LAVWMA Livermore-Amador Valley Water Management Agency

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

Wednesday, May 16, 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 February 21, 2018
(The Board will consider approving the minutes from the February 21, 2018 Board meeting.)

Action
Page 6

7. Annual Board Rotation – Elect Chair and Vice Chair for FY2018/19
(The Board will elect a Chair and Vice Chair for FY2018/19.)

Information
Pages 7 – 12

8. 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 13 – 38

9. LAVWMA Quarterly Reports of Operations, 3nd Quarter, FY2017-2018
(The Board will review the Quarterly Reports of Operations, 3nd Quarter, FY2017-2018.)

Action **Pages 39 - 64**

10. Proposed Operating and Capital Budget for Fiscal Year 2018/19
(The Board will consider adopting an Operating and Capital Budget for Fiscal Year 2018/19.)

Information **Pages 65 – 74**

11. 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 **Pages 75 – 108**

12. General Manager's Report
(The Board will review the General Manager's Report regarding the operations and maintenance of the Agency and its facilities.)

Information

13. 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.)

14. Closed Session
Conference with Legal Counsel - Anticipated Litigation
Initiation of litigation pursuant to Government Code §54956.9(d)(4) (one case).

15. Public Report from closed Session

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

17. 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.

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LAVWMA
Livermore-Amador Valley Water Management Agency
DRAFT
Minutes
Regular Meeting of Board of Directors
Wednesday, February 21, 2018
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 6:03 p.m.

2. Pledge of Allegiance

3. Roll Call
Board Members Present: Chair Woerner, Directors Duarte, Marchand (arrived at 6:12 p.m.), Misheloff (arrived at 6:05 p.m.), Olson, and Pentin

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;

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 November 15, 2017 LAVWMA Board Meeting

Director Pentin motioned, seconded by Director Olson to approve Consent Calendar Item Nos. 6.a.

The Motion passed unanimously (4-0).

7. 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 second quarter of the year. This was an information item requiring no action by the Board.

8. LAVWMA Quarterly Reports of Operations, 2nd Quarter, FY2017-2018
A revised Table 1 from the report was distributed at the meeting. The table in the packet had the incorrect total flow data which resulted in lower than normal pump efficiencies. The actual pumping efficiency for the quarter was 69.2%. The Board reviewed the reports and had no additional questions. This was an information item only requiring no action by the Board.

9. Update and Response to Various Legal and Legislative Issues
The General Manager and General Counsel updated the Board on legislation of interest. SB 831 (Wieckowski) would ban all fees placed by local agencies on accessory dwelling units. The actual language right now is as follows: "An accessory dwelling unit permitted pursuant to this section shall not be subject to impact fees, connection fees, capacity charges, or any other fees levied by a local agency, school district, special district, or water corporation." The Board expressed concern with the language as it would result in a lack of revenue for services provided. Additional information on SB 831 as well as other items will be presented at the next meeting. This was an information item only requiring no action by the Board.

10. General Manager's Report
Mr. Weir referred to the list of activities in his report. He provided a brief summary of the following items: pump purchase, asset management, the new EBDA General Manager and efforts to update and revise the Joint Powers Agreement, records management project, a report on monitoring constituents of emerging concern in recycled water, approval of the Conflict of Interest Code by the FPPC, and an agreement with BBSI for Sue Montague's temporary services for LAVWMA and DERWA. Mr. Weir also showed pictures and a video of the pump installation and issues associated with the thrust collars and mechanical seals. This was an information item only requiring no action by the Board.

11. Matters From/For Board Members
None.

12. Closed Session
At 6:42 p.m. the Board adjourned to Closed Session for the following items:

a. Pursuant to §54957, Personnel Matters: Public Employee Performance Evaluation – Title: General Manager;
b. Pursuant to §54957.6, Conference with Labor Negotiator – Unrepresented Employee: General Manager;
c. Pursuant to §54956.9(d)(4) Anticipated Litigation – One case

13. Public Report from Closed Session
At 7:05 p.m. the Board reconvened to Regular Session. Ms. Barnhill stated that the Board had conducted a performance evaluation of the General Manager and that there was no other reportable action.

14. Second Amendment to the Agreement for General Management Services with Charles V. Weir, Dba Weir Technical Services
General Counsel Barnhill noted that the current agreement for General Manager Services has a two-year term, with a mutual option to renew for another two years on the same terms. Because the Agreement will expire in April 2018, the Board considered approving an extension. To reduce administrative steps, General Counsel recommended that the Board consider an extension of three (3) years, rather than two (2) under the same terms and conditions. Consistent with the

requirements of the Brown Act, Ms. Barnhill announced that no changes were being proposed in compensation or fringe benefits.

Director Marchand motioned, seconded by Director Misheloff to approve the Resolution amending the Agreement for General Management Services with Charles V. Weir.

The Motion passed unanimously (6-0).

15. Next Regular Board Meeting, Wednesday, May 16, 2018

16. Adjournment
There being no further action, Chair Woerner adjourned the meeting at 7:09 p.m.

Minutes Approved by the Board _____.

Charles V. Weir
General Manager

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Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
May 16, 2018

ITEM NO. 7 ANNUAL BOARD ROTATION – ELECT CHAIR AND VICE CHAIR FOR FY2018/19

Action Requested:
Nominate and Elect a Chair and Vice Chair for FY2018/19.

Summary
At the start of each fiscal year, the LAVWMA Board has traditionally rotated each member agency through the Chair and Vice Chair positions. During FY2017/18, Bob Woerner of Livermore is serving as Chair, and Madelyne (Maddi) Misheloff of DSRSD is serving as Vice Chair. During FY2016/17, Jerry Pentin of Pleasanton served as Chair and Bob Woerner of Livermore served as Vice Chair. In following with this rotation, it would be appropriate for the next Chair to be from DSRSD and the Vice Chair to be from Pleasanton.

Following is a list of LAVWMA's Past Officers:

Fiscal Year	Chair	Vice Chair
2008/09	Livermore – Marchand	DSRSD – Ford
2009/10	DSRSD – Howard	Pleasanton – Sullivan
2010/11	Pleasanton – Sullivan	Livermore – Horner
2011/12	Livermore – Horner	DSRSD – Benson
2012/13	DSRSD – Benson/Vonheeder-Leopold	Pleasanton – Thorne
2013/14	Pleasanton - Thorne	Livermore – Marchand
2014/15	Livermore – Marchand	DSRSD – Halket
2015/16	DSRSD – Benson/Duarte	Pleasanton – Pentin
2016/17	Pleasanton – Pentin	Livermore – Woerner
2017/18	Livermore – Woerner	DSRSD – Misheloff
2018/19	DSRSD	Pleasanton

Recommendation
Nominate and elect a Chair and Vice Chair for FY2018/19. The new positions will be effective July 1, 2018.

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
May 16, 2018

ITEM NO. 8 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 2018

Summary
Attached are the financial statements for the period July 1, 2017 through March 31, 2018.

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 LAVWMAs 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 March 31, 2018.

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 2017 through March 2018

			Repair and Replacement Reserve			
	Maintenance & Operation	2011 Debt Service	Joint-use Replacement	Dual-use Replacement	Sole-use Replacement	Total
ASSETS						
Cash and equivalents	$1,434,731	$19,141	$361,618	$12,142	$9,237	$1,836,869
Investments	409,785	6,637	14,911,210	409,565	1,534,159	17,271,356
Investments (LAIF FMV Adj)	(448)	(40)	(15,563)	(455)	(1,641)	(18,147)
Advances to members	28,000		317,178			345,178
Capital Assets, net of accumulated depreciation	3,939,395		108,165,841	75,600	4,369,258	116,550,094
Total assets	5,811,463	25,738	123,740,284	496,852	5,911,013	135,985,350
LIABILITIES						
Accounts payable	413,574		1,508			415,082
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	5,198,423	94,456,363	1,508	-	-	99,656,294
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	1,350,278	(6,012,832)	18,033,388	426,539	1,795,080	15,592,453
Total net assets	$644,189	($98,778,476)	$126,199,229	$502,139	$6,164,338	$34,731,419

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SCHEDULE OF SUB FUND ACCOUNT ACTIVITY
July 2017 through March 2018

			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	737,954					737,954
LAVWMA share of EBDA O&M - Fixed	391,562					391,562
LAVWMA share of EBDA O&M - Variable	123,273					123,273
Operations agreement	624,184		8,212			632,396
Professional services	138,782					138,782
Livermore sole use O&M	32,821					32,821
Insurance	21,320					21,320
Miscellaneous	1,343	21	2,551	71	259	4,245
Total operating expenses	2,071,239	21	10,763	71	259	2,082,353
Capital outlay			54,491			54,491
Total operating expenses and capital outlay	2,071,239	21	65,254	71	259	2,136,844
Operating income (loss)	1,287,261	8,006,454	334,746	(71)	(259)	9,628,131
NON-OPERATING REVENUES (EXPENSES)						
Amortization/Depreciation						-
EBDA Debt	(411,248)					(411,248)
Bond interest expense		(8,006,474)				(8,006,474)
Interest income	10,533	917	80,704	2,238	8,191	102,583
Total non-operating revenues (expenses)	(400,715)	(8,005,557)	80,704	2,238	8,191	(8,315,139)
Changes in net assets	886,546	897	415,450	2,167	7,932	1,312,992
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	$644,189	($98,778,476)	$126,199,229	$502,139	$6,164,338	$34,731,419

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
O&M Fund - Budget vs Actual
July 2017 through March 2018

	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	737,954	862,500	(124,546)
LAVWMA share of EBDA O&M - Fixed	391,562	367,500	24,062
LAVWMA share of EBDA O&M - Variable	123,273	118,125	5,148
Operations agreement	624,184	645,000	(20,816)
Professional services	138,782	171,750	(32,968)
Livermore sole use O&M	32,821	18,750	14,071
Insurance	21,320	18,750	2,570
Permits	-	7,500	(7,500)
Miscellaneous	1,343	-	1,343
Total operating expenses	2,071,239	2,209,875	(138,636)
Capital outlay			-
Total operating expenses and capital outlay	2,071,239	2,209,875	(138,636)
Operating income (loss)	1,287,261	1,148,625	138,636
NON-OPERATING REVENUES (EXPENSES)			
Amortization/Depreciation	-		-
EBDA Debt	(411,248)	(411,248)	-
Interest income	10,533	-	10,533
Total non-operating revenues (expenses)	(400,715)	(411,248)	10,533
Net Income	886,546	737,377	149,169

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
Treasurer's Report
Portfolio Summary
March 31, 2018

Investments	Par Value	Market Value	Book Value	% of Portfolio	Avg. Term	Avg. Days to Maturity	YTM
LAIF- Operating	$ 17,271,063	$ 17,271,063	$ 17,271,063	100.00	1	1	1.20%
	$ 17,271,063	**$ 17,271,063**	**$ 17,271,063**	**100.00**	**1**	**1**	**1.20%**

Average Daily Balance	$ 17,271,063
Effective Rate of Return	**1.51%**

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 5/8/2018
Carol Atwood, Treasurer Date

Livermore-Amador Valley Water Management Agency
General Manager Approved Invoice Listing
July - March, 2018

Invoice Date	Vendor Name	Invoice#	Description	Check#	Date Paid	Total Amount
11/24/2017	U.S. BANK	4823801	TRUSTEE FEE 11/01/17 - 10/31/18 (2011 SWR BOND)	95488	1/11/2018	850.00
12/31/2017	JARVIS, FAY & GIBSON, LLP	11531	GENERAL COUNSEL SVCS - DEC 2017	95608	1/25/2018	1,464.00
1/1/2018	EBDA	3085	O&M ASSESSMENT - JAN 1, 2018 QTR	95560	1/25/2018	174,076.72
1/1/2018	WEIR TECHNICAL SERVICES	LAVWMA 12-17	MANAGEMENT SERVICES - DEC 2017	95576	1/25/2018	9,981.93
1/8/2018	OFFICE TEAM	50004723	S MONTAGUE: W/E 01/05/18	95420	1/11/2018	590.73
1/15/2018	OFFICE TEAM	50050733	S MONTAGUE: W/E 01/12/18	95503	1/19/2018	712.95
1/22/2018	OFFICE TEAM	50099024	S MONTAGUE: W/E 01/19/18	95570	1/25/2018	916.65
1/29/2018	OFFICE TEAM	50145211	S MONTAGUE: W/E 01/26/18	95653	2/1/2018	1,059.24
1/31/2018	JARVIS, FAY & GIBSON, LLP	11623	GENERAL COUNSEL SVCS - JAN 2018	95873	2/22/2018	4,056.50
2/1/2018	WEIR TECHNICAL SERVICES	LAVWMA 01-18	MANAGEMENT SERVICES - JAN 2018	95853	2/22/2018	9,080.12
2/5/2018	OFFICE TEAM	50194520	S MONTAGUE: W/E 02/02/18	95761	2/8/2018	875.91
2/12/2018	OFFICE TEAM	50245238	S MONTAGUE: W/E 02/09/18	95776	2/15/2018	733.32
2/19/2018	OFFICE TEAM	50296883	S MONTAGUE: W/E 02/16/18	95849	2/22/2018	1,038.87
2/26/2018	OFFICE TEAM	50342635	S MONTAGUE: W/E 02/23/18	95915	3/1/2018	896.28
2/28/2018	JARVIS, FAY & GIBSON, LLP	11707	GENERAL COUNSEL SVCS - FEB 2018	96187	3/22/2018	4,666.50
3/1/2018	WEIR TECHNICAL SERVICES	LAVWMA 02-18	MANAGEMENT SERVICES - FEB 2018	96156	3/22/2018	12,254.21
3/9/2018	BARRETT BUSINESS SERVICES INC.	3062591	S. MONTAGUE: W/E 3/4/18	96216	3/29/2018	838.50
3/13/2018	MARCHAND, JOHN	022118 meeting	REGULAR BOARD MTG ATTENDANCE - 2/21/18	96104	3/15/2018	50.00
3/13/2018	OLSON, ARNE	022118 meeting	REGULAR BOARD MTG ATTENDANCE - 2/21/18	96108	3/15/2018	50.00
3/13/2018	PENTIN, JERRY	022118 meeting	REGULAR BOARD MTG ATTENDANCE - 2/21/18	96111	3/15/2018	50.00
3/13/2018	WOERNER, BOB	022118 meeting	REGULAR BOARD MTG ATTENDANCE - 2/21/18	96132	3/15/2018	50.00
3/16/2018	BARRETT BUSINESS SERVICES INC.	3063087	S. MONTAGUE: W/E 3/11/18	96368	4/6/2018	799.50
3/23/2018	BARRETT BUSINESS SERVICES INC.	3064142	S. MONTAGUE: W/E 3/18/18	96446	4/12/2018	994.50
						226,086.43

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
May 16, 2018

ITEM NO. 9 LAVWMA QUARTERLY REPORTS OF OPERATIONS, 3rd QUARTER, FY2017-2018

Action Requested
None at this time.

Summary
LAVWMA's Quarterly Report of Operations for the 3rd 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. As noted at the last meeting, Tables 1-3 now show all monthly data for the fiscal year similar to Tables 4-7.

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

LAVWMA

QUARTERLY REPORT OF OPERATIONS 3rd 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
3rd Quarter FY 2017-2018: January to March 2018

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 1,390 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 71.7%, with an average electrical cost of $256 per million gallons, or $83 per acre-foot. Year-to-date labor expenses totaled $458,873, or 77.9% of the overall labor budget of $588,677. Total year-to-date O&M expenses were $1,394,959 or 89.5% of the overall O&M budget amount of $1,559,271. The running average overall cost of operation was $470 per million gallons pumped or $153 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 in 2017 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. No PDP event days have been called for the first quarter of 2018.

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 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. Of the ten export pumps, six were utilized in January and February, and eight in March. Staff manually selected which pumps to operate at any given time, rather than using automatic control. Using manual control, pumping efficiency averaged 31.6%. 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 sent to EBDA which detail daily export flows and chemical analysis of the treated effluent during the quarter are attached. Langelier saturation index reports for DSRSD, Livermore, and the combined export flow are also attached.

3. MAINTENANCE

During the quarter, a total of 156 preventative maintenance (PM) work orders and 10 corrective maintenance (CM) work orders were completed on LAVWMA equipment and systems.

The following are some of the noteworthy maintenance during the quarter:
In January:

- The first set of John Crane split mechanical seals were installed on the new pumps #8 and #10; the seals failed on second start attempt.
- Motors #8 and #10 were sent to Vincent Electric for rebuilding.
- Ghilotti Construction did a free installation of a composite manhole frame and cover by at Sta. 608+16 on Dublin Canyon Road as part of ALCO intersection widening project of Dublin Canyon Road and Schaefer Ranch Road. The existing cast iron needed to be raised as part of this project, so Ghilotti agreed to install the composite with LAVWMA supplying the new material and removal of the existing cast iron.

In February:

- Rebuilt motors #8 and #10 from Vincent Electric were received and installed.
- Installed second set of John Crane Split Seals on pumps #8 and #10; seals failed on first start attempt.

In March:

- Disassembled John Crane split seals in an effort to determine if they were damaged in some way. This work was done with the rep for John Crane. No damage was found and the rep took the seals back to John Crane for further inspection.
- Overflow due to mechanical failure of air valve at Sta. 167+68 Lewelling Blvd. in San Lorenzo
- Installed ARI air valve at Sta. 319+14 Greenview and Idena in Castro Valley
- Inspected LAVWMA line with the insurance adjuster for LAVWMA and provided information as requested
- Installed third set of John Crane split seals with the same results.

4. UNUSUAL CIRCUMSTANCES

During the weekend of March 10 through March 12, there was an unplanned discharge of 21.74 million gallons of fully treated secondary effluent that occurred through the LAVWMA permitted wet weather outfall at the San Leandro Sample Station (SLSS) into the San Lorenzo Creek. The discharge occurred as a result of the lost communication signals from SCADA (Supervisory Control and Data Acquisition) system resulting in the closing of the valve between LAVWMA and EBDA system diverting the effluent to the wet weather outfall. Per protocol, the California Office of Emergency Services, the Water Board, and other local agencies were contacted. A detailed report regarding this event was submitted to the Water Board and other agencies. Since this event, SCADA system modifications have been made which include additional alarms, secondary monitoring of communication signals, and additional operator coverage of the SLSS. In, addition, staff is soliciting budget for additional SCADA communication improvement.

During the quarter, as noted in the maintenance section, an ARV at the Greenview location in Castro Valley was replaced. The existing unit failed after a rebuild kit was installed a week prior. A minor amount of fully treated secondary effluent surfaced out at the vault and went into a local storm water basin. Staff responded and reported the event to Alameda County Public Works. No additional requirements were warranted for this event.

5. PUMPING EFFICIENCY

During the quarter, the overall efficiency of the pumping system averaged 71.7%. The energy required to export flow over the Dublin Grade averaged 1,940 kWh per million gallons, resulting in an average electrical cost of $256 per million gallons, or $83 per acre-foot.

Six of the ten export pumps were utilized in January and February, and eight in March, and a total of 6,854 hours of pump run time were logged. During the quarter, the utilization of the pumps averaged 31.6% 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. During the quarter, the water levels averaged 3.61 feet in both Basin No. 1 and Basin No. 3, with Basin No. 2 empty. These water levels bring utilization of storage at an average 3.75 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 $458,873 for 2,986 man-hours of effort, an average of 1.9 full time equivalents (FTEs). Labor expenses utilized 77.9% of the budgeted labor 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 $1,394,959, for an average cost of $470 per million gallons pumped, or $153 per acre-foot. O&M expenses utilized 89.5% of the 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	Levi Fuller, WWTP Operations Supervisor	(925) 875-2300
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*
DSRSD	24 Hour On Duty Operator	(925) 519-0557
DSRSD	Operator II On Duty	(925) 872-5887
DSRSD	Bill Smith, Senior Mechanic	(925) 570-4161
DSRSD	Shawn Quinlan, Mechanical Maintenance Supervisor	(925) 570-7878
DSRSD	Levi Fuller, WWTP Operations Supervisor	(925) 570-8775
DSRSD	Jeff Carson, Operations Manager	(925) 719-2997

The City of Livermore emergency contact information is as follows:

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

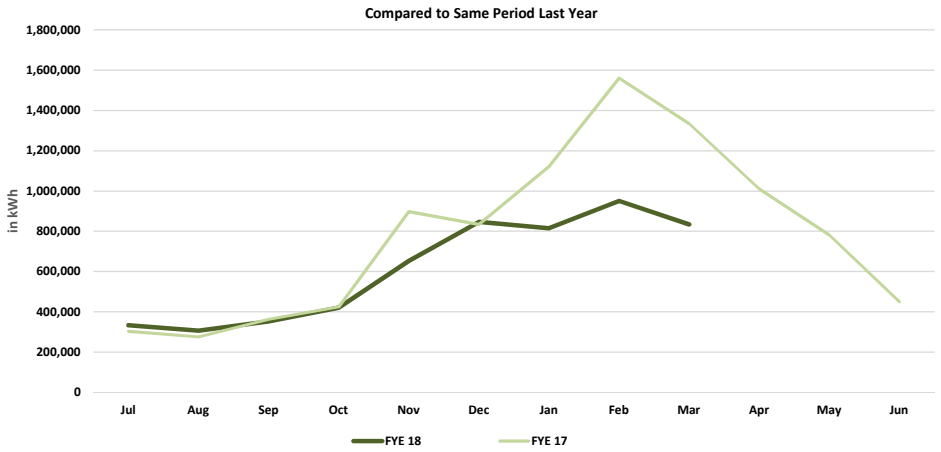
The City of Pleasanton emergency contact information is as follows:

Agency	*Contact*	*Cell*
Pleasanton	24 Hour On Call Operator	(925) 437-3992
Pleasanton	Eric Amaro, Chief Utilities System Operator	(925) 437-3605

TABLE 1

LAVWMA SYSTEM: 3rd QTR FY 2017-2018 Electric Usage, Efficiency, and Costs

	PG&E Service Accounts: Rate Schedule E20S								Total	Pumping			
	Acct # 8482061923-1 Service A		Acct # 8440395259-5 Service B		Billing	Total			Export Flow	Energy	Cost		Efficiency
Month	kWh	$	kWh	$	Days	kWh	$/kWh	$	MG	kWh/MG	$/MG	$/AF	%
Jul-17	30,835	$7,802	303,073	$42,417	30	333,908	$0.15	$50,219	99	3,385	$509	$166	41.1%
Aug-17	1,272	$1,617	304,710	$43,146	32	305,982	$0.15	$44,763	130	2,352	$344	$112	59.1%
Sep-17	78,051	$16,534	274,286	$42,734	30	352,337	$0.17	$59,267	181	1,944	$327	$107	71.5%
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	429	1,974	$247	$80	70.4%
Jan-18	**789,829**	**$98,643**	**25,611**	**$6,785**	29	815,440	$0.13	$105,428	415	1,964	$254	$83	70.8%
Feb-18	**757,921**	**$96,220**	**192,552**	**$27,140**	32	950,473	$0.13	$123,360	494	1,924	$250	$81	72.3%
Mar-18	**618,577**	**$84,927**	**215,697**	**$29,493**	30	834,274	$0.14	$114,420	432	1,933	$265	$86	71.9%
Apr-18													
May-18													
Jun-17													
Quarter													
Average	722,109	$93,263	144,620	$21,139	30	866,729	$0.13	$114,403	447	1,940	$256	$83	71.7%
Total	2,166,327	$279,790	433,860	$63,418	91	2,600,187		$343,208	1,341				
Minimum	618,577	$84,927	25,611	$6,785	29	815,440	$0.13	$105,428	415	1,924	$250	$81	71%
Maximum	789,829	$98,643	215,697	$29,493	32	950,473	$0.14	$123,360	494	1,964	$265	$86	72%
YTD													
Average	407,213	$54,837	205,457	$30,033	30	612,670	$0.14	$84,870	301	2,170	$311	$101	66.0%
Total	3,664,914	$493,530	1,849,115	$270,298	273	5,514,029		$763,828	2,706				
Minimum	1,272	$1,617	14,432	$3,397	29	305,982	$0.13	$44,763	99	1,924	$247	$80	41%
Maximum	833,035	$102,645	304,710	$43,727	32	950,473	$0.17	$123,360	494	3,385	$509	$166	72%



NOTES:

1) Read dates, electric usage, and export flows are matched to PG&E billing periods: January 12/13/17 - 1/10/18; February 1/11/18 - 2/11/18; March 2/12/18 - 3/13/18.

