LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY OPERATING AND CAPITAL BUDGET

FISCAL YEAR 2023/24

Approved by the LAVWMA Board May 17, 2023

LAVWMA FY2023/24 Budget

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
OPERATING AND CAPITAL BUDGETS
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EXECUTIVE SUMMARY

OPERATING BUDGET

The proposed operating budget of $4,832,996 is a 29.21% increase from the FY2022/23 budget. The total revenue requirement of $11,883,096 is a 10.17% increase from the FY2022/23 budget. Debt service payments consist of $2,025,620 for the Repair Project and $4,624,480 for the Expansion Project for a total of $7,050,100. The DSRSD budget for LAVWMA includes an increase in labor costs to account for a 4.0% COLA adjustment as well. In the past DSRSD estimated costs were typically well below actual expenses and previous budgets reflected those costs. That is not the case this year.

Projected labor costs are substantially greater than what was budgeted for a variety of reasons, including:

- DSRSD is now fully staffed; they had not been in the past.
- Labor for storms management, emergency generator set up and testing, testing of permitted bypasses at San Lorenzo Creek and Alamo Canal.
- Lab testing for two permitted bypass events and for priority pollutant monitoring required once during the permit cycle.
- Removing the silt covering the San Lorenzo Creek discharge pipe on two occasions
- Inspection of the pipelines to check for damage due to the storms and associated flooding and response to the creek bed erosion and the Livermore pipeline exposure as a result of flooding.

Expenses for PG&E Power and contract services will also exceed the current budget due to extended pumping to manage storm flows, generator rental and required parts for the connection, and traffic control for pipeline inspections.

The FY2022/23 Budget includes a few items that varied from the approved budget including:

- PG&E power will be above budget based on total actual costs for the fiscal year. Despite DSRSD staff's outstanding efforts at managing pump operation to coincide with the new time of use schedule, costs will exceed the budget by 30%. This is due to the ever increasing rates from PG&E as well as the extended pumping times and additional pumps required to manage the severe wet weather flows experienced this winter. For the full fiscal year, the average cost was slightly less than $.213/kWh.
- Contractual costs are well above budget due to the need to rent and set up the emergency generator as well as provide temporary protection for the Livermore pipeline.
- Management expenses will be below budget as major projects have been delayed due to lingering effects from the pandemic.

Based on expenses for the current fiscal year and the fact that those expenses are now in line with DSRSD's budget, this budget will use the proposed costs from DSRSD's budget for all O&M items, including PG&E power, labor, supplies, materials, contracts, and related items.

Based on historical PG&E costs, average kWh requirements for the past six years, and PG&E's projected cost per kWh increases, a power budget of as much as $2.1M could be justified. However, other estimation methods could also support a budget of $1.9M. Since this is so close to DSRSD's estimate of $1,884,500, that figure is being used for FY2023/24.

The total EBDA O&M budget of $984,279 is 17.47% more than last year. With the new Master Agreement the fixed cost is now 26.1%. Costs for EBDA are based on fixed and variable (flow based) percentages. The flow-based percentage is currently 16.3% as compared to 15.3% last year. It is in LAVWMA's best interests to reduce variable costs through a combination of reducing flows through water recycling and flow management during wet weather. An Amended and Revised Master Agreement was approved by both Boards in May 2021. The agreement was retroactive to July 1, 2021. EBDA costs for FY2023/24 are now based on the new Master Agreement.

The proposed FY2023/24 operating budget considers projected FY2022/23 expenditures and is based on the detailed budget, copy attached, prepared by DSRSD pursuant to the Maintenance Agreement. DSRSD's costs reflect a 4.0% 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.

Items that are increasing in the FY2023/24 Budget include the following:

- PG&E power costs are increasing 25.63% to account for rate increases and actual costs.
- Materials/Supplies and Contractual costs are increasing to reflect several planned O&M projects described in DSRSD's budget document.
- Permits and insurance are increasing since insurance will be nearly $110,000 this year.
- EBDA costs are increasing as described below.
- Administrative costs are increasing to include the costs for the recruitment of a new General Manager and to provide a transition period.

Monitoring/Testing and Utilities (fixed) are the only items decreasing in FY2023/24. The priority pollutant sampling that is required one time in the five-year permit cycle was completed this year. The Utilities (fixed) budget matched DSRSD's budget.

