REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

Wednesday, February 21, 2018 6:00 p.m.

Dublin San Ramon Services District Board Room
7051 Dublin Boulevard
Dublin, California

1. Call to Order

2. Pledge of Allegiance

3. Roll Call

4. Order of Agenda/Acknowledgement of Posting
(The agenda may be re-ordered by motion of the Board. The agenda has been posted virtually on the Agency's website and physically in the display case outside the DSRSD Building, Pleasanton City Hall and Livermore City Hall at least 72 hours prior to a regular meeting and 24 hours prior to a special meeting.)

5. Public Comment
(Persons wishing to address the Board on any Consent item or on Agency business not listed on the Agenda may do so at this time. No action may be taken on items not listed on the agenda. Any item raised by a member of the public which is not on the agenda and may require Board action shall be automatically referred to staff for investigation and disposition which may include placing on a future agenda. Persons wishing to address the Board on any agenda item may do so once the item is called. After being recognized by the Board Chair, please approach the podium and begin by providing your name and address for the record (optional). There is a time limitation of three minutes per person. Non-English speakers using a translator will have a time limit of six minutes. Written materials must be submitted by 3:00 P.M. on the meeting day.)

6. Consent Calendar
(All items on the Consent Calendar will be considered together by one or more action(s) of the Board unless a Board member pulls an item.)

Action
Pages 3 – 5

6.a. Board Meeting Minutes of November 15, 2017
(The Board will consider approving the minutes from the November 15, 2017 Board meeting.)

Information
Pages 6 – 11

7. Financial Reporting for the Fiscal Year Ending June 30, 2018
(The Board will review the Financial Reports for the Fiscal Year ending June 30, 2018.)

Information
Pages 12 – 38

8. LAVWMA Quarterly Reports of Operations, 2nd Quarter, FY2017-2018
(The Board will review the Quarterly Reports of Operations, 2nd Quarter, FY2017-2018.)

Information
Pages 39 – 43

9. Update and Response to Various Legal and Legislative Issues
(The Board will be updated on LAVWMA's response to various legal and legislative issues.)

Information **10. General Manager's Report**
Pages 44 – 73 (The Board will review the General Manager's Report regarding the operations and maintenance of the Agency and its facilities.)

Information **11. Matters From/For Board Members**
(Board members may make brief announcements or reports on his or her own activities, pose questions for clarification, and/or request that items be placed on a future agenda. Except as authorized by law, no other discussion or action may be taken.)

12. Closed Session

a. Public Employee Performance Evaluation
(Government Code Section 54957) – Title: General Manager

b. Conference with Labor Negotiator
(Government Code Section 54957.6)
Unrepresented employee: General Manager

c. Anticipated Litigation (Government Code §54956.9(d)(4)) (one case).

13. Public Report from closed Session

Resolution **14. Second Amendment to the Agreement for General Management Services with Charles V. Weir, dba Weir Technical Services**
Pages 74 - 78 (The Board will consider approving a Resolution amending the Agreement for General Management Services with Charles V Weir.)

15. Next Regular Board Meeting, Wednesday, May 16, 2018, 6:00 p.m.

16. Adjournment

DISABILITY ACCOMMODATION: Livermore-Amador Valley Water Management Agency will provide special assistance for disabled citizens upon at least 72 hours advance notice to the General Manager's office (925-875-2202). If you need sign language assistance or written material printed in a larger font or taped, please notify the General Manager's office as soon as possible. All meeting rooms are accessible to the disabled.

AGENDA REPORTS AND DOCUMENTS: Copies of all staff reports and documents subject to disclosure that relate to each item of business referred to on the agenda are available for public inspection ordinarily by the Friday before each regularly scheduled Board meeting, and/or at the same time the documents are provided to all, or a majority of all, of the Board, at Dublin San Ramon Services District Board Room, located at 7051 Dublin Blvd., Dublin, CA 94568 and may also be made available online at http://www.lavwma.com/agency_meetings.php.

C:\Users\Chuck\Documents\Weir Technical Services\LAVWMA\Agenda Packets\2018\2018-02\2018-02-21_LAWVMA_Agenda.docx

LAVWMA

Livermore-Amador Valley Water Management Agency

DRAFT

Minutes

Regular Meeting of Board of Directors
Wednesday, November 15, 2017
Dublin San Ramon Services District Board Room
7051 Dublin Boulevard, Dublin, California
6:00 p.m.

1. **Call to Order**
   Chair Bob Woerner called the meeting to order at 6:00 p.m.

2. **Pledge of Allegiance**

3. **Roll Call**
   Board Members Present: Chair Woerner, Directors Duarte, Howard, Marchand (arrived at 6:22 p.m.), Olson, and Brown (arrived at 6:06 p.m.)

   Board Members Absent: None

   Staff Present: General Counsel Alexandra Barnhill, General Manager Chuck Weir, Treasurer Carol Atwood, Administrative Assistant and Recording Secretary, Sue Montague

   Staff Absent: None

   Others Present: Jeff Carson, DSRSD; Helen Ling, City of Livermore; Karen Vaden, DSRSD; Judy Zavadil, DSRSD; Vikki Rodriguez, Maze & Associates

4. **Order of Agenda**
There were no changes to the order of the agenda.

5. **Comments from the Public**
There were no comments from the public.

6. **Consent Calendar**
a. Minutes of August 31, 2017 LAVWMA Board Meeting
b. LAVWMA Administrative Policy No. 2017-02, Establish a Process for Taking Positions on Legislation in Between Regular Board Meetings

Director Olson motioned, seconded by Director Duarte to approve Consent Calendar Item Nos. 6.a. and 6.b.

The Motion passed unanimously (4-0).

7. **Acceptance of Audit Report for Fiscal Year Ending June 30, 2017**
Ms. Attwood provided a summary on the Audit Report for the Fiscal Year ending June 30, 2017. She noted that it was a clean audit and that no issues were identified. Ms. Rodriguez,

representing the audit firm, Maze & Associated, reported that the audit was a smooth process and that staff was well prepared.

8. Financial Reporting for the Fiscal Year Ending June 30, 2018
Ms. Atwood provided a summary of the financial statements for the period ending June 30, 2018. She noted that all items are tracking as expected through the first quarter of the year. This was an information item requiring no action by the Board.

9. LAVWMA Quarterly Reports of Operations, 1st Quarters, FY2017-2018
The Board reviewed the reports and had no questions at that time.

10. Update and Response to Various Legal and Legislative Issues
The General Manager and General Counsel provided a summary of various bills that were passed by the Legislature and signed by the Governor this year. Year end summaries are typically available from California Association of Sanitation Agencies and California Special District Association. LAVWMA participates in both organizations. They also noted that the Little Hoover Commission Report on Special Districts focuses on improving oversight and transparency. The main items of interest for LAVWMA are recommendations related to the website, requiring staff to ensure that all stipulated items are addressed as the website is updated next year. This was an information item requiring no action by the Board.

11. Authorization for the General Manager to Attend the CASA Winter Conference, January 24-26, 2018
The Board reviewed the draft program for the CASA conference.

Director Howard motioned, seconded by Director Olson to approve authorization for the General Manager to attend the CASA Winter Conference, January 24-26, 2018.

The Motion passed unanimously (5-0).

12. General Manager's Report
Mr. Weir referred to the list of activities in his report and the two most recent action item lists. He briefly described issues related to the pump purchase. The topic of renewal of the EBDA Joint Powers Agreement is an ongoing topic and that updates will be provided to the Staff Advisory Group and Board on a regular basis. In addition, EBDA is recruiting a new General Manager to replace the incumbent who is retiring at the end of March 2018. This was an information item only requiring no action by the Board.

13. Matters From/For Board Members
None.

Mr. Weir and Ms. Barnhill described the rationale for a closed session that needed to be added to the agenda due to information that was received after posting of the agenda. Ms. Barnhill noted that Government Code §54954.2(b)(2) requires that two conditions be met to add an agenda item after the agenda has been posted. The first condition is that the item is urgent and needs immediate action. Ms. Barnhill explained that staff was informed that the subcontractor on the turbine pump project would be unable to complete as promised, delivery of the pumps, and projected substantial delays of 3-4 weeks. This would potentially impact LAVWMA's day-to-day operations, because the agency may have to operate without the use of all the pumps during

the rainy season and/or install the pumps with extra labor due to staff vacations during the holiday season. The second condition is that the representative of the agency must have discovered the need to take immediate action on the item after the 72 hour agenda deadline passed. Ms. Barnhill explained that the contractor, MuniQuip, informed the General Manager about the delayed performance at 11:41 a.m. on Monday November 13, 2017 and the agenda posting had occurred on Thursday, November 9, 2017.

Because these conditions were satisfied, General Counsel recommended that the Board make the required findings and adjourn to closed session under Government Code §54956.9(d)(4), a conference with legal counsel regarding anticipated litigation (one case).

1. **Director Marchand motioned, seconded by Director Brown to find that the off-agenda item was urgent and needed immediate action. The motion was unanimously approved.**

2. **Director Marchand motioned, seconded by Director Brown to find the need to take immediate action was discovered after the 72 hour agenda deadline. The motion was unanimously approved.**

The Board then adjourned to closed session pursuant to Government Code Section 54956.9(d)(4) at 6:30 p.m.

At 6:59 p.m. the Board exited Closed Session and returned to Open Session at 7:00 p.m.

Ms. Barnhill reported that the Board had taken no reportable action.

14. Next Regular Board Meeting, Wednesday, February 21, 2018

15. Adjournment
There being no further action, Chair Woerner adjourned the meeting at 7:01 p.m.

Minutes Approved by the Board _____.

Charles V. Weir
General Manager

C:\Users\Chuck\Documents\Weir Technical Services\LAVWMA\Agenda Packets\2017\2017-08\2017-08-31_LAVWMA_Board_Mtng_Minutes.docx

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
February 21, 2018

ITEM NO. 7 FINANCIAL REPORTING FOR THE FISCAL YEAR ENDING JUNE 30, 2018

Action Requested
None at this time. This is an information item only.

To: LAVWMA Board of Directors

From: Carol Atwood, LAVWMA Treasurer

Subject: Financial Reporting for FYE 2017

Summary
Attached are the financial statements for the period July 1, 2017 through December 31, 2017

Attachments:

Schedule of Sub Fund Account Balance Sheets– Shows the assets and liabilities of LAVWMA in each of its funds

Schedule of Sub Fund Account Activity – Shows the income and expense transactions for LAVWMA in each fund. Most of LAVWMA's activity will be in the Operations & Maintenance fund.

O&M Fund Budget vs. Actual – Shows the status of the budget to actual expenses for the O&M Fund for the period July 1, 2017 through December 31, 2017.

Investment Report – A report showing how LAVWMA's available cash is invested.

GM Approved Invoice Listing – All general LAVWMA invoices are approved by the LAVWMA GM and Treasurer prior to payment by DSRSD. Those invoices are summarized and are billed to LAVWMA on a monthly basis via the DSRSD bill to LAVWMA. This listing is supplemental information requested by the LAVWMA General Manager to show the vendor, description and amount of each invoice in more detail.

Recommendation
None at this time. This is an information item only.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SCHEDULE OF SUB FUND ACCOUNT BALANCE SHEETS
July through December, 2017

			Repair and Replacement Reserve			
	Maintenance & Operation	2011 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
ASSETS						
Cash and equivalents	$1,441,965	$1,410,315	$304,936	$12,144	$9,246	$3,178,606
Investments	403,281	6,275	14,870,716	408,447	1,530,068	17,218,787
Investments (LAIF FMV Adj)	(448)	(40)	(15,563)	(454)	(1,641)	(18,146)
Service Charges Receivable	601,962	536,439	60,200			1,198,601
Advances to members	20,000		317,178			337,178
Capital Assets, net of accumulated depreciation	3,939,395		108,165,841	75,600	4,369,258	116,550,094
Total assets	6,406,155	1,952,989	123,703,308	495,737	5,906,931	138,465,120
LIABILITIES						
Accounts payable	140,270		2,856			143,126
Interest payable	139,365	1,690,719				1,830,084
Deferred revenue						-
Long-term debt						
Bond issuance premium, net of amortization		5,920,644				5,920,644
Due within one year						-
Due in more than one year	4,645,484	86,845,000				91,490,484
Total liabilities	4,925,119	94,456,363	2,856	-	-	99,384,338
NET ASSETS						
Invested in capital assets, net of related debt	(706,089)	(92,765,644)	108,165,841	75,600	4,369,258	19,138,966
Unrestricted net assets	2,218,273	(4,085,582)	17,995,065	425,424	1,790,998	18,344,178
Total net assets	$1,512,184	($96,851,226)	$126,160,906	$501,024	$6,160,256	$37,483,144

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SCHEDULE OF SUB FUND ACCOUNT ACTIVITY
July through December, 2017

			Repair and Replacement Reserve			
	Maintenance & Operation	2011 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
OPERATING REVENUES						
Service charges - DSRSD	$1,087,409	$3,114,206	$139,800			$4,341,415
Service charges - City of Pleasanton	1,227,751	2,664,132	139,800			4,031,683
Service charges - City of Livermore	1,043,340	2,228,137	120,400			3,391,877
Service charges other	-					-
Total operating revenues	3,358,500	8,006,475	400,000			11,764,975
OPERATING EXPENSES						
Power	292,100					292,100
LAVWMA share of EBDA O&M - Fixed	261,295					261,295
LAVWMA share of EBDA O&M - Variable	79,463					79,463
Operations agreement	433,291					433,291
Professional services	87,789					87,789
Livermore sole use O&M	21,870					21,870
Insurance	20,000					20,000
Miscellaneous	795	20	1,525	42	155	2,537
Total operating expenses	1,196,603	20	1,525	42	155	1,198,345
Capital outlay			60,628			60,628
Total operating expenses and capital outlay	1,196,603	20	62,153	42	155	1,258,973
Operating income (loss)	2,161,897	8,006,455	337,847	(42)	(155)	10,506,002
NON-OPERATING REVENUES (EXPENSES)						
Amortization/Depreciation						-
EBDA Debt	(411,248)					(411,248)
Bond interest expense		(6,078,862)				(6,078,862)
Interest income	3,892	554	39,280	1,094	4,005	48,825
Total non-operating revenues (expenses)	(407,356)	(6,078,308)	39,280	1,094	4,005	(6,441,285)
Changes in net assets	1,754,541	1,928,147	377,127	1,052	3,850	4,064,717
NET ASSETS						
Net assets, beginning of period	(242,357)	(98,779,373)	125,783,779	499,972	6,156,406	33,418,427
Prior Period adjustment						
Net assets, beginning of period restated	(242,357)	(98,779,373)	125,783,779	499,972	6,156,406	33,418,427
Net asset transfers						
Net assets, end of period	$1,512,184	($96,851,226)	$126,160,906	$501,024	$6,160,256	$37,483,144

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
O&M Fund - Budget vs Actual
July through December, 2017

	FYE2018 Actual-to-Date	FYE2018 Budget-to-Date	Variance
OPERATING REVENUES			
Service charges - DSRSD	$1,087,409	$1,087,409	-
Service charges - City of Pleasanton	1,227,751	1,227,751	-
Service charges - City of Livermore	1,043,340	1,043,340	-
Service charges other	-		-
Total operating revenues	3,358,500	3,358,500	-
OPERATING EXPENSES			
Power	292,100	575,000	(282,900)
LAVWMA share of EBDA O&M - Fixed	261,295	245,000	16,295
LAVWMA share of EBDA O&M - Variable	79,463	78,750	713
Operations agreement	433,291	430,000	3,291
Professional services	87,789	114,500	(26,711)
Livermore sole use O&M	21,870	12,500	9,370
Insurance	20,000	12,500	7,500
Permits	-	5,000	(5,000)
Miscellaneous	795	-	795
Total operating expenses	1,196,603	1,473,250	(276,647)
Capital outlay			-
Total operating expenses and capital outlay	1,196,603	1,473,250	(276,647)
Operating income (loss)	2,161,897	1,885,250	276,647
NON-OPERATING REVENUES (EXPENSES)			
Amortization/Depreciation	-		-
EBDA Debt	(411,248)	(411,248)	-
Interest income	3,892	-	3,892
Total non-operating revenues (expenses)	(407,356)	(411,248)	3,892
Net Income	1,754,541	1,474,002	280,539

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
Treasurer's Report
Portfolio Summary
December 31, 2017

Investments	Par Value	Market Value	Book Value	% of Portfolio	Avg. Term	Avg. Days to Maturity	YTM
LAIF- Operating	$ 17,218,787	$ 17,218,787	$ 17,218,787	100.00	1	1	1.20%
	$ 17,218,787	**$ 17,218,787**	**$ 17,218,787**	**100.00**	**1**	**1**	**1.20%**

Average Daily Balance	$ 17,218,787
Effective Rate of Return	**1.20%**

I certify that this report reflects all Government Agency pooled investments and is in conformity with the investment policy of Livermore-Amador Valley Water Management Agency.
The investment program herein shown provides sufficient cash flow liquidity to meet the next six month's expenses.

