | | 0.00 |
| Jan-22 | 0.00 | 0.00 | | | |
| Feb-22 | 0.00 | 0.00 | | | |
| Mar-22 | 0.00 | 0.00 | | | 0.00 |
| Apr-22 | 0.00 | 0.00 | | | |
| May-22 | 0.00 | 0.00 | | | |
| Jun-22 | 0.00 | 0.00 | | | 0.00 |
| **Quarter** | | | | | |
| Total | 0.00 | 127.13 | 276.56 | **403.69** | |
| Average | 0.00 | 42.38 | 92.19 | 134.56 | |
| Minimum | 0.00 | 9.24 | 88.11 | 97.35 | |
| Maximum | 0.00 | 77.99 | 95.49 | 170.96 | |
| **YTD** | | | | | Budgeted Flow: |
| Total | 0.00 | 127.13 | 276.56 | **403.69** | 3,358 MG |
| Average | 0.00 | 10.59 | 92.19 | 134.56 | |
| Minimum | 0.00 | 0.00 | 88.11 | 97.35 | |
| Maximum | 0.00 | 77.99 | 95.49 | 170.96 | |




* 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 Labor Hours | FTE Equiv | Labor Invoice | YTD Labor Expense | Budget Utilization | Labor Budget Remaining | Export Flow MG | Export Flow 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 | | | | | | | | |
| Nov-21 | | | | | | | | |
| Dec-21 | | | | | | | | |
| Jan-22 | | | | | | | | |
| Feb-22 | | | | | | | | |
| Mar-22 | | | | | | | | |
| Apr-22 | | | | | | | | |
| May-22 | | | | | | | | |
| Jun-22 | | | | | | | | |
| **QUARTER** | | | | | | | | |
| Total | **889.2** | | **$151,346** | | | | 403.69 | 1,239 |
| Average | 296.4 | **1.7** | $50,449 | | | | 134.56 | 413 |
| Minimum | 256.2 | 1.5 | $43,940 | | | | 97.35 | 299 |
| Maximum | 353.5 | 2.0 | $59,266 | | | | 170.96 | 525 |
| **YTD** | | | | | | | | |
| Total YTD | 889.2 | | $151,346 | | **15.6%** | $816,805 | 403.69 | 1,239 |
| Average YTD | 296.4 | 1.7 | $50,449 | | | | 134.56 | 413 |
| Minimum | 256.2 | 1.5 | $43,940 | | | | 97.35 | 299 |
| Maximum | 353.5 | 2.0 | $59,266 | | | | 170.96 | 525 |

**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 $/MG | Overall O&M Cost $/AF | Export Flow MG | Export Flow 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 | | | | | | | | | | |
| Nov-21 | | | | | | | | | | |
| Dec-21 | | | | | | | | | | |
| Jan-22 | | | | | | | | | | |
| Feb-22 | | | | | | | | | | |
| Mar-22 | | | | | | | | | | |
| Apr-22 | | | | | | | | | | |
| May-22 | | | | | | | | | | |
| Jun-22 | | | | | | | | | | |
| **QUARTER** | | | | | | | | | | |
| Total | $151,346 | $250,825 | **$402,171** | | | | **$996** | **$325** | 403.69 | 1,239 |
| Average | $50,449 | $83,608 | $134,057 | | | | | | 134.56 | 413 |
| Minimum | $43,940 | $51,654 | $110,921 | | | | $822 | $268 | 97.35 | 299 |
| Maximum | $59,266 | $102,505 | $150,645 | | | | $1,139 | $371 | 170.96 | 525 |
| **YTD** | | | | | | | | | | |
| Total YTD | $151,346 | $250,825 | **$402,171** | | **15.7%** | **$2,156,730** | **$996** | **$325** | **403.69** | **1,239** |
| Average YTD | $50,449 | $83,608 | $134,057 | | | | | | | |
| Minimum | $43,940 | $51,654 | $110,921 | | | | $822 | $268 | 97.35 | 299 |
| Maximum | $59,266 | $102,505 | $150,645 | | | | $1,139 | $371 | 170.96 | 525 |

Notes:

## 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 | | | |
| Nov-21 | | | |
| Dec-21 | | | |
| Jan-22 | | | |
| Feb-22 | | | |
| Mar-22 | | | |
| Apr-22 | | | |
| May-22 | | | |
| Jun-22 | | | |
| **Quarter** | | | |
| Total | **$0** | **$484** | **$484** |
| Average | $0 | $161 | $161 |
| Minimum | $0 | $151 | $151 |
| Maximum | $0 | $167 | $167 |
| **YTD** | | | |
| YTD Total | $0 | $484 | $484 |
| YTD Average | $0 | $161 | $161 |
| YTD Minimum | $0 | $151 | $151 |
| YTD Maximum | $0 | $167 | $167 |