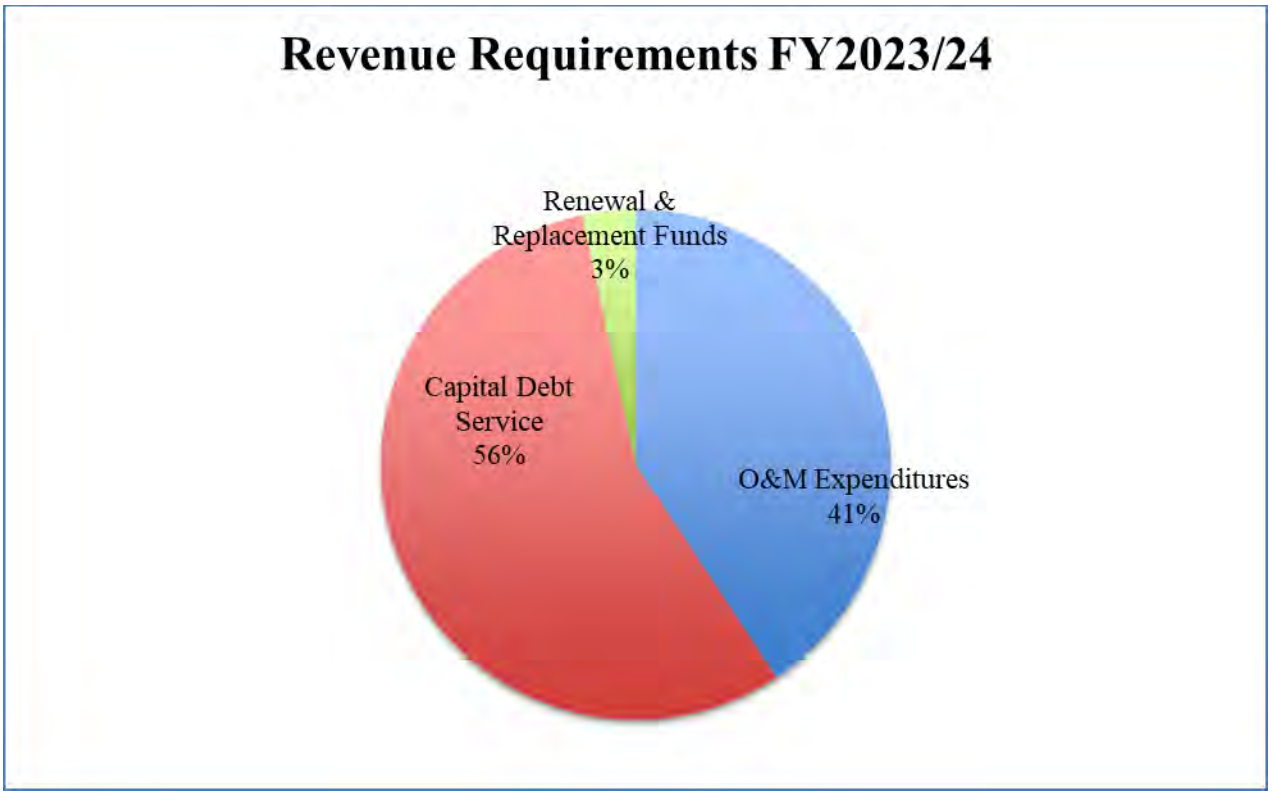
CAPITAL BUDGET

The FY2022/23 capital budget was $2,650,000, of which approximately $300,000 is projected to be spent this fiscal year. Much of this is due to delays associated with continued COVID-19 issues. In addition several of the projects are intended to span more than one fiscal year. The FY2023/24 capital budget of $5,260,000 is for the renewal and replacement of LAVWMA and EBDA facilities and includes the purchase of three new pumps and rebuilding two motors, design improvements at the San Leandro Sample Station (SLSS), cathodic protection improvements, replacement of valve actuators at the pump station, replacement of the flow meters at the junction structure, pipeline inspection, repairs to an exposed section of the Livermore pipeline, Air/Vac valve assessment near the EBDA connection, and Backup power improvements at the pump station. 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 FY2023/24 budget also includes the debt service (repair and expansion) for the 2021 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. The refunding of the debt results in a savings of more than $1.35 million. 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. The fund value remains at an acceptable level. The following pie chart illustrates the allocation of the $11,883,096 in total revenue requirements for FY2023/24, which is an increase of 10.17% from last year.