Original Signed by
Carol Atwood, Treasurer 2/16/2018
Carol Atwood, Treasurer Date

Livermore-Amador Valley Water Management Agency
General Manager Approved Invoice Listing
July - December, 2017

Invoice Date	Vendor Name	Description	Check#	Date Paid	Total Amount
9/8/2017	FEDEX	LAVWMA: OVERNIGHT DELIVERY (TRANSFER OF RECORDS)	94779	11/9/2017	453.73
9/30/2017	JARVIS, FAY, DOPORTO & GIBSON, LLP	GENERAL COUNSEL SVCS - SEPTEMBER 2017	94678	10/26/2017	5,080.50
10/2/2017	WEIR TECHNICAL SERVICES	MANAGEMENT SERVICES - SEPTEMBER 2017	94643	10/26/2017	6,402.56
10/3/2017	EAST BAY DISCHARGERS AUTHORITY	O&M ASSESSMENT - FINAL FY 2016/17	94625	10/26/2017	47,095.71
10/3/2017	OFFICE TEAM	S MONTAGUE: W/E 09/29/17	94432	10/5/2017	829.90
10/4/2017	EAST BAY DISCHARGERS AUTHORITY	O&M ASSESSMENT - OCTOBER 1, 2017 QTR	94625	10/26/2017	174,076.72
10/9/2017	OFFICE TEAM	S MONTAGUE: W/E 10/06/17	94515	10/12/2017	945.70
10/13/2017	MAZE & ASSOCIATES	BASIC FINANCIALS/MEMO ON INTERNAL CNTRL RPT	94745	11/1/2017	5,186.00
10/16/2017	OFFICE TEAM	S MONTAGUE: W/E 10/13/17	94532	10/19/2017	1,022.90
10/23/2017	OFFICE TEAM	S MONTAGUE: W/E 10/20/17	94636	10/26/2017	849.20
10/30/2017	OFFICE TEAM	S MONTAGUE: W/E 10/27/17	94719	11/1/2017	96.50
10/31/2017	JARVIS, FAY, DOPORTO & GIBSON, LLP	GENERAL COUNSEL SVCS - OCTOBER 2017	95009	11/30/2017	4,682.50
11/13/2017	OFFICE TEAM	S MONTAGUE: W/E 11/10/17	94865	11/16/2017	926.40
11/20/2017	OFFICE TEAM	S MONTAGUE: W/E 11/17/17	94981	11/30/2017	694.80
11/27/2017	WEIR TECHNICAL SERVICES	MANAGEMENT SERVICES - OCTOBER 2017	95212	12/21/2017	9,842.44
11/27/2017	OFFICE TEAM	S MONTAGUE: W/E 11/24/17	94981	11/30/2017	636.90
11/30/2017	JARVIS, FAY, DOPORTO & GIBSON, LLP	GENERAL COUNSEL SVCS - NOVEMBER 2017	95266	12/21/2017	6,768.50
12/4/2017	OFFICE TEAM	S MONTAGUE: W/E 12/01/17	95051	12/7/2017	887.80
12/5/2017	SWRCB	FY 18 PERMIT (FAC ID 2 019129001)	95312	12/21/2017	20,000.00
12/6/2017	WEIR TECHNICAL SERVICES	MANAGEMENT SERVICES - NOVEMBER 2017	95212	12/21/2017	7,487.57
12/11/2017	MAZE & ASSOCIATES	LAVWMA: FINAL FY17 AUDIT SERVICES	95386	1/5/2018	799.00
12/11/2017	OFFICE TEAM	S MONTAGUE: W/E 12/08/17	95131	12/14/2017	810.60
12/15/2017	OLSON, ARNE	REGULAR BOARD MTG ATTENDANCE - 11/15/17	95284	12/21/2017	50.00
12/15/2017	WOERNER, BOB	REGULAR BOARD MTG ATTENDANCE - 11/15/17	95333	12/21/2017	50.00
12/15/2017	MARCHAND, JOHN	REGULAR BOARD MTG ATTENDANCE - 11/15/17	95275	12/21/2017	50.00
12/15/2017	BROWN, KARLA	REGULAR BOARD MTG ATTENDANCE - 11/15/17	95360	1/5/2018	50.00
12/18/2017	OFFICE TEAM	S MONTAGUE: W/E 12/15/17	95202	12/21/2017	617.60
12/25/2017	OFFICE TEAM	S MONTAGUE: W/E 12/22/17	95346	1/5/2018	598.30
					296,991.83

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
February 21, 2018

ITEM NO. 8 LAVWMA QUARTERLY REPORTS OF OPERATIONS, 1st QUARTER, FY2017-2018

Action Requested
None at this time.

Summary
LAVWMA's Quarterly Report of Operations for the 2nd Quarter, FY2017-2018 is attached for the Board's review. These quarterly reports are prepared by DSRSD staff and summarize all LAVWMA operations and maintenance activity for each quarter. Jeff Carson, DSRSD Operations Manager, will be available to answer any questions from the Board. Note that Tables 1-3 now contain graphs comparing the current and past fiscal year data. Beginning with the next report, Tables 1-3 will also all monthly data for the fiscal year to be similar to Tables 4-7.

Recommendation
None at this time. This is an information item only.

LAVWMA

QUARTERLY REPORT OF OPERATIONS 2nd Quarter, FY 2017-2018

Photo Courtesy of Ron Horii

Dublin San Ramon Services District
Water, wastewater, recycled water

QUARTERLY REPORT OF OPERATIONS
LAVWMA PUMPING AND CONVEYANCE SYSTEM
2nd Quarter FY 2017-2018: October to December 2017

1. EXECUTIVE SUMMARY

The LAVWMA pumping and effluent conveyance system operated normally during the second quarter of FY 2017-2018. During the quarter, a total of 1,092 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 59.9%, with an average electrical cost of $338 per million gallons, or $110 per acre-foot. Year-to-date labor expenses totaled $336,035, or 85.6% of the overall labor budget of $392,452. Total year-to-date O&M expenses were $849,906 or 81.8% of the overall O&M budget amount of $1,039,514. The running average overall cost of operation was $540 per million gallons pumped or $176 per acre-foot, compared to the budgeted rate of $510 per million gallons pumped or $166 per acre-foot.

2. OPERATIONS

LAVWMA is served by two separate feeds from a PG&E substation, which provides a degree of protection from interruptions in electric service. During the quarter, both Feeder A and Feeder B were on Rate Schedule E-20S. To qualify for Rate Schedule E-20S, the maximum demand on the feeder must exceed 999 kilowatts for at least 3 consecutive months.

LAVWMA participates in PG&E's Peak Day Pricing (PDP) rate program, which is a demand response plan applicable to the E20S rate schedule. PDP is a pricing structure that was developed in 2010 in response to a statewide initiative led by the California Public Utilities Commission to reduce peak energy demands. PDP event days are generally triggered by high temperatures, but California ISO system emergencies and market-price conditions may also trigger an event. The typical PDP event temperature trigger is 94^{o}F. The LAVWMA pumping system has been cycled off during summer on-peak periods for a number of years, so participation in the PDP program does not require a change in LAVWMA's historical operation. For the fiscal year to date, PDP events occurred on July 7, July 27, July 31, August 1, August 2, August 28, August 29, August 31, September 1, and September 2. As expected, there was no PDP event for the months of October to December as PDP events coincide with hot summer days.

Winter electric rates apply from November 1 through April 30. The winter partial-peak period is 8:30 AM to 9:30 PM, and the winter off-peak period is 9:30 PM to 8:30 AM. Summer electric rates for E20S apply between May 1 and October 31. The summer peak period is 12:00 Noon to 6:00 PM, the summer partial-peak periods are 8:30 AM to 12:00

Noon and 6:00 PM to 9:30 PM, and the summer off-peak period is 9:30 PM to 8:30 AM. Saturdays, Sundays, and listed holidays are considered off-peak.

The LAVWMA pumping system provides both manual and automatic control modes that can be selected by the Operator. All ten (10) pumps utilize soft-start devices that start each pump at a reduced frequency, and then ramp the motor slowly up to full speed. The soft-starts reduce electrical demand charges as well as the stress on the pumps and pipeline. In automatic control, the SCADA logic is programmed to select and operate the pumps using a complex algorithm that compares flows, basin levels, basin level set points, and time of day. When automatic control is selected, the computer starts and stops pumps to achieve a calculated flow set-point, and the pumps are picked using a lead-lag sequence that is determined by the Operator. During the quarter, staff utilized six (6) of the ten (10) export pumps and manually selected which pumps to operate at any given time, rather than using automatic control. Using manual control, pumping efficiency averaged 59.9%. Staff continues to study the interplay of demand charges, usage rates, and pump combinations to seek the best partial-peak and/or off-peak strategies that will consistently result in the lowest overall electrical cost. Staff is using this information and working to revise and improve the automatic pump control logic so that, when finished, the computer will be able to select and operate the pumps to achieve the lowest overall electrical cost, during both the summer and winter rate schedules.

Copies of monthly reports that were sent to EBDA during the quarter are attached, which detail daily export flows and chemical analysis of the treated effluent. Langelier saturation index reports for DSRSD, Livermore, and the combined export flow are also attached.

3. MAINTENANCE

During the quarter, a total of 251 preventative maintenance (PM) work orders and 15 corrective maintenance (CM) work orders were completed on LAVWMA equipment and systems.

Noteworthy maintenance during the second quarter of FY 2017-2018 included:

- Holding Basins #1 and #2 were cleaned during the period.
- In October, all sample line hoses at SLSS were replaced.
- In October, Holding Basin #3 was taken out of service due to broken exit gate.
- In October, CorrPro repaired CPT Sta. 617+00.
- In November, McGuire and Hester built an access driveway on the Livermore side for access to rectifier Sta. 235+00.
- In December, staff took delivery of Pumps #8 and #10 and installed them on to the pump pad.

4. UNUSUAL CIRCUMSTANCES

During the quarter, additional laboratory analysis continued at the SLSS per EBDA request to evaluate and better understand potential causes of EBDA's enterococcus and fecal coliform bacti spikes that previously occurred during the Marina Dechlorination Facility (DMF) monitoring program. LAVWMA continues to cooperate with EBDA's requests for additional samples and have reduced hypo residuals at the Livermore Water Reclamation Plant and DSRSD's Regional Wastewater Treatment Facility due to EBDA's reduction of enterococcus and fecal coliform bacti issues. During the quarter, EBDA performed force main inspections. LAVWMA was prepared to secure the pump station due to the OLEPS to MDF inspection but the inspection was cancelled.

The annual LAVWMA Wet Weather Operations Coordination Meeting was held on November 14, 2017 at DSRSD's Wastewater Treatment Plant. Staff members from DSRSD, the City of Pleasanton, the City of Livermore, EBDA, ACWD, and the LAVWMA General Manager attended the meeting to review, discuss, and coordinate wet weather operating strategies and communications for the upcoming rainy season.

5. PUMPING EFFICIENCY

During the quarter, the overall efficiency of the pumping system averaged 59.9%. The energy required to export flow over the Dublin Grade averaged 2,442 kWh per million gallons, resulting in an average electrical cost of $338 per million gallons, or $110 per acre-foot.

Six (6) of the ten (10) export pumps were utilized and a total of 5,585 hours of pump run time were logged. During the quarter, the utilization of the pumps averaged 25.3% of the total capacity of the export pumping system.

Storage Basins No. 1, No. 2, and No. 3 were alternately utilized to equalize the normal dry weather daily flow. The water levels in Basin No. 1 averaged 1.86 feet, the water level in Basin No. 2 averaged 0.58 feet, and the water level in Basin No. 3 averaged 4.76 feet. During the quarter, the utilization of storage averaged 3.79 million gallons, or 21% of the 18 million gallons of total wet weather storage capacity at the pump station.

Detailed information regarding the pumping efficiency, electric usage, and costs is shown in the attached Table 1. Detailed information regarding pump run hours is shown in the attached Table 2. Detailed information regarding average storage basin levels and the average volume in storage (i.e. storage utilization) is shown in the attached Table 3.

6. EXPENSES AND BUDGET UTILIZATION

Year-to-date labor expenses totaled $336,035 for 2,256 man-hours of effort, an average of 2.2 full time equivalents (FTEs). Labor expenses utilized 85.6% of the annual budgeted

amount. Detailed information regarding year-end labor expenses and budget utilization is shown in the attached Table 4.

Total O&M expenses including labor, supplies, laboratory analysis, contractual services, and utilities totaled $849,906, for an average cost of $540 per million gallons pumped, or $176 per acre-foot. O&M expenses utilized 81.8% of the annual budgeted amount. Detailed information regarding year-end O&M expenses and budget utilization is shown in the attached Table 5.

A report of budget comparison to actual expenses for FY 2017-2018 is attached. The report summarizes the actual year-to-date expenses and total labor hours worked.

7. EXPORT FLOWS FROM MEMBER ENTITIES

Monthly export flows from each of LAVWMA's member entities is shown in the attached Table 6.

8. SOLE USE EXPENSES

Monthly expenses for the Livermore sole use pipeline are summarized in the attached Table 7.

9. GENERAL INFORMATION CONTACT NUMBERS

Contact information for each of LAVWMA's member entities is shown on the following page.

LAVWMA Routine and Emergency Contact Information:

Agency	*Contact*	*Office*
DSRSD	Sue Stephenson, Community Affairs Supervisor	(925) 875-2295
LAVWMA	Chuck Weir, General Manager	(925) 875-2233

The routine, non-emergency contact information is as follows:

Agency	*Contact*	*Office*
DSRSD	WWTP Main Office/Control Room Office	(925) 846-4565
DSRSD	Bill Smith, Senior Mechanic	(925) 875-2371
DSRSD	Shawn Quinlan, Mechanical Maintenance Supervisor	(925) 875-2358
DSRSD	Virgil Sevilla, Temporary WWTP Operations Supervisor	(925) 875-2317
DSRSD	Jeff Carson, Operations Manager	(925) 875-2345
DSRSD	Fax Machine	(925) 462-0658

The after-hours and emergency contact information is as follows:

Agency	*Contact*	*Cell*	*Home*
DSRSD	24 Hour On Duty Operator	(925) 519-0557	N/A
DSRSD	Operator II On Duty	(925) 872-5887	N/A
DSRSD	Bill Smith, Senior Mechanic	(925) 570-4161	N/A
DSRSD	Shawn Quinlan, Mechanical Maintenance Supervisor	(925) 570-7878	N/A
DSRSD	Virgil Sevilla, Temporary WWTP Operations Supervisor	(925) 967-5602	N/A
DSRSD	Jeff Carson, Operations Manager	(510) 798-6784	(925) 829-8777

The City of Livermore emergency contact information is as follows:

Agency	*Contact*	*Cell*	*Home*
Livermore	24 Hour On Duty Operator	(925) 960-8160	N/A
Livermore	Darren Greenwood, Director of Public Works	(925) 525-4844	N/A
Livermore	Jimmie Truesdell, Water Resources Operations Manager	(925) 525-2016	(209) 914-3426

The City of Pleasanton emergency contact information is as follows:

Agency	*Contact*	*Cell*	*Home*
Pleasanton	24 Hour On Call Operator	(925) 437-3992	N/A
Pleasanton	Eric Amaro, Chief Utilities System Operator	(925) 437-3605	N/A
Pleasanton	Leonard Olive, Assistant Director of Operations Services	(925) 519-8377	N/A
Pleasanton	Dan Martin, Utilities Superintendent	(925) 354-0477	N/A

TABLE 1

LAVWMA SYSTEM: 2nd QTR FY 2017-2018 Electric Usage, Efficiency, and Costs

	PG&E Service Accounts: Rate Schedule E20S								Total				
	Acct # 8482061923-1 Service A		Acct # 8440395259-5 Service B		Billing	Total			Export Flow	Pumping Energy	Cost		Efficiency
Month	kWh	$	kWh	$	Days	kWh	$/kWh	$	MG	kWh/MG	$/MG	$/AF	%
Oct-17	121,320	$18,067	299,301	$43,727	29	420,621	$0.15	$61,793	215	1,959	$288	$94	71.0%
Nov-17	434,074	$67,075	219,453	$31,460	31	653,527	$0.15	$98,535	311	2,099	$316	$103	66.2%
Dec-17	833,035	$102,645	14,432	$3,397	30	847,467	$0.13	$106,042	259	3,267	$409	$133	42.6%
Quarter													
Average	462,810	$62,596	177,729	$26,194	30	640,538	$0.14	$88,790	262	2,442	$338	$110	59.9%
Total	1,388,429	$187,787	533,186	$78,583	90	1,921,615		$266,370	785				
Minimum	121,320	$18,067	14,432	$3,397	29	420,621	$0.13	$61,793	215	1,959	$288	$94	43%
Maximum	833,035	$102,645	299,301	$43,727	31	847,467	$0.15	$106,042	311	3,267	$409	$133	71%

Notes:

1) Read dates, electric usage, and export flows are matched to PG&E billing periods: October 9/14/17 - 10/12/17; November 10/13/17 - 11/12/17; December 11/13/17 - 12/12/17.

