



**LIVERMORE-AMADOR VALLEY
WATER MANAGEMENT AGENCY**

OPERATING AND CAPITAL BUDGET

FISCAL YEAR 2020/21

Approved by the LAVWMA Board May 20, 2020

LAVWMA FY2020/21 Budget

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY OPERATING AND CAPITAL BUDGETS FISCAL YEAR 2020/21

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LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY OPERATING AND CAPITAL BUDGETS FISCAL YEAR 2020/21

EXECUTIVE SUMMARY

OPERATING BUDGET

The proposed operating budget of \$3,345,400 is an 8.41% increase from the FY2019/20 budget. The total revenue requirement of \$11,751,500 is a 2.26% increase from the FY2019/20 budget. Debt service payments consist of \$2,438,658 for the Repair Project, \$5,567,442 for the Expansion Project for a total of \$8,406,100. It should also be noted that the DSRSD proposed budget for LAVWMA included a 4% increase for operations and maintenance. DSRSD costs are typically well below estimates such that LAVWMA's budget can be less than those projections.

The FY2019/20 Budget includes a few items that exceeded the approved budget including:

- PG&E power will be above budget based on projections for the first nine months of the year. However, low rainfall and water recycling may result in lower costs than projected.
- Monitoring/Testing will be above budget due to \$15,000 in special testing required for the renewal of the NPDES permit.
- EBDA Fixed O&M Expenses will be high due to an unbudgeted payment of \$135,708 for Other Post Employment Benefit and Pension Fund payments to get the funds to the level of 95% funded.

The total EBDA O&M budget of \$664,000 is 2.15% above last year. The increase is largely due to an increase in the NPDES permit fee and studies for the nutrient permit. 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 18.60%. Costs for EBDA are based on fixed and variable (flow based) percentages. The flow-based percentage is currently 17.9% as compared to 17.7% last year. 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 EBDA Master Agreement has been extended through June 30, 2020. An additional extension through December 21, 2020 has already been approved by the Board and is subject to EBDA approval. EBDA has provided a term sheet for a new agreement that includes several items that are not acceptable to the member agencies. A study is currently underway to determine how much additional capacity above the 19.72 MGD will be needed over the next twenty years. EBDA costs for FY20/21 are based on the current agreement. The largest variable for a new agreement is the fixed cost percentage, which will be based on capacity needs. As an example, increasing the fixed cost percentage will cost approximately \$18,000 for each percentage point above the current 18.6%.

The proposed FY2020/21 operating budget considers projected FY2019/20 expenditures and is largely based on the detailed budget prepared by DSRSD pursuant to the Maintenance

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Agreement, copy attached. FY2019/20 O&M expenditures are projected to be above the approved budget by approximately 6%. This is primarily due to the following: 1) PG&E power, and 2) payment to EBDA for Other Post-Employment Benefits (OPEB) and pension fund obligations. All other costs are projected to be on target budget. The proposed budget includes a modest increase in PG&E costs. The annual reconciliation process will collect any shortfall from the member agencies. Significant water recycling efforts in the service area are continuing and should increase over time, which will help to offset PG&E rate increases. Increased pumping efficiency will also help to offset rate increases. A new time of use rate structure that becomes effective in November 2020 could also prove beneficial. The MCC consultant will review the rate structure and make recommendations.

DSRSD's costs reflect a 2.75% cost of living adjustment. 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.

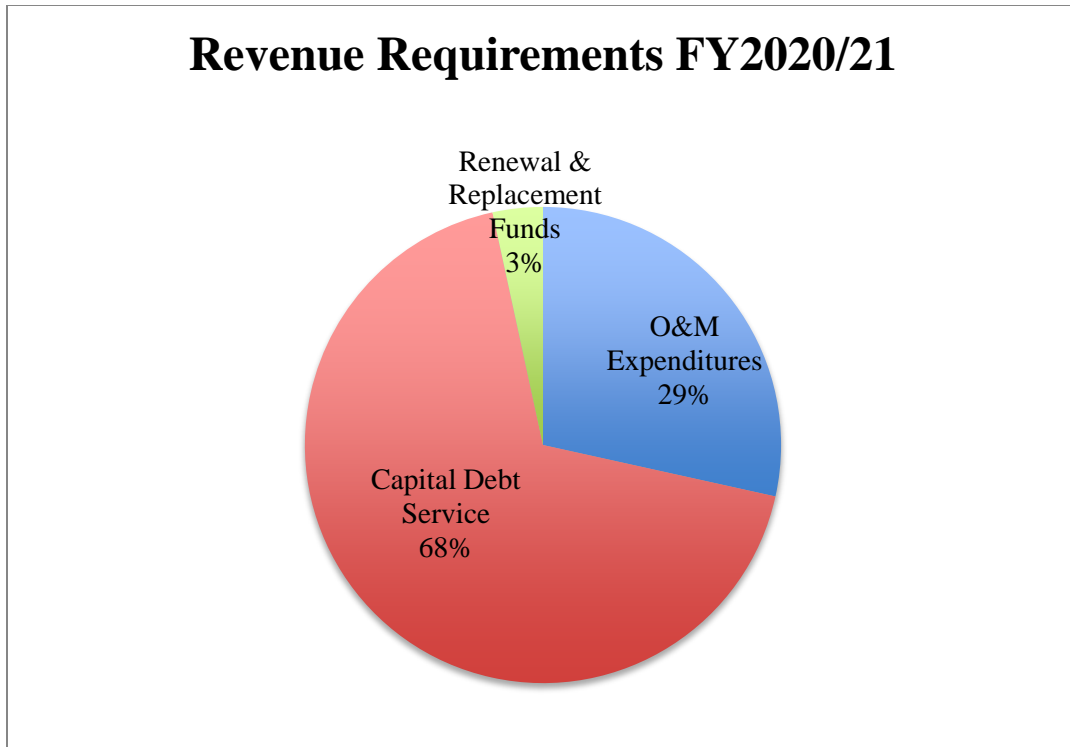
CAPITAL BUDGET

The FY2019/20 capital budget was \$1,166,000, of which only \$125,000 is projected to be spent this fiscal year. Much of this is due to delays associated with COVID-19 issues, as well as hiring of new staff by DSRSD. The FY2020/21 capital budget of \$2,516,000 is for the renewal and replacement of LAVWMA and EBDA facilities and includes the rebuilding of three pumps and motors, resealing the storage basins, design improvements at the San Leandro Sample Station, drainage improvements, replacement of the motor control centers and soft starters at the pump station, cathodic protection improvements, and pipeline inspection. All of these major projects have been recommended by DSRSD staff. Please refer to the tables below which provide descriptions and summarize the costs.

REVENUE REQUIREMENTS

The FY2020/21 budget also includes the debt service (repair and expansion) for the 2011 Bonds. Although repair and expansion of the existing pipeline is a capital cost, 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 five years ago. Dual Use facilities are minimal and are currently adequately funded. The following pie chart illustrates the allocation of the \$11,751,500 in total revenue requirements for FY2020/21.