**LAVWMA**
**BUDGET COMPARISON TO ACTUAL EXPENSES: GOODS & SERVICES**

**Current FY Period: 3**

**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 | | | | | | | | | | $151,346 | $242,038 |
| **Subtotal** | **$968,151** | **$59,266** | **$48,140** | **$43,940** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$151,346** | **$242,038** |
| **Materials & Supplies** | | | | | | | | | | | | | | | |
| Operations Supplies | $13,000 | $10 | $47 | $10 | | | | | | | | | | $67 | $3,250 |
| Mechanical Supplies | $25,000 | | $1,039 | | | | | | | | | | | $1,039 | $6,250 |
| Electrical Supplies | $59,400 | | $3,177 | $540 | | | | | | | | | | $3,716 | $14,850 |
| **Subtotal** | **$97,400** | **$10** | **$4,263** | **$550** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$4,823** | **$24,350** |
| **Laboratory Analysis** | | | | | | | | | | | | | | | |
| Compliance Testing | $10,000 | $792 | $792 | $990 | | | | | | | | | | $2,574 | $2,500 |
| Operational Support Testing | $4,000 | $366 | $366 | $366 | | | | | | | | | | $1,098 | $1,000 |
| Special Sampling | $22,000 | $1,288 | $1,610 | $1,288 | | | | | | | | | | $4,186 | $5,500 |
| **Subtotal** | **$36,000** | **$2,446** | **$2,768** | **$2,644** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$7,858** | **$9,000** |
| **Contractual Services** | | | | | | | | | | | | | | | |
| Sub-surface Repairs | $15,000 | | | | | | | | | | | | | $0 | $3,750 |
| Street Sweeping | $5,000 | | $500 | $400 | | | | | | | | | | $900 | $1,250 |
| Cathodic Protection Survey & Repairs | $30,000 | | | | | | | | | | | | | $0 | $7,500 |
| Underground Service Alert | $4,500 | | $896 | | | | | | | | | | | $896 | $1,125 |
| SCADA software maintenance contract | $17,000 | $5,029 | | | | | | | | | | | | | |
| Remote monitoring annual service for PS and Rec | $5,000 | | | | | | | | | | | | | | |
| Med voltage switchgear 3-yr PM (FY22, $18k)) | $20,000 | | | | | | | | | | | | | | |
| HVAC Maintenance/Repairs | $750 | | | | | | | | | | | | | $0 | $188 |
| Termite/Pest Control | $900 | | | | | | | | | | | | | $0 | $225 |
| Landscape/weed maintenance | $10,000 | | | | | | | | | | | | | $0 | $2,500 |
| Janitorial Service | $9,500 | | $1,220 | | | | | | | | | | | $1,220 | $2,375 |
| Fire Extinguisher Maintenance | $200 | | | | | | | | | | | | | $0 | $50 |
| Postage/Shipping Charges | $0 | | | | | | | | | | | | | $0 | $0 |
| Professional Services, misc | $30,000 | | | $876 | | | | | | | | | | $876 | $7,500 |
| **Subtotal** | **$147,850** | **$5,029** | **$2,616** | **$1,276** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$8,921** | **$36,963** |
| **Utilities** | | | | | | | | | | | | | | | |
| Electricity (PG&E) | $1,301,600 | $43,818 | $92,858 | $91,816 | | | | | | | | | | $228,492 | $325,400 |
| Water & Sewer (Pleasanton) | $900 | $154 | | $163 | | | | | | | | | | $317 | $225 |
| Water (EBMUD) | $1,000 | $197 | | $217 | | | | | | | | | | $414 | $250 |
| Telephone/communications | $6,000 | | | | | | | | | | | | | $0 | $1,500 |
| WW Treatment (DSRSD) | $0 | | | | | | | | | | | | | $0 | $0 |
| **Subtotal** | **$1,309,500** | **$44,169** | **$92,858** | **$92,196** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$229,223** | **$327,375** |
| **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** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$402,171** | **$639,725** |
| **YTD Total** | **$2,558,901** | **$110,921** | **$261,566** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | **$402,171** | | |
| **Combined Export Flow, mg** | **3358** | **97** | **135** | **171** | | | | | | | | | | **404** | **24** |
| **Pumping Efficiency** | | **54.2%** | **52.1%** | **60.1%** | | | | | | | | | | | |
| **Monthly Cost, $/mg** | | **$1,139** | **$1,113** | **$822** | | | | | | | | | | | |
| **YTD Running Cost, $/mg** | **$762** | | | | | | | | | | | | | **$996** | |