2) PG&E statement for Feeder A for the period 11/13-12/12 for $102,645 not received and processed for payment until 1/16/18; this expense will show in Jan A/P recap (3rd quarter) but for the purpose of this report, this amount will be adjusted to December expenses so that it is accurately included in 2nd quarter report which it should be.

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).

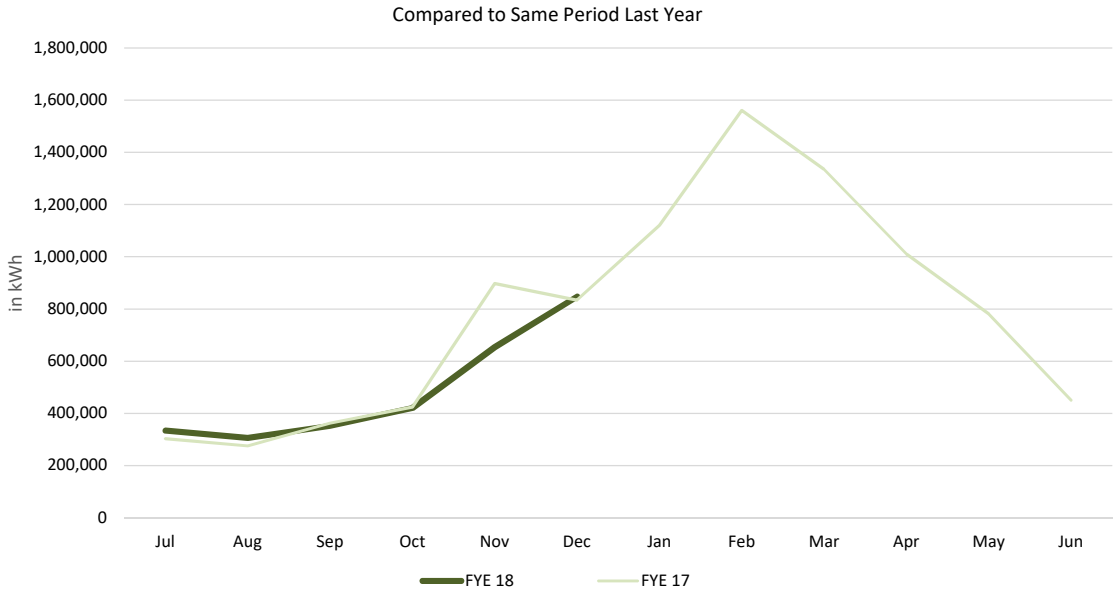


TABLE 2

LAVWMA SYSTEM: 2nd QTR FY 2017-2018 Pump Run Time Hours

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 %
Oct-17	190	206	0	181	179	0	204	117	155	0	1,233	16.6%
Nov-17	418	0	585	8	494	501	0	101	8	0	2,114	29.4%
Dec-17	579	0	567	0	526	567	0	0	0	0	2,238	30.1%
Quarter												
Average	396	69	0	63	0	356	68	0	54	0	1,862	25.3%
Total	1,187	206	1,152	189	1,198	1,068	204	219	163	0	5,585	
Minimum	190	0	0	0	179	0	0	0	0	0	1,233	16.6%
Maximum	579	206	585	181	526	567	204	117	155	0	2,238	30.1%

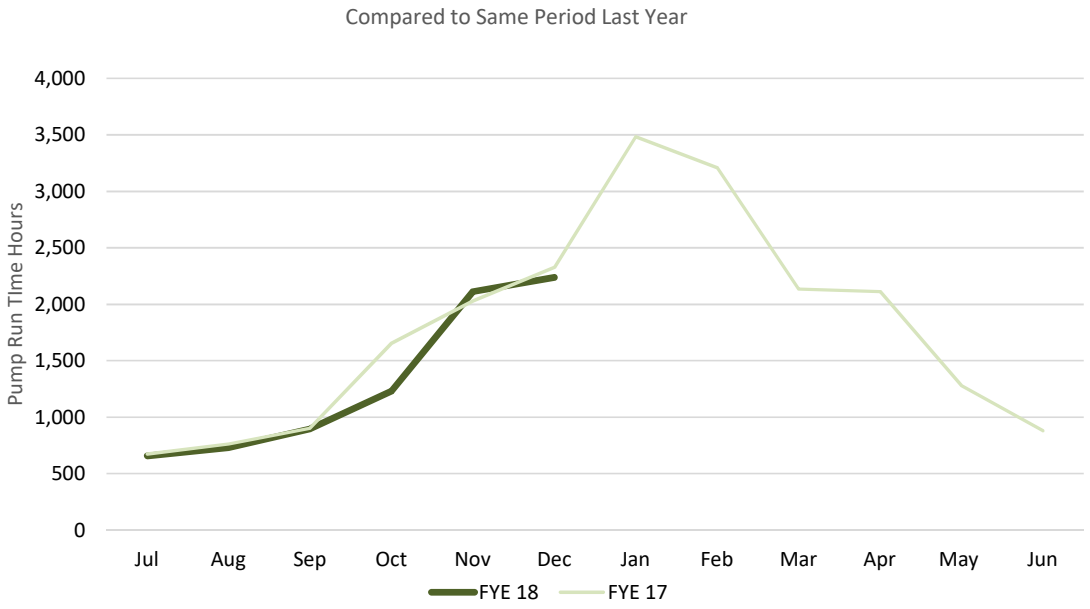
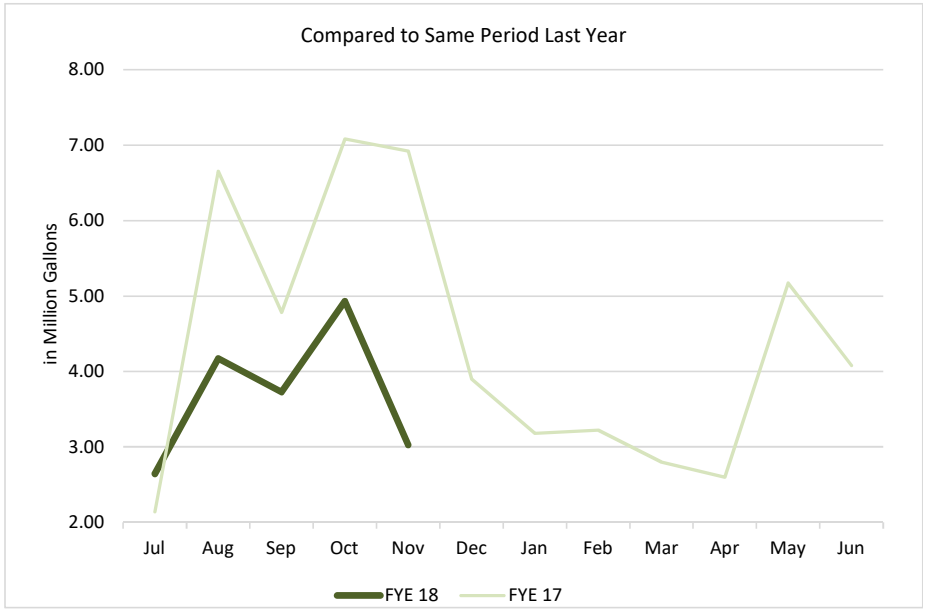


TABLE 3

LAVWMA SYSTEM: 2nd QTR FY 2017-2018 Monthly Average Storage Basin Levels and Volume

Month	Basin No. 1 Feet	Basin No. 2 Feet	Basin No. 3 Feet	Average Volume Stored MG	Storage Available MG	Storage Basin Utilization %
Oct-17	2.14	1.75	5.25	4.93	18	27.4%
Nov-17	1.47	0.00	4.35	3.03	18	16.8%
Dec-17	1.98	0.00	4.68	3.41	18	18.9%
Quarter						
Average	1.86	0.58	4.76	3.79		21%
Minimum	1.47	0.00	4.35	3.03		
Maximum	2.14	1.75	5.25	4.93		



Note: Total available storage volume is 18 million gallons.

TABLE 4

LAVWMA SYSTEM: 2nd QTR FY 2017-2018 Labor Effort, Expenditures, and Budget Utilization

FYE 2018 Labor Budget: $784,903

Month	Billed Labor Hours	FTE Equiv	Labor Invoice	YTD Labor Budget	Monthly Budget Utilization	YTD Labor Budget Remaining	YTD Budget Utilization	Export Flow MG	Export Flow AF
Jul-17	494.8	2.9	$72,392	$65,409	110.7%	$712,511	9.2%	103	315
Aug-17	253.0	1.5	$38,233	$130,817	58.5%	$674,278	14.1%	178	545
Sep-17	230.3	1.3	$35,056	$196,226	53.6%	$639,222	18.6%	203	624
Oct-17	451.5	2.6	$66,156	$261,634	101.1%	$573,066	27.0%	268	823
Nov-17	324.0	1.9	$48,045	$327,043	73.5%	$525,021	33.1%	393	1,205
Dec-17	502.3	2.9	$76,153	$392,452	116.4%	$448,868	42.8%	431	1,321
Jan-18									
Feb-18									
Mar-18									
Apr-18									
May-18									
Jun-18									
Total YTD	2,255.8		$336,035	$392,452	85.6%			1,575	4,834
Average YTD	376.0	2.2	$56,006					263	806
Minimum	230.3	1.3	$35,056		53.6%			103	315
Maximum	502.3	2.9	$76,153	$392,452	116.4%			431	1,321

TABLE 5

LAVWMA SYSTEM: 2nd QTR FY 2017-2018 O&M Expenditures and Budget Utilization

FYE 2018 O&M Budget: $2,079,028

Month	Labor Expenses	A/P Expenses	Total O&M Expenses	YTD O&M Budget	Monthly Budget Utilization	YTD O&M Budget Remaining	YTD Budget Utilization	Overall O&M Cost $/MG	Overall O&M Cost $/AF
Jul-17	$72,392	$12,110	$84,502	$173,252	48.8%	$1,994,526	4.1%	$822	$268
Aug-17	$38,233	$101,331	$139,563	$346,505	80.6%	$1,939,465	6.7%	$786	$256
Sep-17	$35,056	$82,391	$117,447	$519,757	67.8%	$1,961,581	5.6%	$578	$188
Oct-17	$66,156	$75,533	$141,689	$693,009	81.8%	$1,937,339	6.8%	$528	$172
Nov-17	$48,045	$114,156	$162,201	$866,262	93.6%	$1,916,827	7.8%	$413	$135
Dec-17	$76,153	$128,350	$204,503	$1,039,514	118.0%	$1,874,525	9.8%	$475	$155
Jan-18									
Feb-18									
Mar-18									
Apr-18									
May-18									
Jun-18									
Total YTD	$336,035	$513,871	$849,906	$1,039,514	81.8%				
Average YTD	$56,006	$85,645	$141,651					$540	$176
Minimum	$35,056	$12,110	$84,502		48.8%			$413	$135
Maximum	$76,153	$128,350	$204,503		118.0%			$822	$268

Footnote: PG&E statement for Feeder A for the period 11/13-12/12 was not received and processed for payment until 1/16/18; amount is $102,645 - this expense will show in Jan A/P recap (3rd quarter) but for the purpose of this report, this amount will be adjusted to December expenses so that it is accurately included in 2nd quarter report which it should be.

TABLE 6

LAVWMA SYSTEM: FY 2017-2018 Monthly Export Flow

Month	Dublin San Ramon Flow * MG	Pleasanton Flow * MG	Livermore Flow MG	Combined Export Flow MG
Jul-17	0	26	77	103
Aug-17	0	96	82	178
Sep-17	32	86	85	203
Oct-17	57	117	94	268
Nov-17	153	127	113	393
Dec-17	171	142	118	431
Jan-18				
Feb-18				
Mar-18				
Apr-18				
May-18				
Jun-18				
Total YTD	413	594	568	1,575
Average	69	99	95	263
Minimum	0	26	77	103
Maximum	171	142	118	431

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

TABLE 7

LAVWMA SYSTEM: FY 2017-2018 O&M Expenditures and Budget Utilization

Month	Livermore Sole Use Facilities Labor Expenses	Livermore Sole Use Facilities A/P Expenses	Livermore Sole Use Facilities Total Expenses
Jul-17	$2,220	$177	$2,397
Aug-17	$1,925	$282	$2,207
Sep-17	$3,236	$378	$3,614
Oct-17	$0	$409	$409
Nov-17	$1,731	$167	$1,898
Dec-17	$603	$184	$787
Jan-18			
Feb-18			
Mar-18			
Apr-18			
May-18			
Jun-18			
Total YTD	$9,715	$1,597	$11,312
Average YTD	$1,619	$266	$1,885
Minimum	$0	$167	$409
Maximum	$3,236	$409	$3,614

LAVWMA **FY 2017-2018**
BUDGET COMPARISON TO ACTUAL EXPENSES

ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M															
	Approved Budget	July	August	September	October	November	December	January	February	March	April	May	June	YTD	YTD
	FY 2017-2018	2017	2017	2017	2017	2017	2017	2018	2018	2018	2018	2018	2018	TOTAL	Budget
Labor															
Staff	$784,903	$72,392	$38,233	$35,056	$66,156	$48,045	$76,153							$336,036	$196,226
Subtotal	**$784,903**	**$72,392**	**$38,233**	**$35,056**	**$66,156**	**$48,045**	**$76,153**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$336,036**	**$196,226**
Materials & Supplies															
Operations Supplies	$13,200	$0	$0	$0	$0	$0	$13,903							$13,903	$3,300
Mechanical Supplies	$32,000	$977	$376	$997	$441	$3,038	$92							$5,920	$8,000
Electrical Supplies	$20,000	$0	$781	$16,226	$1,231	$6,480	$20,298							$45,016	$5,000
Subtotal	**$65,200**	**$977**	**$1,157**	**$17,222**	**$1,672**	**$9,518**	**$34,293**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$64,839**	**$16,300**
Laboratory Analysis															
Compliance Testing	$18,000	$668	$835	$668	$668	$835	$668							$4,342	$4,500
Operational Support Testing	$3,700	$308	$308	$308	$308	$308	$308							$1,848	$925
Special Sampling	$5,000	$261	$990	$1,904	$2,176	$1,088	$1,088							$7,507	$1,250
Subtotal	**$26,700**	**$1,237**	**$2,133**	**$2,880**	**$3,152**	**$2,231**	**$2,064**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$13,697**	**$6,675**
Contractual Services															
Sub-surface Repairs	$5,000	$0	$0	$0	$0	$0	$0							$0	$1,250
Street Sweeping	$5,000	$0	$220	$220	$275	$220	$0							$935	$1,250
Cathodic Protection	$16,000	$0	$0	$0	$0	$0	$0							$0	$4,000
Underground Service Alert	$1,140	$2,806	$0	$0	$0	$0	$0							$2,806	$285
SCADA/PowerXpert software support	$10,000	$6,537	$0	$0	$0	$0	$0							$6,537	$2,500
Rectifier SCADA (5 yr contract)	$0	$0	$0	$0	$0	$0	$0							$0	$0
HVAC Maintenance/Repairs	$750	$0	$0	$0	$0	$0	$0							$0	$188
Termite/Pest Control	$900	$74	$0	$148	$74	$0	$148							$444	$225
Landscape/weed maintenance	$8,500	$0	$0	$0	$0	$2,450	$994							$3,444	$2,125
Fire Extinguisher Maint	$200	$0	$0	$0	$0	$0	$0							$0	$50
Postage/Shipping Charges	$250	$0	$0	$0	$0	$0	$0							$0	$63
Professional Services, misc	$10,000	$0	$1,187	$1,489	$7,564	$9	$857							$11,105	$2,500
Subtotal	**$57,740**	**$9,417**	**$1,407**	**$1,857**	**$7,913**	**$2,679**	**$1,999**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$25,272**	**$14,435**
Utilities															
Electricity (PG&E)	$1,135,605	$479	$95,448	$59,769	$62,241	$99,077	-$12,650							$304,364	$283,901
Water & Sewer (Pleasanton)	$1,000	$0	$137	$149	$0	$159	$0							$445	$250
Water (EBMUD)	$880	$0	$147	$163	$0	$141	$0							$450	$220
Telephone/communications	$4,500	$0	$902	$351	$555	$351	$0							$2,159	$1,125
WW Treatment (DSRSD)	$2,500	$0	$0	$0	$0	$0	$0							$0	$625
Subtotal	**$1,144,485**	**$479**	**$96,634**	**$60,432**	**$62,796**	**$99,728**	**-$12,650**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$307,419**	**$286,121**
Non-Routine															
Pump Efficiency Testing	$0	$0	$0	$0	$0	$0	$0							$0	$0
Corrosion Studies/ Inspections	$0	$0	$0	$0	$0	$0	$0							$0	$0
Med Voltage Switchgear Tri-Annual PM	$0	$0	$0	$0	$0	$0	$0							$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total	**$2,079,028**	**$84,502.07**	**$139,563**	**$117,447**	**$141,689**	**$162,201**	**$101,858.90**	**$0.00**	**$0.00**	**$0.00**	**$0**	**$0**	**$0**	**$747,261**	**$519,757**
Monthly Export Flow, mg	**4,078**	**103**	**178**	**203**	**268**	**393**	**431**							1,576	**1,020**
Pumping Efficiency		**41.1%**	**59.1%**	**71.5%**	**71.0%**	**66.2%**									
Monthly Cost, $/mg		$822	$786	$578	$529	$413	$236								
YTD Running Cost, $/mg	**$510**	**$822**	**$799**	**$706**	**$643**	**$564**	**$474**								