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.

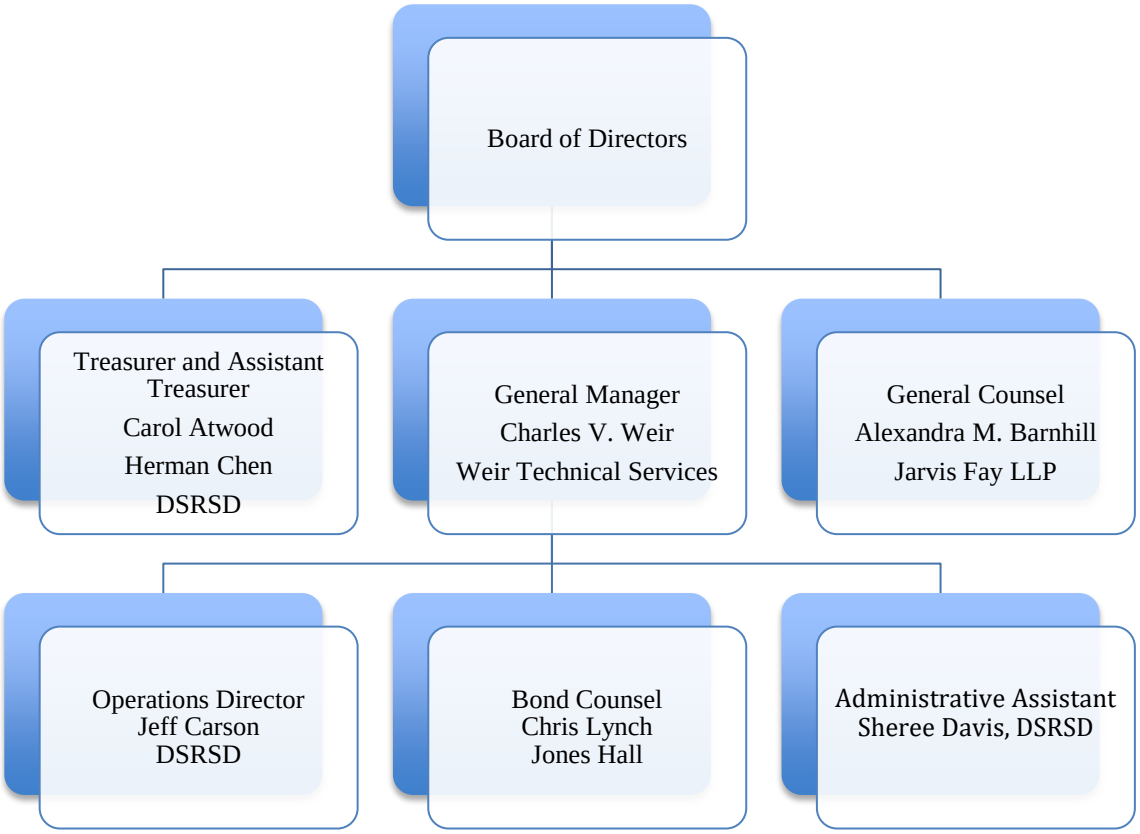
- **Cost Effectiveness.** Continue to perform routine maintenance on existing facilities in a manner that promotes cost savings over the projected life of the facilities.

- **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.

1.2 ORGANIZATION

The LAVWMA team proposed for FY2023/24 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.