**Q1 Notes:**
a) July PG&E bill for Feeder A for $31K was not paid until August so it will show as part of August expenditure
b) August PG&E bill for Feeder B includes $8292 credit

**LAVWMA**
**BUDGET COMPARISON TO ACTUAL EXPENSES: LABOR**

**Current FY Period: 3**

| 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 |
| *Estimated Personnel Hours* | | | | | | | | | | | | | | | |
| **Division 50 - Ops Admin** | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0 | - | - | - | - | - | - | - | - | - | - | - | | - | |
| **Division 51 - FOD** | 40 | - | - | - | - | - | - | - | - | - | - | - | - | - | 10.00 |
| Water/Wastewater Sys Lead Op | 0 | | | | | | | | | | | | | - | - |
| Water/Wastewater Sys OP IV-On Call | 0 | | | | | | | | | | | | | - | - |
| Water/Wastewater Sys OP IV | 30 | | | | | | | | | | | | | - | 7.50 |
| Water/Wastewater Sys OP III | 0 | | | | | | | | | | | | | - | - |
| Water/Wastewater Sys OP II | 10 | | | | | | | | | | | | | - | 2.50 |
| Maintenance Worker | 0 | | | | | | | | | | | | | - | - |
| Supervisor | 0 | | | | | | | | | | | | | - | - |
| **Division 52 - WWTP** | 3,080 | 180.50 | 123.50 | 127.19 | - | - | - | - | - | - | - | - | - | 431.19 | 770.00 |
| Process Lead Operator IV/V | 150 | | | | | | | | | | | | | - | 37.50 |
| Senior WWTP Operator III | 720 | 22.50 | 22.00 | 23.00 | | | | | | | | | | 67.50 | 180.00 |
| Operator In Training | 400 | | | | | | | | | | | | | - | 100.00 |
| Operator II | 1,700 | 158.00 | 101.50 | 104.19 | | | | | | | | | | 363.69 | 425.00 |
| Operator II (SLSS) | 0 | | | | | | | | | | | | | - | - |
| Operations Superintendent | 110 | | | | | | | | | | | | | - | 27.50 |
| **Division 53 - MECH** | 1,230 | 129.50 | 126.50 | 95.50 | - | - | - | - | - | - | - | - | - | 351.50 | 307.50 |
| Senior Mechanic-Crane Cert | 60 | 43.50 | 47.50 | 32.00 | | | | | | | | | | 123.00 | 15.00 |
| **Senior Mechanic - USA** | 80 | 1.50 | | 1.00 | | | | | | | | | | 2.50 | 20.00 |
| Maintenance Worker | 60 | | | | | | | | | | | | | - | 15.00 |
| Mechanic I/II | 980 | 18.00 | | | | | | | | | | | | 18.00 | 245.00 |
| Mechanic II-Crane Cert | 0 | 44.50 | 50.00 | 48.50 | | | | | | | | | | 143.00 | - |
| **Mechanic I/II - USA** | 0 | | | | | | | | | | | | | - | - |
| **Mechanic II-Crane Cert - USA** | 0 | 22.00 | 29.00 | 14.00 | | | | | | | | | | 65.00 | - |
| Supervisor | 50 | | | | | | | | | | | | | - | 12.50 |
| **Division 54 - ELEC** | 1,130 | 43.50 | 28.00 | 31.00 | - | - | - | - | - | - | - | - | - | 102.50 | 282.50 |
| Senior Instrument/Controls Tech | 30 | | | | | | | | | | | | | - | 7.50 |
| Instrumentation & Controls Tech I/II | 300 | 2.50 | 28.00 | 20.00 | | | | | | | | | | 50.50 | 75.00 |
| OPS Control Sys Spec | 300 | | | | | | | | | | | | | - | 75.00 |
| Senior Electrician | 30 | 13.00 | | 4.00 | | | | | | | | | | 17.00 | 7.50 |
| Electrician I/II | 440 | 27.00 | | 5.00 | | | | | | | | | | 32.00 | 110.00 |
| Principal Eletrical Engineer | 30 | 1.00 | | 2.00 | | | | | | | | | | 3.00 | 7.50 |
| **Division 26 - SAFETY** | 60 | - | - | - | - | - | - | - | - | - | - | - | - | - | 15.00 |
| Safety Officer | 60 | - | - | - | - | - | - | - | - | - | - | - | | - | 15.00 |
| **Division 40 - ENG** | 260 | - | 1.50 | 2.50 | - | - | - | - | - | - | - | - | - | 4.00 | 65.00 |
| Senior Engineer-Supervisory | 0 | | | | | | | | | | | | | | - |
| Associate/Senior Civil Engineer-SME | 100 | | 1.50 | 2.50 | | | | | | | | | | 4.00 | 25.00 |
| Construction Inspector I | 80 | | | | | | | | | | | | | - | 20.00 |
| Engineering Technician II | 40 | | | | | | | | | | | | | - | 10.00 |
| GIS Analyst | 40 | | | | | | | | | | | | | - | 10.00 |
| *Total Estimated Personnel Hours* | 5,800 | | | | | | | | | | | | | | |
| *FTE* | 2.8 | | | | | | | | | | | | | | |
| **Total Monthly Hours** | | 353.50 | 279.50 | 256.19 | - | - | - | - | - | - | - | - | - | 889.19 | 1,450.00 |