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES

ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M															
FY 2017-2018		Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	YTD TOTAL	YTD Budget
Estimated Personnel Hours															
Division 51 - FOD	52	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.00	13.00
Water/Wastewater Sys OP IV	32	0.00	0.00	0.00	0.00	0.00	0.00							0.00	8.00
Water/Wastewater Sys OP III	0	8.00	0.00	0.00	0.00	0.00	0.00							8.00	0.00
Water/Wastewater Sys OP II	0	8.00	0.00	0.00	0.00	0.00	0.00							8.00	0.00
Maintenance Worker II	16	0.00	0.00	0.00	0.00	0.00	0.00							0.00	4.00
Supervisor	4	0.00	0.00	0.00	0.00	0.00	0.00							0.00	1.00
Division 52 - WWTP	2,612	175.00	86.50	99.25	201.00	175.00	236.00	0.00	0.00	0.00	0.00	0.00	0.00	972.75	653.00
Process Lead Operator V	200	22.00	13.00	10.50	14.00	8.00	14.50							82.00	50.00
Senior WWTP Operator III	590	51.50	32.00	30.75	43.00	43.00	63.50							263.75	147.50
Operator II	1,772	95.50	33.50	51.00	137.50	113.00	144.00							574.50	443.00
Supervisor	50	6.00	8.00	7.00	6.50	11.00	14.00							52.50	12.50
Division 53 - MECH	1,612	150.25	125.00	109.00	66.50	70.00	160.25	0.00	0.00	0.00	0.00	0.00	0.00	681.00	403.00
Senior Mechanic-Crane Cert	462	53.00	53.50	46.50	14.50	32.50	69.50							269.50	115.50
Senior Mechanic - USA	0	6.00	6.50	10.25	9.50	7.00	2.50							41.75	0.00
Mechanic II	1,100	69.25	48.25	43.75	19.50	15.75	57.00							253.50	275.00
Mechanic II - USA	0	21.50	16.50	8.50	22.50	14.50	17.25							100.75	0.00
Supervisor	50	0.50	0.25	0.00	0.50	0.25	14.00							15.50	12.50
Division 54 - ELEC	850	141.50	30.00	19.50	171.00	66.00	93.50	0.00	0.00	0.00	0.00	0.00	0.00	521.50	212.50
Senior Instrument/Controls Tech	8	0.00	0.00	2.00	0.00	0.00	3.00							5.00	2.00
Instrument Tech	260	129.50	14.00	5.50	80.00	23.00	5.50							257.50	65.00
OPS Control Sys Spec	250	0.00	6.00	3.00	16.00	0.00	51.00							76.00	62.50
Senior Electrician	108	7.00	4.00	0.00	0.00	0.00	0.00							11.00	27.00
Electrician	200	5.00	6.00	8.00	75.00	43.00	34.00							171.00	50.00
Supervisor	24	0.00	0.00	1.00	0.00	0.00	0.00							1.00	6.00
Division 26 - SAFETY	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.00
Safety Officer	48	0.00	0.00	0.00	0.00	0.00	0.00							0.00	12.00
Division 40 - ENG	100	12.00	11.50	2.50	13.00	13.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	64.50	25.00
Senior Civil Engineer-SME	100	12.00	11.50	2.50	13.00	13.00	12.50							64.50	25.00
Total Estimated Personnel Hours	5,274														1,318.50
Total Monthly Hours		494.75	253.00	230.25	451.50	324.00	502.25	0.00	0.00	0.00	0.00	0.00	0.00	2,255.75	1,318.50

Dublin San Ramon Services District
Water, wastewater, recycled water

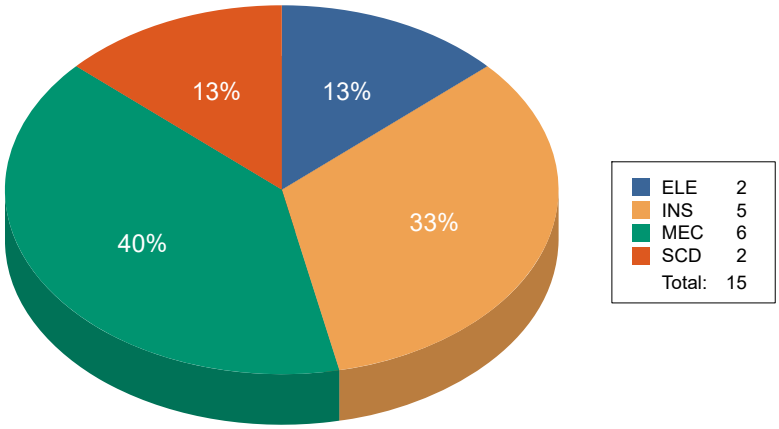
Operations Department

LAVWMA CORRECTIVE MAINTENANCE WORK ORDERS (WO)

2nd Quarter - FYE 2018

	Total Count		Avg Age of Comp WO	Complete	
ELECTRICIAN	2	13%	3	2	13%
INSTRUMENT TECHNICIAN	5	33%	16	5	33%
MECHANIC	6	40%	3	6	40%
SCADA	2	13%	44	2	13%
Total	15	100%	13	15	100%

Count of WO Generated / Classification



Dublin San Ramon Services District
Water, wastewater, recycled water

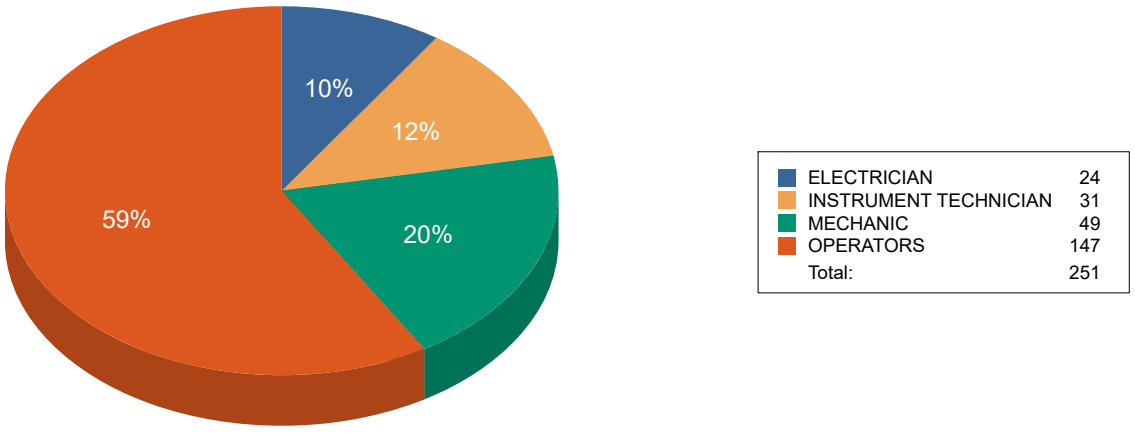
Operations Department

LAVWMA PREVENTIVE MAINTENANCE WORK ORDERS (WO)

2nd Quarter - FYE 2018

	Total Count		Avg Age of Comp WO	Complete		New Work Order	
ELECTRICIAN	**24**	9%	15	**20**	11%	**4**	5%
INSTRUMENT TECHNICIAN	**31**	12%	12	**24**	13%	**7**	9%
MECHANIC	**49**	19%	16	**38**	21%	**11**	15%
OPERATORS	**147**	58%	12	**98**	54%	**49**	69%
Total	**251**	100%	13	**180**	100%	**71**	100%

Count of WO Generated / Classification



LAVWMA Quarterly Instrumentation Calibration Report

Year: 2017

Quarter: January April July **October**

Instrumentation Calibration Certified by: MBJ

EQPT ID	EQPT DESCRIPTION	Range	Initial Reading	Post Calibration Reading	% Difference	Initial 4ma	Post 4ma	Initial 20ma	Post 20ma	Comments	Date
	JUNCTION STRUCTURE										
B1-1FIT	FLOWMETER, DSRSD LINE	0-40 MGD	0	0		4	4	20	20	EMCO - Replaced 9/17/08 as per L. Fuller	10/3/2017
B1-2FIT	FLOWMETER, LIVERMORE LINE	0-18 MGD	1.7	1.7		4	4	20	20	ISCO/EMCO	10/3/2017
B2-1AIT	ANALYZER, pH, DSRSD LINE	2-12 pH	7.4	7.6	3%	N/A	N/A	N/A	N/A	Cal. w/ 4 and 10 pH / Standardized w/ 7	10/2/2017
B2-2AIT	ANALYZER, pH, LIVERMORE LINE	2-12 pH	7.2	7.4	3%	N/A	N/A	N/A	N/A	Cal. w/ 4 and 10 pH / Standardized w/ 7	10/2/2017
B2-3AIT	ANALYZER, Cl2, LIVERMORE LINE	0-20 mg/l	1.15	3.6	68%	N/A	N/A	N/A	N/A	Verify with HACH Portable Lab Standards	10/2/2017
B2-4AIT	ANALYZER, Cl2, DSRSD LINE	0-20 mg/l	1.35	3.3	59%	N/A	N/A	N/A	N/A	Verify with HACH Portable Lab Standards	10/2/2017
B2-5AIT	ANALYZER, Cl2, COMBINED	0-20 mg/l	N/A	N/A		N/A	N/A	N/A	N/A	Not in Service; Needs re-plumbing in wetwell	
B4-3LIT	LEVEL TRANSMITTER, OVERFLOW	0-16.70 ft	0	0		4	4	20	20	HydroRanger	10/3/2017
	EXPORT PUMP STATION										
CP1RTU	RTU PANEL, EXPORT PUMP STATION	24 V				N/A	N/A	N/A	N/A	Check 24v PS, Check all terminations, fuses, etc.	
D1LIT	LEVEL TRANSMITTER, BASIN 1	0-15 ft	-0.1	0		4	4	19.9	20	MiniRanger Plus	10/9/2017
D2LIT	LEVEL TRANSMITTER, BASIN 2	0-15 ft	3.57	3.25	-10%	4.3	4	20	20	MiniRanger Plus	10/9/2017
D3LIT	LEVEL TRANSMITTER, BASIN 3	0-15 ft	-0.41	0		4	4	19.6	20	MiniRanger Plus	10/9/2017
E11-1LIT	LEVEL TRANSMITTER, EAST WETWELL	0-24 ft	11.77	11.77		4	4	20	20	HydroRanger	10/9/2017
E11-2LIT	LEVEL TRANSMITTER, WEST WETWELL	0-24 ft	11.75	11.76		4	4	20	20	HydroRanger	10/9/2017
E1PIT	PRESSURE TRANSMITTER, PUMP 1	0-250 psi	0.3	0		4.2	4	20	20	HART	10/5/2017
E2PIT	PRESSURE TRANSMITTER, PUMP 2	0-250 psi	0.4	0		4.2	4	20	20	HART	10/5/2017
E3PIT	PRESSURE TRANSMITTER, PUMP 3	0-250 psi	0.5	0		4.3	4	20	20	HART	10/5/2017
E4PIT	PRESSURE TRANSMITTER, PUMP 4	0-250 psi	0.3	0		4.1	4	20	20	HART	10/5/2017
E5PIT	PRESSURE TRANSMITTER, PUMP 5	0-250 psi	0.3	0		4.2	4	20	20	HART	10/5/2017
E6PIT	PRESSURE TRANSMITTER, PUMP 6	0-250 psi	0	0		4	4	20	20	HART	10/5/2017
E7PIT	PRESSURE TRANSMITTER, PUMP 7	0-250 psi	0	0		4	4	20	20	HART	10/5/2017
E8PIT	PRESSURE TRANSMITTER, PUMP 8	0-250 psi	0.4	0		4.2	4	20	20	HART	10/5/2017
E9PIT	PRESSURE TRANSMITTER, PUMP 9	0-250 psi	0	0		4	4	20	20	HART	10/5/2017
E10PIT	PRESSURE TRANSMITTER, PUMP 10	0-250 psi	0.2	0		4.1	4	20	20	HART	10/5/2017
G2FIT	FLOWMETER FOR PIPELINE 1	0-30 MGD	0	0		4	4	20	20	ISCO/EMCO	10/10/2017
H2PIT	PRESSURE TRANSMITTER, PIPELINE 1	0-400 psi	173.6	173		4.1	4	20	20	HART	10/10/2017
G1FIT	FLOWMETER FOR PIPELINE 2	0-30 MGD	0	0		4	4	20	20	ISCO/EMCO	10/10/2017
H1PIT	PRESSURE TRANSMITTER, PIPELINE 2	0-400 psi	173	173		4	4	20	20	HART	10/10/2017
H1AIT	ANALYZER, CHLORINE, PIPELINE 2	0-10 mg/l	1.3	1.27	-2%	N/A	N/A	N/A	N/A	Verify with HACH Portable Lab Standards	10/11/2017
H2-2AIT	ANALYZER, pH, PIPELINE 1	2-12 pH	7.11	7.18	1%	N/A	N/A	N/A	N/A	Cal. With 4 and 7 pH Standards	10/11/2017
H3PIT	PRESSURE TRANSMITTER COMP. TANK	0-300 psi	197.5	197.4			4		20	HART	10/11/2017
	SAMPLE STATION										
1001LIT	LEVEL TRANSMITTER, CaS2O3 TANK	0-10 ft	1.88	1.88		4	4	20	20	MiniRanger Plus	10/12/2017
1009AIT	ANALYZER, Cl2, EXPORT & De-Cl2	0-10 mg/l	0.02	0		N/A	N/A	N/A	N/A	ATI	10/12/2017
1017FIT	FLOWMETER, EXPORT PIPELINE	0-41.2 MGD	8.67	8.67		4	4	20	20	ISCO/EMCO	10/12/2017
1106PIT	PRESSURE, EXPORT PIPELINE	0-100 psi	1.1	1.1		4	4	20	20	HART	10/12/2017
1101FIT	FLOWMETER, DECHLOR	0-41.2 MGD	0	0		4	4	20	20	ISCO/EMCO	10/12/2017
1116PIT	PRESSURE, SAMPLE PUMP	0-100 psi	30.5	30.6		4	4	20	20	HART	10/12/2017
1110AIT	ANALYZER, pH, EXPORT & De-Cl2	2-12 pH	OOS	OOS		N/A	N/A	N/A	N/A	ROSEMOUNT, Removed 9/9/17 as per OPS	
			1.35								