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: 3rd 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 %
Jul-17	0	73	0	261	0	0	48	0	277	0	659	8.9%
Aug-17	54	16	0	329	0	8	16	0	306	0	730	9.8%
Sep-17	301	304	0	0	0	0	292	0	0	0	897	12.5%
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%
Jan-18	**577**	**214**	**488**	**3**	**558**	**590**	**1**	**0**	**38**	**0**	**2,469**	**33.2%**
Feb-18	**373**	**147**	**355**	**0**	**348**	**400**	**0**	**0**	**257**	**0**	**1,880**	**28.0%**
Mar-18	**478**	**119**	**521**	**118**	**354**	**536**	**134**	**0**	**244**	**1**	**2,506**	**33.7%**
Apr-18												
May-18												
Jun-17												
Quarter												
Average	476	160	455	40	420	509	45	0	179	0	2,285	31.6%
Total	1,428	479	1,364	121	1,260	1,526	135	0	538	1	6,854	
Minimum	373	119	355	0	348	400	0	0	38	0	1,880	28.0%
Maximum	577	214	521	118	558	590	134	0	257	1	2,506	33.7%
YTD												
Average	330	120	280	100	273	289	77	24	143	0	1,636	22.4%
Total	2,970	1,079	2,516	900	2,458	2,601	695	219	1,284	1	14,724	
Minimum	0	0	0	0	0	0	0	0	0	0	659	8.9%
Maximum	579	304	585	329	558	590	292	117	306	1	2,506	33.7%

Table 2: Pump Run Time Hours Compared to Same Period Last Year

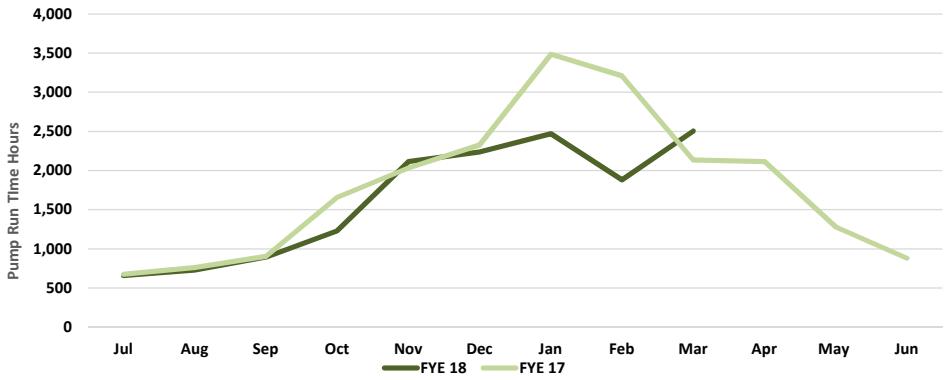
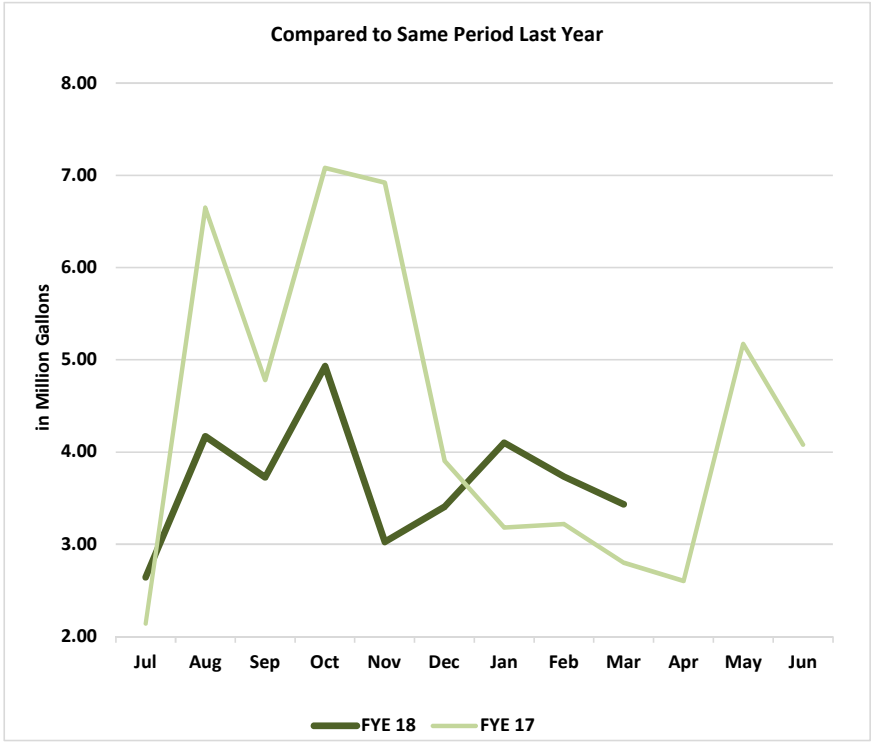


TABLE 3

LAVWMA SYSTEM: 3rd QTR FY 2017-2018 Monthly Average Storage Basin Levels and Volume

	Average Daily Volume			Average		Storage
	Basin	Basin	Basin	Volume	Storage	Basin
	No. 1	No. 2	No. 3	Stored	Available	Utilization
Month	Feet	Feet	Feet	MG	MG	%
Jul-17	2.46	0.07	2.98	2.64	18	14.7%
Aug-17	2.99	0.17	5.19	4.17	18	23.2%
Sep-17	3.55	0.53	3.52	3.73	18	20.7%
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%
Jan-18	**5.84**	**0.00**	**2.19**	**4.10**	**18**	**22.8%**
Feb-18	**3.22**	**0.00**	**3.93**	**3.73**	**18**	**20.7%**
Mar-18	**1.78**	**0.00**	**4.73**	**3.43**	**18**	**19.1%**
Apr-18						
May-18						
Jun-17						
Quarter						
Average	3.61	0.00	3.62	3.75		21%
Minimum	1.78	0.00	2.19	3.43		
Maximum	5.84	0.00	4.73	4.10		
YTD						
Average	2.82	0.28	4.09	3.68		20%
Minimum	1.47	0.00	2.19	2.64		
Maximum	5.84	1.75	5.25	4.93		



Note: Total available storage volume is 18 million gallons.

TABLE 4

LAVWMA SYSTEM: 3rd 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	**297.5**	**1.7**	**$50,253**	**$457,860**	**76.8%**	**$398,615**	**49.2%**	**488**	**1,496**
Feb-18	**218.0**	**1.3**	**$35,394**	**$523,269**	**54.1%**	**$363,221**	**53.7%**	**392**	**1,203**
Mar-18	**214.3**	**1.2**	**$37,191**	**$588,677**	**56.9%**	**$326,030**	**58.5%**	**511**	**1,567**
Apr-18									
May-18									
Jun-18									
QUARTER									
Total	729.8		$122,838	$588,677	20.9%			1,390	4,267
Average	243.3	1.4	$40,946					463	1,422
Minimum	214.3	1.2	$35,394					392	1,203
Maximum	297.5	1.7	$50,253					511	1,567
YTD									
Total YTD	2,985.5		$458,873	$588,677	77.9%			2,965	9,101
Average YTD	331.7	1.9	$50,986					329	1,011
Minimum	214.3	1.2	$35,056					103	315
Maximum	502.3	2.9	$76,153					511	1,567

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	**$50,253**	**$117,895**	**$168,148**	**$1,212,766**	**97.1%**	**$1,910,880**	**8.1%**	**$345**	**$112**
Feb-18	**$35,394**	**$143,504**	**$178,898**	**$1,386,019**	**103.3%**	**$1,900,130**	**8.6%**	**$456**	**$149**
Mar-18	**$37,191**	**$160,816**	**$198,008**	**$1,559,271**	**114.3%**	**$1,881,020**	**9.5%**	**$388**	**$126**
Apr-18									
May-18									
Jun-18									
QUARTER									
Total	122,838.2	422,215.0	$545,053	$1,559,271	35.0%				
Average	40,946.1	140,738.3	$181,684					$396	$129
Minimum	35,394.0	117,894.7	$168,148					$345	$112
Maximum	50,253.0	160,816.3	$198,008					$456	$149
YTD									
Total YTD	$458,873	$936,086	$1,394,959	$1,559,271	89.5%				
Average YTD	$50,986	$104,010	$154,995					$470	$153
Minimum	$35,056	$12,110	$84,502					$345	$112
Maximum	$76,153	$160,816	$204,503					$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 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	**180**	**163**	**144**	**488**
Feb-18	**132**	**143**	**117**	**392**
Mar-18	**168**	**188**	**155**	**511**
Apr-18				
May-18				
Jun-18				
Quarter				
Total	480	494	416	1,390
Average	160	165	139	463
Minimum	132	143	117	392
Maximum	180	188	155	511
YTD				
Total	894	1087	984	2,965
Average	99	121	109	329
Minimum	0	26	77	103
Maximum	180	188	155	511

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

TABLE 7

LAVWMA SYSTEM: 3rd QTR 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	**$876**	**$1,375**	**$2,251**
Feb-18	**$2,513**	**$1,713**	**$4,226**
Mar-18	**$0**	**$331**	**$331**
Apr-18			
May-18			
Jun-18			
Total YTD	$13,103	$5,016	$18,120
Average YTD	$1,456	$557	$2,013
Minimum	$0	$167	$331
Maximum	$3,236	$1,713	$4,226

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

Current FY Period: 9

ACTUAL EXPENSES BILLED TO LAVWMA FOR REGULAR O&M

	Approved Budget FY 2017-2018	July 2017	August 2017	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	YTD TOTAL	YTD Budget
Labor															
Staff	$784,903	$72,392	$38,233	$35,056	$66,156	$48,045	$76,153	$50,253	$35,394	$37,191				$458,873	$588,677
Subtotal	**$784,903**	**$72,392**	**$38,233**	**$35,056**	**$66,156**	**$48,045**	**$76,153**	**$50,253**	**$35,394**	**$37,191**	**$0**	**$0**	**$0**	**$458,873**	**$588,677**
Materials & Supplies															
Operations Supplies	$13,200	$0	$0	$0	$0	$0	$13,903	$0	$51					$13,953	$9,900
Mechanical Supplies	$32,000	$977	$376	$997	$441	$3,038	$92	$1,456	$1,009	$5,227				$13,612	$24,000
Electrical Supplies	$20,000	$0	$781	$16,226	$1,231	$6,480	$20,298	$672	$6,884	$35,248				$87,820	$15,000
Subtotal	**$65,200**	**$977**	**$1,157**	**$17,222**	**$1,672**	**$9,518**	**$34,293**	**$2,129**	**$7,943**	**$40,475**	**$0**	**$0**	**$0**	**$115,385**	**$48,900**
Laboratory Analysis															
Compliance Testing	$18,000	$668	$835	$668	$668	$835	$668	$835	$668	$835				$6,680	$13,500
Operational Support Testing	$3,700	$308	$308	$308	$308	$308	$308	$308	$308	$308				$2,772	$2,775
Special Sampling	$5,000	$261	$990	$1,904	$2,176	$1,088	$1,088	$1,088	$816	$2,114				$11,525	$3,750
Subtotal	**$26,700**	**$1,237**	**$2,133**	**$2,880**	**$3,152**	**$2,231**	**$2,064**	**$2,231**	**$1,792**	**$3,257**	**$0**	**$0**	**$0**	**$20,977**	**$20,025**
Contractual Services															
Sub-surface Repairs	$5,000	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$3,750
Street Sweeping	$5,000	$0	$220	$220	$275	$220	$0	$495	$220	$220				$1,870	$3,750
Cathodic Protection	$16,000	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$12,000
Underground Service Alert	$1,140	$2,806	$0	$0	$0	$0	$0	$0	$0	$0				$2,806	$855
SCADA/PowerXpert software support	$10,000	$6,537	$0	$0	$0	$0	$0	$0	$0	$0				$6,537	$7,500
Rectifier SCADA (5 yr contract)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$0
HVAC Maintenance/Repairs	$750	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$563
Termite/Pest Control	$900	$74	$0	$148	$74	$0	$148	$74	$74	$74				$666	$675
Landscape/weed maintenance	$8,500	$0	$0	$0	$0	$2,450	$994	$0	$980	$0				$4,424	$6,375
Fire Extinguisher Maint	$200	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$150
Postage/Shipping Charges	$250	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$188
Professional Services, misc	$10,000	$0	$1,187	$1,489	$7,564	$9	$857	$5,795	$7,999	$778				$25,678	$7,500
Subtotal	**$57,740**	**$9,417**	**$1,407**	**$1,857**	**$7,913**	**$2,679**	**$1,999**	**$6,364**	**$9,273**	**$1,072**	**$0**	**$0**	**$0**	**$41,981**	**$43,305**
Utilities															
Electricity (PG&E)	$1,135,605	$479	$95,448	$59,769	$62,241	$99,077	-$12,650	$208,571	$124,078	$115,314				$752,327	$851,704
Water & Sewer (Pleasanton)	$1,000	$0	$137	$149	$0	$159	$0	$141	$0	$146				$732	$750
Water (EBMUD)	$880	$0	$147	$163	$0	$141	$0	$159	$0	$164				$774	$660
Telephone/communications	$4,500	$0	$902	$351	$555	$351	$0	$648	$418	$389				$3,614	$3,375
WW Treatment (DSRSD)	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$1,875
Subtotal	**$1,144,485**	**$479**	**$96,634**	**$60,432**	**$62,796**	**$99,728**	**-$12,650**	**$209,519**	**$124,495**	**$116,013**	**$0**	**$0**	**$0**	**$757,446**	**$858,364**
Non-Routine															
Pump Efficiency Testing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$0
Corrosion Studies/ Inspections	$0	$0	$0	$0	$0	$0	$0	$297	$0	$0				$297	$0
Med Voltage Switchgear Tri-Annual PM	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0				$0	$0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$297**	**$0**	**$0**	**$0**	**$0**	**$0**	**$297**	**$0**
Total	**$2,079,028**	**$84,502.07**	**$139,563**	**$117,447**	**$141,689**	**$162,201**	**$101,858.90**	**$270,792.27**	**$178,897.85**	**$198,007.52**	**$0**	**$0**	**$0**	**$1,394,959**	**$1,559,271**
															89% of YTD Budget
Monthly Export Flow, mg	**4,078**	**103**	**178**	**203**	**268**	**393**	**431**	**488**	**392**	**511**				**2,966**	**3,059**
Pumping Efficiency		**41.1%**	**59.1%**	**71.5%**	**71.0%**	**66.2%**	**70.4%**	**70.8%**	**72.3%**	**71.9%**					
Monthly Cost, $/mg		$822	$786	$578	$529	$413	$236	$555	$456	$388					
YTD Running Cost, $/mg	**$510**	**$822**	**$799**	**$706**	**$643**	**$564**	**$474**	**$493**	**$487**	**$470**					

LAVWMA
BUDGET COMPARISON TO ACTUAL EXPENSES

Current FY Period: 9

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 50 - Ops Admin	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0	-												-	
Division 51 - FOD	52	16.00	-	-	-	-	-	-	2.00	-	-	-	-	18.00	39.00
Water/Wastewater Sys Lead Op	0	-	-	-	-	-	-	-	-	-				-	-
Water/Wastewater Sys OP IV-On Call	0	-	-	-	-	-	-	-	-	-				-	-
Water/Wastewater Sys OP IV	32	-	-	-	-	-	-	-	-	-				-	24.00
Water/Wastewater Sys OP III	0	8.00	-	-	-	-	-	-	-	-				8.00	-
Water/Wastewater Sys OP II	0	8.00	-	-	-	-	-	-	2.00	-				10.00	-
Maintenance Worker II	16	-	-	-	-	-	-	-	-	-				-	12.00
Supervisor	4	-	-	-	-	-	-	-	-	-				-	3.00
Division 52 - WWTP	2,612	175.00	86.50	99.25	201.00	175.00	236.00	105.00	79.50	85.50	-	-	-	1,242.75	1,959.00
Process Lead Operator V	200	22.00	13.00	10.50	14.00	8.00	14.50	7.50	9.50	3.00				102.00	150.00
Senior WWTP Operator III	590	51.50	32.00	30.75	43.00	43.00	63.50	46.50	39.00	49.00				398.25	442.50
Operator II	1,772	95.50	33.50	51.00	137.50	113.00	144.00	44.00	23.50	6.00				648.00	1,329.00
Supervisor	50	6.00	8.00	7.00	6.50	11.00	14.00	7.00	7.50	27.50				94.50	37.50
Division 53 - MECH	1,612	150.25	125.00	109.00	66.50	70.00	160.25	110.50	97.00	104.25	-	-	-	992.75	1,209.00
Senior Mechanic-Crane Cert	462	53.00	53.50	46.50	14.50	32.50	69.50	29.00	53.00	49.50				401.00	346.50
Senior Mechanic - USA	0	6.00	6.50	10.25	9.50	7.00	2.50	11.50	8.00	8.00				69.25	-
Mechanic II	1,100	69.25	48.25	43.75	19.50	15.75	57.00	17.75	27.50	28.50				327.25	825.00
Mechanic II-Crane Cert	0	-	-	-	-	-	-	10.00	-	-				10.00	-
Mechanic II - USA	0	21.50	16.50	8.50	22.50	14.50	17.25	35.00	5.00	8.25				149.00	-
Mechanic II-Crane Cert - USA	0	-	-	-	-	-	-	4.25	3.50	9.00				16.75	-
Supervisor	50	0.50	0.25	-	0.50	0.25	14.00	3.00	-	1.00				19.50	37.50
Division 54 - ELEC	850	141.50	30.00	19.50	171.00	66.00	93.50	73.00	31.50	12.50	-	-	-	638.50	637.50
Senior Instrument/Controls Tech	8	-	-	2.00	-	-	3.00	-	-	3.00				8.00	6.00
Instrument Tech	260	129.50	14.00	5.50	80.00	23.00	5.50	73.00	29.50	2.50				362.50	195.00
OPS Control Sys Spec	250	-	6.00	3.00	16.00	-	51.00	-	2.00	7.00				85.00	187.50
Senior Electrician	108	7.00	4.00	-	-	-	-	-	-	-				11.00	81.00
Electrician	200	5.00	6.00	8.00	75.00	43.00	34.00	-	-	-				171.00	150.00
Supervisor	24	-	-	1.00	-	-	-	-	-	-				1.00	18.00
Division 26 - SAFETY	48	-	-	-	-	-	-	-	-	-	-	-	-	-	36.00
Safety Officer	48	-	-	-	-	-	-	-	-					-	36.00
Division 40 - ENG	100	12.00	11.50	2.50	13.00	13.00	12.50	9.00	8.00	12.00	-	-	-	93.50	75.00
Senior Civil Engineer-SME	100	12.00	11.50	2.50	13.00	13.00	12.50	9.00	8.00	12.00				93.50	75.00
Total Estimated Personnel Hours	5,274														
Total Monthly Hours		**494.75**	**253.00**	**230.25**	**451.50**	**324.00**	**502.25**	**297.50**	**218.00**	**214.25**	**-**	**-**	**-**	**2,985.50**	**3,955.50**

Dublin San Ramon Services District
Water, wastewater, recycled water

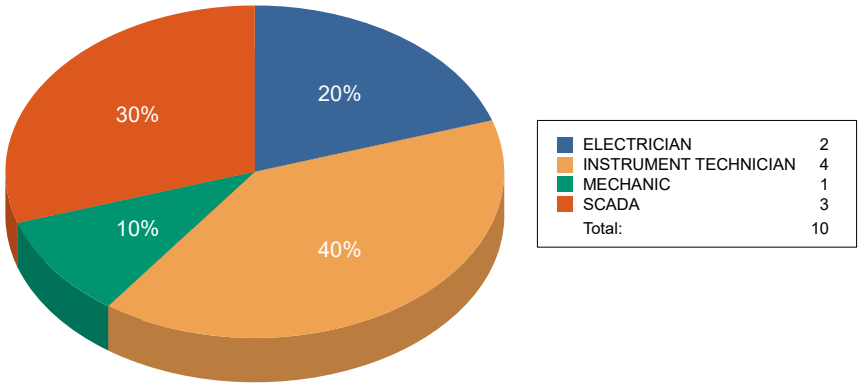
Operations Department

LAVWMA CM WORK ORDERS

3rd Quarter - FY2018

	Total Count		Avg Age of Comp WO	Complete		New Work Order		On-Hold (Other)		On-Hold (Parts)		WO Cancelled	
ELECTRICIAN	2	20%	5	2	33%	0	0%	0	0%	0	0%	0	0%
INSTRUMENT TECHNICIAN	4	40%	8	2	33%	0	0%	0	0%	1	100%	1	100%
MECHANIC	1	10%	0	1	16%	0	0%	0	0%	0	0%	0	0%
SCADA	3	30%	22	1	16%	1	100%	1	100%	0	0%	0	0%
Total	10	100%	9	6	100%	1	100%	1	100%	1	100%	1	100%