| LAVWMA | July | 2021 |
|---|---|---|

FILL IN FIRST

| Parameter | Flow | CBOD | TSS | pH | pH | Chlorine Residual | Chlorine Residual | Fecal Coliforms | Enterococci | NH3-N | Flow | TSS | CBOD | NH3-N | NO3-N | NO2-N | Total P | Recycled Water Production | Recycled Water Production | Recycled Water Production | ECO ONLY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | Acute Toxicity | Chronic Toxicity | DO | Temp |
| Units | MGD | mg/L | mg/L | SU | SU | mg/L | mg/L | MPN/100mL | MPN/100mL | mg/L | MGD | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | MGD | MGD | MGD | % | TUc | mg/L | C |
| Test Method | Daily Average | SM 5210 B-2011 | SM 2540 D-2011 | SM 4500-H+B-2011 | SM 4500-H+B-2011 | Daily Average | Daily Average | SM 9221 C,E-2006 | Enterolert | SM 4500-NH3 | Daily Average | SM 2540 D-20 | SM 5210 B-20 | SM 4500-NH3 D-2011 | | | | Daily Average | Daily Average | Daily Average | EPA-821-R- | EPA-821-R | Field | Field |
| MDL | | | | | | | | | | | | | | | | | | | | | | | | |
| RL | | 3.0 | 2.5 | | | | | 2 | 10 | | | | | | | | | | | | | | | |
| Location | DSR-exp | DSR-exp | DSR-exp | DSR-exp | DSR-exp | DSR-exp | SLSS | SLSS | SLSS | INF-002C | EFF-002C | EFF-002C | EFF-002C | EFF-002C | | | | Skywest | | | | | | |
| 7/1/2021 | 2.99 | | | 7.53 | 7.64 | 7.713 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/2/2021 | 3.16 | | | 7.49 | 7.58 | 2.449 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/3/2021 | 5.00 | | | 7.53 | 7.59 | 1.156 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/4/2021 | 4.95 | | | 7.51 | 7.60 | 0.829 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/5/2021 | 2.84 | | | 7.51 | 7.60 | 0.707 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/6/2021 | 2.75 | | | 7.53 | 7.64 | 0.763 | 0.001 | 4 | <10 | | | | | | | | | | | | | | | |
| 7/7/2021 | 3.14 | | | 7.58 | 7.64 | 0.667 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/8/2021 | 2.65 | 3.0 | 5.8 | 7.51 | 7.66 | 0.807 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/9/2021 | 3.12 | | | 7.47 | 7.54 | 1.257 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/10/2021 | 3.11 | | | 7.44 | 7.53 | 0.731 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/11/2021 | 3.60 | | | 7.51 | 7.59 | 0.477 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/12/2021 | 2.64 | | | 7.56 | 7.62 | 0.848 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/13/2021 | 2.75 | | | 7.44 | 7.63 | 0.711 | 0.001 | 50 | <10 | | | | | | | | | | | | | | | |
| 7/14/2021 | 2.98 | 6.1 | 6.2 | 7.59 | 7.64 | 1.323 | 0.003 | | | | | | | | | | | | | | | | | |
| 7/15/2021 | 2.91 | | | 7.63 | 7.69 | 1.057 | 0.005 | | | | | | | | | | | | | | | | | |
| 7/16/2021 | 2.57 | | | 7.28 | 7.68 | 0.779 | 0.003 | | | | | | | | | | | | | | | | | |
| 7/17/2021 | 4.55 | | | 7.5 | 7.63 | 1.251 | 0.002 | | | | | | | | | | | | | | | | | |
| 7/18/2021 | 3.37 | | | 7.53 | 7.63 | 1.607 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/19/2021 | 2.48 | | | 7.49 | 7.61 | 1.545 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/20/2021 | 1.98 | | | 7.56 | 7.71 | 0.937 | 0.001 | 2 | 10 | | | | | | | | | | | | | | | |
| 7/21/2021 | 2.84 | | | 7.46 | 7.67 | 0.746 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/22/2021 | 3.15 | 5.7 | 8.4 | 7.55 | 7.65 | 0.826 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/23/2021 | 2.89 | | | 7.48 | 7.61 | 1.053 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/24/2021 | 3.57 | | | 7.55 | 7.62 | 0.698 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/25/2021 | 3.43 | | | 7.56 | 7.61 | 0.947 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/26/2021 | 3.16 | | | 7.53 | 7.61 | 0.992 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/27/2021 | 3.29 | | | 7.47 | 7.61 | 0.909 | 0.001 | 11 | <10 | | | | | | | | | | | | | | | |
| 7/28/2021 | 2.67 | 3.8 | 6.2 | 7.54 | 7.61 | 0.794 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/29/2021 | 2.97 | | | 7.55 | 7.63 | 0.789 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/30/2021 | 2.81 | | | 7.53 | 7.66 | 0.853 | 0.001 | | | | | | | | | | | | | | | | | |
| 7/31/2021 | 3.01 | | | 7.58 | 7.67 | 0.820 | 0.001 | | | | | | | | | | | | | | | | | |