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

LAVWMA MONTHLY REPORT

RESULTS OF ANALYSES

YEAR 2017

MONTH October LAVWMA REPORT

DATE	Export Pump Flow MGD	BIOCHEMICAL OXYGEN DEMAND SAMPLE STATION W(C) MG/L	BIOCHEMICAL OXYGEN DEMAND SAMPLE STATION W(C) KG/D	SUSPENDED MATTER SAMPLE STATION W(C) MG/L	SUSPENDED MATTER SAMPLE STATION W(C) KG/D	pH EXPORT PUMP STATION Min. pH	pH EXPORT PUMP STATION Max. pH	CHLORINE RESIDUAL PUMP STATION MG/L	CHLORINE RESIDUAL SLS STATION MG/L
1	6.33					7.11	7.24	2.356	0.007
2	11.67					7.08	7.21	2.920	0.003
3	10.25					7.14	7.23	1.825	0.002
4	3.53	3.2	43	10.0	134	7.09	7.19	1.342	0.032
5	5.75					7.10	7.18	1.126	0.026
6	6.37					7.09	7.18	0.886	0.015
7	6.68					7.10	7.19	0.401	0.008
8	6.70					7.10	7.19	0.722	0.010
9	10.95					7.14	7.20	1.534	0.005
10	12.55					7.14	7.21	1.253	0.000
11	3.01	3.2	37	11.6	132	7.10	7.20	1.360	0.009
12	6.40					6.99	7.25	1.324	0.010
13	6.00					7.15	7.28	1.763	0.008
14	6.72					7.16	7.26	1.505	0.005
15	6.65					7.18	7.23	1.937	0.007
16	14.09					7.16	7.23	1.739	0.004
17	13.76					7.06	7.20	1.512	0.000
18	4.55	1.7	29	9.0	155	7.16	7.31	1.001	0.002
19	6.60					7.19	7.35	0.747	0.004
20	6.45					7.25	7.33	0.405	0.003
21	6.63					7.25	7.32	0.412	0.001
22	6.68					7.22	7.31	0.680	0.001
23	16.90					7.13	7.24	0.596	0.000
24	17.52					7.03	7.17	0.295	0.022
25	5.69	4	86	9.0	194	7.06	7.14	0.244	0.015
26	7.94					7.00	7.64	0.236	0.002
27	7.92					7.08	7.29	0.207	0.001
28	7.90					7.08	7.18	0.420	0.000
29	7.93					7.09	7.20	0.659	0.000
30	14.48					7.11	7.19	1.062	0.000
31	13.65					7.09	7.18	1.060	0.000
MAX.	17.52	4.0	86	11.6	194	7.25	7.64	2.920	0.032
MIN.	3.01	1.7	29	9.0	132	6.99	7.14	0.207	0.000
AVE.	8.65	3.0	49	9.9	154	7.12	7.24	1.082	0.007
TOTAL	268.22								

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

LAVWMA MONTHLY REPORT

RESULTS OF ANALYSES

YEAR 2017

MONTH November LAVWMA REPORT

DATE	Export Pump Flow MGD	BIOCHEMICAL OXYGEN DEMAND SAMPLE STATION W(C) MG/L	BIOCHEMICAL OXYGEN DEMAND SAMPLE STATION W(C) KG/D	SUSPENDED MATTER SAMPLE STATION W(C) MG/L	SUSPENDED MATTER SAMPLE STATION W(C) KG/D	pH EXPORT PUMP STATION Min. pH	pH EXPORT PUMP STATION Max. pH	CHLORINE RESIDUAL PUMP STATION MG/L	CHLORINE RESIDUAL SLS STATION MG/L
1	4.08	3.5	54	8.8	136	7.09	7.17	0.970	0.007
2	7.74					7.05	7.21	0.586	0.000
3	13.59					7.07	7.17	0.585	0.000
4	11.42					7.06	7.12	0.668	0.000
5	11.35					7.05	7.12	0.498	0.000
6	12.92					7.01	7.11	0.562	0.000
7	14.43					6.90	7.09	0.282	0.001
8	10.27	3.7	144	8.4	326	7.01	7.10	0.495	0.000
9	11.74					6.97	7.19	0.186	0.000
10	11.69					6.93	7.25	0.062	0.000
11	11.86					7.05	7.15	0.130	0.000
12	12.28					7.01	7.11	0.467	0.000
13	15.79					7.02	7.12	0.295	0.000
14	14.31					7.10	7.16	0.081	0.000
15	10.25	4.6	178	8.6	334	7.08	7.14	0.067	0.002
16	12.81					7.12	7.16	2.468	0.000
17	12.97					7.08	7.13	1.462	0.000
18	17.57					7.05	7.12	0.450	0.000
19	16.07					7.10	7.19	0.427	0.000
20	16.60					7.10	7.18	0.332	0.000
21	15.18					7.03	7.10	0.214	0.000
22	11.73	4.8	213	9.8	435	7.00	7.04	0.213	0.000
23	13.21					7.01	7.44	0.292	0.000
24	13.47					7.22	7.31	0.455	0.000
25	15.20					7.17	7.26	0.332	0.000
26	15.58					7.18	7.23	0.163	0.000
27	14.69					7.17	7.23	0.481	0.000
28	15.25					7.03	7.22	1.739	0.001
29	14.14	4.2	225	29.2	1563	6.99	7.07	2.329	0.016
30	14.56					7.05	7.31	1.590	0.013
MAX.	17.57	4.8	225	29.2	1563	7.22	7.44	2.468	0.016
MIN.	4.08	3.5	54	8.4	136	6.90	7.04	0.062	0.000
AVE.	13.09	4.2	163	13.0	559	7.06	7.17	0.629	0.001
TOTAL	392.74								

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

LAVWMA MONTHLY REPORT

RESULTS OF ANALYSES

YEAR 2017

MONTH December LAVWMA REPORT

DATE	Export Pump Flow MGD	BIOCHEMICAL OXYGEN DEMAND SAMPLE STATION W(C) MG/L	KG/D	SUSPENDED MATTER SAMPLE STATION W(C) MG/L	KG/D	pH EXPORT PUMP STATION Min. pH	pH EXPORT PUMP STATION Max. pH	CHLORINE RESIDUAL PUMP STATION MG/L	CHLORINE RESIDUAL SLS STATION MG/L
1	13.51					7.15	7.26	1.767	0.016
2	17.00					7.11	7.17	1.277	0.012
3	15.61					7.12	7.19	0.917	0.013
4	13.37					7.10	7.18	0.968	0.014
5	13.53					7.08	7.16	1.624	0.013
6	14.41	7	358	17.4	889	7.08	7.22	1.888	0.011
7	14.33					7.10	7.22	2.387	0.022
8	12.71					7.05	7.17	1.833	0.020
9	15.82					7.10	7.21	1.643	0.014
10	14.52					7.13	7.20	1.634	0.001
11	11.43					7.07	7.14	2.516	0.004
12	13.79					7.05	7.10	2.872	0.009
13	13.38	4	192	12.0	577	6.99	7.06	1.995	0.014
14	12.17					6.99	7.18	3.376	0.013
15	24.24					7.02	7.19	1.386	0.013
16	4.81					7.10	7.17	1.766	0.012
17	15.14					7.08	7.14	1.444	0.010
18	13.47					7.00	7.12	1.035	0.003
19	12.45					7.03	7.12	1.081	0.001
20	14.05	6.4	587	12.2	1120	7.02	7.38	2.178	0.011
21	13.61					7.20	7.42	2.342	0.002
22	14.74					7.18	7.34	2.379	0.033
23	14.57					7.28	7.40	2.772	0.013
24	24.78					7.28	7.36	2.942	0.013
25	1.89					7.29	7.38	3.543	0.013
26	13.03					7.31	7.43	3.996	0.012
27	14.38	8.03	674	20.3	1704	7.23	7.35	3.528	0.011
28	13.06					7.31	7.40	4.418	0.011
29	22.17					7.24	7.36	4.997	0.011
30	4.02					7.22	7.36	4.997	0.011
	14.62					7.24	7.29	4.867	0.012
MAX.	24.78	8.0	674	20.3	1704	7.31	7.43	4.997	0.033
MIN.	1.89	4.0	192	12.0	577	6.99	7.06	0.917	0.001
AVE.	13.89	6.4	453	15.5	1072	7.13	7.25	2.463	0.012
TOTAL	430.58								

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

LAVWMA

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
10/10/17	600	23.8	96	320	7.4	7.3	0.0
11/22/17	609	23.0	98	290	7.4	7.4	0.0
12/22/17	910	19.8	170	435	7.4	7.1	0.3
MAXIMUM	910	23.8	170	435	7.4	7.4	0.3
MINIMUM	600	19.8	96	290	7.4	7.1	0.0
AVERAGE	706	22.2	121	348	7.4	7.3	0.1

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY

DSRSD

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
10/10/17	661	25.5	134	350	7.6	7.1	0.4
11/22/17	631	23.6	112	310	7.4	7.3	0.1
12/22/17	996	20.8	190	475	7.5	7.0	0.5
MAXIMUM	996	25.5	190	475	7.6	7.3	0.5
MINIMUM	631	20.8	112	310	7.4	7.0	0.1
AVERAGE	763	23.3	145	378	7.5	7.1	0.3

CITY OF LIVERMORE
LIVERMORE WATER RECLAMATION PLANT

Both pH Saturation Indices

Collection DATE	TDS (mg/L)	Temp (ºC)	Ca Hardness (mg/L $CaCO_3$)	Alkalinity (mg/L $CaCO_3$)	pH (Actual)	pH Saturation	Langlier Index
10/04/17	510	25.0	64	308	7.6	7.5	0.1
11/01/17	530	23.0	68	347	7.6	7.5	0.1
12/06/14	510	20.0	67	283	7.4	7.7	-0.3
MAXIMUM	530	25.0	68	347	7.6	7.7	0.1
MINIMUM	510	20.0	64	283	7.4	7.5	-0.3
AVERAGE	517	22.7	66	313	7.5	7.6	0.0

End of Report
LAVWMA Quarter Report of Operations
FY 2017-2018 2nd Quarter

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
February 21, 2018

ITEM NO. 9 UPDATE AND RESPONSE TO VARIOUS LEGAL AND LEGISLATIVE ISSUES

Action Requested
None at this time.

Summary
Please refer to the following summary list of legislative issues of interest to sanitation agencies and special districts as provided by California Special District Association (CSDA). The texts have been copied from emails received from CSDA. As of this writing, California Association of Sanitation Agencies (CASA) has not developed a list of 2018 legislation that it is following.

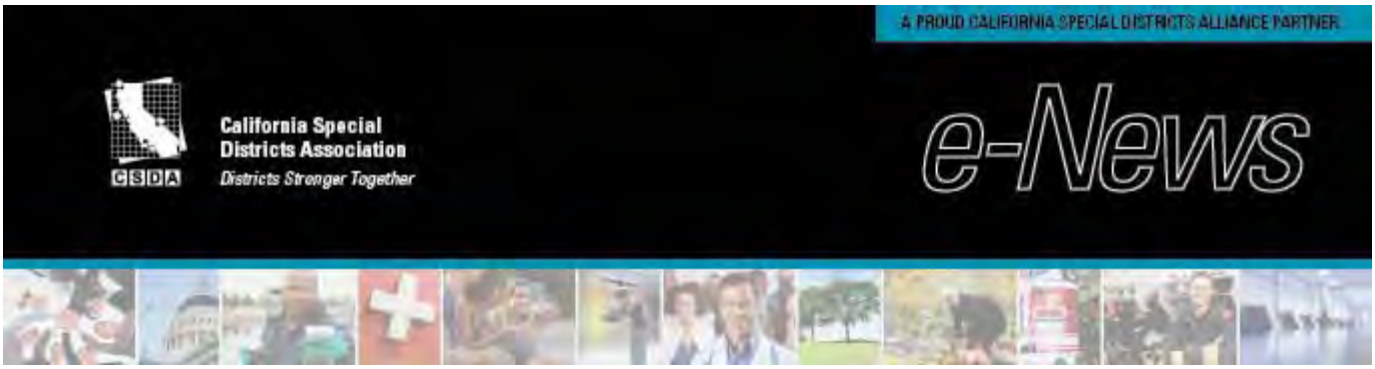
Two Legislative Items from CSDA
There are two items of interest from CSDA for the LAVWMA member agencies:

1. The first item is a list of bills from 2017 that CSDA was able to help keep from passing.

2. The second item is an article noting that the Governor's Budget includes a state tax on water bills. It will likely follow the framework of SB 623 (Monning).

A more comprehensive list of legislative and legal issues will likely be available for the May 16, 2018 Board meeting.

Recommendation
There is no recommendation at this time.



CSDA Helps Kill Bad Bills Left Over from 2017

With the State Legislature working in a two-year cycle, special districts were able to celebrate an early season January victory when several bills failed to move forward. CSDA was opposed to all of the following proposed legislation, which would have detrimentally impacted special districts across California:

AB 408 (Chen)

AB 408 would have increased costs of using eminent domain to construct public works projects. Specifically, the bill required payment of a defendant's legal costs in eminent domain cases if the initial offer of the public agency was lower than 90% of the compensation finally awarded to the defendant.

AB 594 (Irwin)

This bill aimed to exempt solar and wind energy projects from preparing a water supply assessment if the project would have been subject to CEQA and would have used under 75 acre-feet of water annually. If it had passed, this bill would have allowed a proliferation of solar and wind energy projects without any assessment of the impact of projects on the local water supply. To help stop this bill from becoming law, CSDA participated in a coalition that persuaded the author not to go forward with the bill.

AB 1489 (Brough)

As drafted, AB 1489 sought to immunize architects from liability if plans prepared by an architect were later subject to a change order. Such immunity for architects would have increased liability and legal costs for special districts. The author withdrew the bill after a coalition, including CSDA, indicated their opposition.

AB 5 (Gonzalez Fletcher)

Labeled by the California Chamber of Commerce as a "Job Killer," AB 5 would have mandated that both private and public employers, with 10 or more employees, offer additional work to existing part-time employees before hiring a new employee, temporary employee, or contractor. This bill was held under submission by the Assembly Appropriations Committee until it failed deadline.

AB 672 (Jones-Sawyer)

This bill would have reduced the ability of both public and investor owned utilities to recover three times the amount of actual damages, plus attorney's fees, when someone steals from the utility. The author chose not to move forward with this bill in 2018.

AB 946 (Ting)

AB 946 would have required CalPERS and CalSTRS to divest from any company assisting in the construction of a border wall. The author chose not to move forward with this bill in 2018.

SB 657 (Bates)

This bill would have allowed an original requester of a public record, utilizing the California Public Records Act (CPRA), to participate in a reverse public records hearing and would require local agencies to pay for

legal costs if they were found to have delayed providing records to the requester under the CPRA.

California Special Districts Association | 1112 I Street | Suite 200 | Sacramento, CA 95814 | 877.924.CSDA (2732)

A Proud California Special Districts Alliance Partner

A PROUD CALIFORNIA SPECIAL DISTRICTS ALLIANCE PARTNER

California Special Districts Association
Districts Stronger Together

e-News

Governor's Budget Includes Tax on Water Bills

Governor Brown's initial budget proposal for 2018-2019, released in January, includes funding to implement a new State tax on water bills. While just a "framework" at this point, the tax is expected to cost ratepayers from $1 to $10 per month depending on the size of the household's water meter. The proposal would also place a fee on fertilizer mills and dairies. The new revenue would fund State Water Board efforts to provide safe and affordable drinking water to disadvantaged communities with unsecure water supplies. The Governor's proposed budget provides $4.7 million in 2018-2019 for the State Water Board and the Department of Food and Agriculture to take initial steps toward implementation of this new program, including developing and implementing tax collection systems, conducting an assessment to estimate the level of funding needed to assist water systems, and developing and making available a map of high-risk aquifers used as drinking water sources.

While the Administration has not released the statutory language for the proposal, it has indicated it will be developed out of the framework of SB 623 (Monning), introduced last summer. SB 623 establishes a statewide tax on water, to be collected as a surcharge on water bills by local agencies. Households living under 200% of the federal poverty level would be exempt from the surcharge. The bill also raises fees on fertilizer mills and dairy producers. In exchange for increased fees, SB 623 will provide time-limited protections from enforcement for these businesses under the Porter-Cologne Water Quality Control Act. To be eligible, the businesses must be regulated by the state and in compliance to benefit. This includes a requirement to implement nitrate management programs, best management practices and other state requirements.