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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

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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

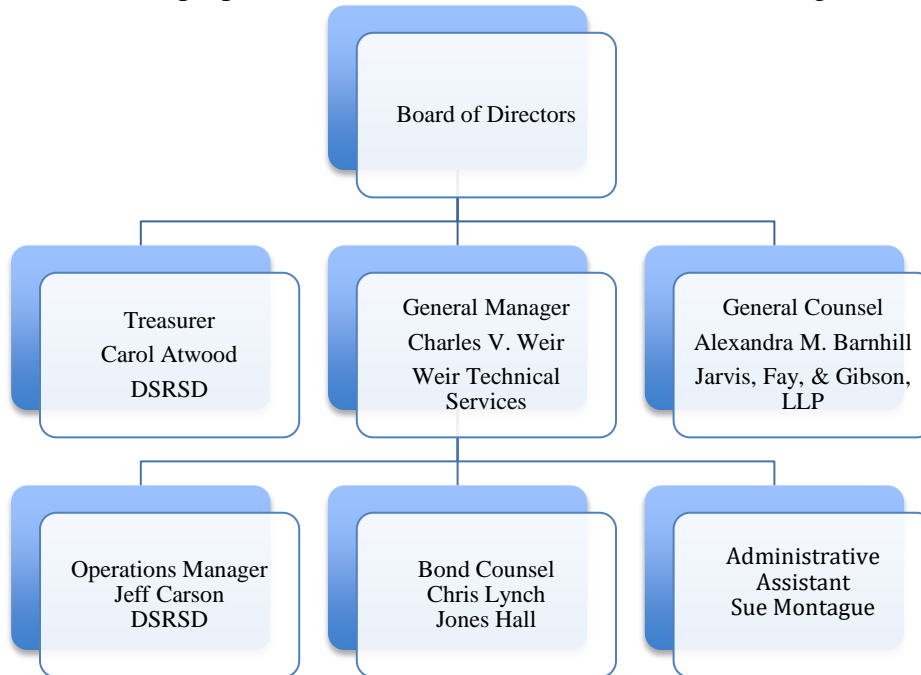
To carry out our Mission, LAVWMA will pursue the following goals:

- **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.

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1.2 ORGANIZATION

The LAVWMA team proposed for FY2019/20 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 FY2020/21 Operating Budget on the following pages 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.

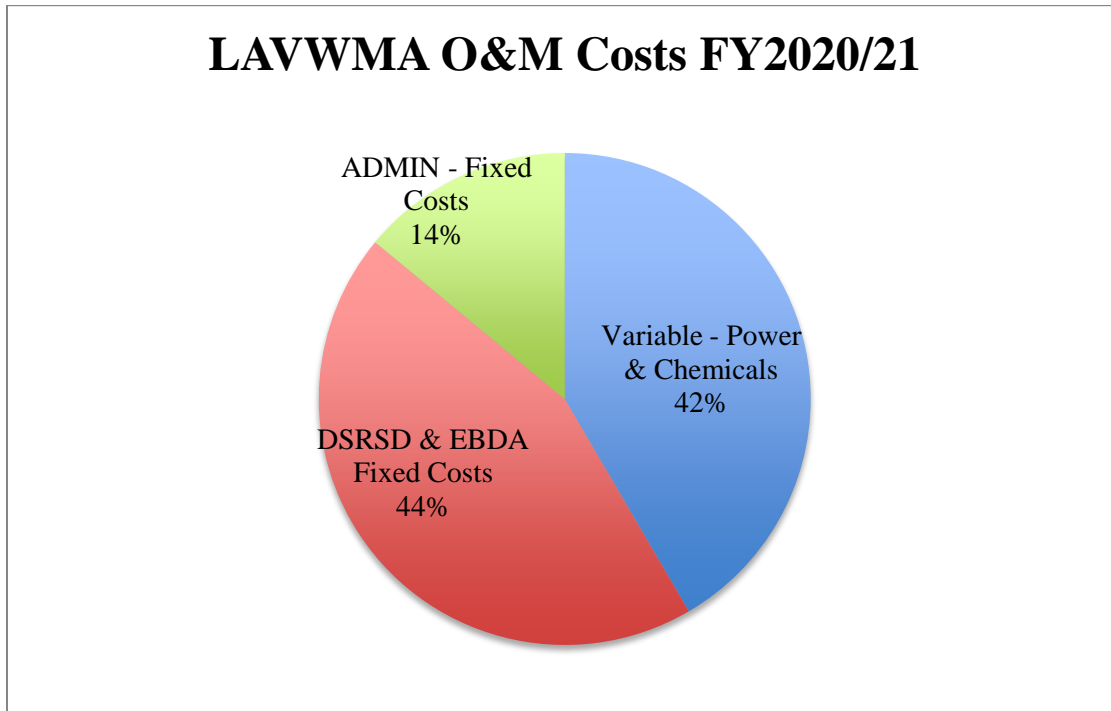
LAVWMA FY2020/21 Budget

LAVWMA BUDGET FY 2020/21					
FY2020/21 OPERATIONS BUDGET SUMMARY					
		FY2019/20 Adopted Budget	FY2019/20 Projected Actual	FY2020/21 Proposed Budget	Change From Adopted FY2019/20
OPERATIONS AND MAINTENANCE					
VARIABLE COSTS					
	DSRSD Maintenance Agreement (Power)	\$ 1,200,000	\$ 1,256,639	\$ 1,250,000	4.17%
	EBDA O&M (See Table, Section 2.2.1)	145,000	130,082	141,000	-2.76%
	Subtotal - O&M Variable Costs	1,345,000	1,386,721	1,391,000	3.42%
FIXED COSTS					
	DSRSD Maintenance Agreement				
	Labor/equip	780,000	765,881	797,000	2.18%
	Materials/Supplies	50,000	32,571	50,000	0.00%
	Contractual	70,000	70,423	70,000	0.00%
	Monitoring/Testing	31,000	43,629	31,000	0.00%
	Utilities (fixed)	7,000	5,879	7,000	0.00%
	Non Routine	8,000	-	8,000	0.00%
	EBDA O&M (See Table, Section 2.2.3)	505,000	640,317	523,000	3.56%
	Subtotal - O&M Fixed Costs	1,451,000	1,558,699	1,486,000	2.41%
ADMIN/MGMT					
	Mgr/Treas/Counsel/Board	153,000	225,684	273,000	78.43%
	Services/Supplies/Misc	89,000	54,031	132,500	48.88%
	Permits/Insurance	48,000	46,511	62,900	31.04%
	Subtotal Admin/Mgmt	290,000	326,226	468,400	61.52%
	Subtotal All Fixed Costs	1,741,000	1,884,925	1,954,400	12.26%
	TOTAL O&M COSTS	\$ 3,086,000	\$ 3,271,647	\$ 3,345,400	8.41%
		FY2020/21 Proposed Budget	FY2019/20 Projected Actual	FY2020/21 Proposed Budget	Change From Adopted FY2019/20
CAPITAL PROGRAM FUNDING					
	Replacement Fund	400,000	400,000	400,000	0.00%
	Repair Debt Service	2,438,506	2,438,506	2,438,658	0.01%
	Expansion Debt Service	5,567,094	5,567,094	5,567,442	0.01%
	SUBTOTAL	\$ 8,405,600	\$ 8,405,600	\$ 8,406,100	0.01%
TOTAL REVENUE REQUIREMENTS		\$11,491,600	\$11,677,247	\$11,751,500	2.26%

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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 \$1,391,000 and make up approximately 42% of LAVWMA’s total operating budget. Pumping and chemical costs for FY2020/21 are projected to be 3.42% more than last year. The increase in PG&E electrical costs are not yet known as they are still negotiating with the Public Utilities Commission. The ultimate increase could be substantial as PG&E is attempting to recoup costs from a variety of recent setbacks. Increases will be partially offset by improved pumping efficiency due to the new pumps and that is reflected in the power costs. The FY2020/21 Budget is based on actual costs for the current year. The following table details the variable costs for EBDA.

Facility	Variable Cost	LAVWMA Cost, 17.89%	LAVMWA Cost, 3.12%
General Administration	\$21,500	\$3,847	-
Outfall & Forcemains	\$150,000	\$9,394 (35%)	-
Marina Dechlor Facility	\$222,000	\$39,723	-
Dechlorination Costs	\$235,000	-	\$7,337
Oro Loma Pump Station	\$420,000	\$75,152	
Bay & Effluent Monitoring	\$30,000	\$5,638	
Total	\$843,500	\$133,485	\$7,337

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The total estimate for EBDA Variable O&M Costs is \$140,822, which has been rounded up to \$141,000 in the FY20/21 Budget.

2.2.2 Fixed Costs - DSRSD Maintenance Agreement

Operation and maintenance of LAVWMA facilities for FY2020/21 is estimated to require 5,881 fully burdened labor hours. This is the same as last year. Costs for these items are based on projected costs for FY2019/20 and anticipated needs for FY2020/21.