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

| LAVWMA | August | 2021 |
|---|---|---|

FILL IN FIRST

| Parameter | Flow | CBOD | TSS | pH | pH | Chlorine Residual | Chlorine Residual | Fecal Coliforms | Enterococci | NH3-N | Flow | TSS | CBOD | NH3-N | NO3-N | NO2-N | Total P | Recycled Water Production | Recycled Water Production | Recycled Water Production | ECO ONLY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | Acute Toxicity | Chronic Toxicity | DO | Temp |
| Units | MGD | mg/L | mg/L | SU | SU | mg/L | mg/L | MPN/100mL | MPN/100mL | mg/L | MGD | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | MGD | MGD | MGD | % | TUc | mg/L | C |
| Test Method | Daily Average | SM 5210 B-2011 | SM 2540 D-2011 | SM 4500-H+B-2011 | SM 4500-H+B-2011 | Daily Average | Daily Average | SM 9221 C,E-2006 | Enterolert | SM 4500-NH3 | Daily Average | SM 2540 D-20 | SM 5210 B-20 | SM 4500-NH3 D-2011 | | | | Daily Average | Daily Average | Daily Average | EPA-821-R- | EPA-821-I | Field | Field |
| MDL | | | | | | | | | | | | | | | | | | | | | | | | |
| RL | | 3.0 | 2.5 | | | | | 2 | 10 | | | | | | | | | | | | | | | |
| Location | DSR-exp | DSR-exp | DSR-exp | DSR-exp | DSR-exp | DSR-exp | SLSS | SLSS | SLSS | INF-002C | EFF-002C | EFF-002C | EFF-002C | EFF-002C | | | | Skywest | | | | | | |
| 8/1/2021 | 3.51 | | | 7.56 | 7.68 | 0.809 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/2/2021 | 3.32 | | | 7.56 | 7.64 | 1.012 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/3/2021 | 3.72 | | | 7.53 | 7.67 | 0.945 | 0.001 | 4 | <10 | | | | | | | | | | | | | | | |
| 8/4/2021 | 3.29 | 3.0 | 7.9 | 7.50 | 7.72 | 0.917 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/5/2021 | 3.62 | | | 7.58 | 7.68 | 1.499 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/6/2021 | 3.06 | | | 7.39 | 7.71 | 1.773 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/7/2021 | 3.91 | | | 7.51 | 7.61 | 2.429 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/8/2021 | 3.94 | | | 7.58 | 7.64 | 2.154 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/9/2021 | 4.17 | | | 7.51 | 7.62 | 2.391 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/10/2021 | 3.09 | | | 7.47 | 7.57 | 1.867 | 0.001 | 4 | <10 | | | | | | | | | | | | | | | |
| 8/11/2021 | 3.22 | 4.5 | 8.9 | 7.41 | 7.69 | 1.126 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/12/2021 | 3.39 | | | 7.50 | 7.58 | 1.363 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/13/2021 | 4.20 | | | 7.55 | 7.61 | 2.639 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/14/2021 | 4.77 | | | 7.51 | 7.6 | 2.374 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/15/2021 | 5.13 | | | 7.51 | 7.59 | 3.044 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/16/2021 | 5.14 | | | 7.53 | 7.58 | 2.618 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/17/2021 | 5.24 | | | 7.53 | 7.59 | 1.892 | 0.001 | 22 | <10 | | | | | | | | | | | | | | | |
| 8/18/2021 | 5.15 | 2.9 | 6.5 | 7.49 | 7.56 | 1.082 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/19/2021 | 5.14 | | | 7.46 | 7.54 | 1.548 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/20/2021 | 4.95 | | | 7.45 | 7.54 | 1.114 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/21/2021 | 5.12 | | | 7.49 | 7.57 | 1.533 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/22/2021 | 4.98 | | | 7.49 | 7.54 | 1.962 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/23/2021 | 5.15 | | | 7.49 | 7.56 | 2.069 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/24/2021 | 4.80 | | | 7.49 | 7.56 | 1.330 | 0.001 | <2 | <10 | | | | | | | | | | | | | | | |
| 8/25/2021 | 4.73 | | | 7.49 | 7.55 | 0.705 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/26/2021 | 4.62 | | | 7.49 | 7.55 | 0.464 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/27/2021 | 4.61 | 4.8 | 9.1 | 7.44 | 7.52 | 0.300 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/28/2021 | 4.58 | | | 7.44 | 7.53 | 0.083 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/29/2021 | 4.52 | | | 7.42 | 7.53 | 0.107 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/30/2021 | 4.46 | | | 7.34 | 7.47 | 0.054 | 0.001 | | | | | | | | | | | | | | | | | |
| 8/31/2021 | 5.85 | | | 7.47 | 7.59 | 0.030 | 0.001 | 17 | <10 | | | | | | | | | | | | | | | |