Count of WO Generated / Classification



Dublin San Ramon Services District
Water, wastewater, recycled water

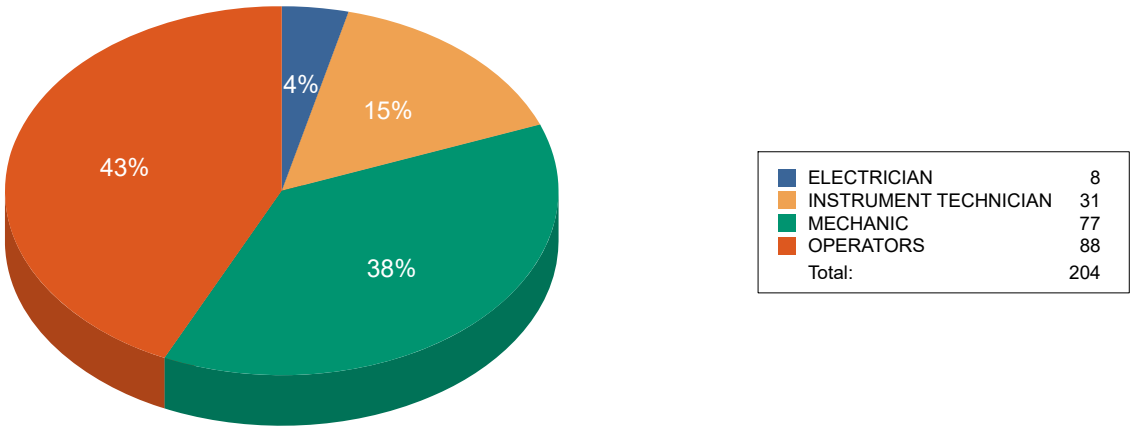
Operations Department

LAVWMA PM WORK ORDERS

3rd Quarter - FY2018

	Total Count		Avg Age of Comp WO	Complete		New Work Order	
ELECTRICIAN	**8**	3%	13	**8**	5%	**0**	0%
INSTRUMENT TECHNICIAN	**31**	15%	9	**31**	19%	**0**	0%
MECHANIC	**77**	37%	10	**29**	18%	**48**	100%
OPERATORS	**88**	43%	11	**88**	56%	**0**	0%
Total	**204**	100%	11	**156**	100%	**48**	100%

Count of WO Generated / Classification



LAVWMA Quarterly Instrumentation Calibration Report

Year: 2018

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	0.06	0		4.1	4	20	20	EMCO - Replaced 9/17/08 as per L. Fuller	1/9/2018
B1-2FIT	FLOWMETER, LIVERMORE LINE	0-18 MGD	5.58	5.6	0%	4	4	20	20	ISCO/EMCO	1/9/2018
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	1/9/2018
B2-2AIT	ANALYZER, pH, LIVERMORE LINE	2-12 pH	7.2	7.5	4%	N/A	N/A	N/A	N/A	Cal. w/ 4 and 10 pH / Standardized w/ 7	1/9/2018
B2-3AIT	ANALYZER, Cl2, LIVERMORE LINE	0-20 mg/l	3.6	3.2	-13%	N/A	N/A	N/A	N/A	Verify with HACH Portable Lab Standards	1/9/2018
B2-4AIT	ANALYZER, Cl2, DSRSD LINE	0-20 mg/l	2.7	7	61%	N/A	N/A	N/A	N/A	Verify with HACH Portable Lab Standards	1/9/2018
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	1/9/2018
B4-3LIT	LEVEL TRANSMITTER, OVERFLOW	0-16.70 ft	-0.04	0						HydroRanger	1/9/2018
	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	4.25	3.73	-14%	4.2	4	20	20	MiniRanger Plus	1/16/2018
D2LIT	LEVEL TRANSMITTER, BASIN 2	0-15 ft	-0.11	0		4	4	19.8	20	MiniRanger Plus	1/16/2018
D3LIT	LEVEL TRANSMITTER, BASIN 3	0-15 ft	0.27	0		4.2	4	20	20	MiniRanger Plus	1/16/2018
E11-1LIT	LEVEL TRANSMITTER, EAST WETWELL	0-24 ft	10.2	10.2	0%	4	4	20	20	HydroRanger	1/16/2018
E11-2LIT	LEVEL TRANSMITTER, WEST WETWELL	0-24 ft	10.2	10.2	0%	4	4	20	20	HydroRanger	1/16/2018
E1PIT	PRESSURE TRANSMITTER, PUMP 1	0-250 psi	182.4	182.3	0%	4.1	4	20	20	HART	1/25/2018
E2PIT	PRESSURE TRANSMITTER, PUMP 2	0-250 psi	182.9	182.5	0%	4	4	19.8	20	HART	1/25/2018
E3PIT	PRESSURE TRANSMITTER, PUMP 3	0-250 psi	181.9	182.2	0%	4	4	19.8	20	HART	1/25/2018
E4PIT	PRESSURE TRANSMITTER, PUMP 4	0-250 psi	0	0		4	4	20	20	HART	1/25/2018
E5PIT	PRESSURE TRANSMITTER, PUMP 5	0-250 psi	182	182.2	0%	4	4	19.9	20	HART	1/25/2018
E6PIT	PRESSURE TRANSMITTER, PUMP 6	0-250 psi	0	0		4	4	20	20	HART	1/25/2018
E7PIT	PRESSURE TRANSMITTER, PUMP 7	0-250 psi	0	0		4	4	20	20	HART	1/25/2018
E8PIT	PRESSURE TRANSMITTER, PUMP 8	0-250 psi	0	0		4	4	20	20	HART	1/25/2018
E9PIT	PRESSURE TRANSMITTER, PUMP 9	0-250 psi	0	0		4	4	20	20	HART	1/25/2018
E10PIT	PRESSURE TRANSMITTER, PUMP 10	0-250 psi	0	0		4	4	20	20	HART	1/25/2018
G2FIT	FLOWMETER FOR PIPELINE 1	0-30 MGD	2.6	2.6	0%	4	4	20	20	ISCO/EMCO	1/10/2018
H2PIT	PRESSURE TRANSMITTER, PIPELINE 1	0-400 psi	179.6	178.5	-1%	4.1	4	20	20	HART	1/10/2018
G1FIT	FLOWMETER FOR PIPELINE 2	0-30 MGD	7.8	7.8	0%	4	4	20	20	ISCO/EMCO	1/10/2018
H1PIT	PRESSURE TRANSMITTER, PIPELINE 2	0-400 psi	177	178.3	1%	4	4	19.9	20	HART	1/10/2018
H1AIT	ANALYZER, CHLORINE, PIPELINE 2	0-10 mg/l	3.36	3.2	-5%	N/A	N/A	N/A	N/A	Verify with HACH Portable Lab Standards	1/10/2018
H2-2AIT	ANALYZER, pH, PIPELINE 1	2-12 pH	7.36	7.4	1%	N/A	N/A	N/A	N/A	Cal. With 4 and 7 pH Standards	1/10/2018
H3PIT	PRESSURE TRANSMITTER COMP. TANK	0-300 psi	202.3	202.3	0%	4	4	20	20	HART	1/10/2018
	SAMPLE STATION										
	LEVEL TRANSMITTER, CaS2O3 TANK	0-10 ft	7.29	7.29	0%	4	4	20	20	MiniRanger Plus	1/24/2018
1009AIT	ANALYZER, Cl2, EXPORT & De-Cl2	0-10 mg/l	0.07	0.1	30%	N/A	N/A	N/A	N/A	ATI	1/24/2018
1017FIT	FLOWMETER, EXPORT PIPELINE	0-41.2 MGD	19	19	0%	4	4	20	20	ISCO/EMCO	1/24/2018
1106PIT	PRESSURE, EXPORT PIPELINE	0-100 psi	3.3	3.2	-3%	4	4	20	20	HART	1/24/2018
1101FIT	FLOWMETER, DECHLOR	0-41.2 MGD	0	0		4	4	20	20	ISCO/EMCO	1/24/2018
1116PIT	PRESSURE, SAMPLE PUMP	0-100 psi	26.1	26.3	1%	4	4	20	20	HART	1/24/2018
1110AIT	ANALYZER, pH, EXPORT & De-Cl2	2-12 pH				N/A	N/A	N/A	N/A	ROSEMOUNT, Removed 9/9/17 as per OPS	

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

LAVWMA MONTHLY REPORT

RESULTS OF ANALYSES

YEAR 2018

MONTH January 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	12.96					7.22	7.32	3.478	0.010
2	13.66					7.13	7.34	2.440	0.007
3	13.74	8.7	427	21.6	1059	7.11	7.28	2.486	0.050
4	23.71					7.05	7.19	2.589	0.004
5	3.73					7.06	7.09	2.575	0.000
6	14.84					7.07	7.11	2.623	0.000
7	14.91					7.07	7.08	2.191	0.000
8	17.00					7.05	7.08	1.801	0.000
9	21.07					7.04	7.31	2.566	0.000
10	18.96	5.2	335	13.0	837	7.05	7.19	2.824	0.000
11	17.91					7.08	7.78	3.069	0.000
12	15.93					7.21	7.33	3.309	0.000
13	15.32					7.28	7.40	3.078	0.000
14	15.77					7.28	7.34	2.857	0.000
15	18.07					7.30	7.34	2.863	0.000
16	15.82					7.29	7.36	3.163	0.000
17	13.53	5.8	397	14.2	971	6.53	7.36	3.079	0.000
18	14.82					7.28	7.37	3.142	0.000
19	24.11					7.28	7.37	3.056	0.001
20	14.70					7.28	7.37	2.422	0.005
21	15.29					7.19	7.34	2.423	0.000
22	15.04					7.19	7.34	2.504	0.000
23	5.95					7.25	7.30	2.945	0.000
24	16.23	4.3	263	12.0	734	7.29	7.37	3.389	0.000
25	16.37					7.28	7.38	3.455	0.010
26	16.16					7.20	7.34	3.444	0.005
27	15.58					7.18	7.34	3.539	0.000
28	19.02					7.28	7.34	3.482	0.000
29	14.88					7.31	7.38	3.321	0.000
30	18.26					7.28	7.37	3.255	0.000
31	14.19	4.4	248	9.0	507	7.30	7.46	3.230	0.000
MAX.	24.11	8.7	427	21.6	1059	7.31	7.78	3.539	0.050
MIN.	3.73	4.3	248	9.0	734	6.53	7.08	1.801	0.000
AVE.	15.73	5.7	334	14.0	900	7.17	7.32	2.923	0.003
TOTAL	487.54								

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

LAVWMA MONTHLY REPORT

RESULTS OF ANALYSES

YEAR 2018

MONTH February 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	18.26					7.30	7.46	3.174	0.000
2	14.19					7.31	7.39	2.027	0.000
3	14.62					7.24	7.51	2.608	0.000
4	14.64					7.22	7.39	2.283	0.000
5	14.23					7.20	7.36	2.605	0.000
6	17.27					7.23	7.49	2.099	0.000
7	13.11	6.7	463	11.2	774	7.21	7.40	1.891	0.000
8	14.49					7.24	7.43	1.907	0.000
9	12.71					7.23	7.45	1.709	0.000
10	13.64					7.22	7.42	1.456	0.000
11	13.89					7.21	7.43	1.269	0.000
12	13.50					7.32	7.45	1.977	0.000
13	17.24					7.29	7.42	2.088	0.000
14	11.30	5.5	302	9.4	516	7.31	7.40	2.041	0.000
15	11.01					7.32	7.46	1.723	0.001
16	15.15					7.27	7.77	1.737	0.000
17	14.62					7.34	7.42	1.941	0.000
18	12.52					7.32	7.44	1.665	0.000
19	13.36					7.28	7.33	1.486	0.000
20	15.34					7.23	7.33	1.902	0.000
21	13.53	7	292	12.0	500	7.17	7.32	2.281	0.001
22	13.01					7.21	7.28	2.288	0.000
23	13.34					7.26	7.31	2.403	0.001
24	12.47					7.23	7.30	2.337	0.000
25	12.16					7.22	7.26	2.009	0.003
26	12.30					7.20	7.32	1.982	0.002
27	16.70					7.22	7.37	1.985	0.001
28	13.33	7.6	354	9.4	437	7.24	7.34	2.129	0.002
MAX.	18.26	7.6	463	12.0	774	7.34	7.77	3.174	0.003
MIN.	11.01	5.5	292	9.4	437	7.17	7.26	1.269	0.000
AVE.	14.00	6.7	353	10.5	557	7.25	7.40	2.036	0.000
TOTAL	391.92								

LIVERMORE AMADOR VALLEY WATER MANAGEMENT AGENCY

LAVWMA MONTHLY REPORT

RESULTS OF ANALYSES

YEAR 2018

MONTH March 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	14.59					7.29	7.39	2.478	0.002
2	11.96					7.28	7.39	2.259	0.003
3	17.63					7.23	7.32	2.299	0.007
4	16.49					7.20	7.27	2.089	0.007
5	16.38					7.12	7.22	1.934	0.007
6	18.34					7.11	7.21	1.923	0.007
7	16.30	5.6	345	10.2	629	7.14	7.21	1.995	0.007
8	15.12					7.20	7.25	2.085	0.007
9	14.80					7.14	7.28	2.141	0.007
10	16.30					7.17	7.39	2.162	0.007
11	14.02					7.18	7.31	1.897	0.007
12	13.09					7.16	7.31	1.870	0.007
13	15.75					7.18	7.35	1.986	0.156
14	16.40	6.3	391	9.2	571	7.19	7.33	2.014	0.000
15	16.46					7.26	7.32	2.047	0.001
16	17.00					7.27	7.31	2.009	0.000
17	17.06					7.23	7.32	1.984	0.000
18	17.05					7.23	7.27	1.780	0.000
19	16.19					7.18	7.27	1.740	0.000
20	20.32					7.20	7.26	1.748	0.000
21	14.88	8.1	456	12.0	676	7.23	7.28	1.778	0.000
22	15.89					7.18	7.26	1.854	0.000
23	16.58					7.13	7.27	1.901	0.000
24	18.56					7.13	7.22	2.095	0.000
25	20.35					7.14	7.20	2.194	0.000
26	17.11					7.10	7.22	2.111	0.000
27	20.70					7.13	7.28	2.052	0.000
28	17.25	3.8	248	8.0	522	7.12	7.22	2.076	0.000
29	16.84					7.15	7.32	2.079	0.000
30	15.91					7.13	7.58	1.960	0.001
31	15.42					7.18	7.30	2.239	0.000
MAX.	20.70	8.1	456	12.0	676	7.29	7.58	2.478	0.156
MIN.	11.96	3.8	248	8.0	522	7.10	7.20	1.740	0.000
AVE.	16.48	6.0	360	9.9	600	7.18	7.29	2.025	0.008
TOTAL	510.73								

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
01/09/18	564	21.6	142	250	7.4	7.3	0.1
02/13/18	854	20.4	240	395	7.4	6.9	0.4
03/06/18	698	20.3	108	290	7.2	7.4	-0.2
MAXIMUM	854	21.6	240	395	7.4	7.4	0.4
MINIMUM	564	20.3	108	250	7.2	6.9	-0.2
AVERAGE	705	20.8	163	312	7.3	7.2	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
01/09/18	548	22.0	166	225	7.3	7.3	0.0
02/13/18	1070	20.7	290	502	7.5	6.8	0.7
03/06/18	711	20.7	107	310	7.1	7.4	-0.3
MAXIMUM	1070	22.0	290	502	7.5	7.4	0.7
MINIMUM	548	20.7	107	225	7.1	6.8	-0.3
AVERAGE	776	21.1	188	346	7.3	7.1	0.1

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
01/03/18	610	20.0	67	285	7.5	7.7	-0.2
02/09/18	670	20.0	84	342	7.5	7.5	0.0
03/07/18	650	19.0	80	326	7.6	7.6	0.0
MAXIMUM	670	20.0	84	342	7.6	7.7	0.0
MINIMUM	610	19.0	67	285	7.5	7.5	-0.2
AVERAGE	643	19.7	77	318	7.5	7.6	-0.1

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
May 16, 2018

ITEM NO. 10 PROPOSED OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2018/19

Action Requested:
Adopt the proposed Operating and Capital Budget for Fiscal Year 2018/19.

Summary
LAVWMA is required to adopt its fiscal year budget by June 30 each year. The proposed operating budget of $2,886,400 is a 2.04% decrease from the FY2017/18 budget. The total revenue requirement of $15,795,059 is a 34.25% increase from FY2017/18 budget. The increase is due to plans to pay off the EBDA Debt for reasons discussed below. Debt service payments consist of $2,437,973 for the Repair Project, $5,565,877 for the Expansion Project and $4,504,809 for EBDA Capacity and paying off the EDBD Debt. Debt service for the Repair Project and the Expansion Project are a decrease of 0.03% from last year.

EBDA Debt. EBDA's Joint Powers Authority (JPA) Agreement expires January 2, 2020. The EBDA agencies are in the process of renegotiating the terms of the JPA. The JPA specifies how costs are allocated among their five member agencies. The large majority of costs are shared on the basis of variable (flow based) and fixed (capacity rights) percentages. Some of the agencies are trying to reduce their capacity rights, which would significantly reduce their costs and increase the costs of other agencies. The EBDA system has design capacity of 189.1 Million Gallons per Day (MGD). At the time of the EBDA system construction, LAVWMA bought and paid for 19.72 MGD of capacity. This resulted in an original fixed cost percentage of 10.43% (19.72/189.1) for LAVWMA.

In 2007 LAVWMA entered into a Master Agreement with EBDA to discharge up to 41.2 MGD through EBDA's system. All flow above 19.72 MGD is considered interruptible when the EBDA agencies require their full allotment of 169.4 MGD (189.1 – 19.72). In actuality, peak flows do not all occur at the same time and LAVWMA frequently discharges 25 – 35 MGD for short periods of time during wet weather. Since agreement with EBDA has an escalator clause for the fixed cost percentage that increases every five years. Currently, the fixed cost is 17.34% and it is set to increase to 18.60% on January 1, 2020.

The agreement with EBDA included a buy-in fee of $10,000,000. $3,000,000 was paid up front and the remaining $7,000,000 is being paid like a variable rate mortgage with an interest rate based on the CPI ranging from a minimum of 3% to a maximum of 6%. Payments are scheduled to continue through 2030. LAVWMA still owes $4,373,601. If interest rates remain low the total remaining payments would be $5,346,224. Paying off the debt early would save at least $840,000 in interest.

It is in LAVWMA's best interests to try to reduce both its variable and fixed costs with EBDA. Paying off the debt would give LAVWMA some leverage in negotiating a new agreement with better terms. Water recycling efforts by the LAVWMA agencies as well as wet weather flow storage and management will play a large role in reducing costs for EBDA. If the EBDA debt is paid off by June 30, 2018, the costs to the member agencies would be:

Agency	Percentage	Principal	Interest	Total
Livermore	18.18%	$795,121	$23,854	$818,975
Pleasanton	34.14%	1,493,147	44,794	1,537,941
DSRSD	47.68%	2,085,333	62,560	2,147,893
Total	100.00%	$4,373,601	$131,208	$4,504,809

The annual deposit of $400,000 to the Renewal & Replacement Fund (R&R) remains the same as last year. R&R Projects total $930,000 and are related to pump purchase and repair, and various projects recommended by DSRSD staff. Additional detail is contained in the proposed budget document. The R&R Fund balance looks much better than in past years and is not as great a concern as in previous years. This is part of a larger Asset Management analysis that continues at a slow but steady pace. The program will be matched to DSRSD's program that is concurrently being developed.

This year's budget document continues with Section 5.0 on Budget Trends based on past requests from the Board. The actual expenses for FY17/19 are estimates based on data through March 31, 2018 and the Approved expenses for FY18/19 are as proposed in the budget.

The Proposed Operating and Capital Budget for Fiscal Year 2018/19 is included as **Attachment No. 10.a**. The operating budget is largely based on DSRSD's detailed O&M Budget, which is included as **Attachment No. 10.b**.

Staff will provide a presentation and answer questions at the Board meeting. The proposed budget has been discussed with the LAVWMA Staff Advisory Group.

Recommendation
It is recommended that the Board approve the proposed Operating and Capital Budget for Fiscal Year 2018/19.

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

OPERATING AND CAPITAL BUDGET

FISCAL YEAR 2018/19

Prepared May 14, 2018

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
OPERATING AND CAPITAL BUDGETS
FISCAL YEAR 2018/19

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LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
OPERATING AND CAPITAL BUDGETS
FISCAL YEAR 2018/19

EXECUTIVE SUMMARY

OPERATING BUDGET

The proposed operating budget of $2,888,400 is a 2.04% decrease from the FY2017/18 budget. The total revenue requirement of $15,795,059 is a 34.25% increase from the FY2017/18 budget. Debt service payments consist of $2,437,973 for the Repair Project, $5,565,877 for the Expansion Project and $4,504,809 for EBDA Capacity. Last year the expense for EBDA Capacity was $412,000.

The increase in the EBDA Capacity expense is to pay off the existing debt. Annual debt payments will not be completed until 2030. Paying off the debt early will save at least $840,000 in interest. Paying off the debt is also a strategic move to better position LAVWMA to renegotiate the terms and conditions of the current agreement with EBDA. LAVWMA owns 19.72 MGD of EBDA's 189.1 MGD capacity, or 10.43%. LAVWMA's fixed cost percentage has been increasing per the terms of the agreement from the original 10.43% to the current level of 17.43%. The percentage increases to 18.60% on January 1, 2020. Costs for EBDA are based on fixes and variable (flow based) percentages. The flow based percentage is currently 19%. It is in LAVWMA's best interests to reduce both its fixed and variable costs through a combination of renegotiating the agreement, reducing flows through water recycling and flow management during wet weather.

The proposed FY2018/19 operating budget considers projected FY2017/18 expenditures and is largely based on the detailed budget prepared by DSRSD pursuant to the Maintenance Agreement, copy attached. FY2017/18 O&M expenditures are projected to be below the approved budget by approximately 11.2%. This is due to a combination of PG&E power and DSRSD labor savings. The annual reconciliation process will return any excess funds collected. Significant water recycling efforts in the service area are continuing and should increase over time. The proposed budget shows a $50,000 decrease in power costs and a $35,000 decrease in labor costs. Labor costs include additional hours for staffing the San Leandro Sample Station.