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 than 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 18.98% for a total of \$53,151. LAVWMA’s share of the permit fee (\$555,483) 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 \$147,888.

LAVWMA’s share of EBDA Special Projects for FY2020/21 are less than \$5,000, which is much lower than in prior years.

LAVWMA is responsible for a portion of the forcemain system and will be billed accordingly. LAVWMA is currently responsible for 18.60% of the fixed costs for “shared” EBDA facilities. This is the maximum percentage per the existing Master Agreement. This year’s fixed cost budget is \$523,000, which is 3.56% more than last year. Total EBDA costs for variable and fixed costs for FY2020/21 are \$664,000 as compared with \$650,000 last year. The following table summarizes the Fixed and Special Projects costs for EBDA.

Facility and Total Variable Cost	Fixed Cost	LAVWMA Percent Cost	LAVMWA Estimated Cost
General Administration	\$1,233,262	18.60%	\$229,387
Outfall & Forcemains	\$31,336	6.51%	\$2,040
Marina Dechlor Facility	\$49,004	18.60%	\$9,115
Oro Loma Pump Station	\$43,920	18.60%	\$8,169
Bay & Effluent Monitoring	464,550	18.60%	\$86,406
NPDES Permit Fee	\$555,483	26.62%	\$147,888
RMP Fee	\$280,000	18.98%	\$53,151
Nutrients Fee	\$269,479	14.90%	\$40,167
Disinfection Master Plan & Contingency	\$62,246	7.28%	\$4,533
Total	\$2,989,280		\$580,856

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Historically, EBDA has averaged approximately 90% of budget for the fixed costs listed above. Accordingly, \$523,000 is included in the FY20/21 Budget.

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 \$468,400 as compared with \$290,000 last year or an increase of 44.28%. The increases are due to the following: 1) NPDES permit renewal (occurs once every five years); 2) negotiation of the new EBDA Master Agreement; 3) projected 42% increase in insurance costs; and 4) management of the long list of capital projects. The NPDES permit renewal process began last year and will continue into FY2020/21. There are also costs for consulting services for technical assistance for the permit renewal, 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 flooding of DSRSD's main office as well as COVID-19. The asset management program is linked to DSRSD's efforts for their own system. Asset Management made great strides this past year and will continue to 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 FY2020/21 debt service (repair and expansion) for 2011 bonds. 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 \$2,516,000 cost of capital projects in FY2020/21. It is acknowledged that it may not be possible to complete all of the capital projects this fiscal year. However, it is best to get them on the list so that proper planning and scheduling can occur. Dual Use facilities are minimal and have adequate replacement funds.

The first table below lists the capital projects that will be completed by the end of FY2019/20. The second table lists all recommended projects for FY2020/21. All projects have been recommended and vetted by DSRSD staff.

FY2019/20 Capital Program Expenditures	
Rebuild three pumps and their associated motors	\$0
Resealing of all Three Storage Basins	\$0
San Leandro Sample Station Assessment, surge valve replacement, flow meter replacement	\$0
MCCs and soft starters	\$35,000
Road Drainage Improvements	\$0

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Other Misc. LAVWMA Renewal/Replacements	\$90,000
Other Misc. EBDA Renewal/Replacements	\$0
CIP Planning/Management Contingency	\$0
Total Expenditures	\$125,000

FY2020/21 Capital Program Expenditures		
Project	Description	Cost
Rebuild three pumps and their associated motors.	Due to COVID-19 issues, this project has been delayed from FYE20. Bids have been received for both premium efficiency and regular efficiency pump rebuilds. Since the costs are approximately the same, premium efficiency will be used. The associated motors will also be rebuilt resulting in essentially a new pumping system. It is possible that this project may begin before the end of FYE20, but the payments will be made in FYE21.	\$216,000
Resealing of all three Storage Basins	Due to COVID-19 and staffing issues, this project is being carried over from FYE20. The basins need to be resealed approximately every ten years. GPS analysis did not show any settling. The rebar has been cut off even with the decks and the basins are ready to be sealed. The project will be combined with sealing of DSRSD's storage basins, which may result in some cost savings.	\$200,000
San Leandro Sample Station (SLSS) Design Improvements	This project has evolved from what was described for last year's budget. It also now includes the surge valve replacement included in last year's budget. EBDA agreement issues and the capacity issues study have shown that the SLSS needs significant improvement. Since it is likely that more frequent discharges to San Lorenzo Creek will be permitted under the new EBDA agreement, the control system on the SLSS needs to be as robust as possible. The SLSS station has to be designed to measure chlorine residual and monitor pH continuously. These parameters have to be measured both when effluent is going to EBDA and when effluent is dechlorinated and	\$175,000

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FY2020/21 Capital Program Expenditures		
Project	Description	Cost
	<p>diverted to San Lorenzo Creek during wet weather events or during system testing. Composite samples of LAVWMA's effluent need to be taken when its directed to both EBDA and San Lorenzo Creek. Grab samples of LAVWMA's Effluent also need to be collected for Bacteriological analysis in both situations. The design of the SLSS is complicated by the following factors: 1) The discharge to San Lorenzo Creek wet weather outfall is rare; 2) During normal daily operations the LAVWMA pumps shut off during peak demand periods and therefore the pipeline is not full during those times; 3) The station is not staffed continuously. The goal of this project is to work with operational staff and the RWQCB to design the station to meet operational, maintenance and regulatory expectations in a manner which creates as little day to day maintenance as possible.</p>	
Pump Station Motor Control Center (MCC) and Soft Starter Upgrades	<p>In last year's budget this was described as a two-year project. COVID-19 issues have delayed the design portion of the project. DTN Engineers is under contract for the design and technical support during construction. The design is proceeding effective May 1, 2020. This project should be completed in FYE21. The pump station has two 2300V MCC's, MCC-P1 and MCC-P2. MCC-P1 was installed in 1979 and presently serves the six 500HP pumps. MCC-P2 was installed in 2002 and presently serves the four 600HP pumps. MCC-P1 has served reliably for 35 years due to excellent maintenance from DSRSD staff and in 2001 the starters were retrofitted with new vacuum contactors. However, the motor starter equipment is obsolete and replacement parts are hard to procure. MCC-P2 has also served reliably since 2002 when it was originally installed.</p>	\$1,065,000

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FY2020/21 Capital Program Expenditures		
Project	Description	Cost
	Like starters in MCC-P1, the starters in MCC-P2 are coming to the end of their useful life and need to be replaced with newer motor starters.	
Road Drainage Improvements at the LAVWMA Pump Station	Included in last year's budget, this project has been delayed due to COVID-19 and staffing issues. It will be combined with similar projects for DSRSD, which may result in some cost savings. This project will improve road drainage north of the storage basins.	\$35,000
Cathodic Protection Projects	A survey is conducted every year on the cathodic protection system. Surveyors typically identify areas that need improvements. In recent years additional sections of pipeline have been checked resulting in significant improvements needed this year. There are eight routine projects to be completed for a total of \$23,700. In addition, there are three more complex projects that need to be completed at a total cost of \$160,000. They include 1) One of the parallel pipelines needs high resistance bond repairs as high resistance connections have been observed. This project will result in new bonding cables terminated at a new test station to be monitored in future annual surveys; 2) Livermore interceptor electrical discontinuity repairs. Two sections of this pipeline have been determined to be lacking cathodic protection, which will be installed resulting in a new test section; 3) Emergency Discharge Lateral Discontinuity Repairs. A section of this segment is without cathodic protection which needs to be installed resulting in a new test section for future surveys. All three of these projects require excavation which increases the costs.	\$185,000
PLC Upgrade at the Pump Station	The existing Programmable Logic Controller (PLC) at the pump station is almost 20 years old and is near the end of	\$300,000