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

| LAVWMA | September | 2021 |
|---|---|---|

SELECT FIRST

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 | CBOD Qual | NH3-N Qual | NH3-N | Flow | TSS Qual | TSS | CBOD Qual | CBOD | NH3-N Qual | NH3-N | Fecal Qual | Entero Qual | Recycled Water Production | Recycled Water Production | ECO ONLY: Recycled Water Productio | ECO ONLY: Acute Toxicity | ECO ONLY: Chronic Toxicity | ECO ONLY: DO | ECO ONLY: Temp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | MGD | mg/L | mg/L | SU | SU | mg/L | mg/L | MPN/100mL | MPN/100mL | | | mg/L | MGD | | mg/L | | mg/L | | mg/L | | | MG | MG | MG | % | TUc | mg/L | C |
| Test Method | Daily Average | SM 5210 B-2011 | SM 2540 D-2011 | SM 4500-H+B-2011 | SM 4500-H+B-2011 | Daily Average | Daily Average | SM 9221 C,E-2006 | Enterolert | | | SM 4500-NH3 | Daily Average (Mean) | | SM 2540 D-2011 | | SM 5210 B-2011 | | SM 4500-NH3 D-2011 | | | Total | Total | Total | EPA-821-R | EPA-821-R | Field | Field |
| MDL | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RL | | 3.0 | 2.5 | | | | | 2 | 10 | | | | | | | | | | | | | | | | | | | |
| Location | LAVWMA-EXP | LAVWMA-EXP | LAVWMA-EXP | LAVWMA-EXP | LAVWMA-EXP | LAVWMA-EXP | SLSS | SLSS | SLSS | INF-002C | INF-002C | INF-002C | EFF-002C | EFF-002C | EFF-002C | FF-002 | EFF-002C | EFF-002C | EFF-002C | EFF-002C | EFF-002C | Skywest | | | | | | |
| 9/1/2021 | 5.80 | 4.6 | 19.8 | 7.44 | 7.54 | 0.286 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/2/2021 | 6.67 | | | 7.45 | 7.54 | 1.455 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/3/2021 | 6.14 | | | 7.47 | 7.53 | 4.280 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/4/2021 | 6.72 | | | 7.47 | 7.55 | 7.696 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/5/2021 | 6.84 | | | 7.46 | 7.53 | 9.724 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/6/2021 | 5.64 | | | 7.44 | 7.53 | 9.281 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/7/2021 | 5.63 | | | 7.40 | 7.50 | 8.050 | 0.001 | 130 | <10 | | | | | | | | | | | | | | | | | | | |
| 9/8/2021 | 4.40 | 4.3 | 12.2 | 7.39 | 7.50 | 8.416 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/9/2021 | 4.98 | | | 7.45 | 7.58 | 5.363 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/10/2021 | 4.35 | | | 7.50 | 7.57 | 6.536 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/11/2021 | 6.25 | | | 7.51 | 7.58 | 8.221 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/12/2021 | 5.70 | | | 7.51 | 7.58 | 9.905 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/13/2021 | 5.51 | | | 7.45 | 7.56 | 9.835 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/14/2021 | 5.98 | | | 7.47 | 7.57 | 9.972 | 0.011 | 11 | <10 | | | | | | | | | | | | | | | | | | | |