DSRSD's costs reflect a 3.5% increase in labor costs largely due to CPI increases. Other Fixed costs have been adjusted based on actual expenditures and anticipated needs for next year. Additional information is included in the remainder of the budget report.

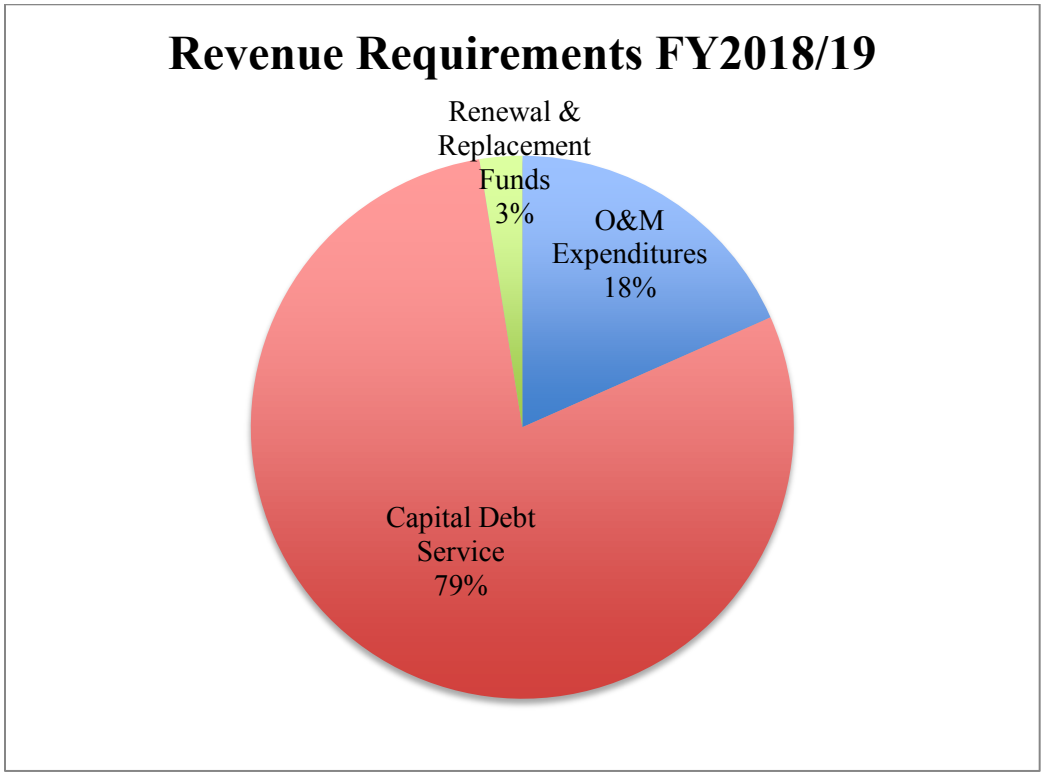
CAPITAL BUDGET

The FY2017/18 capital budget was $677.000, of which only $154,000 was spent. There were no expenses for the two largest items: pump purchase and repair; and snorkels and flow meters at the junction structure piping. The FY2018/19 capital budget of $930,000 is for the renewal and replacement of LAVWMA and EBDA facilities and includes the purchase of three new pumps,

snorkels and flow meters at the junction structure, resealing the storage basins, replacement of the SCADA system at the San Leandro Pump Station, replacement of leaking pipe for the water cannons, and various other recommended projects. All of these major projects have been recommended by the Pump Station Evaluation Consultant and/or DSRSD staff. Please refer to the tables below which summarize the costs.

REVENUE REQUIREMENTS

The FY2017/18 budget also includes the debt service (repair and expansion) for the 2011 Bonds and for the payoff of the EBDA capacity purchase agreement. Although repair and expansion of the existing pipeline and the EBDA capacity purchase are capital costs, the associated debt service is tabulated in the operating budget to assist member agencies with their rate and fee calculations. The projected debt service includes payment of principal and interest. This year's budget recommends that the annual deposit to the Joint Use Renewal Replacement Fund be continued at the $400,000 level that was approved three years ago. Dual Use facilities are minimal and are currently adequately funded. The following pie chart illustrates the allocation of the $15,795,059 in total revenue requirements for FY2017/18.



1.0 GENERAL

Livermore-Amador Valley Water Management Agency (LAVWMA) is a Joint Powers Agency comprised of the Cities of Livermore and Pleasanton, and Dublin San Ramon Services District (DSRSD). The City of Livermore collects and treats all city wastewater. DSRSD delivers water to the City of Dublin and the Dougherty Valley, and it collects and treats wastewater for Dublin and southern San Ramon, and treats additional wastewater under a contract with the City of

Pleasanton. LAVWMA exports treated effluent from the LAVWMA Pumping Station west over the Dublin Grade, through Castro Valley, and the City of San Leandro, to a pipeline operated by the East Bay Dischargers Authority (EBDA). EBDA dechlorinates the effluent and discharges it through a deepwater outfall into San Francisco Bay. A significant portion of member agency flows are kept within their service areas for water recycling purposes.

1.1 Mission & Goals

LAVWMA'S MISSION

LAVWMA's mission is to support its member agencies: Dublin San Ramon Services District, City of Pleasanton, and City of Livermore by providing cost effective operation and maintenance of all of the Agency export facilities in full compliance with federal, state, and local requirements. LAVWMA supports its member agencies in their efforts to implement comprehensive water recycling programs.

We will complete our work primarily through consultants. We will invest in this diverse project team and promote a work ethic that recognizes and promotes teamwork and a positive work environment. We will practice fairness, provide challenges, and allow freedom of communication and thought to enable team members to make meaningful contributions to LAVWMA, the industry and our community.

Agency Goals & Objectives

To carry out our Mission, LAVWMA will pursue the following goals:

- **Environmental Compliance.** Continue efficient operations of facilities to prevent wastewater overflows. Meet all CEQA mitigation requirements for new construction. Exceed requirements pertaining to community impacts.

- **Cost Effectiveness.** Continue to perform routine maintenance on existing facilities in a manner that promotes cost savings over the projected life of the facilities.

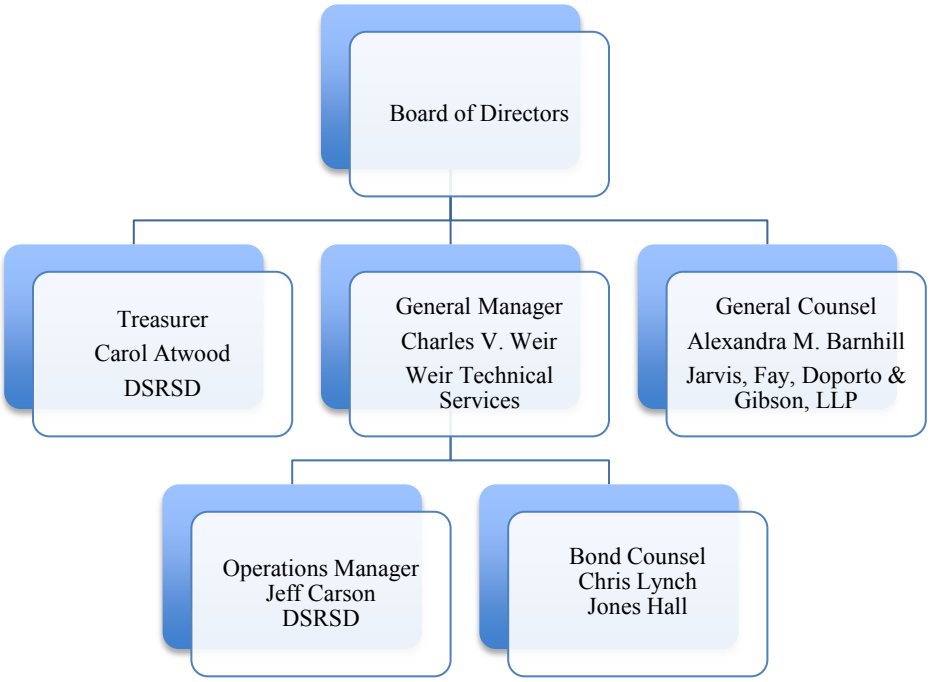
- **Technical Soundness.** Provide technically sound solutions that use the newest available technology without incurring excessive risk.

- **Customer Service.** Continue to comply with the 1997 Joint Exercise of Powers Agreement (JPA) and the October 2011 Sewer Service Contract with the LAVWMA member agencies.

LAVWMA FY2018/19 Budget

1.2 ORGANIZATION

The LAVWMA team proposed for FY2018/19 is shown in the following chart.



2.0 OPERATING BUDGET

2.1 Description of Services Provided

The Operations and Maintenance (O&M) budget includes all costs required to operate and maintain existing LAVWMA facilities. LAVWMA's existing facilities include the sole-use and dual-use interceptors, junction structure, Export and Livermore pumping stations, storage basins, export pipeline including appurtenances, and two emergency dechlorination stations. LAVWMA's facilities are operated and maintained by DSRSD pursuant to a Maintenance Agreement initially executed in 1979.

The FY2018/19 Operating Budget, shown below, includes costs for the following: O&M Variable Costs, O&M Fixed Costs, Admin/Mgmt. Costs, Total O&M Costs, Capital Program Funding, and Total Revenue Requirements.

LAVWMA FY2018/19 Budget

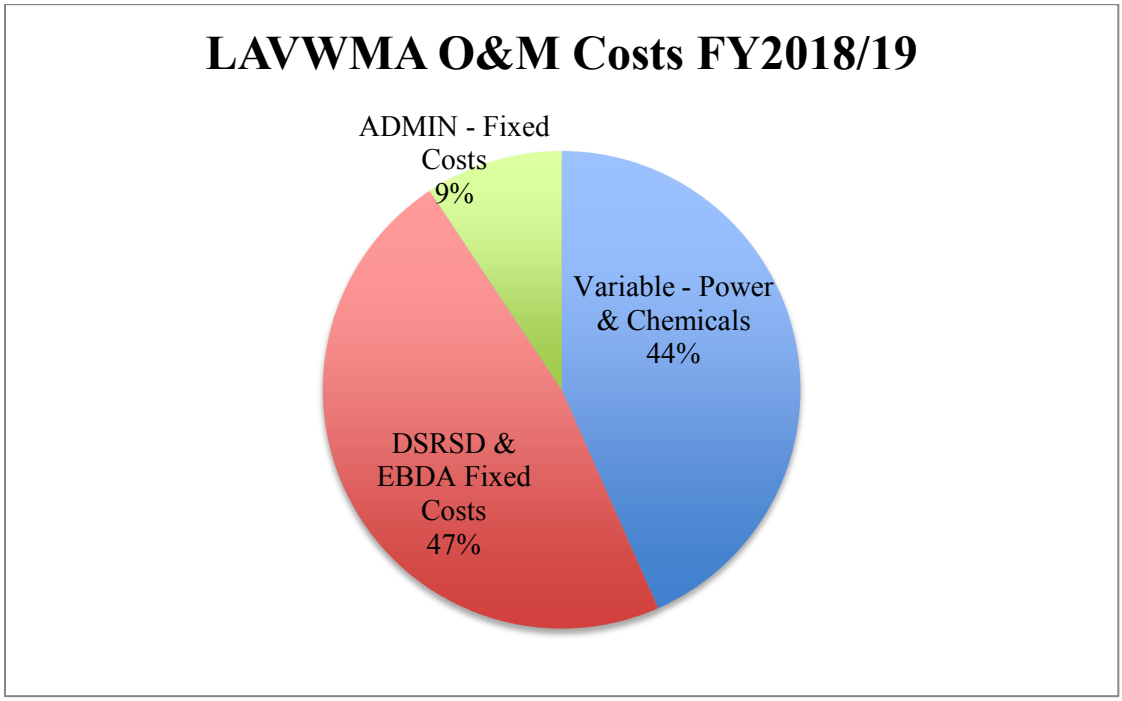
FY2018/19 OPERATIONS BUDGET SUMMARY	FY2017/18 Adopted Budget	FY2017/18 Projected Actual	FY2018/19 Proposed Budget	Change From Adopted FY2017/18
OPERATIONS AND MAINTENANCE				
VARIABLE COSTS				
DSRSD Maintenance Agreement (Power)	$ 1,150,000	$ 1,003,103	$ 1,100,000	-4.35%
EBDA O&M	157,500	157,713	152,000	-3.49%
Subtotal - O&M Variable Costs	1,307,500	1,160,816	1,252,000	-4.24%
FIXED COSTS				
DSRSD Maintenance Agreement				
Labor/equip	760,000	611,831	725,000	-4.61%
Materials/Supplies	35,000	60,265	50,000	42.86%
Contractual	60,000	55,975	60,000	0.00%
Monitoring/Testing	22,000	27,969	28,000	27.27%
Utilities (fixed)	8,000	6,827	7,200	-10.00%
Non Routine	-	396	15,000	NA
EBDA O&M	490,000	468,963	480,000	-2.04%
Subtotal - O&M Fixed Costs	1,375,000	1,232,225	1,365,200	-0.71%
ADMIN/MGMT				
Mgr/Treas/Counsel/Board	141,000	138,314	145,200	2.98%
Services/Supplies/Misc	88,000	43,000	87,000	-1.14%
Permits/Insurance	35,000	41,857	37,000	5.71%
Subtotal Admin/Mgmt	264,000	223,171	269,200	1.97%
Subtotal All Fixed Costs	1,639,000	1,455,396	1,634,400	-0.28%
TOTAL O&M COSTS	$ 2,946,500	$ 2,616,213	$ 2,886,400	-2.04%

	FY2017/18 Proposed Budget	FY2017/18 Projected Actual	FY2018/19 Proposed Budget	Change From Adopted FY2017/18
CAPITAL PROGRAM FUNDING				
Replacement Fund	400,000	400,000	400,000	0.00%
Repair Debt Service	2,438,772	2,438,772	2,437,973	-0.03%
Expansion Debt Service	5,567,703	5,567,703	5,565,877	-0.03%
EBDA Debt Service	412,000	412,000	4,504,809	993.40%
SUBTOTAL	$ 8,818,475	$ 8,818,475	$ 12,908,659	46.38%
TOTAL REVENUE REQUIREMENTS	$ 11,764,975	$ 11,434,688	$ 15,795,059	34.25%

LAVWMA FY2018/19 Budget

2.2 Operating Budget Summaries

The following pie chart depicts the allocation of operating costs:



2.2.1 Variable Costs – Power and Chemicals

Variable costs for power (DSRSD/EBDA) and chemicals (EBDA) are directly tied to the volume of flow that LAVWMA discharges. They total $1,252,500 and make up approximately 43.4% of LAVWMA's total operating budget. Pumping and chemical costs for FY2018/19 are projected to be 4.24% less than last year. DSRSD estimates a 3% increase in PG&E rates, which will be offset by improved pumping efficiency due to the new pumps and that is reflected in the power costs. The FY2018/19 Budget is based on actual costs for the current year.

2.2.2 Fixed Costs - DSRSD Maintenance Agreement

Operation and maintenance of LAVWMA facilities for FY2018/19 is estimated to require 5,658 fully burdened labor hours. This is 383 hours more than last year and is due to increased staffing at the San Leandro Sample Station. Additional costs for materials/supplies, contractual, monitoring/testing, and other utilities are also listed under DSRSD's fixed costs. Costs for these items are based on projected costs for FY2017/18 and anticipated needs for FY2018/19.

2.2.3 Fixed Costs - EBDA Agreement

This item covers EBDA's fixed operational and maintenance costs that are billed to LAVWMA. It also covers costs to EBDA for various special projects including the Regional Monitoring Program (RMP) and LAVWMA's share of EBDA's permit fees. Some of these costs are shared on different percentages that the LAVWMA's fixed cost percentage in the agreement with

EBDA. As an example, the RMP cost is based on the mass of four metals, copper, chromium, nickel, and selenium. LAVWMA's share is 15.32% for a total of $42,895. LAVWMA's share of the permit fee ($450,000) is based on the permitted average dry weather flows for each agency that is part of the EBDA system. LAVWMA's share of this cost is 26.62%, or $119,805.

EBDA Special Projects total $525,000 next year. The special projects include the following for FY2017/18:

- Evaluation of the forcemain system, $125,000
- Strategic Planning for revising the Joint Powers Agreement, $400,000

LAVWMA is responsible for a portion of the forcemain system and will be billed accordingly. LAVWMA will pay a negotiated flat fee of $15,000 for the strategic planning effort. LAVWMA is currently responsible for 17.34% of the fixed costs for "shared" EBDA facilities. The percentage increased in January 2015 and will be capped at 18.60% in 2020. This year's budget is $480,000, which is 2.54% less than last year. Total EBDA costs for variable and fixed costs for FY2018/19 are $642,000 as compared with $647,500 last year.

2.2.4 Fixed Costs - Administration & Management

This section includes general administration, program management, legal and financial services, consulting services, permits, insurance, etc. The proposed budget is $269,200 as compared with $264,000 last year or an increase of 1.97%. This year there are no costs for the NPDES permit renewal, but costs for consulting services are included for upgrading the website, records management, and assistance in enhancing the asset management program. The website updates and records management projects have been delayed by the pumps issue. The asset management program is linked to DSRSD's efforts for their own system. Asset Management will be a key project this year and will have an impact on the Capital Program Funding as discussed below. Costs for travel expenses for the General Manager for two CASA Conferences and other required training for the General Manager and Administrative Assistant are included in these costs.

2.2.5 Capital Program Funding

This category includes the projected FY2018/19 debt service (repair and expansion) for 2011 bonds and the EBDA capacity purchase. $4,504,809 is included in Capital Program Funding to pay off the EBDA Debt. Although repair and expansion of the existing pipeline and the EBDA capacity purchase are capital costs, the associated debt service and funding program costs are tabulated in the operating budget to assist member agencies with their rate and fee calculations. The projected debt service includes payment of both principal and interest. It is recommended that the annual $400,000 deposit to LAVWMA's capital facilities Joint renewal replacement account be continued to help cover the $930,000 cost of capital projects in FY2017/18. Dual Use facilities are minimal and have adequate replacement funds.

The Board has been kept informed of the pump purchase and repair project. The first table below lists the capital projects that will be completed by the end of FY2017/18. The second table lists

all recommended projects for FY2018/19. All projects were recommended by the consultant that completed the Pump Station Evaluation Report or have been recommended by DSRSD staff.

FY2017/18 Capital Program Expenditures (Projected)	
Renewal/Replacement Program	
LAVWMA Export Pumps: 3 new plus repair of 3.	$0
Snorkels and Flow Meters at Junction Structure Piping	$0
Fiber Optic Cable at the Pump Station	$32,000
Motor Nos. 8 & 10 Rebuild	$28,000
Replacement of street lights at pump station	$21,500
Replacement of Pump Station Breakers	$20,500
GPS Monitoring of Pump Station Storage Basin Elevations (to check for possible settling)	$19,000
Replacement of Water Cannons at Storage Basins	$18,000
Miscellaneous items	$15,000
Total Expenditures	**$154,000**

FY2018/19 Capital Program Expenditures		
Project	**Description**	**Cost**
Purchase of three export pumps and repair of three existing pumps	Estimated $222,000 for three new pumps plus $60,000 each for the repairs. Also included a deduction pursuant to the agreement for the three pumps	$300,000
Snorkels and Flow Meters at Junction Structure	Snorkels were part of original design but not installed. This will improve flow measurement by keeping air out of the system along with standardizing the existing meters which are having problems and need replacing. Two snorkels at $25,000 each plus three flow meters at $25,000 each.	$125,000
Resealing of all three Storage Basins	The basins need to be resealed approximately every ten years. Rebar is showing in some areas.	$200,000
New SCADA System for San Leandro Sample Station (SLSS)	The existing San Leandro Sample Station (SLSS) control system is comprised of 15 year-old hardware. This project will replace and program a new programmable logic controller (PLC) at the SLSS and integrate the new PLC with the existing SCADA systems at the SLSS and LAVWMA PS. The new PLC will match the DSRSD standard of Allen Bradley Logix controllers	$95,000

Replacement of Leaking Pipe for Water Cannons	The plastic pipe that provides water for the water cannons is leaking and damaging the asphalt. This project will put the pipe above ground making it easier to repair. It also includes thrust blocks for connection to the 15 water cannons that were replaced in FY17/18.	$60,000
Other Misc. LAVWMA Renewal/Replacements	As needed	$50,000
Other Misc. EBDA Renewal/Replacements	As needed	$50,000
CIP Planning/Mgmt./Contingency	As needed	$50,000
Total Expenditures		

2.3 Changes from FY2017/18 Budget

FY2017/18 expenditures are projected to come in under budget due primarily to power and labor cost savings. The annual reconciliation process will resolve any over or under payments. The FY2018/19 Budget is 34.25% more than FY2017/18 in Total Revenue Requirement, due to the payoff of the EBDA debt. Total O&M costs are actually 2.04% less that was budgeted last year.

3.0 CAPITAL BUDGET

3.1 Description of Budget

The Capital budget includes all costs associated with renewal and replacement of existing capitalized facilities. From 2001 to 2010 the 2001 Series A bond funds were the primary source of LAVWMA's capital expenditures. The bond funds were closed out in June 2011. As of July 2011 and for the foreseeable future the only source of capital funding will be the Renewal & Replacement Funds that have been established for Joint Use, Dual Use and Sole Use Facilities. The table below depicts the projected fund balances during FY2018/19.

R & R Fund Balances	Joint	Dual	Sole	Total
Start of year	14,911,210	409,565	1,534,159	16,854,934
Deposits	400,000	0	0	400,000
Interest Earnings	256,100	7,372	27,615	291,087
Proposed Expenditures	919,000	1,000	10,000	930,000
End of Year	**14,648,310**	**415,937**	**1,551,774**	**16,616,021**

As discussed previously, it is recommended that the annual contribution to the R&R Fund be continued at the $400,000 level. The following table for the last several years plus the estimated data for FY2017/18 and recommendations for FY2018/19 show that LAVWMA maintaining the Joint Use R&R Fund at a sustainable level since FY2010/11.