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FY2020/21 Capital Program Expenditures		
Project	Description	Cost
	its useful life. It is an OPTO22 system and needs to be upgraded to Allen Bradley PLC to match the PLCs used by DSRSD. An upgrade to the OPTO22 system at the San Leandro Pump Station is already complete. This is a complex project that requires engineering design, equipment, installation, and construction support. Upon completion the system will be consistent with that of DSRSD improving operation and performance. It will also be helpful with managing the system under the likely terms of the new EBDA agreement. This project was recommended by the 2016 Pump Station Evaluation Report.	
Pipeline Inspection	The pipeline inspection being conducted through the Pump Station Risk Analysis and Pipeline Inspection Project will result in recommendations for additional inspection of sections of the pipelines that were not addressed through that project. The pipeline is extraordinarily complex with many siphon sections that go under major highways or are very deep underground. Inspecting these sections is difficult and will require coordination between staff and contractors. This project will allow inspection of additional sections to contribute to development of a reliable remaining useful life of the most valuable asset in the system.	\$100,000
Electrical Improvements to the Main Switchgear at the Pump Station	This project will improve the original equipment at the pump station. It includes upgrading to multi-function relays at the main service switch gear, which will require some design and interfacing with PG&E. It also includes adding time delay/remote close/trip switches for the main breakers to reduce the arc flash hazard to staff. Both of these items were recommended by the 2016 Pump Station Evaluation Report.	\$50,000

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FY2020/21 Capital Program Expenditures		
Project	Description	Cost
Smart Detectors on High Maintenance Air/Vac and Air Release Valves	This project would install Smart Detectors on pipeline vaults with high maintenance air/vac and air relief valves. The Smart Detectors would monitor the depth of the vault if an Air Relief Valve or Combination Valve fails or begins to leak water into the vault. The detector would recognize the level in vault is rising with water, and then send a signal/alarm to Operations which may prevent a spill to storm drains or creeks along the length of the pipelines. It will help to ensure compliance with Regional Board Sanitary Sewer Overflow requirements.	\$40,000
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		\$2,516,000

2.3 Changes from FY2019/20 Budget

FY2019/20 expenditures are projected to come in approximately 6.0% above budget due power and payment for EBDA's OPEB/Pension costs. The annual reconciliation process will resolve any over or under payments. The FY2020/21 Budget is 2.26% more than FY2019/20 in Total Revenue Requirement. Total O&M costs are 8.41% more 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 FY2019/20.

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R & R Fund Balances	Joint	Dual	Sole	Total
Start of year	15,303,879	420,340	1,573,615	17,297,834
Deposits	400,000	0	0	400,000
Interest Earnings	450,000	7,566	28,325	485,891
Proposed Expenditures	(2,516,000)	(0)	(0)	(2,516,000)
End of Year	13,637,879	427,906	1,601,940	15,667,725

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 FY2018/19 and recommendations for FY2019/20 show that LAVWMA maintaining the Joint Use R&R Fund at a sustainable level since FY2010/11.

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	494,626	(309,115)	585,511
FY2019/20	400,000	500,000	(125,000)	775,000
FY2020/21	400,000	450,000	(2,516,000)	(1,666,000)
Total	3,600,000	2,100,439	(5,610,209)	90,230

3.2 Discussion of Capital Expenditures Proposed for FY2019/20

The following table summarizes \$2,516,000 of anticipated FY2020/21 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.

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FY2020/21 Capital Program Expenditures	
*Carryover	
*Rebuild three pumps and their associated motors	\$216,000
*Resealing of all Three Storage Basins	\$200,000
*San Leandro Sample Station Design Improvements	\$175,000
*MCCs and soft starters	\$1,065,000
*Road Drainage Improvements	\$35,000
Cathodic Protection Projects	\$185,000
PLC Upgrade at the Pump Station	\$300,000
Pipeline Inspection	\$100,000
Electrical Improvements to Main Switchgear	\$50,000
Smart Detectors on High Maintenance Pipeline Valves	\$40,000
Other Misc. LAVWMA Renewal/Replacements	\$50,000
Other Misc. EBDA Renewal/Replacements	\$50,000
CIP Planning / Management Contingency	\$50,000
Total Expenditures	\$2,516,000

LAVWMA FY2020/21 Budget

4.0 FY2020/21 Member Agency Cost Sharing & Schedule

Member Agency Costs FY2020/21			
	Total	Livermore	DSRSD/Pleasanton
Variable O&M	\$ 1,391,000	\$ 486,850	\$ 904,150
Fixed O&M	1,929,400	580,750	1,348,650
Sole Use Fixed O&M	25,000	25,000	
Total O&M	3,345,400	1,092,600	2,252,801
Replacement Fund	400,000	120,400	279,600
Repair Debt	2,438,659	974,244	1,464,414
Expansion Debt	5,567,442	1,253,788	4,313,654
EBDA Debt	-	-	-
Total Capital Costs	8,406,100	2,348,432	6,057,669
Total Revenue Required	\$ 11,751,500	\$ 3,441,031	\$ 8,310,469
Semi Annual O&M Advance	1,672,700	546,300	1,126,400
Semi Annual Replacement Fund Advance	200,000	60,200	139,800
EBDA Debt Advance, July 1	-	-	-
July 1 Bond Debt Service Advance	6,414,363	1,785,065	4,629,298
Jan 1 Bond Debt Service Advance	1,591,738	442,968	1,148,770
Total July 1 Advance	\$ 8,287,063	2,391,564	5,895,498
Total January 1 Advance	\$ 3,464,438	\$ 1,049,467	\$ 2,414,970
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%

5.0 Budget Trends FY2013/14 – FY2020/21

The following charts show expense trends from FY13/14 through FY20/21. The charts show the following:

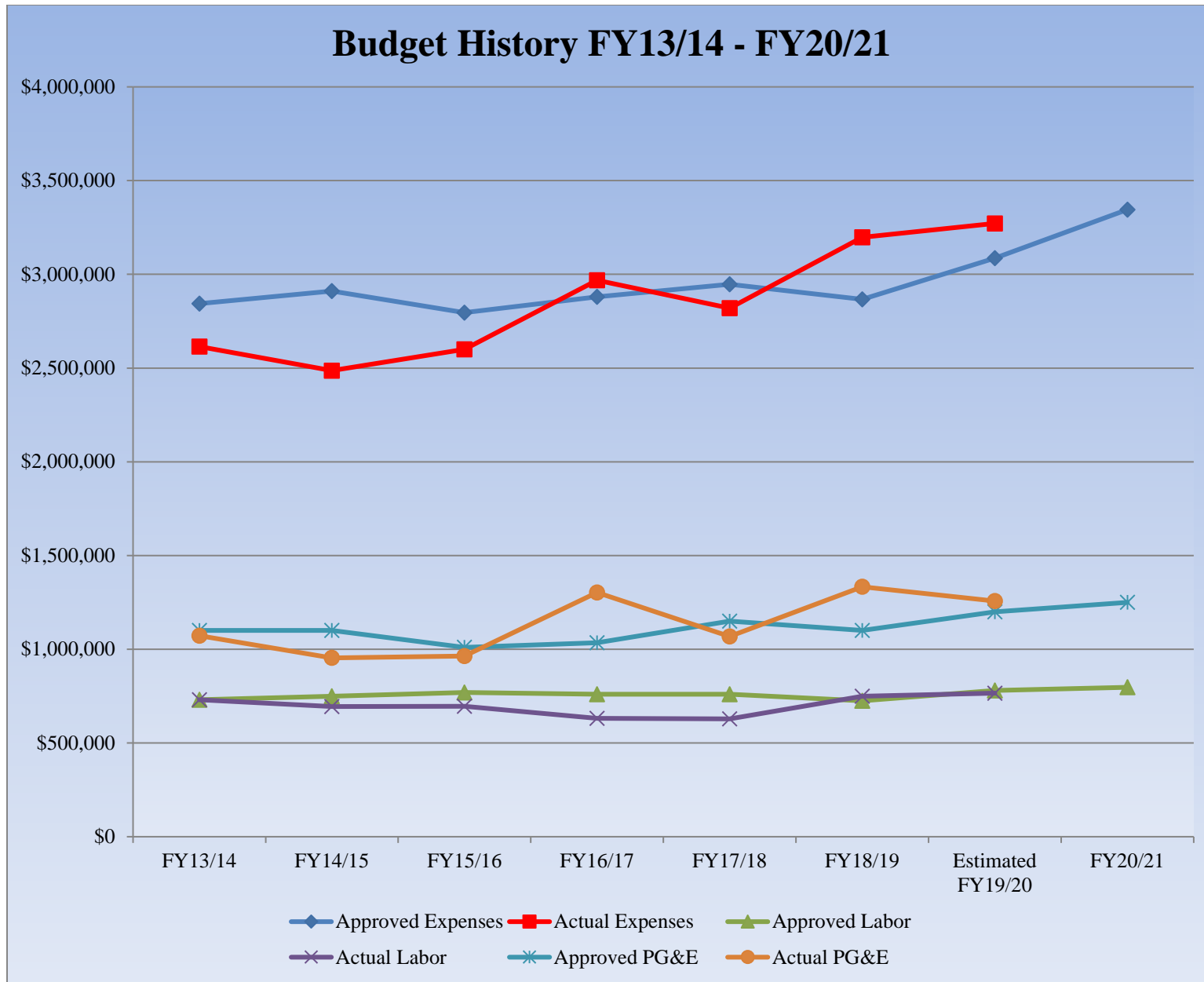
- Approved versus actual expenses for total expenses, labor costs, and PG&E power
- Estimated versus actual export flow
- Estimated versus actual cost per million gallons