| 9/15/2021 | 4.65 | 3.5 | 10.0 | 7.49 | 7.61 | 4.839 | 0.051 | | | | | | | | | | | | | | | | | | | | | |
| 9/16/2021 | 5.06 | | | 7.32 | 7.56 | 2.364 | 0.023 | | | | | | | | | | | | | | | | | | | | | |
| 9/17/2021 | 4.83 | | | 7.34 | 7.53 | 2.570 | 0.011 | | | | | | | | | | | | | | | | | | | | | |
| 9/18/2021 | 6.17 | | | 7.39 | 7.61 | 2.942 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/19/2021 | 4.96 | | | 7.53 | 7.58 | 3.098 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/20/2021 | 6.42 | | | 7.49 | 7.56 | 2.892 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/21/2021 | 4.56 | | | 7.47 | 7.56 | 2.023 | 0.001 | 2 | <10 | | | | | | | | | | | | | | | | | | | |
| 9/22/2021 | 4.81 | 3.7 | 5.3 | 7.49 | 7.57 | 1.317 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/23/2021 | 5.89 | | | 7.48 | 7.55 | 0.674 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/24/2021 | 4.22 | | | 7.46 | 7.54 | 0.307 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/25/2021 | 6.85 | | | 7.44 | 7.63 | 0.322 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/26/2021 | 5.41 | | | 7.55 | 7.61 | 0.642 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/27/2021 | 6.84 | | | 7.53 | 7.60 | 0.841 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/28/2021 | 6.19 | | | 7.53 | 7.57 | 0.690 | 0.001 | 4 | <10 | | | | | | | | | | | | | | | | | | | |
| 9/29/2021 | 7.19 | 3.6 | 7.6 | 7.51 | 7.56 | 0.638 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| 9/30/2021 | 6.32 | | | 7.48 | 7.55 | 0.547 | 0.001 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

*DUBLIN SAN RAMON SERVICES DISTRICT*
*WASTEWATER TREATMENT FACILITY*

# LAVWMA - 3rd Quarter 2021

## 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 |
|---|---|---|---|---|---|---|---|
| 07/11/21 | 816 | 25.9 | 116 | 354 | 7.6 | 7.2 | 0.4 |
| 08/07/21 | 844 | 26.2 | 154 | 400 | 7.4 | 7.0 | 0.3 |
| 09/18/21 | 830 | 24.4 | 164 | 384 | 7.7 | 7.1 | 0.6 |
| MAXIMUM | 844 | 26.2 | 164 | 400 | 7.7 | 7.2 | 0.6 |
| MINIMUM | 816 | 24.4 | 116 | 354 | 7.4 | 7.0 | 0.3 |
| AVERAGE | 830 | 25.5 | 145 | 379 | 7.5 | 7.1 | 0.4 |

*DUBLIN SAN RAMON SERVICES DISTRICT*
*WASTEWATER TREATMENT FACILITY*

# DSRSD - 3rd Quarter 2021

## 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 |
|---|---|---|---|---|---|---|---|
| 07/11/21 | 892 | 26.0 | 152 | 378 | 7.5 | 7.1 | 0.4 |
| 08/07/21 | 849 | 26.8 | 158 | 416 | 7.5 | 7.0 | 0.4 |
| 09/18/21 | 852 | 24.5 | 158 | 408 | 7.6 | 7.0 | 0.6 |
| MAXIMUM | 892 | 26.8 | 158 | 416 | 7.6 | 7.1 | 0.6 |
| MINIMUM | 849 | 24.5 | 152 | 378 | 7.5 | 7.0 | 0.4 |
| AVERAGE | 864 | 25.8 | 156 | 401 | 7.5 | 7.0 | 0.5 |