LAVWMA FY2018/19 Budget

R&R Joint Use History				
Fiscal Year	**Contributions**	**Interest**	**Expenses**	**Net**
FY2010/11	0	84,873	(245,065)	(160,192)
FY2011/12	300,000	51,626	(411,885)	(60,259)
FY2012/13	300,000	45,064	(353,404)	(8,340)
FY2013/14	300,000	36,396	(119,955)	216,441
FY2014/15	300,000	40,479	(439,073)	(98,594)
FY2015/16	400,000	62,652	(336,712)	125,940
FY2016/17	400,000	109,563	(600,000)	(90,437)
FY2017/18	400,000	225,160	(154,000)	471,160
FY2018/19	400,000	256,100	(930,000)	(273,900)
Total	**2,800,000**	**911,913**	**(3,590,094)**	**121,819**

3.2 Discussion of Capital Expenditures Proposed for FY2018/19

The following table summarizes $930,000 of anticipated FY2018/19 capital expenditures on the renewal and replacement of LAVWMA and EBDA facilities. More detailed descriptions are included in Section 2.2.5, Capital Program Funding.

FY2018/19 Capital Program Expenditures	
Renewal/Replacement Program	
LAVWMA Export Pumps: 3 new plus repair of 3.	$300,000
Snorkels and Flow Meters at Junction Structure Piping	$125,000
Resealing of all three Storage Basins	$200,000
New SCADA System for San Leandro Sample Station	$95,000
Replacement of Leaking Pipe for Water Cannons	$60,000
Other Misc. LAVWMA Renewal/Replacements	$50,000
Other Misc. LAVWMA Renewal/Replacements	$50,000
CIP Planning/Mgmt./Contingency	$50,000
Total Expenditures	**$930,000**

LAVWMA FY2018/19 Budget

4.0 FY2018/19 Member Agency Cost Sharing & Schedule

Member Agency Costs FY2018/19			
	Total	**Livermore**	**DSRSD/Pleasanton**
Variable O&M	$ 1,252,000	$ 438,200	$ 813,800
Fixed O&M	1,609,400	484,430	1,124,970
Sole Use Fixed O&M	25,000	25,000	
Total O&M	2,886,400	947,630	1,938,770
Replacement Fund	400,000	120,400	279,600
Repair Debt	2,437,973	973,970	1,464,003
Expansion Debt	5,565,877	1,253,435	4,312,442
EBDA Debt	4,504,809	818,974	3,685,835
Total Capital Costs	12,908,660	3,166,780	9,741,880
Total Revenue Required	**$ 15,795,059**	**$ 4,114,409**	**$ 11,680,650**
Semi Annual O&M Advance	1,443,200	473,815	969,385
Semi Annual Replacement Fund Advance	200,000	60,200	139,800
EBDA Debt Advance, July 1	4,504,809	818,974	3,685,835
July 1 Bond Debt Service Advance	6,182,613	1,720,571	4,462,042
Jan 1 Bond Debt Service Advance	1,821,238	506,836	1,314,402
Total July 1 Advance	$ 12,330,621	3,073,559	9,257,062
Total January 1 Advance	$ 3,464,437	$ 1,040,850	$ 2,423,587
Percentages			
Variable O&M		35.00%	65.00%
Fixed O&M		30.10%	69.90%
Replacement Fund		30.10%	69.90%
Repair Debt		39.95%	60.05%
Expansion Debt		22.52%	77.48%
EBDA Debt		18.18%	81.82%

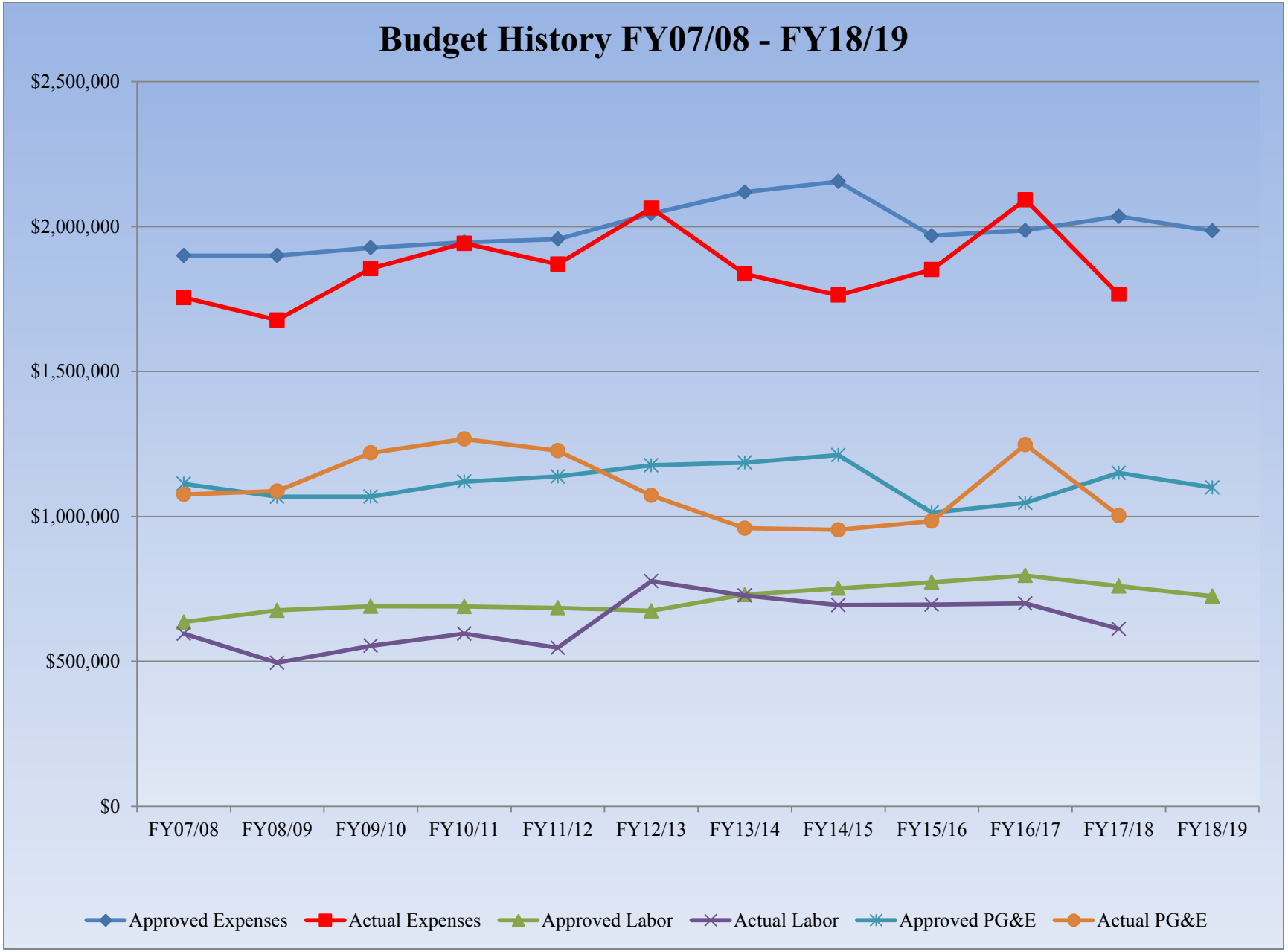
5.0 Budget Trends FY2007/08 – FY2018/19

The following charts show expense trends from FY07/08 through FY18/19. The charts show the following:

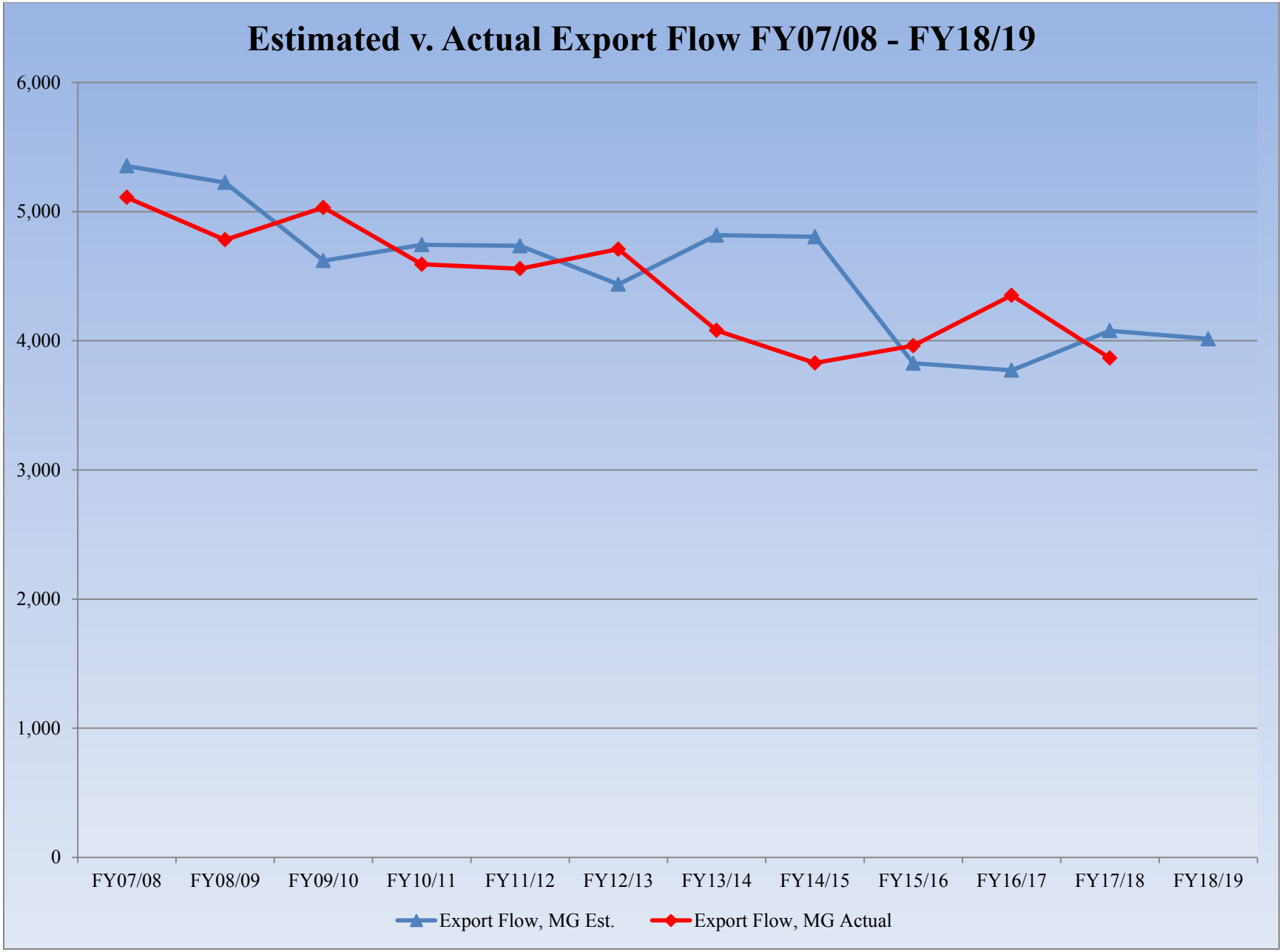
- Approved versus actual expenses for total expenses, labor costs, and PG&E
- Estimated versus actual export flow
- Estimated versus actual cost per million gallons

Although flow and PG&E costs are directly linked, other factors such as fixed costs for labor and equipment repair maintain relatively flat or slightly increasing cost curves. Export flow is decreasing over time due to water recycling efforts.

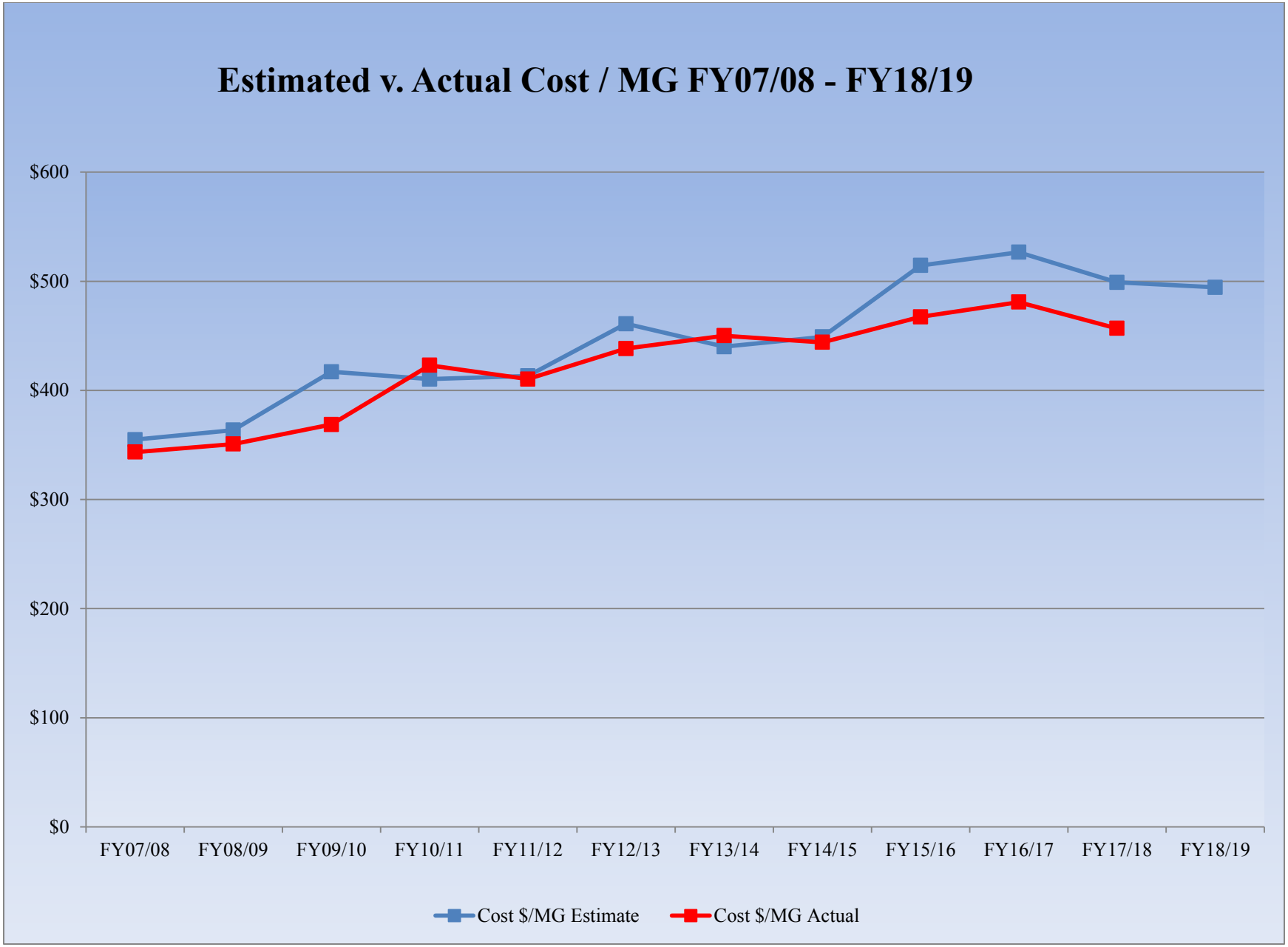
LAVWMA FY2018/19 Budget



LAVWMA FY2018/19 Budget



LAVWMA FY2018/19 Budget



Dublin San Ramon Services District
Water, wastewater, recycled water

Regional Wastewater Treatment Facility
7399 Johnson Drive
Pleasanton, CA 94588-3862

main (925) 846-4565
fax (925) 462-0658
www.dsrsd.com

March 26, 2018

Mr. Chuck Weir
LAVWMA General Manager
7051 Dublin Blvd.
Dublin, CA 94568

Subject: Proposed LAVWMA FY 2018-2019 Operations & Maintenance Budget

Dear Chuck:

As you know, we previously submitted in February 2017 proposed budgets for the operation and maintenance of the LAVWMA Facilities during FY 2017-2018 and FY 2018-2019 to coincide with the District's two-year budget cycle.

The original proposed budget for FY 2018-2019 submitted last year was $2,145,585. There have been some changes over the past year, so for your reference attached please find a copy of the updated O&M budget for FY 2018-2019 with a revised total of $2,204,698. The budget details are identical to the budget that we submitted previously for this time period except for the $59,113 increase in the following items:

- Labor hour for Operator II was originally 772 hours at $242,790 budget. This was increased by 384 hours for the additional one day each week (8 hours) every Friday for an Operator II to now provide a full week coverage to increase the best management practices due to recent SLSS events. This increased the proposed budget by $52,613.
- SCADA PLC: $4,500 was added to SCADA parts budget for redundancy of equipment operation.
- Cathodic protection contractual services: $2,000 was added in anticipation of increased contractual support needed to complete some recommended Corrpro findings.

The $2,204,698 proposed budget for FY 2018-2019 includes labor, utilities, materials, supplies, laboratory analysis, contractual services, and non-routine expenditures.

These are "not-to-exceed" budgets submitted in accordance with the Maintenance Agreement, and the total budget for each fiscal year cannot be increased without the approval of the LAVWMA Board. However, the "not to exceed" amount applies only to DSRSD's labor, materials, and supplies, per the terms of the Maintenance Agreement. The "not to exceed" amount does not apply to utilities, laboratory analysis, and contractual services (Article 3, Paragraph F). Utility rates and costs in particular are essentially beyond the control of the District, and utility costs could vary substantially depending upon utility rate initiatives and higher than normal flows resulting from above normal wet weather conditions.

Labor costs are based on DSRSD's burden labor rates, which are adjusted annually. Not included in this budget amount are EBDA's charges, permit fees, environmental mitigation, insurance, debt service, Director's fees, and expenditures for the LAVWMA General Manager, Treasurer, Counsel, Auditor, and administrative staff.

Attachment 5 shows the breakdown of labor hours used to estimate labor costs for the FY 2018-2019 which is identical to the FY 2017-2019 budget, except for the added 384 hours for Operator II as mentioned above. Approximately 2.72 FTE will continue to be provided in the overhead rates via non-billable administrative support.

Attachment 6 shows the proposed FY 2018-2019 O&M budget of $2,204,698 in detail. This amount will convey treated wastewater to the discharge point in San Francisco Bay for Livermore, Pleasanton, Dublin, and San Ramon customers at a rate of approximately $549 per million gallons during FY 2018-2019, based on an estimated export flow of 4,015 million gallons. For your convenience the expenses are separated by pumping costs ($1,817,893 or $453 per million gallons) and pipeline maintenance costs ($386,805 or $96 per million gallons).

Attachment 7 summarizes the proposed FY 2018-2019 budget as compared to the current FY 2017-2018 budget and actual FY 2017-2018 expenses to date. Overall, the proposed FY 2018-2019 budget is 6% higher than the current FY 2017-2018 budget of $2,079,028.

Electric costs are expected to increase by about 2%, reflecting slightly lower export flows and expected increase in PG&E rates.

The budget includes several significant factors as follows:

- Labor – Estimated labor hours are based on burden labor rates, as agreed by the LAVWMA Board on April 18, 2007. For FY 2018-2019, the burden labor rates assumed a 3.5% CPI increase in salaries effective January 1, 2019
- Utilities – The LAVWMA pumping station is enrolled in PG&E's Peak Daily Power (PDP) Program, a demand response program, which provides a small savings for power used during summer partial-peak and off-peak periods. Since CY 2012, DSRSD staff began implementing creative strategies for pumping that maximize the efficiency of the pumping system and reduce electric costs. These strategies match combinations of pumps with the desired flow rate, time of day electric rates, and storage capacity that result in the lowest combined electric cost based on both demand charges and usage. Staff is currently testing the three (3) newly received pumps and rebuilt motors. Once the pumps are approved and certified they should further improve pumping efficiency.

Capital Improvement and replacement budget items have been submitted separately for consideration in the budget proposal that will be forwarded to the LAVWMA Board.

DSRSD staff is available at your convenience to discuss the proposed operating and maintenance budgets.

Sincerely,

Jeff Carson
Operations Manager

Enclosures

cc: Dan McIntyre, DSRSD General Manager
Judy Zavadil, DSRSD Engineering Services Manager
Levi Fuller, DSRSD Treatment Plant Operations Supervisor
Maurice Atendido, DSRSD Electrical & Instrumentation Supervisor
Shawn Quinlan, DSRSD Maintenance Supervisor
Diane Griffin, DSRSD Laboratory Supervisor
Dan Martin, DSRSD Water/Wastewater Systems Operations & Maintenance Supervisor
Dan Lopez, DSRSD Operations Support Services Supervisor
Gemma Lathi, Administrative Analyst II – Operations
Helen Ling, Water Resources Division Manager
Kathleen Yurchak, Director of Operations and Water Utilities
Sue Montague, Administrative Assistant LAVWMA

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Attachment 5 - Revised March 2018 for Proposed FYE 2019

FY 2018-2019 LAVWMA PERSONNEL ESTIMATING

PERSONNEL		Hours
Division 51 - Field Services		
Water-Wastewater Sys OP IV	TV inspection of export pipe, 1/2 day/year, 2 Operators	16
Water-Wastewater Sys OP IV	Traffic control for vault entries, misc	16
Maintenance Worker II	Traffic control for vault entries, misc	16
Supervisor	Inspections/coordination/direction of staff and related activities	4
Division 52 - Treatment Operations		
Process Lead Operator V	Pump efficiency testing and SOP's, planning, inspections	200
Senior WWTP Operator	Spot checks on off-shifts and weekends + hours for storms	590
Operator II	Daily pump station operation/monitoring, 3 hrs/day 5 days per week	1,000
Operator II *(see note below)*	San Leandro Sample Station checks, pipeline inspections, flapper valve testing	**1,156**
Supervisor	Inspections/direction of staff and activities, 2 hours/week	50
Note: Originally 772 hours, added 384 hours (addtl 1 day/week at sample station = 8 hrs/wk x 4 wks/mo x 12 mos/yr)		
Division 53 - Mechanical		
Senior Mechanic-Crane Cert	Regular maintenance, 4 hrs/day, 2 days per week	380
Senior Mechanic	USA Marking, when other trained employees are not available	82
Mechanic II	PM's and misc repairs, as needed	400
Mechanic II	USA Marking, 1 hour per day, 5 days per week	140
Mechanic II	Confined space entries, 4 weeks/year, 2 employees	560
Supervisor	Inspections/direction of staff and activities, 1 hour/week	50
Division 54 - Electrical		
Senior Instrument/Controls Tech	Instrument replacement/SCADA troubleshooting	8
Instrument Tech	Instrument checks/calibration 7 hr per week	260
OPS Control Sys Spec	SCADA system repairs/programming, 3.75 hr per week	250
Senior Electrician	Switchgear & electrical inspections and repair	108
Electrician	Switchgear & electrical inspection/repairs, 5.75 hr per week	200
Supervisor	Inspections/direction of staff and activities, 1 hour/week	24
Division 56 - Safety		
Safety Officer	Special safety inspections of LAVWMA facilities	48
Division 40 - Engineering		
Senior Civil Engineer-SME	Assistance with engineering, maintenance, and bidding issues	100
	TOTAL BILLABLE LABOR HOURS	5,658
	FTE's	2.72

Attachment 6 - Revised March 2018

FY 2018-2019 LAVWMA OPERATION & MAINTENANCE BUDGET

	Hours	Rate	Labor	Pumping	Pipeline
LABOR					
DIVISION 51 - Field Operations					
Water-Wastewater Sys OP IV	32	$147	$4,720		$4,720
Maintenance Worker II	16	$119	$1,897		$1,897
Supervisor	4	$200	$800		$800
Subtotal	52		$7,416	$0	$7,416
DIVISION 52 - WWTP					
Process Lead Operator V	200	$166	$33,232	$33,232	
Senior WWTP Operator	590	$151	$88,917	$88,917	
Operator II	**2,156**	**$137**	**$295,403**	**$147,702**	**$147,702**
Supervisor	50	$251	$12,557	$6,279	$6,279
Subtotal	2,996		$430,110	$276,129	$153,980
DIVISION 53 - Mechanical					
Senior Mechanic-Crane Cert	462	$174	$80,183	$40,092	$40,092
Mechanic II	1,100	$154	$169,309	$118,718	$50,592
Supervisor	50	$254	$12,699	$8,904	$3,795
Subtotal	1,612		$262,192	$167,714	$94,478
DIVISION 54 - Electrical					
Senior Instrument/Controls Tech	8	$186	$1,484	$742	$742
Instrument Tech	260	$158	$41,089	$20,544	$20,544
OPS Control Sys Spec	250	$169	$42,158	$31,618	$10,539
Senior Electrician	108	$170	$18,361	$18,361	
Electrician	200	$155	$30,912	$30,912	
Supervisor	24	$234	$5,627	$2,814	$2,814
Subtotal	850		$139,631	$104,991	$34,639
DIVISION 56 - Safety					
Safety Officer	48	$113	$5,440	$2,720	$2,720
Subtotal	48		$5,440	$2,720	$2,720
DIVISION 40 - Engineering					
Senior Civil Engineer-SME	100	$197	$19,678	$7,871	$11,807
Subtotal	100		$19,678	$7,871	$11,807
Total Labor	5,658	$153	**$864,466**	**$559,425**	**$305,040**

Note: Labor rates shown are estimated staff billing rates effective 1-1-2017 multiplied by 1.0525 to reflect an anticipated 3.5% CPI increase on January 1, 2018, and a 3.5% CPI increase on January 1, 2019.