Beginning with the FY2019/20 budget, these charts have been modified from previous presentations. The costs shown are total costs as in the approved budgets, which also include costs for EBDA. Previously, EBDA costs were not included. As a consequence, the cost per million gallons is going to be higher than the costs shown in DSRSD's Quarterly reports. The cost for just pumping over the Dublin Grade is approximately \$612/MG, while the full disposal cost, including EBDA costs is approximately \$749. Although flow and PG&E costs are directly

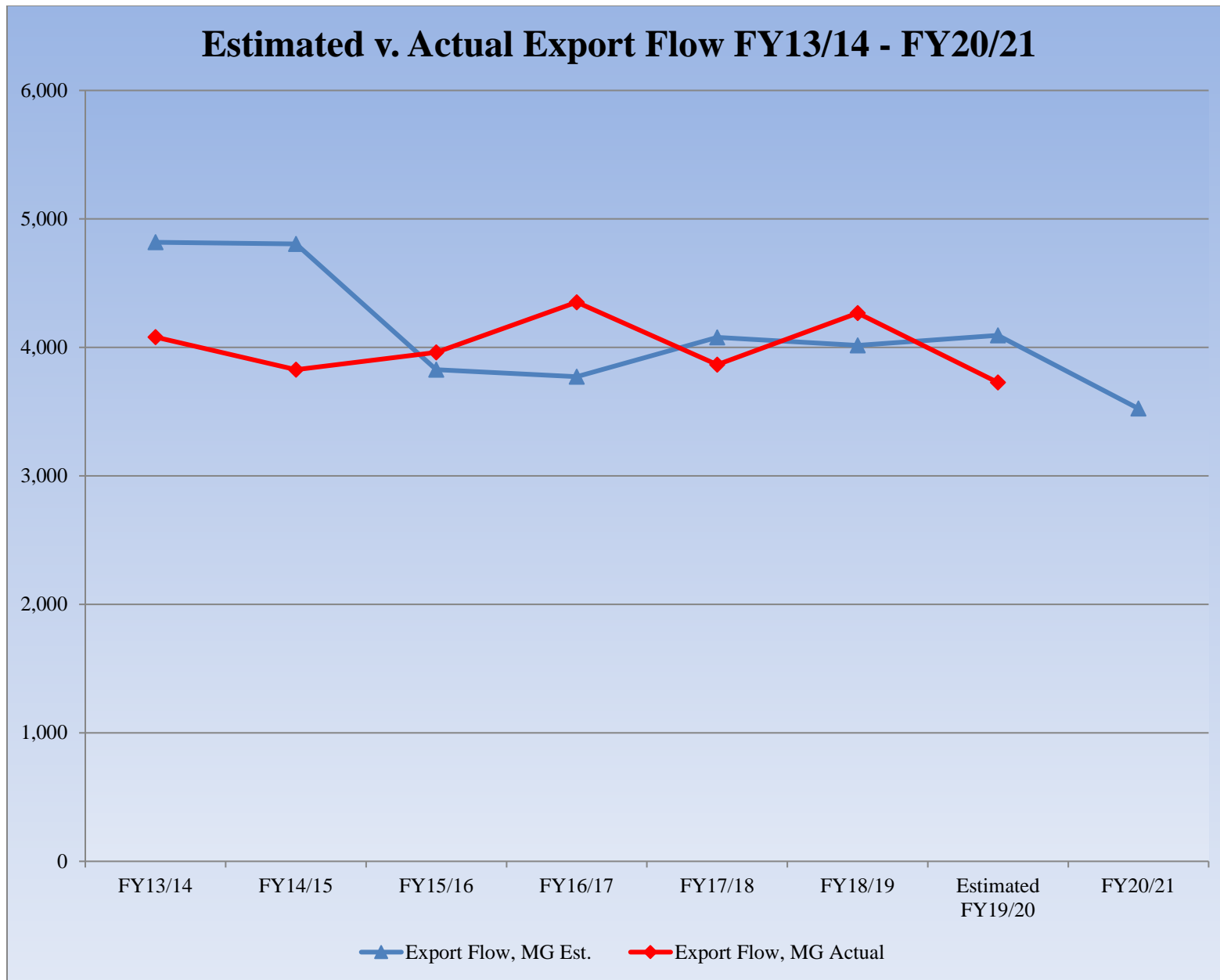
LAVWMA FY2020/21 Budget

linked, other factors such as fixed costs for labor and equipment repair generally increase at the rate of inflation or CPI, resulting in increasing cost curves. Export flow is decreasing over time due to water recycling efforts.