According to the Assembly Appropriations Committee, the water tax is expected to raise approximately $100 million a year to be used to fund projects that improve access to safe drinking water. This aid will be primarily funneled to disadvantaged communities that lack such access to clean drinking water. The funds may be spent on water purification and treatment systems and other critical needs to improve drinking water quality and access. More than 300 schools and communities are estimated to lack safe drinking water in California.

CSDA, ACWA and a coalition of public agencies are opposed to SB 623 unless amended. In an August 18 coalition letter, opponents cite the counterproductive nature of taxing a resource held by California law to be a human right and keeping that resource affordable to all Californians. Opponents also raise concerns about the efficiency and fairness of requiring local water agencies to collect the tax on the

State's behalf. The coalition in opposition has proposed amendments that include leveraging federal resources and the State general fund as alternatives to a statewide tax.

The Governor's budget proposal will be heard in the Senate and Assembly Budget Subcommittees on Natural Resources in the coming months. The Governor will issue a budget revision in May and the final budget must be approved by midnight on June 15. Any budget trailer bills have until August 31 to pass the Legislature, but are typically taken up in June with the Budget. Normally, budget trailer bills may be passed with a majority vote. However, any bill imposing a tax requires a two-thirds vote of each house of the legislature. Three of the 80 seats in the State Assembly are currently vacant due to resignations—Assembly Districts 39, 45 and 54. The special elections for each of these offices will occur on April 3. Should no candidate receive a majority of the vote for an office, run-off elections will occur June 5 in conjunction with the Statewide Primary Election.

CSDA legislative representatives will continue to monitor developments of the Governor's proposed budget and work with the legislature and the administration to secure a better solution for California's water challenges. Please contact CSDA Legislative Representative, Rylan Gervase at Rylang@csda.net if you have any questions.

California Special Districts Association | 1112 I Street | Suite 200 | Sacramento, CA 95814 | 877.924.CSDA (2732)

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
February 21, 2018

ITEM NO. 10 GENERAL MANAGER'S REPORT

Action Requested
None at this time. This is an information item only.

Summary
The General Manager's (GM) tenure began on April 17, 2014. A two year extension was approved on April 20, 2016, and a three year extension is under consideration. The agreement requires a report on hours worked during the fiscal year at each Board meeting. There is a limitation of 1,000 hours per fiscal year. For the fiscal year ending June 30, 2018 the General Manager has billed LAVWMA approximately 340 hours.

In addition to the brief descriptions below, there are several items of interest for the Board's information:

1. **Pump Purchase.** After several delays and lack of communication from the supplier, the delivery of the two new pumps occurred in December 2017. There were several delays due to the pump manufacturer not following the specifications. The thrust collar mounting holes were not aligned properly and required machining. The bolt holes to anchor the mechanical seals were not aligned properly since the manufacturer was using the wrong seals. That also required machining. Once that was completed the pumps and motors were fully coupled, including the mechanical seals. Unfortunately, DSRSD staff discovered that there was too much play in the motor keyway. That required both motors to be removed for machining of new keyways in the shafts. A decision was made to rebuild both motors to "like new" condition along with new properly keyed shafts. The cost for each motor was approximately $13,500. On February 15, 2018 everything was fully assembled and the pumps were tested. Both pumps ran smoothly and met the pump curve specifications. While the second pump was being tested, the SCADA system called for a second pump to come on line. The first new pump was in the lag position and started. At that point the seal began leaking profusely and the pump was shut down. The problem with the seal has not yet been identified, and will be investigated the week of February 19, 2018. It is likely a new seal will be required. It should be noted that both seals had been installed and needed to be removed for the machining and motor issues. Additional information may be available at the Board meeting
2. **Asset Management.** This project is now proceeding quite well. DSRSD staff is developing comprehensive lists of all the LAVWMA equipment, which numbers nearly 1,000 items. Although there are a lot if items, there are not that many different classes of items. The ultimate goal is to have a list of all items that includes information such as equipment type, model, serial number, installation date, useful life, and replacement cost. Replacement cost includes all costs for design, engineering, legal, labor, and other items.

DSRSD is using West Yost to assist with developing replacement costs. They use a model that assigns a dollar value based on design, size, and other key characteristics. The current list of LAVWMA equipment with the insurance company Sanitation District Risk Management Authority (SDRMA) is not comprehensive and only list major items like buildings. SDRMA does not offer a service that would provide an appraisal of specific equipment items. There is another insurance JPA called California Sanitation Risk Management Authority (CSRMA). The General Manager was able to meet one of the principals from CSRMA at the recent CASA conference. When the General Manager was at EBDA, CSRMA was the insurance carrier and CSRMA conducted a comprehensive appraisal that was used to develop EBDA's Renewal & Replacement Program. The CSRMA representative agreed to provide a similar service to LAVWMA, and that will occur in March or April. The cost for this service will likely be $2,000. The end result is that LAVWMA will have two independently developed replacement costs for all equipment and will be able to merge the two based on knowledge and experience. The end result will be comprehensive asset management program that schedules replacement of equipment over a 20-40 year period. Knowing the replacement costs over this time frame will allow the Board to develop a funding mechanism that ensures adequate funding for the program for the full 20-40 year period.

3. **EBDA JPA and General Manager Recruitment.** The General Manager participated in the application review and short list interviews for the new EBDA General Manager. Three individuals were interviewed by the EBDA Commission in January and an agreement was approved with Jackie Zipkin on February 15, 2018. She begins her tenure as the EBDA General Manager on March 1, 2018. She has more than 15 years of experience in water and wastewater engineering and management, environmental policy development, and regulatory compliance, both in the public and private sectors. Most recently, she served as Manager of Environmental Services at East Bay Municipal Utility District, where she managed the District's source control, wet weather, and resource recovery programs. Ms. Zipkin also led the District's negotiation of a long-term wet weather Consent Decree with EBMUD's tributary cities, the Environmental Protection Agency, State and Regional Water Boards, and several non-governmental organizations.

   EBDA continues to negotiate a renewal of its JPA, which expires January 1, 2020. The agencies are attempting to revise their capacity rights, which would result in a redistribution of fixed costs. LAVWMA's fixed costs are established by the EBDA LAVWMA agreement and are independent of the EBDA JPA. LAVWMA owns 19.72 MGD capacity of EBDA's forcemain capacity, which is 189.1 MGD. Under those conditions, LAVWMA's fixed costs would be 10.43%. The agreement with LAVWMA includes an escalation of the fixed costs every five years through 2020. The current fixed rate is 17.43% and it will cap at 18.60% on January 1, 2020 and beyond. The Staff Advisory Group (SAG) is looking at options for reducing costs for EBDA through a

combination of normal flow reductions (related to variable costs) as well as peak flow reductions. Recommendations for Board consideration will be provided at future meetings.

4. **Records Management Project and Transfer of Files from Burke, Williams, & Sorenson.** LAVWMA received 31 boxes of files from Alexandra Barnhill's former law firm. Sue Montague has nearly completed an inventory of the documents and duplicate items have been tossed. A substantial list of items remains. She and the General Manager are planning to go through all the items to determine which need to be kept. This will have an impact on the scope and cost of the Records Management Project, which has been discussed previously. The current cost estimate for that project it $22,461.
5. **Monitoring Strategies for Constituents of Emerging Concern (CECs) in Recycled Water.** In January, the State Water Resources Control Board released the aforementioned report that was developed by its Science Advisory Panel. A copy of the Table of Contents and Executive Summary is attached for the Board's information. The recommendations will likely be incorporated into State Board regulations for recycled water, particularly as indirect and direct potable reuse projects are implemented.
6. **FPPC and Conflict of Interest Code.** LAVWMA amended its Conflict of Interest Code on August 15, 2016 and submitted it, as required, to the FPPC for review and approval. After not hearing anything from them, Sue Montague contacted them in January 2018. The FPPC reviewed and decided to amend LAVWMA's Code. General Counsel has determined that the amendments were not substantial and did not require a new Resolution and approval by the Board. Attached is a copy of the FPPC approved Conflict of Interest Code.
7. **Sue Montague and new agreement with BBSI for Temp Services.** Sue Montague's hourly rate was recently increased by mutual agreement between LAVWMA and DERWA. The General Manager's communication with Sue led to the finding that OfficeTeam was charging an overhead rate of 75.6% of her rate. She was getting paid $46.40 and we were paying $81.48. A google search concluded that the rate was not justified by the level of effort required by OfficeTeam. An attempt to renegotiate a revised rate was only partially successful. OfficeTeam agreed to reduce its rate to 60.6%. Several other firms were contacted in an effort to get a better rate. BBSI offered a great rate of 30%. Sue Montague's hourly rate will now be $60.00 per hour and LAVWMA/DERWA will pay $78.00 per hour. All other items from OfficeTeam have been incorporated into the new agreement with BBSI.

Following is a brief description of major activities since the August 31, 2017 Board meeting:

- Attended SAG meeting. Prepared agenda packet for SAG meeting.
- Attended LAVWMA O&M meetings with DSRSD, Livermore and Pleasanton staff.
- Drafted items for Board Agenda and prepared packet for distribution.

- Made updates to website as needed for files and legal requirements, including new meeting date schedule.
- Continued to work with General Counsel to track legislation of interest to LAVWMA and the member agencies.
- Monitored progress of pump station projects managed by DSRSD staff. This included the purchase of new pumps as well as projects described in the attached Action Item List. This included numerous trips to the pump station to document progress and issues. Please refer to the discussion above for the efforts related to the pumps purchase.
- Reviewed and approved invoices for payment by DSRSD.
- Continued to Discuss Asset Management issues with DSRSD staff. LAVWMA will follow their lead. Please refer to the more detailed discussion above.
- Worked with DSRSD staff on various inquiries regarding projects near the forcemain to ensure there would be no issues of concern with the integrity of the forcemain.
- Attended EBDA Managers Advisory Committee (MAC) meetings.
- Participated in the selection process for the new EBDA General Manager.
- Reviewed dates for action items related to the NPDES permit renewal. Created Outlook appointments for LAVWMA and member agency staff.
- Attended wet weather coordination meetings.
- Reviewed various financial reports prepared by DSRSD staff.
- Reviewed and approved DSRSD monthly invoices for O&M services.
- Reviewed EBDA reports on the forcemain evaluation and system capacity analysis.
- Reviewed and commented on lab analysis proposal from EBMUD for EBDA and LAVWMA samples. Noted increase was 2.65 times current price. Informed EBDA LAVWMA would not support the increase and requested a full Request for Proposal process. EBDA ultimately did issue an RFP.
- Reviewed Oro Loma Sanitary District's draft new NPDES permit for shallow water wet weather discharge to SF Bay to compare to LAVWMA's permit.
- Participated in 2-hour CSDA Harassment Prevention Webinar. Submitted Certificate of Completion to Sue Montague for her records.
- Continued working with EBDA and LAVWMA agency staff to address enterococcus issues.
- Reviewed EBDA and DSRSD agenda packets.
- Reviewed various O&M projects conducted by DSRSD staff on behalf of LAVWMA.
- Completed and filed 2017 Form 700 with Sue Montague.
- Responded to various emails and phone calls from outside agencies and organizations.

Attached for the Board’s information is the most recent Action Item List.

Next Meeting
The next Regular Board meeting is scheduled for May 16, 2018. Items will include: Annual Board Rotation, Investment Policy Review, and FY2018/19 Budget.

Recommendation
None at this time. This is an information item only.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
CONFLICT-OF-INTEREST CODE

The Political Reform Act (Government Code Section 81000, et seq.) requires state and local government agencies to adopt and promulgate conflict of interest codes. The Fair Political Practices Commission has adopted a regulation (2 Cal. Code of Regs. Sec. 18730) that contains the terms of a standard conflict of interest code, which can be incorporated by reference in an agency's code. After public notice and hearing, the standard code may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendix, designating positions and establishing disclosure categories, shall constitute the conflict of interest code of the **Livermore-Amador Valley Water Management Agency (Agency)**.

All designated positions must file their statements of economic interests with the **Agency**. All statements must be made available for public inspection and reproduction under Government Code Section 81008.

APPENDIX A
DESIGNATED POSITIONS

Designated Position	Assigned Disclosure Category
Directors (except Chair of the Board)	1, 2
Alternate Directors	1, 2
General Counsel	1, 2
Consultants/New Positions	*

Note: The General Counsel is an outside consultant that acts in a staff capacity for the Agency.

*Consultants/new positions shall be included in the list of designated positions and shall disclose pursuant to the broadest disclosure category in the code subject to the following limitation:

The General Manager may determine in writing that a particular consultant or new position, although a "designated position," is hired to perform a range of duties that is limited in scope and thus is not required to comply fully with the disclosure requirements described in this section. Such determination shall include a description of the consultant's or new position's duties and, based upon that description, a statement of the extent of disclosure requirements. The General Manager's determination is a public record and shall be retained for public inspection in the same manner and location as this conflict-of-interest code Gov. Code Sec. 81008).

GOVERNMENT CODE SECTION 87200 FILERS

The following positions are not covered by this Conflict of Interest Code because they file under Government Code section 87200 and, therefore, are listed for informational purposes only:

- Chair of the Board of Directors
- General Manager
- Treasurer
- Consultant(s) who Manages Public Investments, if any

Individuals holding one of the above-listed positions may contact Fair Political Practices Commission for assistance or written advice regarding their filing obligations if they believe that their position has been categorized incorrectly. The Fair Political Practices Commission makes a final determination as to whether or not a position is covered by Government Code section 87200.

APPENDIX B
DISCLOSURE CATEGORIES

Disclosure Categories

1. All interests in real property located in or within two miles of the service area of LAVWMA's member agencies or located within two miles of any LAVWMA facilities, including LAVWMA's existing pipeline and any facilities that are planned to be constructed as part of LAVWMA's Export Pipeline Facilities Project.

2. All investments and business positions in business entities and sources of income, including receipt of gifts, loans, and travel payments, from any source that provides leased facilities, services, supplies, materials or equipment of the type utilized by the District.

This is the last page of the conflict of interest code for **Livermore-Amador Valley Water Management Agency.**

CERTIFICATION OF FPPC APPROVAL

Pursuant to Government Code Section 87303, the conflict of interest code for **Livermore-Amador Valley Water Management Agency** was approved on 2/15 2018. This code will become effective on 3/17/18 2018.

John M. Feser, Jr.
Senior Commission Counsel
Fair Political Practices Commission

Draft Final Report

Monitoring Strategies for Constituents of Emerging Concern (CECs) in Recycled Water

Recommendations of a Science Advisory Panel

Panel Members
Jörg E. Drewes (*Chair*), Paul Anderson, Nancy Denslow, Walter Jakubowski, Adam Olivieri, Daniel Schlenk, and Shane Snyder

Convened by the
State Water Resources Control Board

January 31, 2018
Sacramento, California

Table of Contents

Acknowledgments

The Panel Members wish to thank the California State Water Resources Control Board (State Water Board) and the Stakeholder Advisory Group (SAG) for the opportunity to serve on this Science Advisory Panel to review monitoring requirements for constituents of emerging concern (CECs) in recycled water in the State of California. We would like to thank water agencies and utilities, WateReuse California, environmental groups, as well as commercial and research laboratories for providing water quality information of recycled water in California. We are grateful for the many questions and suggestions we received from stakeholders during the two public meetings and appreciate the critique the many stakeholders involved in the process shared with us.

We also like to thank Claire Waggoner, Laura McLellan, and Brian Bernados with the State Water Board for their valuable input and sharing time with the Panel during the preparation of this report. We are grateful to Steve Weisberg, Keith Maruya and Alvine Mehinto with the Southern California Coastal Water Research Project (SCCWRP) for establishing the Panel, coordinating the Panel's activities and meetings with stakeholders, and supporting the Panel's deliberations. The working environment and support provided by SCCWRP were excellent, which the Panel very much appreciated. Special thanks to Keith Maruya for his contributions to the Panel's discussions, the countless hours of editing the draft and final report, and his undivided attention and support to the Panel's needs.