Attachment 6 - Revised March 2018

FY 2018-2019 LAVWMA OPERATION & MAINTENANCE BUDGET

	Expense	Pumping	Pipeline
MATERIALS & SUPPLIES			
Operations Supplies			
Calcium Thiosulfate	$14,000	$7,000	$7,000
Supplies/Expenses (misc)	$200	$100	$100
Subtotal	$14,200	$7,100	$7,100
Mechanical Supplies			
Materials and supplies	$10,000	$9,000	$1,000
Pump & equip repair parts	$7,500	$7,500	
Water Cannons	$0		
Air relief valve parts	$5,000		$5,000
Oils, lubricants	$2,500	$2,500	
Subtotal	$25,000	$19,000	$6,000
Electrical Supplies			
Instrument parts	$2,000	$1,000	$1,000
Analyzer parts	$2,000	$1,000	$1,000
MCC equipment/parts	$2,000	$2,000	
Vibration sensors	$7,000	$7,000	
SCADA parts	$9,000	$7,000	$2,000
Motor/soft-start parts	$1,000	$1,000	
Motor repair parts	$1,500	$1,500	
Subtotal	$24,500	$20,500	$4,000
Total Materials & Supplies	**$63,700**	**$46,600**	**$17,100**
LABORATORY ANALYSIS			
Compliance Testing	$18,000	$15,480	$2,520
Operational Support Testing	$3,700		$3,700
Special Sampling	$5,000		$5,000
Total Laboratory Analysis	**$26,700**	**$15,480**	**$11,220**
CONTRACTUAL SERVICES			
Sub-surface Repairs	$5,000		$5,000
Street Sweeping	$5,000	$5,000	
Cathodic Protection	$26,000		$26,000
Underground Service Alert	$1,140		$1,140
SCADA//POwerXpert software support	$10,000	$10,000	
HVAC Maintenance/Repairs	$750	$500	$250
Termite/Pest Control	$900	$900	
Landscape/weed maintenance	$8,500	$5,780	$2,720
Fire Extinguisher Maint	$200	$200	
Postage/Shipping Charges	$250	$250	
Professional Services, misc	$10,000	$5,000	$5,000
Total Contractual Services	**$67,740**	**$27,630**	**$40,110**
UTILITIES			
Electricity (PG&E)	$1,157,313	$1,152,063	$5,250
Water & Sewer (Pleasanton)	$1,000	$1,000	
Water (EBMUD)	$880		$880
Telephone/communications/T-1	$4,500	$2,295	$2,205
WW Treatment (DSRSD)	$2,500	$2,500	
Total Utilities	**$1,166,193**	**$1,157,858**	**$8,335**
NON-ROUTINE			
Pump Efficiency Testing	$0		
Corrosion Studies/Inspections	$5,000		$5,000
Med voltage switchgear 3-yr PM	$10,900	$10,900	
Total Non-Routine	**$15,900**	**$10,900**	**$5,000**

Attachment 6 - Revised March 2018

FY 2018-2019 LAVWMA OPERATION & MAINTENANCE BUDGET

	Total	Pumping	Pipeline
TOTAL BUDGET	$2,204,698	$1,817,893	$386,805

Assumptions:

	Total
Days of operation =	365
Annual acre feet =	12,321
Annual million gallons =	4,015

Unit Costs:	Total	Pumping	Pipeline
Cost/AF =	$179	$148	$31
Cost/MG=	$549	$453	$96

Attachment 7

Proposed Budget Summary FY 2018-2019

	Approved Budget FY 2017-18	Actual Expenses Thru Jan'18 FY 2017-18	Proposed Budget FY 2018-19	% Change Budget 17-18 vs. Budget 18-19
DSRSD Labor	$784,903	$386,288	$864,466	10.1%
Materials & Supplies	$65,200	$66,967	$63,700	-2.3%
Laboratory Analysis	$26,700	$15,928	$26,700	0.0%
Contractual Services	$57,740	$31,636	$67,740	17.3%
Utilities	$1,144,485	$516,938	$1,166,193	1.9%
Non-Routine	$0	$297	$15,900	0.0%
Total	**$2,079,028**	**$1,018,054** (49% of budget)	**$2,204,698**	**6.0%**

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
May 16, 2018

ITEM NO. 11 UPDATE AND RESPONSE TO VARIOUS LEGAL AND LEGISLATIVE ISSUES

Action Requested
None at this time.

Summary
LAVWMA sent a letter opposing SB 831, copy attached, which would have prohibited local agencies from collecting fees for accessory dwelling units. The revised version will allow water and sanitary districts to charge fees. 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) and California Association of Sanitation Agencies (CASA). CASA has developed a list of bills that it is tracking on behalf of its members, but it has not yet been reviewed by LAVWMA staff.

The following comes from the website of Atkinson, Andelson, Loya, Ruud & Romo

California Supreme Court Adopts "ABC Test" Limiting the Use of Independent Contractors. On Monday, April 30, 2018, the California Supreme Court issued a highly anticipated decision in *Dynamex Operations West, Inc. v. Superior Court of Los Angeles*. In an extensive 82-page opinion, the Court adopted the so-called "ABC test" for determining whether a worker is an employee or an independent contractor for wage and hour claims arising under the Industrial Welfare Commission (IWC) Wage Orders. In doing so, the Court replaced the *Borello* test, which was the operative test for determining the employee-independent contractor status for nearly 30 years. The sweeping decision in *Dynamex* will have a tremendous impact on California employers as the newly adopted ABC test creates a more difficult burden for businesses to overcome the presumption that a worker is an employee of the company.

The Supreme Court's Decision and the ABC Test. The Supreme Court upheld the Court of Appeal's decision, holding the IWC has broad authority to define the employment relationship. Under the ABC test, a worker is presumed to be an employee, placing the burden on the employer to disprove the employer-employee relationship by affirmatively proving each of the following factors:

A. The worker is free from the control and direction of the hiring entity in the performance of the work, both under the contract for performance and in fact;
B. The worker performs work that is outside the usual course of the hiring entity's business; and
C. The worker is customarily engaged in an independently established trade, occupation, or business of the same nature as the work performed for the hiring entity.

Unless an employer proves all three requirements of the test, the worker will be considered an employee for claims arising under the Wage Orders, such as claims for unpaid wages and meal and rest break violations.

Impact on California Employers. The *Dynamex* decision and the ABC test will have a tremendous impact on employers by shifting the status of many workers from independent contractors to employees. For example, Part B of the ABC test requires employers to prove the worker performs work that is "outside the usual course" of the employer's business.

Although this decision is specific to the *Dynamex* case, it could have future ramifications for LAVWMA, which exclusively uses contractors. We will keep you posted on this issue as more information becomes available.

Recommendation
There is no recommendation at this time.

LAVWMA Livermore-Amador Valley
Water Management Agency

April 23, 2018

The Honorable Mike McGuire, Chair
Senate Governance and Finance Committee
State Capitol, Room 408
Sacramento, CA 95821

Attn: Anton Favorini-Csorba, Senate Governance and Finance Committee Consultant

RE: SB 831 (Wieckowski): Accessory dwelling units – OPPOSE

Dear Senator McGuire:

The Livermore-Amador Valley Water Management Agency (LAVWMA), a joint powers agency comprised of three Member Agencies (Dublin San Ramon Services District, City of Livermore and City of Pleasanton), opposes SB 831 (Wieckowski), which prohibits local governments from assessing fees for the construction of accessory dwelling units (ADUs).

SB 831 would eliminate the ability for public agencies like LAVWMA's Member Agencies to charge impact fees, connection fees, capacity charges, or any other fees for the new construction of an accessory dwelling unit. This proposal would require a public water or wastewater agency to provide service to a new residential unit yet preclude the agency from assessing charges that account for the proportional burden the new unit imposes on the wastewater collection and treatment systems. This means the burden to pay those costs falls on other ratepayers. This type of subsidization, where an ADU does not pay for its proportionate burden on the system, is prohibited by the California Constitution.

Public agencies like LAVWMA's Member Agencies have been revising their local ordinances for the past two years to come into compliance with the new statutes adopted under SB 1069 in 2016, and under SB 229 in 2017. The new laws restructuring and restricting fees for accessory dwelling units established under these bills have been in effect for only a few months. There has not been sufficient time to evaluate the implications of the new fee restrictions for ADU construction in this short time span.

For these reasons, we respectfully oppose SB 831 and ask for your no vote. Thank you for your consideration of our concerns.

Sincerely,

Bob Woerner
Chair

c: Chuck Weir, General Manager
Alexandra Barnhill, General Counsel
LAVWMA Member Agencies
California Association of Sanitation Agencies

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California Special Districts Association
CSDA Districts Stronger Together

Accessory Dwelling Unit Bills Scaled Back in Committee
Three bills that would ban all local agency fees on Accessory Dwelling Units (ADUs) were significantly scaled back in policy committees this month. As amended, SB 831 (Wieckowski) and SB 1469 (Skinner) would ban impact fees, but would allow water and sanitary districts to continue to charge fees for establishing new connections and capacity charges. These agencies are still bringing their fee schedules into compliance with SB 1069 (2016) and SB 229 (2017), which placed limits on the amount a district can charge for connection and capacity fees. The third ADU bill, AB 2890 (Ting), took amendments that entirely removed the language banning local agency fees.

SB 831 and SB 1469 still ban impact fees, which account for the impacts on the usage of local public services other than water and sewer. Many park districts and fire protection districts rely on these fees to subsidize the indirect costs of growth. Exempting ADUs from impact fees would encourage developers to build more housing specifically as ADUs to evade local fees. The bills exempt ADUs up to 1,200 square feet.

Due to the remaining language impacting fire and park districts, CSDA will maintain opposition to SB 831 and SB 1469. If you have any questions, please contact Rylan Gervase at rylang@csda.net.

California Association of Sanitation Agencies

CASA Legislative Advocacy at Work

Previous

CASA Legislative Advocacy at Work

CASA's team, with our members' support, is off to a great start with several recent legislative wins. Here are a few highlights of several bills we influenced and advocacy advancements we've made over the past few weeks.

Bills We Opposed

SB 831 (Wieckowski), SB 1469 (Skinner) and AB 2890 (Ting and Skinner): All three bills were originally introduced with identical language to. As a result of our advocacy and opposition-led testimony, connection and capacity fees are no longer included in Accessory Dwelling Unit Bills.

Bills We Support

SB 1263 (Portantino): This is a CASA sponsored bill related to microplastic pollution. The legislation builds on work currently underway by the Ocean Protection Council to combat ocean litter. It directs the Council to develop a statewide microplastics strategy, facilitate needed research and methodologies and make policy recommendations to the legislature for potential remedies for dealing with microplastic pollution.

SB 1263 was heard in the Senate Environmental Quality Committee on April 18 and in the Senate Natural Resources and Water Committee on April 24. The bill passed unanimously out of both policy committees and will next be heard in the Senate Appropriations Committee.

AB 2379 (Bloom): This legislation aims to curb the introduction of microfibers in the wastewater stream by encouraging hand washing of clothing with high microfiber content. AB 2379 passed two policy committees in the Assembly this month and is awaiting action on the Assembly Floor.

CASA Win: Connection and Capacity Fees No Longer Included in Accessory Dwelling Unit Bills

Three bills relating to accessory dwelling units have been quickly moving through policy committees in the Senate and Assembly this month (SB 831, SB 1469, and AB 2890). All three bills were originally introduced with identical language that would have eliminated all fees for the construction of accessory dwelling units including wastewater connection and capacity fees. CASA opposed all three measures. [See a copy of our SB 831 opposition letter here].

We actively advocated for changes to the bills and led the opposition testimony in the Senate Transportation and Housing Committee on SB 831. Our arguments against the bills were compelling and backed by many letters of opposition sent by individual CASA member agencies.

Last week the Senate Governance and Finance Committee passed both Senate bills with amendments to eliminate the fee restrictions on water and wastewater connection and capacity fees. The bills now reflect existing law for connection and capacity fees for accessory dwelling units. AB 2890 was also amended in policy committee last week to remove the fee prohibition language. With the removal of the objectionable language, CASA now has a neutral position on all three bills.

CASA-Sponsored Microplastics Bill Advances

SB 1263 (Portantino) is a CASA-sponsored bill related to microplastic pollution. The legislation builds on work currently being done by the Ocean Protection Council to combat ocean litter. It directs the Council to develop a statewide microplastics strategy, facilitate needed research and methodologies and make policy recommendations to the legislature for potential remedies for dealing with microplastic pollution.

CASA is pursuing this legislation in recognition that microplastics pose a significant environmental problem which necessarily requires a scientific and methodical approach to develop solutions and potential policy recommendations. [See a copy of our SB 1263 support letter here].

SB 1263 was heard in the Senate Environmental Quality Committee on April 18th and in the Senate Natural Resources and Water Committee on April 24. The bill passed unanimously out of both policy committees and will next be heard in the Senate Appropriations Committee.

We are also supporting AB 2379 (Bloom). This is a source control bill related to plastic microfiber pollution from clothing. AB 2379 passed two policy committees in the Assembly this month and is awaiting action on the Assembly Floor. [See a copy of our AB 2379 support letter here].

By Cheryl MacKelvie | April 30th, 2018 | Blog | Comments Off

Share This Story, Choose Your Platform!

@CASA_CleanWater

We're pleased to announce CASA president Steve Hogg recently joined us as a consultant to coordinate membership recruitment. Join us in welcoming Steve. #membership #wastewater #CASA pic.twitter.com/WaJHegBfZT

About 6 days ago from CASA_CleanWater's Twitter

CASA Engages on Collection System Permit Update

Previous Next

CASA Engages on Collection System Permit Update

The State Water Board intends to revise the Sanitary Sewer System Waste Discharge Requirements, the primary regulation governing collection systems in California. Although no specific revisions have been released, we, in coordination with the Bay Area of Clean Water Agencies and the Southern California Alliance of Publicly Owned Treatment Works, submitted a series of preliminary suggestions for the update. The Board plans to host a series of workshops in May followed with a release draft for public review in the fall of 2018.

Our preliminary recommendations include support for more efficient and effective permitting, development of a "*de minimis*" threshold for reduced reporting and articulation of how climate change considerations will be incorporated into the Sanitary Sewer System Waste Discharge Requirements. The Board's workshops will occur on the following dates in various locations around the state.

- May 9, 2018 in Redding
- May 17, 2018 in Sacramento
- May 22, 2018 in Fresno
- May 31, 2018 in Riverside
- June 2, 2018 in San Diego
- June 14, 2018 in Oakland

Sign up on the Board's website to receive up-to-date information about the workshops including webinar options. Enter your information and select under the Water Quality header "Sanitary Sewer Overflow Reduction Program Order Review" to get connected.

The Water Board is also working with the California Water Environment Association to host additional workshops in the summer and fall. We'll let you know as those are scheduled.

By Cheryl MacKelvie | April 30th, 2018 | Blog | Comments Off

Share This Story, Choose Your Platform!

@CASA_CleanWater

Workshop reminder: State Water Board will host workshops April 23 in Oakland and April 26 in Los Angeles. Join to share input on the framework to regulate direct potable reuse. waterboards.ca.gov/drinking_w… #wastewater #reuse #DPR pic.twitter.com/d9llb9IPts

About 2 weeks ago from CASA_CleanWater's Twitter

ABOUT US

CASA provides leadership, advocacy and information to our members, legislators and the public, and promotes partnerships on clean water and beneficial reuse issues that protect public health and the environment.

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CASA Engages on Collection System Permit Update

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CASA Raises Concerns about Changes to the Low Carbon Fuel Standard

CASA submitted comments to the California Air Resources Board objecting to several proposed changes to the Low Carbon Fuel Standard Program. We also testified before the Board at its April 27 meeting. As a result of our advocacy, Air Board staff have already indicated they will address one of our key concerns. Under the draft, all "biomethane" must meet the pipeline injection standards even if injection never occurs. This would be problematic for existing and proposed wastewater projects. Instead, the Board will include the definition recommended by CASA in our letter.

Other proposed changes that adversely affect the wastewater sector include:

1. Eliminate all previously developed pathways to determine the carbon intensity of various transportation fuels. This includes the two pathways for anaerobic digestion derived biomethane at wastewater plants which would be converted to LCFS fuel.
2. Replace the pathways with a temporary CI which is roughly 25 percent higher than the previous highest pathway.
3. Replace the simplified calculator with the GREET 3.0 model and a full life cycle analysis. This would be a very large disincentive for a wastewater project.

New Jersey Considers "Do Not Flush" Law for Bathroom Wipes

New Jersey lawmakers are working to pass legislation that would require non-flushable disposable wipes to be labeled "Do Not Flush." The bill is now in a New Jersey Senate Committee. We will keep a close eye on this legislations as it aligns with our nonflushables campaign. Read more about the New Jersey bill.

Agenda Explanation
Livermore-Amador Valley Water Management Agency
Board of Directors
May 16, 2018

ITEM NO. 12 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 was approved on February 21, 2018. 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 425 hours.

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

1. **Pump Purchase.** All three pumps have been delivered and two have been installed but cannot be used as the split seals failed. A meeting was held with the supplier on April 27, 2018. It was agreed that cartridge seals rated at 300 psi should work. Two solutions were discussed:
    a. Manufacture new stuffing boxes to support the larger footprint of a cartridge seal.
    b. Manufacture an adaptor plate that can be bolted to the current stuffing box with an appropriate gasket in between.

    The supplier was going to discuss the options with the pump manufacturer and provide a recommended option the week of April 30, 2018. As of this writing, there has been no response. Two emails have not been answered.

2. **Asset Management.** This project is now proceeding quite well. A representative from California Sanitation Risk Management Authority met with DSRSD staff on March 20, 2018 to conduct a Property Insurance Appraisal. DSRSD staff is awaiting the final report. The report will provide a replacement cost for all classes of LAVWM equipment, which numbers approximately 1,000 pieces total. In the meantime DSRSD staff continues to refine the equipment listing to ensure its accuracy.

3. **EBDA JPA and General Manager Recruitment.** Jackie Zipkin began 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. She is currently on maternity leave and is expected to return to work in two to three months.

    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. Please refer to additional information in Agenda Item No. 10. EBDA's Manager's Advisory Committee is holding a four-hour workshop on May 16, 2018 to discuss options for revising its JPA. Additional information will be provided at the LAVWMA Board meeting.

One of the issues of concern for the EBDA agencies is the possibility of having to replace significant portions of the forcemain or outfall. The outfall assessment concluded that it had a remaining useful life of 100 years. An assessment of most of the forcemain has now been completed. The Transport System Interim Condition Assessment Draft Technical Memorandum was completed on April 6, 2018. The Executive Summary from the Draft Technical Memorandum is included as **Item No. 12.a**. The report concludes that the forcemain has a remaining useful life of at least 60 to 110 years.

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 completed an inventory of the documents and duplicate items have been tossed. A substantial list of items remains. She and the General Manager will review all the items in May 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 draft report that was developed by its Science Advisory Panel. The Final Report was released in April 2018. A copy of the Table of Contents and Executive Summary is attached for the Board's information as **Item No. 12.b**. The recommendations will likely be incorporated into State Board regulations for recycled water, particularly as indirect and direct potable reuse projects are implemented.

Following is a brief description of major activities since the February 21, 2018 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 February Board Agenda and prepared packet for distribution. Drafted minutes after Board meeting and revised based on comments received.
- 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. Drafted Oppose letter for SB831, shared with Chair, and submitted letter to the Legislature's online comment system.
- 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 Lists. This included numerous trips to the pump station to document progress and issues. Met with DSRSD staff and MuniQuip. 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.
- Finalized agreement with BBSI for Sue Montague's services. Worked with DSRSD staff to develop a review and approval system for the BBSI invoices.
- Reviewed and approved proposal for purchase of new water cannons at the pump station to clean the basins.
- Prepared and submitted monthly invoices for LAVWMA General Management services.
- Participated in a tour of LAVWMA facilities for the new EBDA General Manager.
- Reviewed and commented on reports to Regional Board regarding spill to San Lorenzo Creek.
- Reviewed and approved proposal to replace the SentryTrack monitoring system.
- Participated in EBDA Manager's email discussion regarding JPA revision issues.
- 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 DSRSD's proposed FY2018/19 Budget for LAVWMA Services.
- Drafted the FY2018/19 Operating and Capital budget.
- 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.
- Responded to various emails and phone calls from outside agencies and organizations.