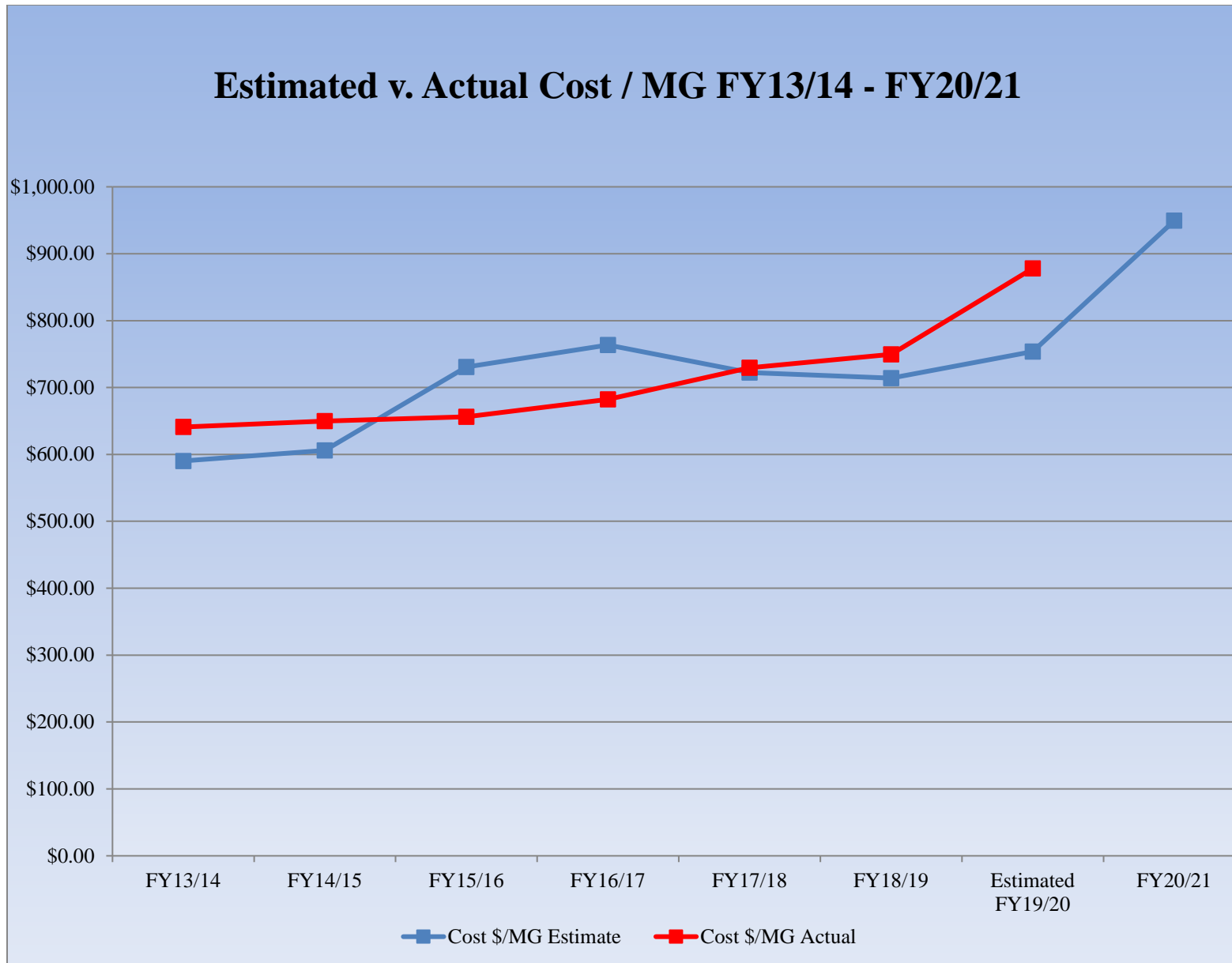
LAVWMA FY2020/21 Budget



LAVWMA FY2020/21 Budget



LAVWMA FY2020/21 Budget





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

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April 15, 2020

Mr. Chuck Weir
LAVWMA General Manager
7501 Dublin Blvd
Dublin, CA 94568

Subject: Proposed LAVWMA Operations & Maintenance Budget for Fiscal Year Ending 6/30/2021 (FYE 2021)

Dear Chuck:

As you know, DSRSD previously submitted, on April 2, 2019, the proposed budgets for the operation and maintenance (O&M) of the LAVWMA facilities for the two fiscal years FYE 2020 and FYE 2021 to coincide with the District's two-year budget cycle. There have been no significant changes over the past year as far as impacting the O&M budget for FYE 2021.

However, flows were updated to reflect actual data instead of estimates that were used in the preparation of the original budget. Using updated flows, the estimated export flow for FYE 2021 is 3,524 MG compared to the original estimated flow of 4,028 MG.

Attachment 1 shows the original proposed FYE 2021 budget of \$2,618,772. 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 \$743 per million gallons (MG) based on the revised estimated export flow of 3,524 MG. For your convenience, the expenses are separated by pumping costs (\$2,224,495 or \$631/MG) and pipeline maintenance costs (\$394,277 or \$112/MG). The proposed FYE 2021 budget shows a 4% increase from the proposed FYE 2020 budget.

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, per the terms of the Maintenance Agreement, the "not-to-exceed" amount applies only to District labor, materials and supplies; but 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 could vary substantially depending on utility rate initiatives and higher than normal flows resulting from above normal wet weather conditions.

Not included in the proposed O&M budget amount are EBDA charges, permit fees, insurance, debt service, Director's fees and expenditures for the LAVWMA General Manager, Treasurer, Counsel, Auditor, and administrative staff.

Attachment 2 shows current year FYE 2020 budget (with actual expenditures through March 2020) compared to the proposed FYE 2021 budget. The table also shows a history of budgeted versus actual expenses for previous fiscal years.

Attachment 3 (from original 2019 proposal) provides detail on the 5,881 labor hours that were used for the FYE 2020 budget which is the same for FYE 2021 budget. Labor costs are based on DSRSD's burden labor rates, which are adjusted annually. DSRSD labor costs are expected to increase by 2.75% in FYE 2021.

Figure 1 shows the projected flow for FY 2020-2021 compared to the amount of recycled water for Pleasanton, EBMUD, and DSRSD.

Figure 2 shows a five-year historic variation in LAVWMA export flows from 2014 to 2019.

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

Sincerely,



Jeff Carson
Operations Manager

/gl

Attachments

cc: Dan McIntyre, DSRSD General Manager
Jan Lee, DSRD Assistant General Manager
Judy Zavadil, DSRSD District Engineer/Engineering Services Manager
Carol Atwood, DSRSD Administrative Services Manager
Levi Fuller, DSRSD Wastewater Treatment Plant Operations Supervisor
Maurice Atendido, DSRSD Electrical & Instrumentation Supervisor
Shawn Quinlan, DSRSD Maintenance Supervisor
Diane Griffin, DSRSD Laboratory Supervisor
Dan Marin, DSRSD Field Operations Supervisor

FY 2020-2021 LAVWMA OPERATION & MAINTENANCE BUDGET

SUMMARY:			
	Total	Pumping	Pipeline
DSRSD Labor	\$1,010,492	\$715,745	\$294,747
Materials & Supplies	\$62,700	\$44,500	\$18,200
Laboratory Analysis	\$30,300	\$9,300	\$21,000
Contractual Services	\$76,900	\$28,350	\$48,550
Utilities	\$1,429,880	\$1,418,600	\$11,280
Non-Routine	\$8,500	\$8,000	\$500
Total	\$2,618,772	\$2,224,495	\$394,277

Assumptions:	Total	Pumping	Pipeline
Days of operation =	365		
Annual acre feet =	10,814		
Annual million gallons =	3,524		
Unit Costs:			
Cost/AF =	\$242	\$206	\$36
Cost/MG=	\$743	\$631	\$112

Detailed Breakdown:

	Hours	Rate	Labor	Pumping	Pipeline
LABOR					
DIVISION 51 - Field Operations					
Water-Wastewater Sys OP IV	64	\$163	\$10,403	\$0	\$10,403
Supervisor	8	\$278	\$2,227	\$0	\$2,227
Subtotal	72		\$12,630	\$0	\$12,630
DIVISION 52 - WWTP					
Process Lead Operator V	200	\$184	\$36,832	\$36,832	\$0
Senior WWTP Operator III	2,746	\$167	\$458,651	\$458,651	\$0
Operator II	0	\$152	\$0	\$0	\$0
Supervisor	50	\$278	\$13,918	\$6,959	\$6,959
Subtotal	2,996		\$509,401	\$502,442	\$6,959
DIVISION 53 - Mechanical					
Senior Mechanic-Crane Cert	380	\$187	\$70,915	\$35,457	\$35,457
Senior Mechanic	82	\$182	\$14,928	\$1,493	\$13,435
Mechanic II	1,229	\$166	\$203,405	\$48,817	\$154,588
Supervisor	50	\$217	\$10,852	\$5,426	\$5,426
Subtotal	1,741		\$300,099	\$91,193	\$208,906
DIVISION 54 - Electrical					
Senior Instrument/Controls Tech	12	\$202	\$2,421	\$1,211	\$1,211
Instrument Tech	480	\$172	\$82,497	\$41,248	\$41,248
OPS Control Sys Spec	144	\$183	\$26,411	\$19,808	\$6,603
Senior Electrician	36	\$185	\$6,657	\$6,657	\$0
Electrician II	240	\$168	\$40,346	\$40,346	\$0
Supervisor	12	\$207	\$2,486	\$1,243	\$1,243
Subtotal	924		\$160,819	\$110,514	\$50,305
DIVISION 56 - Safety					
Safety Officer	48	\$121	\$5,787	\$2,893	\$2,893
Subtotal	48		\$5,787	\$2,893	\$2,893
DIVISION 40 - Engineering					
Senior Civil Engineer-SME	100	\$218	\$21,756	\$8,703	\$13,054
Subtotal	100		\$21,756	\$8,703	\$13,054
Total Labor	5,881		\$1,010,492	\$715,745	\$294,747
FTE's	2.8				