Jörg E. Drewes (Chair)
Paul Anderson
Nancy Denslow
Walter Jakubowski
Adam Olivieri
Dan Schlenk
Shane Snyder

Executive Summary

With its large population and regionally arid climate, the State of California has a long history of water reclamation and reuse. Now faced with an ever-increasing demand for water as well as diminishing new sources, water reclamation, recycling, and reuse are integral components of water resource planning and management. As evidenced by adoption of the Policy for Water Quality Control for Recycled Water (Recycled Water Policy) in 2009, recycled water is and will continue to be an important water resource across the State. Maintaining a water quality that is protective of both human health and the environment is paramount to the success of the Policy. The current report addresses public health protection, which requires that microbiological pathogens and some chemicals in municipal wastewater (the "source" of recycled water) be attenuated before discharge to the environment. The chemical universe is evolving at a rate that is challenging for traditional risk assessment paradigms, particularly evaluating chemical interactions between complex mixtures of CECs and transformation products formed during treatment and environmental processes. In order to remain vigilant in comprehensive evaluation of CECs, more modern water quality characterization tools -- both analytical and bioanalytical -- that may not yet be fully standardized or validated will be needed. *Thus, water recycling practices require appropriate treatment barriers and monitoring strategies to minimize exposure to a wide range of constituents of emerging concern (CECs) that may be harmful to human health*.

Expanding the Charge to the Science Advisory Panel

In their Policy, the California State Water Resources Control Board (State Water Board) sought to incorporate the most current scientific knowledge on CECs. In response, a Science Advisory Panel was formed in 2009 to address a series of questions.

- What are the appropriate constituents to be monitored in recycled water and what are the applicable monitoring methods and detection limits?
- What human-relevant toxicological information is available for these constituents?
- Would the constituent list change based on the level of treatment? If so, how?
- What are the possible indicators (i.e. surrogates) that represent a suite of CECs?
- What levels of CEC should trigger enhanced monitoring in recycled water, groundwater, or surface water?

The 2010 Panel produced several products to guide the State Water Board's approach to managing CECs in recycled water. First, the Panel developed a risk-based framework for prioritizing and selecting CECs for recycled water monitoring programs (Anderson et al., 2010). The framework was then used to develop a list of monitoring parameters, including four health-relevant and four performance-based ("indicator") CECs to demonstrate a consistent capacity for reduction of CECs by recycled water treatment processes. This initial list of eight CECs, representing multiple source classes (e.g., pharmaceuticals, personal care products, food additives, and hormones), were identified for groundwater recharge (GWR) potable reuse applications. In contrast, surrogate parameters (i.e., turbidity, chlorine residual, and total coliform bacteria) were deemed sufficient for monitoring of non-potable recycled water quality used for landscape irrigation. In addition, the Panel highlighted the need for new monitoring methods, including bioanalytical tools, and developed guidance for interpreting and responding to monitoring results.

As also specified in the Policy, periodic updates to CEC monitoring recommendations are needed to keep the data collected relevant and to incorporate new scientific information. The 2018 Panel was thus charged to update their recommendations from 2010, and to expand their recommendations to include surface water augmentation (SWA) and all non-potable reuse applications in the State of California allowed under Title 22. The Panel was further instructed to evaluate potential risks for all routes of exposure, except potential exposures associated with consumption of crops irrigated with recycled water, but to limit their deliberations to impacts on human (and not ecological) health. Lastly, the Panel was asked to comment on the state-of-the-science regarding the likelihood of human health impacts posed by antibiotic resistant bacteria/antibiotic resistance genes (ARB/ARGs) in recycled water.

Updating the List of CECs and other Monitoring Parameters

For indirect potable water reuse practices (i.e. groundwater recharge, GWR and surface water augmentation, SWA)[1], the Panel updated monitoring trigger levels (MTLs) based on toxicological information gathered from several new sources, including state, federal, industry and international organizations, as well as based on the Panel's own professional judgment. Regarding the selection of specific MTLs, the Panel made minor modifications to the process developed by the 2010 Panel. Greatest priority continues to be assigned to drinking water thresholds developed by the State of California followed by USEPA. *The result of this update was a revised set of MTLs, some higher and some lower than MTLs used in 2010, and others included for the first time.*

In response to the expanded charge to evaluate all non-potable use Title 22 scenarios, the 2018 Panel developed an approach that relies on comparing the exposure to CECs in recycled water for non-potable Title 22 reuse scenarios to exposure to CECs in water produced for potable reuse; considered a conservative assumption because treatment levels at the point of application are similar to those for most non-potable uses. In addition to ingestion of potable recycled water, incidental (i.e. non-intentional) exposure via several other pathways (e.g., absorption through skin, inhalation) was considered for all non-potable Title 22 applications. *This comparison revealed that potential exposures and potential human health risks associated with CECs in non-potable use scenarios are expected to be 10% or lower than exposure to CECs in water intentionally consumed in the potable reuse scenario*.

The Panel also updated measured environmental concentrations (MECs) based on more recent data collected by water reuse facilities in California. The Panel retained its conservative

[1] On October 6, 2017 the Governor of California approved an act to amend Sections 13560 and 13561 of, to amend the heading of Chapter 7.3 (commencing with Section 13560) of Division 7 of, and to add Sections 13560.5 and 13561.2 to, the Water Code, relating to water. As noted below, the amended Section 13561 in part modifies the following definitions related to indirect potable reuse type projects. However, for the purpose of the CEC 2018 Panel update and consistency with the 2010 CEC Panel report the Panel elected to rely on the previous Water Code definitions.

> *(c) "Indirect potable reuse for groundwater recharge" means the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system, as defined in Section 116275 of the Health and Safety Code.*
>
> *(d) "Reservoir water augmentation" means the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in Section 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir.*

assumption of considering MECs for CECs measured in secondary/tertiary effluent as feed water for recycled water facilities. In addition, the Panel reviewed available monitoring data for individual treatment processes and product water for GWR applications as well as some select CEC monitoring studies outside of California. Because of wide variation in analytes reported, frequency of monitoring, and time period and duration of monitoring, the 2018 Panel compiled and reported 90th percentile concentration values to retain the conservatism established by the 2010 Panel.

The updated MECs and MTLs were employed to screen a total of 489 CECs (increased from 418 in 2010) using the same screening framework used by the 2010 Panel to identify candidate compounds for monitoring (Figure ES.1). This exercise indicated that regular monitoring of three of four 2010 health-based indicator CECs (17β-estradiol, triclosan and caffeine) is no longer necessary, as the monitoring data set collected over the past several years (2008-2017) indicate that concentrations are consistently below MTLs (i.e., the MEC/MTL ratio is less than 1). In contrast, the collected monitoring data indicated that concentrations of NDMA were eight times higher than the MTL and, therefore, *NDMA should be retained as a human health-based indicator*. Of the remaining CECs screened, the 90th percentile MECs for two compounds, *N-Nitrosomorpholine (NMOR) and 1,4-dioxane*, exceed their respective MTLs by factors of 9 and 7, respectively, thus warranting their addition as human health indicators. Table ES.1 summarizes the updated 2018 health-based and performance-based indicators for CECs and performance surrogates.

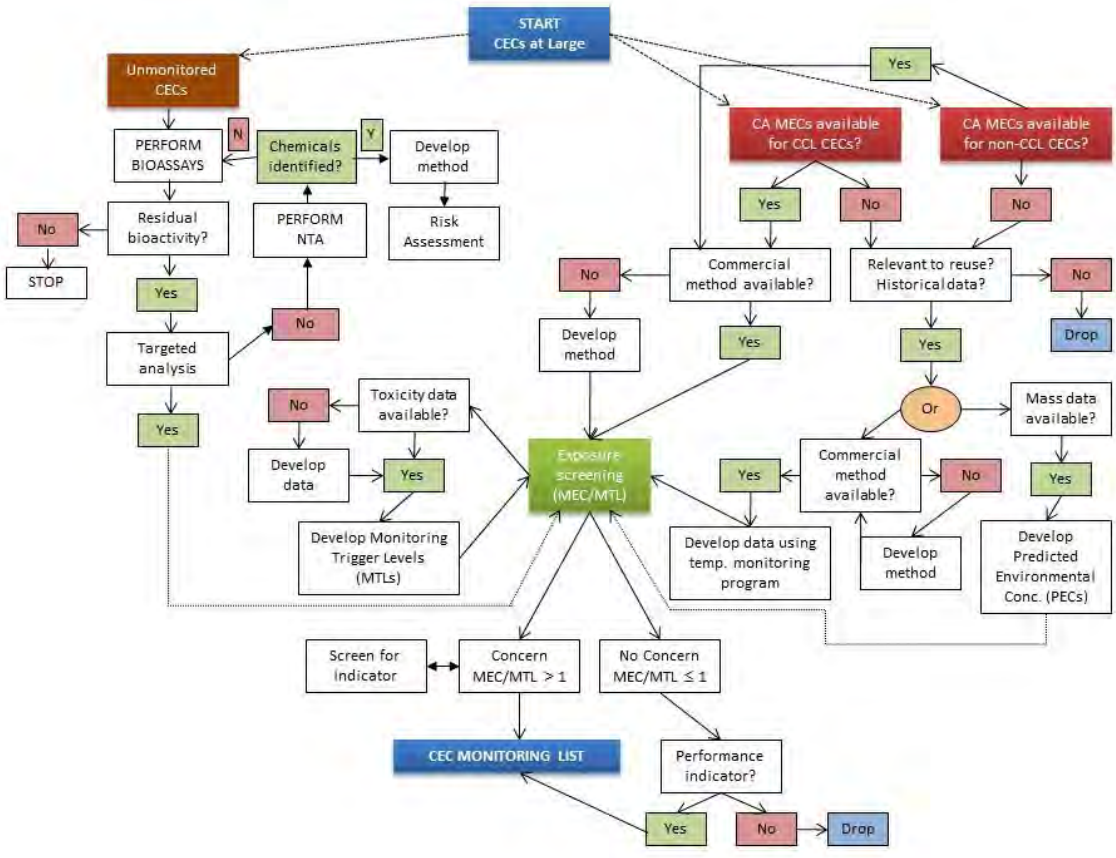


Figure ES.1. Revised risk-based CEC selection framework.

The Panel reiterates that the MEC/MTL ratio employed in the risk-based, screening framework is operationally defined, and should not be compared to (or confused with) regulatory criteria (i.e. enforceable maximum contaminant levels or MCLs). Furthermore, a large margin of safety is incorporated into this framework. Therefore, a MEC/MTL ratio of greater than 1 does not represent an immediate threat to public health. *With this in mind, the very small percentage of CECs that are recommended for health-based monitoring (3 of 489 or < 1%) reinforces the inherent low potential risk of CECs in recycled water to human health currently attributable to water reuse applications that include most Title 22 uses and potable reuse surface water augmentation under current regulatory practices*.

Improving the State Water Board's CEC Monitoring Program

Bioanalytical screening tools and non-targeted analysis. While the Panel's risk-based framework is clearly effective in identifying CECs for which pertinent data are available, the framework cannot capture all possible new compounds that may be entering the market, nor does it adequately address their transformation products. To help identify such compounds that may occur in recycled water and their potential, if any, to affect human health, the Panel believes that bioanalytical screening methods are a critically important tool whose value and applicability needs to be explored over the next few years in a series of special studies (see Figure ES.1). *The Panel recommends that the Estrogen Receptor alpha (ER-α) and the Aryl hydrocarbon Receptor (AhR) bioassays be used to respectively assess estrogenic and dioxin-like biological activities in recycled water*. These two *in vitro* bioassays were selected because each have clear adverse outcome pathways that allow specific molecular responses to be adequately standardized for screening recycled water quality at potable reuse projects.

Relevance of antibiotic resistance to recycled water. While antibiotic resistance is still a major challenge and potentially an issue for any wastewater discharge into the environment, information to date is not complete and seems to indicate that the causes for antibiotic resistance are still not well known and the current studies do not show that antibiotic resistance transmission is a consequence of water reuse practices considered in this report. The lack of standardized methods for investigating the occurrence and removal of, and risks associated with, ARB and ARGs hinders the assessment of the severity of ARB and ARGs as an issue for potable water reuse applications in California. Focused investigations are needed to better understand the occurrence, fate and risks associated with ARB and ARGs in recycled water applications across California. The State Water Board should encourage the collection of data in reclaimed water and sites within California while keeping abreast of scientific advances related to methods and risk assessment.

Increasing communication, efficiency and responsiveness. While the key recommendations from the 2010 Panel report were clearly captured in the Policy (amended in 2013), implementation of these recommendations was not conducted as thoroughly as presented in the Policy update. The Panel herein notes that all recommendations represent important steps in assisting the State Water Board to be proactive in their approach to managing CECs in recycled water. Due to the uncertainty that is inherently associated with the universe of chemicals that might occur in recycled water now and in the future, *the need to establish a formal CEC monitoring and assessment program for recycled water that is responsive to rapidly changing CEC issues is critical*. Identifying and incorporating new information on occurrence and toxicity provides the basis for adding new CECs to the framework (i.e., an on-ramp) as well as for removing CECs that do not pose a risk to human health (i.e., an off-ramp).

New knowledge might also point to direct evidence for health relevance justifying the need for a continuous updating process that cannot be provided by convening a review panel only every five (or more) years. Instead, these programmatic upgrades should be reviewed internally as well as by independent experts on a relatively frequent (e.g. triennial) schedule.

Final Recommendations Provided by the 2018 Panel

The Panel cannot stress strongly enough that the outcome of the 2018 application of the risk-based framework clearly points to the safety of potable and non-potable reuse practices in California. It is essential that all stakeholders and the public realize that the Panel's findings and recommendations include a very large margin of safety. That large margin of safety arises from conservative assumptions that are built into each step of the overall human health CEC screening process. In addition, the Panel offers the following additional recommendations:

- The risk-based screening framework established by the Panel in 2010 was successful in incorporating current information leading to the addition of new and removal of existing CECs from the monitoring list (i.e., in providing on- and off-ramps) and should continue to be applied to update the CEC monitoring list into the future.
- The Panel recommends implementation of the estrogen and aryl hydrocarbon receptor (ER and AhR) assays for screening of unmonitored CECs in potable reuse projects. These assays are now sufficiently standardized and robust for screening level data collection and assessment.
- Additional investment in research and training is needed to provide an expanded, robust "bioscreening toolbox", and to increase capacity for bioanalytical measurement.
- Non-targeted (chemical) analysis (NTA) holds promise as a powerful tool for identifying previously unidentified chemicals in recycled water samples. However, at this time, unlike some bioanalytical tools, NTA remains highly complex, labor and capital cost intensive. The Panel recommends these be attempted and/or applied with clear goals (e.g. as guided by the responses from bioanalytical tools) as part of investigative type studies.
- The Panel recommends that the State Water Board consider taking several procedural steps to clarify roles and responsibilities for the State and Regional Water Boards (as described in Section 2.3) for permitting of potable water reuse projects, to improve the management of potable water facility monitoring data (i.e., CEC, bioanalytical, and high-frequency operation data), and the reporting of potable water operations to the public.
- A more flexible and responsive program should be developed to update CEC monitoring recommendations in response to rapidly emerging science, technology advances and monitoring (screening) data collected. In this context, the State Water Board might want to take a more active role in procuring, managing and assessing CEC monitoring data and associated toxicological thresholds, that are subject to rapid/continual evolution.
- The Panel recommends that the State Water Board consider the results of more definitive research showing an actual relationship of antibiotic resistance to recycled water before changing its current policy.

- The Panel recommends that the State Water Board reconvene an independent Panel to review proposed changes to CEC monitoring recommendations every three years.

Table ES.1. Revised monitoring requirements for health-based and performance-based indicator CECs and performance surrogates for potable and non-potable reuse practices.

Reuse Practice	Health-based indicator	MRL (ng/L)	Bioanalytical methods	MRL (ng/L)	Performance-based Indicator	Expected Removal[6]	MRL (ng/L)	Surrogate	Method	Expected Removal[6]
Surface Spreading Application (SAT)	NDMA[2]	2	ER	0.5	ΔGemfibrozil[3]	>90%	10	ΔAmmonia	SM	>90%
	NMOR[1]	2	AhR	0.5	ΔSulfamethoxazole[4]	>80%	10	ΔNitrate	SM	>30%
	1,4-Dioxane[1]	100			ΔIohexol[3]	>90%	50	ΔDOC	SM	>30%
					ΔSucralose[5]	>25%	100	ΔUVA	SM	>30%
								ΔTotal fluorescence		>30%
Subsurface Application (Direct Injection) and Surface Water Augmentation	NDMA[2]	2	ER	0.5	ΔSulfamethoxazole	>90%	10	ΔConductivity	SM	>90%
	NMOR[1]	2	AhR	0.5	ΔSucralose	>90%	100	ΔDOC	SM	>90%
	1,4-Dioxane[1]	100			ΔNDMA	25-50%	2	ΔUVA	SM	>50%
Non-potable reuse practices					None			Turbidity	SM	
								Cl_2 residual or operational UV dose	SM	
								Total coliform	SM	

[1]Industrial chemical; [2]Disinfection byproduct; [3]Pharmaceutical residue; [4]Antibiotic; [5]Food additive; [6]travel time in subsurface two weeks and no dilution, see details in Drewes *et al*., 2008; SM – Standard Methods; MRL – Method Reporting Limit.