Attached for the Board's information, as **Item No. 12.c**, are the most recent Action Item Lists.

Next Meeting
The next Regular Board meeting is scheduled for August 15, 2018. Items will include: regular reports and review of Investment Policy.

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

Agenda Explanation
East Bay Dischargers Authority
Commission Agenda
April 19, 2018

ITEM NO. 7 PRESENTATION ON TRANSPORT PIPE CONDITION ASSESSMENT PROJECT

In March, Brown & Caldwell (B&C) completed the development of a manhole inspection form on the mobile platform Fulcrum. Fulcrum is a mobile application (App) that allows users to easily build custom Apps for capturing information in the field.

Staff from EBDA, B&C, and the City of San Leandro (CSL) met on March 28, 2018, for a 2-day training on the Fulcrum App and how to conduct manhole inspections. Following this training, CSL staff have begun completing the field portion of the manhole inspections and the initial condition assessment. The data is then sent, via the Fulcrum App, to B&C and EBDA for review and final condition assessment.

The Transport System Interim Condition Assessment Draft Technical Memorandum was completed on April 6, 2018. The Executive Summary from the Draft Technical Memorandum is included below. B&C will present an overview of the project's preliminary findings and Draft Technical Memorandum at the April 19, 2018 Commission Meeting.

Executive Summary

This Interim Condition Assessment Technical Memorandum (TM) presents the results of inspections and condition assessment of the East Bay Dischargers Authority (Authority) land-based effluent transport system. The transport system force mains convey treated effluent along part of the San Francisco Bay's eastern shoreline for discharge through the Authority's outfall and diffuser off the San Leandro shore. The TM provides project background and describes the genesis of this assignment, explains the function and importance of key pipeline and manhole components, describes inspection plans and field work, and presents findings, together with a projection of remaining useful life and recommendations for the inspection and maintenance program going forward. The final TM will include additional data and analyses once the Authority completes pending inspections by summer's end 2018.

The chief finding, based on inspections completed to date, is that the transport pipelines generally are in excellent condition, and should have a long remaining service life with a prudent program of ongoing maintenance.

Background

The Authority owns and maintains facilities that convey treated wastewater effluent from Authority members (via the transport system pump stations and pipelines), and discharge the effluent into San Francisco Bay (via the outfall pipeline and diffuser). The Authority planned, designed and constructed these facilities in the 1970s. Under the first phase of the current project, Brown and Caldwell (BC) inspected and performed a condition assessment of the disposal system outfall pipeline and diffuser in 2015/16. That effort determined that the disposal system requires no major repair work now, and that current operations and maintenance efforts successfully maintain a high level of service for that asset. The reader should refer to the full TM[1] for additional details.

This TM presents the results of the project's second phase: inspection and condition assessment of the transport system pipeline interior and associated manholes. The transport pipeline is constructed of approximately 11½ miles of buried reinforced concrete pipe (RCP) segments with diameters of 48, 60 and 96 inches. The system has 40 manholes, including 11 access manholes (AMH), 16 air/vacuum relief valve manholes (ARV), 12 sediment blow-off valve manholes (BOV), and one MH that houses both an air/vacuum relief and a blow-off valve. Treated effluent flows south through the pipeline from San Leandro to the Marina Dechlorination Facility (MDF), and north from USD, Hayward and Castro Valley/Oro Loma wastewater treatment plants to the MDF. The Oro Loma effluent pump station, which was not included in the current condition assessment effort, pumps the combined flow from the three southern treatment plants. Flow from LAVWMA enters the 96-inch-diameter pipeline between Oro Loma and the MDF. Figure ES-1 shows a system overview map.

Since transport system construction, the Authority has carried out regular inspection and maintenance activities on manholes and vaults and performed cleaning, valve maintenance, coating touchup, and/or replacement of appurtenances when warranted. The Authority also budgets for an annual manhole coating program; to date, several manholes have been coated with epoxy to prevent deterioration of internal concrete surfaces. The Authority has never inspected the interior of the transport system pipeline. The transport pipeline and associated manholes have required no major repairs to date.

[1] *Inspection and Condition Assessment Reporting (Dive and Exterior Sonar Inspections)*, March 10, 2017

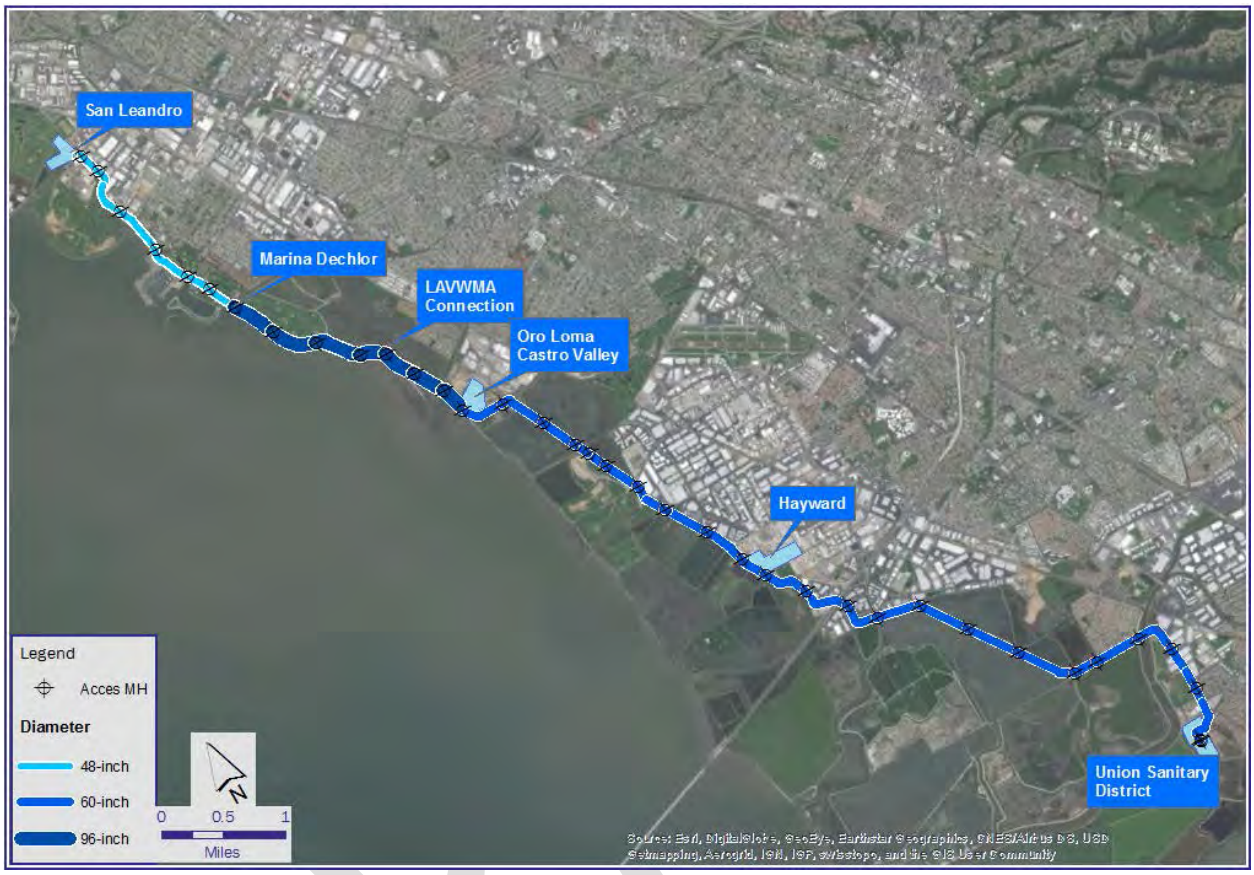

Figure ES-1. Transport system alignment

In 2013, as part of its long-range planning effort, the Authority developed a preliminary asset management plan which addressed all its facilities. That plan identified the combined effluent transport system pipelines as the Authority's largest asset, with a replacement value exceeding $210 million. The plan states that the forcemains and manholes originally had a useful life of approximately 80 years. In 2013, roughly 35 years after construction, the remaining useful life was expected to be about 45 years; today, 40 years. Owing to this relatively short projected remaining life and potentially huge capital cost to replace the transport system, the Authority engaged BC to carry out inspections and condition assessment for these critical assets.

In 2017, BC completed a risk assessment that assigned risk and consequence of failure ratings to pipeline segments and manholes, and presented preliminary inspection plan recommendations. The goal was to identify locations with elevated risk, and focus pipeline inspection efforts on those locations. Refer to the Draft Risk Assessment TM for more details.

2017 Onshore Pipeline Inspection

The remainder of this TM's sections describe the pipeline assets and the inspection program that BC developed in 2017 and the Authority carried out during the fall of 2017 and spring of 2018. BC will assist the Authority with the completion of additional pipeline and manhole inspections and other condition assessment activities through early summer of 2018.

Pipeline segments consist of RCP pipe sticks in standard 8-, 12- and 20-foot lengths. The San Leandro-to-Marina (SLM) segment is 48-inch-diameter, the Marina-to-Oro Loma (MOL) segment is 96-inch-diameter, and the Oro Loma-to-Hayward (OLH) and Hayward-to-Alvarado (HAL) segments are 60-inch-diameter.

Manholes (MH), constructed of reinforced concrete bases, risers, cones and top slabs, are located along the alignment at varying intervals, and serve different functions—access to the pipeline interior, air and vacuum relief at high points during pipeline operation, and blow off assemblies to remove sediment at low points. Figure ES-2 shows examples of an air release valve MH (ARV) and two types of blow-off MH (BOV) assemblies from record drawings.

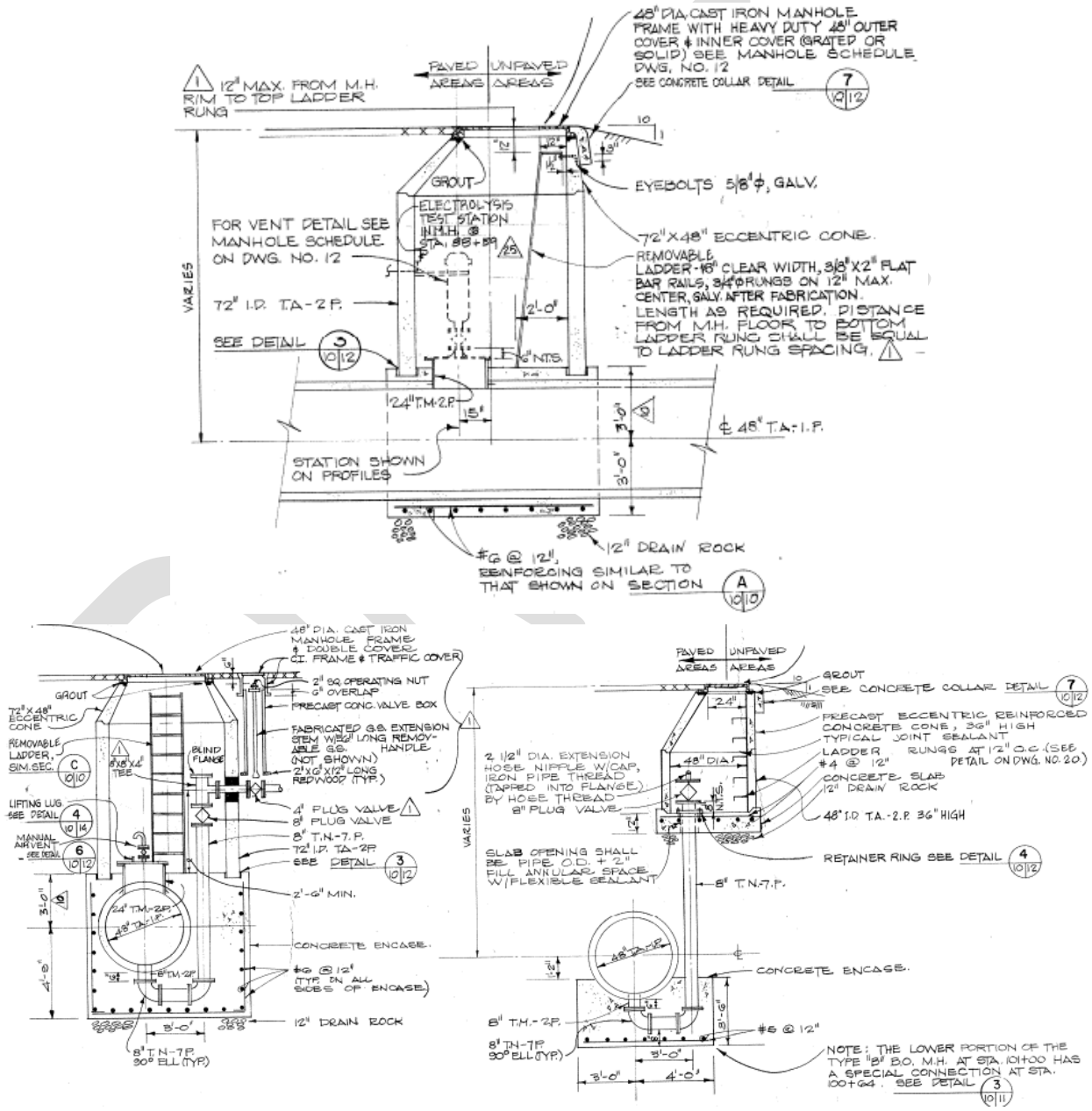

Figure ES-2. Standard MH types (top: air/vacuum release MH; bottom: blow-off MH types)

Pipeline and Manhole Inspections

Based on competitive quotations, BC subcontracted with RedZone Robotics to carry out pipeline interior inspections on the 48-inch and 60-inch pipelines, and with D.W. Nicholson for inspection support services (access cover removal) and materials (new stainless-steel bolts and flange gaskets).

After reviewing RedZone's initial inspection field work, Authority staff and BC postponed inspection of the 96-inch-diameter pipeline segment (Marina-to-Oro Loma) due to interior conditions that would prevent effective inspection now. BC is currently evaluating recommendations and strategies for a possible summer 2018 inspection and condition assessment for that segment, but the likely recommendation will be to defer inspection for several years.

BC engineers and the San Leandro Force Main crew began inspecting MHs at the end of March 2018, using a custom mobile data collection form built in Fulcrum[2], and plan to finish the remaining MH and vault inspections by May 2018.

Pipeline Interior Inspections

RedZone developed and operates a multi-sensor inspection platform (MSI) known as "Responder" (see Figure ES-3). Responder is a heavy (800+ pounds), tracked platform that can travel up to 8,000 feet from a single insertion point, depending on pipeline conditions. Installed sensors included:

- High definition closed circuit television (CCTV) camera
- 3D laser (LiDAR)
- Sonar head
- Hydrogen sulfide (H_2S) gas meter and temperature sensor

The TM body provides more detail on equipment used and its capabilities.

Figure ES-3. RedZone Responder platform (left) and mast with lights, CCTV, LiDAR and sensors (right)

[2] https://web.fulcrumapp.com

Authority staff and BC selected five insertion MHs from which RedZone initiated inspections. Those points provided reasonable and practical access for inspection now, and inspection data collected around these specific locations are expected to show the worst case interior conditions based on extensive industry experience. Table ES-1 lists insertion locations and inspection details, and Figure ES-4 shows the actual inspected footage graphically (wide red line).

Table ES-1. Field Inspections

Inspection	US MH[a]	DS MH	Direction	Total Length (ft)	Partially Submerged Length (ft)	Submerged Length (ft)
1A	88+62	101+00	Downstream	600	460	140
1B	80+92	88+62	Upstream	400	342	58
2	3+82	13+56	Upstream	1,000	1,000	0
3A	60+00	55+55	Upstream	500	129	371
3B	55+55	39+25	Downstream	1,622	1,622	0
3C[b]	39+25	20+05	Downstream	850	850	0
4A	108+26	91+40	Upstream	1,000	342	658
4B	91+40	75+52	Downstream	500	433	67
5A	276+02	268+91	Upstream	700	0	700
5B	268+91	261+10	Downstream	500	0	500
5C[c]	294+44	276+02	Upstream	500	0	500
			Totals	**8,172**	**5,178**	**2,994**

a. Insertion MHs are shaded.

b. Insertion point was STA 55+55.

c. This segment was split off from inspection 5A; the MSI became submerged, so the contractor missed the manhole at 276+02 and continued upstream along pipe towards 294+44.

The inspected footage (8,172 feet) represents approximately 13.4 percent of the total 60,800 lineal feet of transport system force mains.

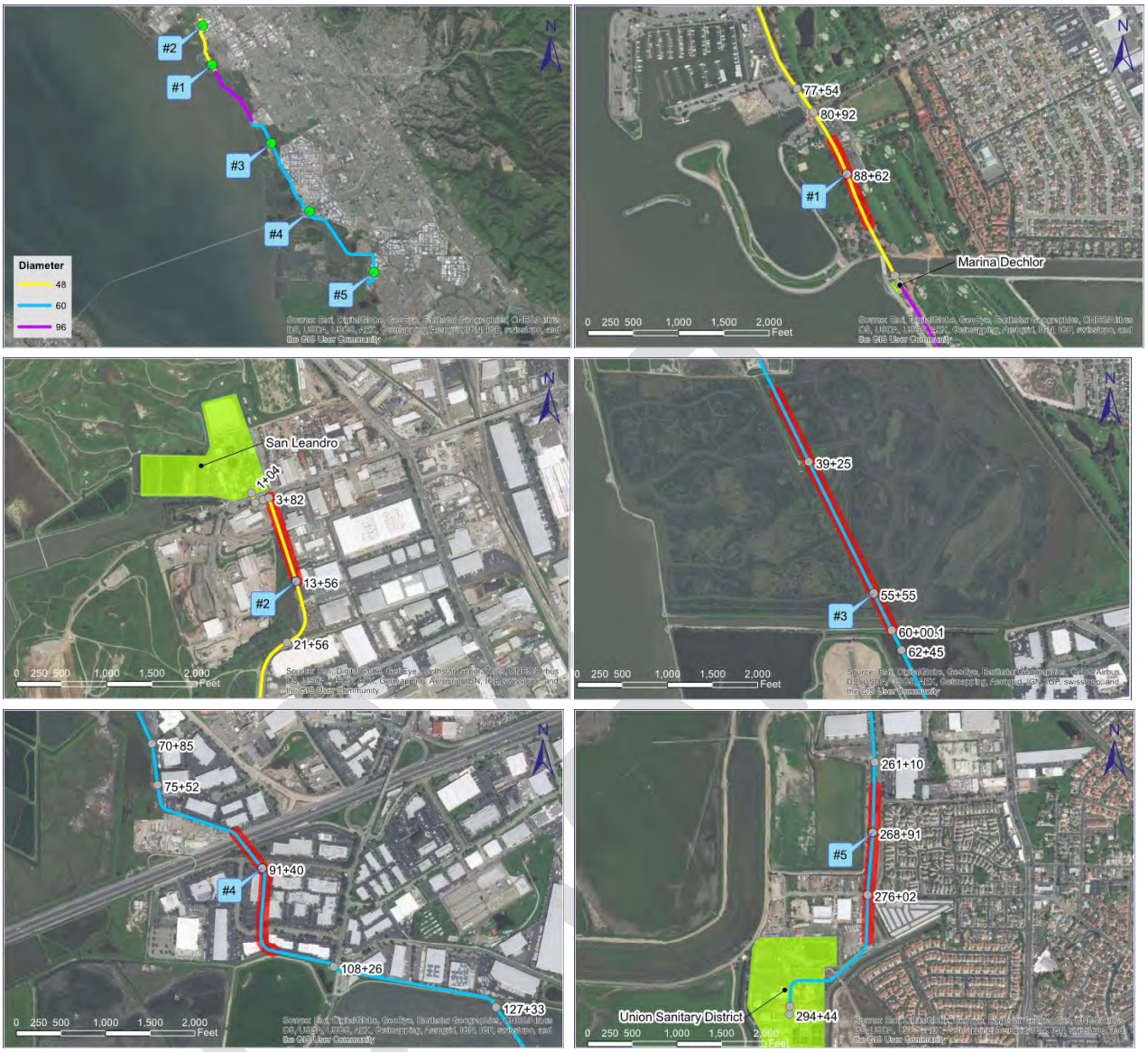

Figure ES-4. Insertion points and footage

Pipeline Inspection Findings

Attachment ES-A presents an example of one of the inspection reports that RedZone provided along with its video and data submittals.

CCTV footage shows little to no deterioration in the pipeline.

- Pipe surfaces appear smooth and unaffected by corrosion, erosion, or scour (in some locations, the original pipe stick stencil markings are still visible).
- Pipe joints generally appear sound and have not experienced separation.
- The pipe surface, especially in locations that are continually submerged, is covered by what appears to be a thin layer of attached biological growth; however, this growth in no way affects the structural integrity or function of the pipeline, and does not appear promote microbiologically induced corrosion.

Figures ES-5 through ES-7 show representative CCTV screenshots from each inspected segment. In all captions, upstream is towards the treatment plant of origin, downstream is towards MDF.

STA 13+56 upstream (original markings)

STA 13+56 upstream (original color)

STA 88+62 upstream (clean pipe)

STA 88+62 downstream (surface growth)

Figure ES-5. CCTV screenshots, San Leandro-Marina segment

STA 39+25 @ manhole (cover from inside)

STA 39+25 downstream (sound joints)

STA 55+55 downstream (surface)

STA 55+55 downstream (scan location 1,000')

STA 55+55 upstream (surface)

STA 55+55 upstream (joint, test port)

Figure ES-6. CCTV screenshots, Oro Loma-Hayward segment

STA 91+40 downstream (minor spalling)

STA 91+40 downstream (spalling closeup)

STA 91+40 upstream (surface)

STA 91+40 upstream (sound joints)

STA 268+91 downstream (joint underwater)

STA 268+91 upstream (surface underwater)

Figure ES-7. CCTV screenshots, Hayward-Alvarado segment

During insertion #5, the inspection platform was submerged upstream of STA 268+91, so although RedZone also obtained CCTV and sonar footage in the segment upstream of STA 276+02, no images are included herein because underwater visibility was poor. RedZone did collect sonar data in all three reaches inspected from insertion #5 at STA 268+91.