Note: FYE 2021 estimated labor rates includes 2.75% CPI increase effective January 1 of each 2020 and 2021 calendar years per DSRSD Bargaining MOU

Attachment 1

FY 2020-2021 LAVWMA OPERATION & MAINTENANCE BUDGET

	<u>Expense</u>	<u>Pumping</u>	<u>Pipeline</u>
<u>MATERIALS & SUPPLIES</u>			
Operations Supplies			
Calcium Thiosulfate	\$12,000	\$6,000	\$6,000
Supplies/Expenses (misc)	\$200	\$100	\$100
Subtotal	\$12,200	\$6,100	\$6,100
Mechanical Supplies			
Materials and supplies	\$10,000	\$9,000	\$1,000
Pump & equip repair parts	\$7,500	\$7,500	\$0
Air relief valve parts	\$5,000	\$0	\$5,000
Oils, lubricants	\$2,500	\$2,500	\$0
Subtotal	\$25,000	\$19,000	\$6,000
Electrical Supplies			
Instrument parts	\$3,200	\$1,600	\$1,600
Analyzer parts	\$12,100	\$8,800	\$3,300
MCC equipment/parts	\$3,200	\$3,200	\$0
SCADA parts	\$5,400	\$4,200	\$1,200
Soft-starter parts and repairs	\$1,600	\$1,600	\$0
Motor repairs	\$0	\$0	\$0
Replacement Actuators	\$0	\$0	\$0
Subtotal	\$25,500	\$19,400	\$6,100
Total Materials & Supplies	\$62,700	\$44,500	\$18,200
<u>LABORATORY ANALYSIS</u>			
Compliance Testing	\$11,300	\$9,300	\$2,000
Operational Support Testing	\$4,000	\$0	\$4,000
Special Sampling	\$15,000	\$0	\$15,000
Total Laboratory Analysis	\$30,300	\$9,300	\$21,000
<u>CONTRACTUAL SERVICES</u>			
Sub-surface Repairs	\$5,000	\$0	\$5,000
Street Sweeping	\$5,000	\$5,000	\$0
Cathodic Protection Survey and Repairs	\$30,000	\$0	\$30,000
Underground Service Alert	\$3,800	\$0	\$3,800
SCADA software maintenance contract	\$10,000	\$7,500	\$2,500
Rectifier monitoring 5-yr contract (FY22, \$40k)	\$0	\$0	\$0
Med voltage switchgear 3-yr PM (FY22, \$18k)	\$0	\$0	\$0
Arc Flash Study 5-yr (FY24, \$20k)	\$0	\$0	\$0
Motor rehab	\$0	\$0	\$0
HVAC Maintenance/Repairs	\$750	\$500	\$250
Termite/Pest Control	\$900	\$900	\$0
Landscape/weed maintenance	\$8,000	\$6,000	\$2,000
Janitorial Service	\$3,000	\$3,000	\$0
Fire Extinguisher Maint	\$200	\$200	\$0
Postage/Shipping Charges	\$250	\$250	\$0
Professional Services, misc	\$10,000	\$5,000	\$5,000
Total Contractual Services	\$76,900	\$28,350	\$48,550
<u>UTILITIES</u>			
Electricity (PG&E)	\$1,421,000	\$1,412,800	\$8,200
Water & Sewer (Pleasanton)	\$1,000	\$1,000	\$0
Water (EBMUD)	\$880	\$0	\$880
Telephone/communications/T-1	\$4,500	\$2,300	\$2,200
WW Treatment (DSRSD)	\$2,500	\$2,500	\$0
Total Utilities	\$1,429,880	\$1,418,600	\$11,280
<u>NON-ROUTINE</u>			
Pump Efficiency Testing	\$0	\$0	\$0
Corrosion Studies/Inspections	\$500	\$0	\$500
Med voltage switchgear 3-yr PM (FY22, \$18k)	\$0	\$0	\$0
Time delay switches for electrical switchgear	\$8,000	\$8,000	\$0
LAVWMA PS PLC Upgrade (placeholder, \$160k)	\$0	\$0	\$0
Total Non-Routine	\$8,500	\$8,000	\$500
TOTAL O&M BUDGET (LABOR, MATERIALS & SERVICES)	\$2,618,772	\$2,224,495	\$394,277

Attachment 2

HISTORY OF BUDGETS COMPARED TO ACTUAL EXPENSES

	PREVIOUS YEARS BUDGET HISTORY						CURRENT YEAR		NEXT YEAR
	Approved		Actual		Approved		Actual		Proposed
	Budget	Expenses	Budget	Expenses	Budget	Expenses	Budget	Expenses	Budget
	FY 2016-17	FY 2016-17	FY 2017-18	FY 2017-18	FY 2018-19	FY 2018-19	FY 2019-20	YTD thru Feb FY 2019-20	FY 2020-21
Labor									
Staff	\$796,410	\$632,100	\$784,903	\$628,595	\$864,466	\$851,617	\$983,447	\$521,129	\$1,010,492
Subtotal	\$796,410	\$632,100	\$784,903	\$628,595	\$864,466	\$851,617	\$983,447	\$521,129	\$1,010,492
Materials & Supplies									
Operations supplies	\$200	\$3,144	\$13,200	\$14,501	\$14,200	\$306	\$12,200	\$330	\$12,200
Mechanical supplies	\$25,000	\$20,187	\$32,000	\$36,083	\$25,000	\$2,994	\$25,000	\$5,159	\$25,000
Electrical supplies	\$20,000	\$24,314	\$20,000	\$99,565	\$24,500	\$17,642	\$25,500	\$18,878	\$25,500
Subtotal	\$45,200	\$47,645	\$65,200	\$150,148	\$63,700	\$20,942	\$62,700	\$24,367	\$62,700
Laboratory analysis									
Compliance	\$18,000	\$17,678	\$18,000	\$8,851	\$18,000	\$9,256	\$11,300	\$6,230	\$11,300
Operational	\$3,000	\$3,696	\$3,700	\$3,696	\$3,700	\$3,960	\$4,000	\$2,640	\$4,000
Special Sampling	\$2,500	\$1,392	\$5,000	\$15,061	\$5,000	\$15,827	\$15,000	\$10,404	\$15,000
Subtotal	\$23,500	\$22,766	\$26,700	\$27,608	\$26,700	\$29,043	\$30,300	\$19,274	\$30,300
Contractual Services									
Sub-surface Repairs	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000
Street Sweeping	\$5,000	\$2,860	\$5,000	\$2,805	\$5,000	\$3,261	\$5,000	\$3,205	\$5,000
Cathodic Protection Survey and Repairs	\$16,000	\$24,000	\$16,000	\$0	\$26,000	\$0	\$30,000	\$18,050	\$30,000
Underground Service Alert	\$550	\$1,141	\$1,140	\$2,806	\$1,140	\$3,782	\$3,800	\$7,979	\$3,800
SCADA software maintenance contract	\$10,000	\$43,585	\$10,000	\$7,209	\$10,000	\$19,569	\$10,000	\$10,051	\$10,000
HVAC Maintenance/Repairs	\$750	\$0	\$750	\$0	\$750	\$405	\$750	\$0	\$750
Termite/Pest Control	\$850	\$888	\$900	\$890	\$900	\$1,154	\$900	\$0	\$900
Landscape/weed maintenance	\$12,500	\$8,346	\$8,500	\$5,404	\$8,500	\$12,743	\$8,000	\$7,354	\$8,000
Janitorial Services					\$0	\$3,025	\$3,000	\$3,960	\$3,000
Fire Extinguisher Maint	\$200	\$202	\$200	\$166	\$200	\$0	\$200	\$0	\$200
Postage/Shipping Charges	\$250	\$0	\$250	\$0	\$250	\$0	\$250	\$0	\$250
Professional Services, misc	\$10,000	-\$17,939	\$10,000	\$32,567	\$10,000	\$75,145	\$10,000	\$972	\$10,000
Subtotal	\$61,100	\$63,083	\$57,740	\$53,042	\$67,740	\$119,083	\$76,900	\$51,571	\$76,900
Utilities									
Electricity (PG&E)	\$1,046,498	\$1,302,546	\$1,135,605	\$1,068,326	\$1,157,313	\$1,362,928	\$1,347,600	\$737,188	\$1,421,000
Water & Sewer (Pleasanton)	\$1,000	\$710	\$1,000	\$1,034	\$1,000	\$753	\$1,000	\$674	\$1,000
Water (EBMUD)	\$700	\$737	\$880	\$933	\$880	\$871	\$880	\$555	\$880
Telephone/communications/IT-1	\$4,500	\$5,368	\$4,500	\$4,779	\$4,500	\$4,569	\$4,500	\$3,417	\$4,500
WW Treatment (DSRSD)	\$2,500	\$959	\$2,500	\$0	\$2,500	\$0	\$2,500	\$0	\$2,500
Subtotal	\$1,055,198	\$1,310,319	\$1,144,485	\$1,075,073	\$1,166,193	\$1,369,121	\$1,356,480	\$741,834	\$1,429,880
Non-Routine									
Pump Efficiency Testing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Corrosion Studies/Inspections	\$5,000	\$0	\$0	\$297	\$5,000	\$297	\$500	\$0	\$500
Med voltage switchgear 3-yr PM (FY22, \$18k)	\$0	\$0	\$0	\$0	\$10,900	\$0	\$0	\$0	\$0
Time delay switches for electrical switchgear							\$8,000	\$0	\$8,000
LAVVMA PS PLC Upgrade (placeholder, \$160k)							\$0	\$0	\$0
Subtotal	\$5,000	\$0	\$0	\$297	\$15,900	\$297	\$8,500	\$0	\$8,500
Grand Total	\$1,986,408	\$2,075,913	\$2,079,028	\$1,934,763	\$2,204,698	\$2,390,102	\$2,518,327	\$1,358,175	\$2,618,772
Export Flow (AF)	11,577	12,482	12,516	12,163	12,322	5,214	12,565	4,788	10,814
Export Flow (MG)	3,772	4,067	4,078	3,963	4,015	1,699	4,094	1,560	3,524
Cost (\$/AF)	\$172	\$166	\$166	\$159	\$179	\$458	\$200	\$284	\$242
Cost (\$/MG)	\$527	\$510	\$510	\$488	\$549	\$1,407	\$615	\$871	\$743