**TABLE 10**

# CITY OF LIVERMORE
# LIVERMORE WATER RECLAMATION PLANT

## 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 |
|---|---|---|---|---|---|---|---|
| 07/07/21 | 670 | 26.0 | 83 | 364 | 7.6 | 7.4 | 0.2 |
| 08/04/21 | 721 | 27.0 | 97 | 389 | 7.6 | 7.3 | 0.4 |
| 09/01/21 | 680 | 26.0 | 67 | 330 | 7.5 | 7.5 | 0.0 |
| MAXIMUM | 721 | 27.0 | 97 | 389 | 7.6 | 7.5 | 0.4 |
| MINIMUM | 670 | 26.0 | 67 | 330 | 7.5 | 7.3 | 0.0 |
| AVERAGE | 690 | 26.3 | 82 | 361 | 7.6 | 7.4 | 0.2 |

TABLE 11

**LAVWMA Action Item List** **Month:** **Nov-21**

| **SAG Task** | **Responsible Party** | **Due Date** | **Status** | **Completion Date** |
|---|---|---|---|---|
| Items for November 17, 2021 LAVWMA Board Meeting. | SAG | NA | Primary activity since the last Board meeting has been management of capital projects. SAG to be updated on projects prior to Board meeting. | |
| **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 proceeding on schedule. All submittals and RFIs have been addressed. Royal Electric moved on site July 6, 2021. The schedule has extended to December 11, 2021 to account for having to demo and pour a new concrete pad for MCC-P1. MCC-P2 has been completed and is in service. MCC-P1 is nearing completion and testing should begin in mid November. There have been three contract change orders issues at a cost of $34,738 or 1.56% of the contract price. The new system includes a much slower stop time on the motors which results in much quieter shutdown. This will reduce wear and tear on the check valves, pumps, and motors. | |
| Purchase Three New Pumps and Rebuild Two Associated Motors. Estimated cost has increased to $460,000 | Weir/Quinlan | 6/30/2022 | Bid packet was posted and distributed on July 6, 2021. A mandatory prebid meeting was held on July 15, 2021 and was attended by four pump vendors. Addendum No. 1 was issued on August 2, 2021. Four bids were received by the deadline of August 5, 2021. Bids ranged from $357,057 to $941,200. Trillium submitted the low bid. References have been contacted and have been positive. Budget Modification No. 1 to increase the project cost was approved by the Board August 18, 2021. Both Trillium and Peerless rejected the Notice of Potential Award citing objections to the contract. The Board had two special meetings in September to provide direction. All bids sere rejected and the GM and General Counsel were directed to negotiate the best deal with the low bidder Trillium. Over the last month negotiations have continued and a final contract is expected to be agreed upon by mid-November. Issues included liquidated damages (LD), delivery dates, liability, and intellectual property. Trillium stated they would not accept more that a 10% cap on LD. Current negotiations have LDs capped at 25% at 2,500 per day and a possible incentive to Trillium for early delivery and acceptance of the pumps. The other issues have also been resolved. | |
| Resealing of all Three Storage Basins. Estimated cost $200,000 | Quinlan | 12/31/2020 | Project is complete. | 5/1/2021 |
| San Leandro Sample Station Design Improvements. Estimated cost $670,000 | Weir | 6/30/2022 | RFP for engineering services was posted to the website on June 28, 2021. A non-mandatory site visit is scheduled for June 13, 2021. Proposals were due 5:00 p.m. Monday, July 26, 2021. HydroScience (HS) was the only one to submit a bid. SAG members reviewed and rated the proposal; average score of 81.5 out of 90. HS was awarded the contract at a total of $185,000. HS has held a kickoff meeting and has been to the site several times taking measurements, talking to DSRSD staff, and taking pictures. A 30% design memo should be received this week. Due to COVID-related issues, including inflation and supply chain issues, the engineer's estimated cost of the project has increased approximately 40% from the original estimate. The total project cost will likely need to be increased to at least $900,000. Since the construction will take carry over into the next fiscal year, increasing the project cost can occur during the next budget approval process. DSRSD staff has reviewed the new estimated costs and has found it reasonable. | |
| 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. They are in the process of scheduling their work. Corrpro had planned to begin the week of November 1, but had to cancel due the inability to get certain equipment for excavation to the site. | |
| 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. | |
| 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 | Conducted in April 2019. No significant issues. Has been impossible to plan for a test due to COVID-19 restrictions. | |
| 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 overcharges $89,000, which has been credited back to LAVWMA. | |

End of Report
LAVWMA Quarterly Report of Operations, FY 2021/22 1st Quarter