LiDAR data show that measured diameters are consistently between 0.5 inch and 1.2 inches larger than pipeline nominal diameters, which is within typical AWWA and manufacturing tolerances and not an indication of wall loss. Other indicators—i.e. visible surface stencils, smoothness at joints—confirm the pipe integrity. Figure ES-8 shows an example of a 3D LiDAR surface model generated from a LiDAR scan point cloud.

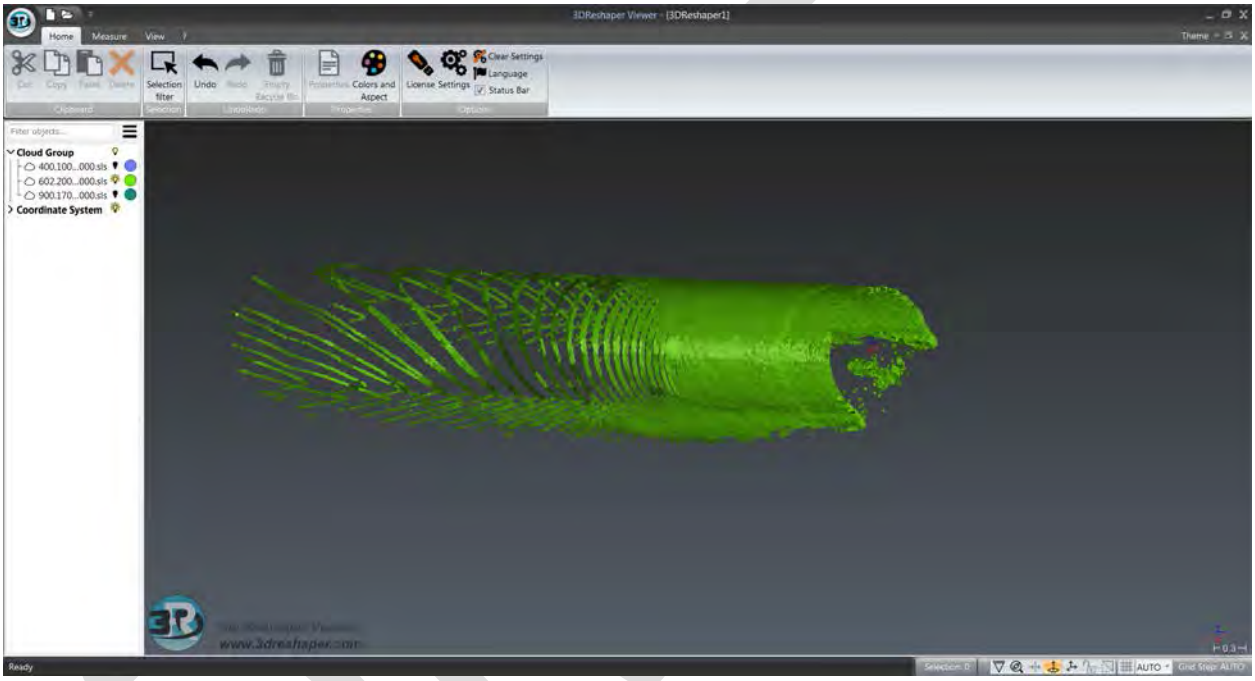

Figure ES-8. LiDAR surface model

Figure ES-9 shows pipe interior cross sections derived from LiDAR data and CCTV images at the same locations. Note that in the top set, minor concrete surface spalling was observed just downstream of STA 91+40, but the cross section confirms it has resulted in negligible internal diameter deviation. In the bottom set around STA 55+55, the internal diameter was reported to be larger than expected (i.e. nominal), but the CCTV shows no signs of surface damage or wall loss.

Figure ES-9. LiDAR cross sections and CCTV at same locations

Sonar data is used to develop sediment depth profiles and total sediment quantity estimates. Data show virtually no sediment accumulation throughout any of the inspected locations. The minor amount (< 1-inch deep) of sediment in some locations has no adverse effect on pipeline functionality or longevity. Figure ES-10 shows the sediment profile of the segment with the highest sediment level (~1 inch) and accumulation (27 ft^3), downstream of STA 91+40.

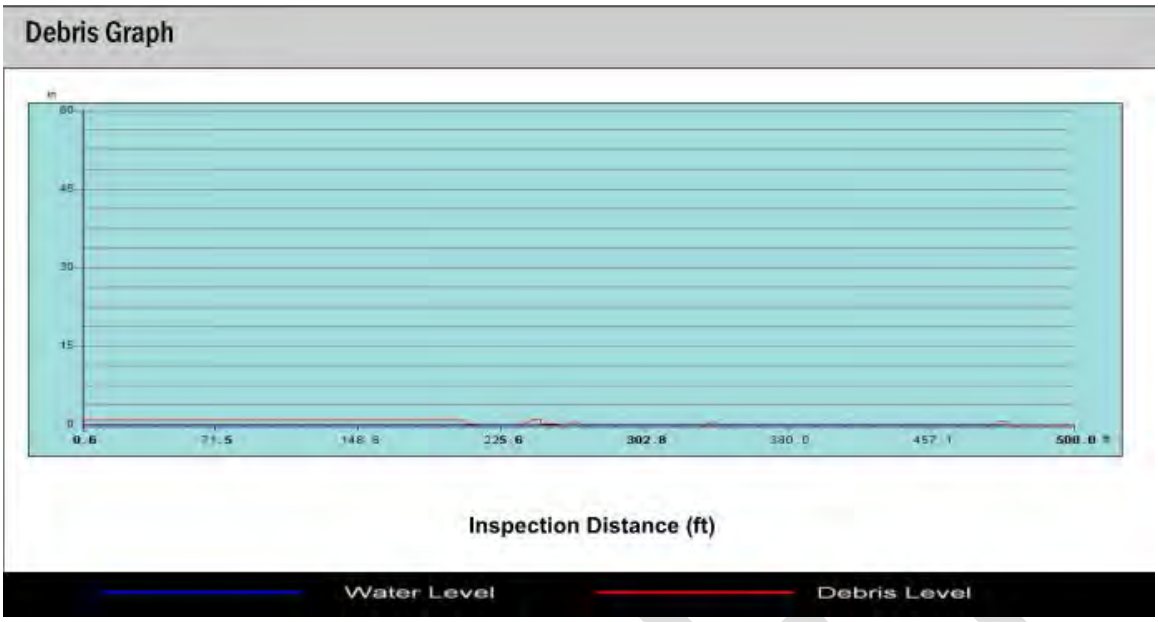

Figure ES-10. Sonar debris profile, STA 91+40 to STA 75+52

Manhole Interior Inspections

Table ES-2 presents MH inspections carried out to date. Inspection of the remaining 32 MHs should be completed by May 2018. The Fulcrum app stores all the collected data in a cloud database, which is instantly and conveniently available for review, download, and processing upon collection.

Table ES-2. Manhole Inspections

Station	Type	Segment	Date of Inspection	Valve Operational?
13+56	ARV	SLM	03-28-2018	Yes
36+56	ARV	SLM	03-28-2018	Yes
59+63	BOV	SLM	03-28-2018	No
77+54	ARV	SLM	03-28-2018	Yes
80+92	BOV	SLM	03-29-2018	No
88+62	ARV	SLM	03-29-2018	Yes
101+00	BOV	SLM	03-29-2018	Yes
173+67	AMH	HAL	04-05-2018	n/a
230+44	BOV	HAL	03-29-2018	Yes

Manhole Inspection Findings

This section is pending completion of manhole inspections, data processing, and condition assessment. MHs inspected to date indicate that some MH structures show minor signs of degradation but no signs of interior corrosion. Although several BOVs are inoperable, none of the inspected valves or piping have leaks or immediate needs for repair, and all the ARVs are functioning as intended. Attachment ES-B shows a sample manhole inspection report, generated automatically from the Fulcrum app.

Conclusions

Despite its 40-year age and exposure, the transport system pipeline shows only very minor signs of deterioration.

- Pipeline interior inspection data do not indicate anything other than minor concrete degradation (spalling), and that was only evident at one short location in the 60-inch-diameter pipeline in both directions around STA 91+40 (the highest point in the transport system).
- Sediment accumulation does not appear to be an issue at the inspected low points, nor along any other inspected portions of the pipeline invert. It is possible that somewhat more sediment has accumulated near inoperable and unused blow-off valves, but it is unlikely that enough would accumulate to impede normal operations, especially since high seasonal flows would tend to scour and mobilize any light sediment.
- We were unable to collect inspection data in the 96-inch-diameter pipeline due to complications with dewatering and accessing the segment; however, inspections performed to date have not provided any compelling evidence to justify the costly and logistically complicated inspection of the 96-inch-diameter pipeline at this time. The 2015/16 inspections of the submerged 96-inch-diameter outfall pipe and current inspections of the other on-shore RCP transport system segments indicate a very low likelihood that concrete deterioration or any other visually observable defects would be present in the 96-inch-diameter, onshore pipeline segment.
- Sediment buildup could potentially be somewhat more prevalent in the 96-inch segment than in other segments: the alignment is relatively flat, the blow-off valves are not regularly operated, and periodic low flows lead to low velocities, all of which could promote sediment buildup.

Similar to pipelines, manholes and appurtenances inspected to date generally show only minor signs of deterioration.

- Inspections have not revealed any concrete corrosion or structural damage to MH components.
- Some access covers, in-service air/vacuum relief valves and blow-off valves, and other appurtenances show minor coating failures and corrosion, but will continue to serve their purpose with the preventative maintenance that the Authority regularly performs.
- Several blow-off valves are inoperable and/or inconvenient to operate, and Authority staff speculate that some of the blow-off piping below the pipeline invert at those locations could be clogged; however, it will not be possible to confirm this unless the inoperable blow-off valves are repaired in the future.

BC expects that with regular inspection and periodic maintenance, including maintaining and replacing valves and appurtenances as required, the transport system should continue to operate usefully for at least the next 60 to 110 years. This estimate would put the total expected useful operating life at about 100 to 150 years from the date of construction.

Recommendations

Based on data review, field studies, and expert analyses, BC recommends the following:

- Continue to operate the transport system using current standard operating procedures, and monitor data to measure condition and behavior changes.
- Complete the remaining MH inspections and develop a data-logging protocol to track manhole, valve, and piping conditions during future on-going maintenance and inspection activities.
- Refine the MH preventative maintenance program based on results of data collected from MH inspections. Some types of MHs (ARVs) will likely require more frequent visits than other types

(AMHs), and the number and frequency of preventative maintenance visits to each type of facility can be fine-tuned based on inspection data and additional data collected going forward.

- Budget to repair or replace inoperable blow-off valves over the next five to ten years.
- Measure chloride concentrations at the MDF flow meter vault and at upstream blow-off locations (once repaired) in the 96-inch-diameter pipeline to determine if Bay water is intruding into the pipeline.
- Do not inspect the interior of the 96-inch-diameter Marina-to-Oro Loma segment now. Design and build modifications to the AMH at STA 60+00 segment to provide more convenient access for a future pipeline interior inspection.
- Carry out internal inspections of additional pipeline segments around year 2030 once inoperable blow-off valves have been repaired and additional inspection access points become available. Select additional inspection locations based information in the Risk Assessment TM.
- During the above 2030 inspection, consider inspecting the 96-inch-diameter segment upstream and downstream of STA 60+00 using an ROV equipped with video camera and sonar equipment (profiling and forward-facing) and/or via diver entry.
- Carry out regular internal pipeline inspections on a 20-year cycle (next in about 2040). Select some of the same locations and add additional locations. Select locations based on previous inspection results and the information in the Risk Assessment TM.
- Following a significant seismic event in the vicinity (>6.0 magnitude earthquake), walk the entire pipeline looking for leaks, breaches or other anomalies. Conduct acoustic leak detection inspections in the pipeline segments identified in the Risk Assessment TM as having an elevated risk of failure due to differential settlement and/or seismic response.
- Develop a seismic response plan to guide the Authority's actions following a significant seismic event. Include an evaluation of potential pipeline breaches (number and severity), permitting requirements, repair procedures, repair costs, and recommended repair and replacement materials inventory.

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

Recommendations of a Science Advisory Panel

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Southern California Coastal Water Research Project

SCCWRP Technical Report 1032

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Recommendations of a Science Advisory Panel

Jörg E. Drewes[1], Paul Anderson[2], Nancy Denslow[3], Walter Jakubowski[4], Adam Olivieri[5], Daniel Schlenk[6], and Shane Snyder[7]

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Science Advisory Panel
Convened by the State Water Resources Control Board

April 2018
SCCWRP Technical Report 1032

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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 population 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 potable reuse and discharge to the environment. The chemical universe is evolving at a rate that is challenging for traditional risk assessment paradigms, particularly evaluating interactions between complex mixtures of chemicals and transformation products formed during treatment and environmental processes. In order to remain vigilant in comprehensive evaluation of constituents of emerging concern (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 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. In addition to ingestion of groundwater and treated reservoir water (or surface water) augmented by 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*. This is based on CEC levels in the water applied in a surface spreading scenario for groundwater recharge, rather than CEC levels in the water extracted downstream by the public water system.

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

[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.*

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 *N*-nitrosodimethylamine (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.

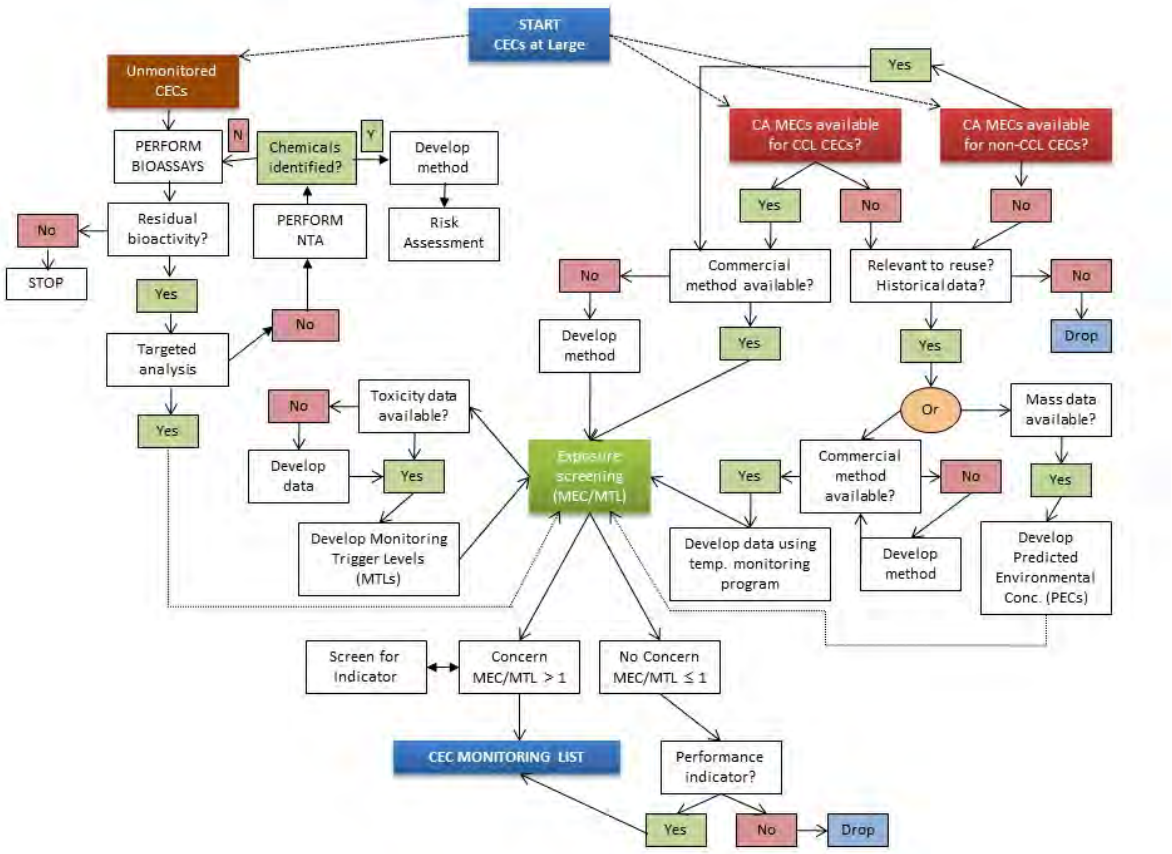

Figure ES.1. Revised risk-based CEC selection framework.

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 non-potable uses and potable reuse via groundwater and 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. While the Panel has outlined a process to interpret and respond to *in vitro* bioassay results, this process is not sufficiently mature to justify response actions at this time. Thus, the Panel recommends a phased implementation of bioanalytical screening, with Phase I consisting of a three to five-year data collection period, with no response actions required during this time. This applies to follow up investigations triggered by bioassay results, including voluntary targeted and non-targeted analysis, the latter of which is not sufficiently standardized at present to apply broadly for recycled water monitoring. Subsequent implementation phases will evolve from analysis of data collected during Phase I and advancements made in the development and validation of additional screening assays, as well as the interpretation of bioscreening results.

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 recycled 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.

- To complement monitoring of known CECs, the Panel recommends implementation of the estrogen receptor alpha and aryl hydrocarbon receptor (ER-α and AhR, respectively) assays for screening of CECs in potable reuse projects. These assays are now sufficiently standardized and robust for screening level data collection and assessment over the next 3 to 5 years. As interpretive guidance for bioscreening data is not yet mature, response actions such as identification of bioactive chemicals is encouraged but should not be required during the data collection phase.

- Additional investment in research and training is needed to provide an expanded, robust "bioscreening toolbox", an interpretive framework for the 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) on a voluntary basis 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 reuse projects, to improve the management of potable reuse facility monitoring data (i.e., CEC, bioanalytical, and high-frequency operation data), and the reporting of potable reuse 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.

LAVWMA Action Item List **Month:** **March 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: diameters to fit motor shafts, 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. Both seals have failed. No issues with installation upon removal. Seals returned to distributor for engineering analysis.	
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	Quinlan	9/30/2018	Gate is in good shape but won't fully close. Shutdown will be scheduled for summer entry only for gate assessment, adjustment and possible modification of floor seal.	
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	Cost to be included in FY2018/19 Budget and will be scheduled at that time.	
Replacement of LAVWMA Basin Water Cannons	Quinlan	TBD	12 water cannons are beyond their useful life and need to be replaced. Three bids received. Accepted bid from Fairway Equipment & Supply at a cost of $1,426.89 each for a total of $17,122.68. They have been ordered.	
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.	2/9/2018
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	Reviewed at every Operations Coordination Meeting.	

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

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for May 16, 2018 LAVWMA Board Meeting	SAG	5/11/2018	Usual reports; FY2018/19 Budget; Investment Policy Review. SAG meeting with Alameda County on May 11 to discuss possible recycled water opportunities.	
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	All three pumps have arrived. The first two have been installed, but John Crane split seals failed. Analysis has not determined exact cause. Appears to be a misapplication for this system. Options for different seals to be discussed April 25. No payments have been made for the pumps.	
Rebuild Three Pumps	Delight	TBA	On hold until the three new pumps have been accepted. Refer to seal issue above.	
LAVWMA Junction Chamber and Export Pipeline Meter Replacement	Portugal	6/30/2018	Company studying the issues backed out. A new approach is underway. A full analysis of the system is likely needed. Dave Requa may manage the project for LAVWMA.	
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	Quinlan	9/30/2018	Gate is in good shape but won't fully close. Shutdown will be scheduled for summer entry only for gate assessment, adjustment and possible modification of floor seal.	
EBDA Forcemain Shutdown for Inspection	Fuller	10/31/2017	Project completed and everything looks good. The 96 inch section will be inspected this summer. B&C Report indicates forcemain has a useful life of at lease another 60 - 110 years.	10/31/2017
EBDA Enterococcus Issue	Fuller		No recent issues. Gearing up for warmer weather, which has been when the issues occur the past two years.	
Sealing of LAVWMA Basins	Quinlan	TBD	Cost to be included in FY2018/19 Budget and will be scheduled at that time. Will discuss other capital projects on April 25 to include in the FY2018/19 Budget.	
Replacement of LAVWMA Basin Water Cannons	Quinlan	TBD	12 water cannons are beyond their useful life and need to be replaced. Three bids received. Accepted bid from Fairway Equipment & Supply at a cost of $1,426.89 each for a total of $17,122.68. They have been ordered.	
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.	
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.	2/9/2018
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	Reviewed at every Operations Coordination Meeting.	

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

SAG Task	Responsible Party	Due Date	Status	Completion Date
Items for May 16, 2018 LAVWMA Board Meeting	SAG	5/11/2018	Usual reports; FY2018/19 Budget; Investment Policy Review (moved to August meeting). SAG meeting with Alameda County on May 11 to discuss possible recycled water opportunities.	
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	All three pumps have arrived. The first two have been installed, but John Crane split seals failed. Analysis has not determined exact cause. Appears to be a misapplication for this system. Options for different seals were discussed April 25. Met with MuniQuip April 27. Two options were discussed using cartridge seals: new stuffing boxes aor an adaptor plate. MuniQuip was to provide a proposal the next week. Have not heard from them, despite two emails sent as follow up. No payments have been made for the pumps.	
Rebuild Three Pumps	Delight	TBA	On hold until the three new pumps have been accepted. Refer to seal issue above.	
LAVWMA Junction Chamber and Export Pipeline Meter Replacement	Portugal	6/30/2018	Company studying the issues backed out. A new approach is underway. A full analysis of the system is likely needed. Dave Requa may manage the project for LAVWMA.	
Wet Weather Issues	Fuller	10/31/2017	No significant wet weather issues this year.	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	Quinlan	9/30/2018	Gate is in good shape but won't fully close. Shutdown will be scheduled for summer entry only for gate assessment, adjustment and possible modification of floor seal.	
EBDA Forcemain Shutdown for Inspection	Fuller	10/31/2017	Project completed and everything looks good. The 96 inch section will be inspected this summer. B&C Report indicates forcemain has a useful life of at lease another 60 - 110 years. Additional testing to be conducted in FY18/19.	10/31/2017
EBDA Enterococcus Issue	Fuller		Numbers starting to creep up at EBDA MDF station.	
Sealing of LAVWMA Basins	Quinlan	TBD	Cost to be included in FY2018/19 Budget and will be scheduled at that time. Will discuss other capital projects on April 25 to include in the FY2018/19 Budget.	
Replacement of LAVWMA Basin Water Cannons	Quinlan	TBD	12 water cannons are beyond their useful life and need to be replaced. Three bids received. Accepted bid from Fairway Equipment & Supply at a cost of $1,426.89 each for a total of $17,122.68. They have been ordered.	
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.	
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.	2/9/2018
YTD O&M Expenses compared to budget	Carson, Weir	Ongoing	Reviewed at every Operations Coordination Meeting.	