LAVWMA LABOR ESTIMATING

USED FOR BOTH
FYE 2020 & FYE 2021

PERSONNEL

Division 51 - Field Operations (Distribution)		72
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
Water-Wastewater Sys OP IV	Vacuum cleaning assistance at basins	32
Supervisor	Inspections/coordination/direction of staff and related activities	8
Division 52 - Treatment Plant Operations		2996
Process Lead Operator V	Pump efficiency testing and SOP's, planning, inspections	200
Senior WWTP Operator III	Spot checks on off-shifts and weekends + hours for storms	590
Senior WWTP Operator III	Daily pump station operation/monitoring, 3 hrs/day 5 days per week	1000
Senior WWTP Operator III	San Leandro Sample Station checks, pipeline inspections, flapper valve testing	1156
Supervisor	Inspections/direction of staff and activities, 2 hours/week	50
Division 53 - Mechanical Maintenance		1741
Senior Mechanic-Crane Cert	Regular maintenance, 4 hrs/day, 2 days per week	380
Senior Mechanic (USA)	USA Marking, when other trained employees are not available	82
Mechanic II	PM's and misc repairs, as needed	200
Mechanic II Crane Cert	PM's and misc repairs, as needed	200
Mechanic II (USA)	USA Marking, 1 hour per day, 5 days per week	269
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 & Instrumentation Maintenance		924
Senior Instrument/Controls Tech	Instrument replacement/SCADA troubleshooting, 1 hr/month	12
Instrument Tech	Instrument checks/calibration 40 hrs/month	480
OPS Control Sys Spec	SCADA system repairs/programming, 12 hrs/month	144
Senior Electrician	Switchgear & electrical inspections and repair 3 hrs/month	36
Electrician	Switchgear & electrical inspection/repairs, 20 hrs/month	240
Supervisor	Inspections/direction of staff and activities, 1 hr/month	12
Division 56 - Safety		48
Safety Officer	Special safety inspections of LAVWMA facilities	48
Division 40 - Engineering		100
Senior Civil Engineer-SME	Assistance with engineering, maintenance, and bidding issues	100
TOTAL BILLABLE LABOR HOURS		5881
FTE's		2.83

Figure 1
FY 2020-2021 Flow Projections

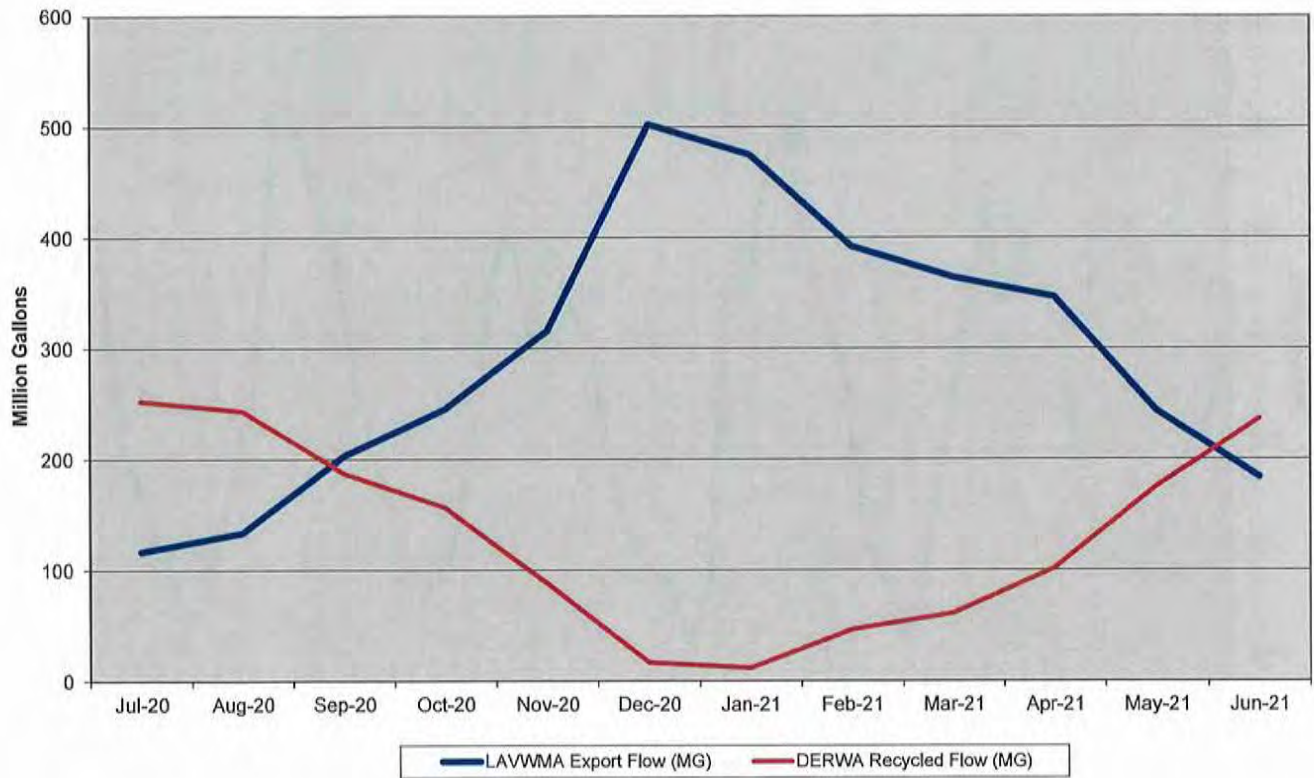


Figure 2
LAVWMA Monthly Export Flow 5-Year History