Acronyms and Symbols

ADI	Acceptable Daily Intake
AFY	Acre-Feet per Year
AhR	Aryl Hydrocarbon Receptor
AL	Action Level
AMR	Antimicrobial Resistance
AOP	Advanced Oxidation Process
ARB	Antibiotic Resistant Bacteria
ARG	Antibiotic Resistance Gene
AS	Activated Sludge
AWT/AWTF	Advanced Water Treatment Facility
BAF	Bioaccumulation Factor
BEQ	Bioanalytical Equivalent Concentration
CCL3	USEPA Candidate Contaminant List 3
CCL4	USEPA Candidate Contaminant List 4
CCR	California Code of Regulations
CDPH	California Department of Public Health (the CDPH drinking water group is now DDW which is a division of the State Water Board)
CECs	Constituents of Emerging Concern
CEQA	California Environmental Quality Act
CFUs	Colony Forming Units
CIWQS	California Integrated Water Quality System
CWA	Clean Water Act
CWC	California Water Code
DDT	Dichlorodiphenyltrichloroethane
DDW	California Division of Drinking Water
DEET	N,N-Diethyl-meta-Toluamide
DI	Direct Injection
DMSO	Dimethylsulfoxide
DOC	Dissolved Organic Carbon
DPR	Direct Potable Reuse
DWTF	Drinking Water Treatment Facility
E2	17β-Estradiol
EC50	Half Maximal Effective Concentration
EDCs	Endocrine Disrupting Compounds

EDSP	Endocrine Disruptor Screening Program
EE2	17α-Ethinylestradiol
EFSA	European Food Safety Authority
EI	Electronic Ionization
ELAP	Environmental Laboratory Accreditation Program
ER	Estrogen Receptor
ESI	Electrospray Ionization
EU	European Union
GAC	Granular Activated Carbon
GC-MS	Gas Chromatography-Mass Spectrometry
GR	Glucocorticoid Receptor
GRRP	Groundwater Replenishment Reuse Project
GWR	Groundwater Recharge
H_2O_2	Hydrogen Peroxide
HPLC	High Performance Liquid Chromatography
HPV	High Production Volume
HRMS	High Resolution Mass Spectrometry
IPR	Indirect Potable Reuse
IPR-GWR	Indirect Potable Reuse via Groundwater Recharge
JWPCP	Joint Water Pollution Control Plant
K_{ow}	Octanol-water partition coefficient
LACSD	Sanitation Districts of Los Angeles County
LC-MS	Liquid Chromatography-Mass Spectrometry
LC-QQQ	Liquid Chromatography-Triple Quadrupole Mass Spectometry
LC-QTOF	Liquid Chromatography-Quadrupole Time of Flight
LLE	Liquid Liquid Extraction
LOD	Limit of Detection
LOEC	Lowest Observed Effect Concentration
LOQ	Limit of Quantification
LRV	Log10 Reduction Value
MCLs	Maximum Contaminant Levels
MDH	Minnesota Department of Health
MDL	Method Detection Limit
MEC	Measured Environmental Concentration
MF	Microfiltration

MGE	Mobile Genetic Element
MPN	Most Probable Number
MRL	Method Reporting Limit
MTL	Monitoring Trigger Level
NDMA	N-nitrosodimethylamine
NGS	Next Generation Sequencing
NIST	National Institute of Standards and Technology
NMOR	N-nitrosomorpholine
NOEC	No Observed Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NRC	National Research Council
NTA	Non-Targeted Analyses
NTU	Nephelometric Turbidity Unit
NWRI	National Water Research Institute
OECD	Organisation for Economic Cooperation and Development
PAHs	Polycylic Aromatic Hydrocarbons
PCA	Principal Component Analysis
PCBs	Polychlorinated Biphenyls
PCCL	Preliminary Candidate Contaminant List
PEC	Predicted Environmental Concentration
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanoic Sulfonate
PNEC	Predicted No-Effect Concentration
POE	Point of Exposure
POM	Point of Monitoring
POTWs	Publicly Owned Treatment Works
PPCPs	Pharmaceuticals and Personal Care Products
QA/QC	Quality Assurance/Quality Control
QMRA	Quantitative Microbial Risk Assessment
QTOF	Quadrupole-Time-of Flight
REF	Relative Enrichment Factor
RO	Reverse Osmosis
RSC	Relative Source Contribution
RSD	Relative Standard Deviation
RSL	Regional Screening Level

RW	Recycled Water
RWC	Recycled Water Contribution
Regional Water Boards	Regional Water Quality Control Boards
SA	Surface Spreading Application
SAG	Stakeholder Advisory Group
SAT	Soil-Aquifer Treatment
SEF	Sample Enrichment Fold
SOP	Standard Operating Procedure
SPE	Solid Phase Extraction
SCCWRP	Southern California Coastal Water Research Project Authority
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SFEI	San Francisco Estuary Institute
SWA	Surface Water Augmentation
SWPP	Source Water Protection Program
State Water Board	State Water Resources Control Board
SWTP	Surface Water Treatment Plant
TIC	Tentatively Identified Compounds
TIE	Toxicity Identification Evaluation
TN	Total Nitrogen
TOC	Total Organic Carbon
TOrCs	Trace Organic Chemicals
Tr	Theoretical Residence Time
TTC	Threshold of Toxicological Concern
UCM	Unregulated Contaminant Monitoring
UCMR	Unregulated Contaminant Monitoring Regulation
US	United States
USEPA	United States Environmental Protection Agency
WE&RF	Water Environment and Reuse Foundation
WET	Whole Effluent Testing
WHO	World Health Organization
WRP	Water Reclamation Plant
WWTP	Wastewater Treatment Plant

List of Figures

Page

List of Tables

Page

LAVWMA Action Item List **Month: February 2018**

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for February 21, 2018 LAVWMA Board Meeting	SAG	8/21/2017	In addition to the usual reports, Investment Policy Review may be on the agenda.	2/28/2017
Operations Coordination Committee Task	**Responsible Party**	**Due Date**	**Status**	**Completion Date**
FYE 2018 Replacement Projects: purchase of three new pumps, repair of three additional pumps, and snorkels and flow meters at junction structure	Delight/Lopez	Various dates	Refer to information below.	
Order Spare Pump(s) - Replacement	Delight	9/30/2017	After many delays two pumps were delivered in early December 2017. Several problems in the thrust collars were identified: incorrect bolt hole locations, incorrect bolt hole locations for the mechanical seals. They were sent out for machining. Upon coupling excessive play was noted in the motor keyways which resulted in the motors being removed and sent for rebuild and keyway machining. Motors and pumps successfully coupled on February 12, 2018. Installation of seals and testing of pumps scheduled for morining of February 14, 2018. An update will be provided at the February 14 SAG meeting	
Rebuild Three Pumps	Delight	TBA	Once the third pump is received and installed, rebuilds on three additional pumps will be scheduled.	
LAVWMA Junction Chamber and Export Pipeline Meter Replacement	Portugal	6/30/2018	Project includes cost estimate to replace older 20-inch pipe with a 24-inch pile to match the newer pipeline, raise the snorkel on the DSRSD and Livermore meters, and purchase three replacement meters for the junction chamber and export pipeline. DSRSD staff is working with Pontoon industries to evaluate the meters and the system in general.	
Wet Weather Issues	Fuller	10/31/2017	wet weather meetings for LAVWMA and EBDA have been held and procedures have been updated. No significant wet weather to date this season.	10/31/2017
Live test of SLSS system	Fuller/Atendido	TBD	Dry test to be conducted first. Wet test requires significant flow in the creek.	
Wet Well Isolation Gates	Lopez	8/31/2017	Gate is in good shape but won't fully close. Will need to do another shutdown to determine cause. Will be scheduled this summer.	
San Leandro Sample Station	Atendido	6/30/2017	No communication from Home Owners Association since last report.	6/30/2017
EBDA Forcemain Shutdown for Inspection	Fuller	10/31/2017	Project completed and everything looks good. The 96 inch section will be inspected this summer.	10/31/2017
EBDA Enterococcus Issue	Fuller		No recent issues.	
Paving at Station 235+0 off El Charro Road	Smith/Portugal	TBD	Completed.	
Sealing of LAVWMA Basins	Quinlan	TBD	Will be done at beginning of FY2017/18.	
Replacement of LAVWMA Basin Water Cannons	Quinlan	TBD	13 water cannons are beyond their useful life and need to be replaced. Estimated cost is $1500 each. Will be included in FY2017/18	
Fiber Optic Cable Project to LAVWMA Pump Station	Yee	TBD	Project will provide fiber optic cable to the station increasing communication, SCADA function, and access to Lucity. Engineer's estimate is $41,636. Project is underway.	
Replacement of all 25 street lights at LAVWMA Pump Station with LED Lights	Atendido	TBD	Project completed.	11/31/17
Backyard checking of homes in Pleasanton where Livermore line runs.	Smith, Weir	10/31/2017	New policy and procedure completed. Will include visual inspection every three years and letter reminders the other two years.	
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	Reviewed at every Operations Coordination Meeting.	

Agenda Explanation
Livermore-Amador Valley Water
Management Agency
Board of Directors
February 21, 2018

ITEM NO. 14 SECOND AMENDMENT TO THE AGREEMENT FOR GENERAL MANAGEMENT SERVICES WITH CHARLES V. WEIR, DBA WEIR TECHNICAL SERVICES

TO: LAVWMA Board of Directors

FROM: Alexandra Barnhill, General Counsel

SUBJECT: Consideration of Adoption of Resolution Approving the Second Amendment to the Agreement for General Management Services with Charles V. Weir, dba Weir Technical Services

SUMMARY

Charles Weir ("Mr. Weir") has served as LAVWMA's General Manager since April 17, 2014. The Agreement for General Management Services between Livermore-Amador Valley Water Management Agency and Charles V. Weir, dba Weir Technical Services ("Agreement") establishes the terms of Mr. Weir's tenure as General Manager. That Agreement has a two-year term, with a mutual option to renew the contract for another two years on the same terms. At its regular meeting in April 2016, the Board extended the Agreement for an additional two years.

Because the Agreement will expire in April 2018, the Board is being asked to consider approving an extension. To reduce administrative steps, General Counsel is recommending that the Board consider an extension of three (3) years, rather than two (2).

RECOMMENDATION

It is recommended that the Board approve a three-year extension of Mr. Weir's contract by adopting the attached Resolution.

Attachment

Resolution No. 18-01

Second Amendment to the Agreement for General Management Services Between Livermore-Amador Valley Water Management Agency and Charles V. Weir, dba Weir Technical Services

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

RESOLUTION NO. 18-01

RESOLUTION APPROVING THE SECOND AMENDMENT TO THE AGREEMENT FOR GENERAL MANAGEMENT SERVICES WITH CHARLES V. WEIR, dba WEIR TECHNICAL SERVICES

WHEREAS, the Livermore-Amador Valley Water Management Agency ("LAVWMA") is a joint powers agency formed pursuant to the Amended and Restated Joint Exercise of Powers Agreement for the Livermore-Amador Valley Water Management Agency dated July 21, 1997;

WHEREAS, LAVWMA owns and operates a pump station, pipeline and other facilities to transport treated wastewater treatment plant effluent from the jurisdictions of the Member Agencies to an outfall in San Leandro;

WHEREAS, LAVWMA requires services of a General Manager to serve as its chief executive officer to conduct its day-to-day business, and to carry out LAVWMA's wastewater transportation program and related activities;

WHEREAS, on April 17, 2014, LAVWMA and Charles V. Weir, dba Weir Technical Services ("Weir") entered into the Agreement for General Management Services Between Livermore-Amador Valley Water Management Agency and Charles V. Weir, dba Weir Technical Services ("Agreement") wherein Weir agreed to serve as General Manager of LAVWMA and oversee all management and administration of LAVWMA's operations according to the terms established in the Agreement.;

WHEREAS, on April 20, 2016, LAVWMA extended the Agreement for an additional two-year term via Resolution 16-02;

WHEREAS, pursuant to Section 7(a) of the Agreement, it will expire in April 2018 unless it is extended for an additional term by mutual consent of the Parties;

WHEREAS, LAVWMA and Weir now mutually desire to extend the Agreement for an additional three-year term;

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Livermore Amador Valley Water Management Agency as follows:

1. The First Amendment to the Agreement for General Management Services between LAVWMA and Charles V. Weir, dba Weir Technical Services, which is attached hereto as Exhibit A and incorporated by this reference, is hereby approved, subject to minor modification by the General Counsel. The Board Chair is hereby authorized and directed to execute this Agreement for and on behalf of LAVWMA.

DULY AND REGULARLY ADOPTED by LAVWMA this 21st day of February, 2018, by the following vote:

AYES:

NOES:

ABSENT:

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

By: _____

Bob Woerner, Chair

ATTEST:

By: _____

Charles V. Weir, General Manager

SECOND AMENDMENT TO AGREEMENT FOR GENERAL MANAGEMENT SERVICES BETWEEN LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY AND CHARLES V. WEIR, DBA WEIR TECHNICAL SERVICES

This second amendment ("Second Amendment") to the Agreement for General Management Services Between Livermore-Amador Valley Water Management Agency and Charles V. Weir, dba Weir Technical Services ("Agreement"), is hereby entered into on this 21st day of February, 2018 by and between the Livermore-Amador Valley Water Management Agency, a public agency ("LAVWMA"), through its Board of Directors ("Board"), and Charles V. Weir, dba Weir Technical Services ("Weir"), with reference to the following facts and intentions:

RECITALS

A. On April 17, 2014, LAVWMA and Weir entered in an Agreement wherein Weir agreed to serve as General Manager of LAVWMA and oversee all management and administration of LAVWMA's operations according to the terms established in the Agreement; and

B. The Agreement provides for a two (2) year term unless extended for an additional two (2) year term by mutual consent of the Parties; and

C. The Board amended the Agreement on April 20, 2016 ("First Amendment") to extend the term for an additional two years, making the termination date April 17, 2018.

D. The Parties wish to extend the term of the Agreement.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the parties do hereby enter into this Second Amendment which modifies and amends the Agreement as follows:

1. **Amendment.** Section 7(a) of the Agreement, entitled "Term" is hereby amended in its entirety to read as follows:

> A. Term. This Agreement became effective as of the April 17, 2014. The Board extended the term for an additional two (2) years via the First Amendment to the Agreement. The Board extended the term for an additional three (3) years via the Second Amendment to the Agreement. This Agreement shall continue in effect until April 17, 2021 unless sooner terminated by either of the Parties. In the event of termination, neither Party shall have any further obligations under this Agreement, other than those obligations which by their terms survive expiration or termination of this Agreement. This Agreement may be extended for additional terms of up to three (3) years by mutual consent of the Parties.

2. GENERAL PROVISIONS.

2.1 **Remainder Unchanged**. Except as specifically modified and amended in this Second Amendment, the Agreement remains in full force and effect and binding upon the parties.

2.2 **Integration**. This Second Amendment consists of pages 1 through 2 inclusive, which constitute the entire understanding and agreement of the parties and supersedes all negotiations or previous agreements between the parties with respect to all or any part of the transaction discussed in this Second Amendment.

2.3 **Effective Date**. Upon full execution, this Second Amendment shall be effective as of April 17, 2018.

2.4 **Applicable Law**. The laws of the State of California shall govern the interpretation and enforcement of this Second Amendment.

2.5 **References**. All references to the Agreement include all their respective terms and provisions. All defined terms utilized in this Second Amendment have the same meaning as provided in the Agreement, unless expressly stated to the contrary in this Second Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this Second Amendment to the Agreement on the date and year first written above.

LIVERMORE-AMADOR VALLEY
WATER MANAGEMENT AGENCY

By:_____ Date_____
Bob Woerner, Chair

CHARLES V. WEIR, dba WEIR TECHNICAL SERVICES

By:_____ Date_____
Charles V. Weir

Approved As To Form

By:_____
Alexandra M. Barnhill, General Counsel