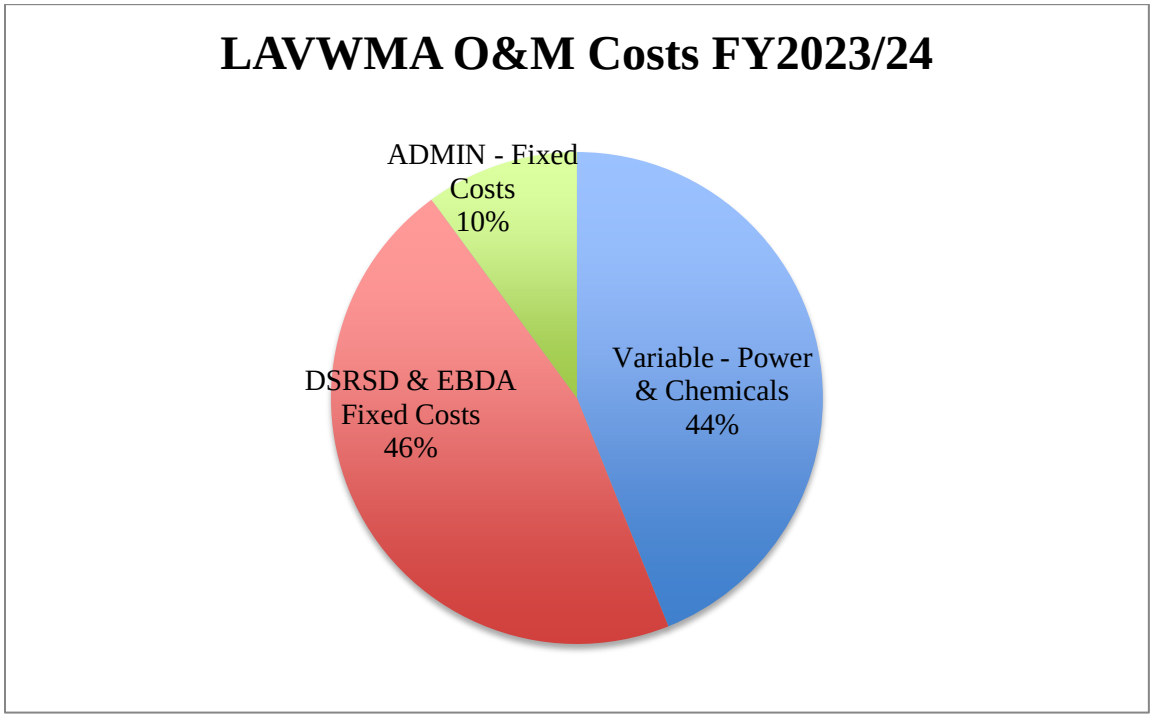
The FY2023/24 Operating Budget on the following pages includes costs for the following: O&M Variable Costs, O&M Fixed Costs, Admin/Mgmt. Costs, Total O&M Costs, Capital Program Funding, and Total Revenue Requirements.

LAVWMA FY2023/24 Budget

FY2023/24 OPERATIONS BUDGET SUMMARY						
			FY2022/23 Adopted Budget	FY2022/23 Projected Actual	FY2023/24 Proposed Budget	Change From Adopted FY2022/23
OPERATIONS AND MAINTENANCE						
	VARIABLE COSTS					
	DSRSD Maintenance Agreement (Power)		$ 1,500,000	$ 1,949,164	$ 1,884,500	25.63%
	EBDA O&M (See Table, Section 2.2.1)		160,959	160,959	243,378	51.21%
	Subtotal - O&M Variable Costs		1,660,959	2,110,123	2,127,878	28.11%
	FIXED COSTS					
	DSRSD Maintenance Agreement					
		Labor	795,000	1,091,281	1,138,299	43.18%
		Materials/Supplies	50,000	32,585	129,250	158.50%
		Contractual	50,000	179,539	162,350	224.70%
		Monitoring/Testing	42,000	42,700	35,600	-15.24%
		Utilities (fixed)	7,500	6,038	3,150	-58.00%
		Non Routine	8,000	-	8,000	0.00%
	EBDA O&M (See Table, Section 2.2.3)		676,965	676,964	740,901	9.44%
		EBDA Total	837,923	837,923	984,279	17.47%
	Subtotal - O&M Fixed Costs		1,629,465	2,029,107	2,217,550	36.09%
	ADMIN/MGMT					
		Mgr/Treas/Counsel/Board	257,817	197,591	276,200	7.13%
		Services/Supplies/Misc	72,100	56,931	79,364	10.07%
		Permits/Insurance	120,004	120,000	132,004	10.00%
	Subtotal Admin/Mgmt		449,921	374,522	487,568	8.37%
	Subtotal All Fixed Costs		2,079,386	2,403,629	2,705,118	30.09%
	TOTAL O&M COSTS		$ 3,740,346	$ 4,513,751	$ 4,832,996	29.21%
			FY2023/24 Proposed Budget	FY2022/23 Projected Actual	FY2023/24 Proposed Budget	Change From Adopted FY2022/23
	CAPITAL PROGRAM FUNDING					
		Replacement Fund	400,000	400,000	400,000	0.00%
		Repair Debt Service	2,024,280	2,024,280	2,025,620	0.07%
		Expansion Debt Service	4,621,420	4,621,420	4,624,480	0.07%
	SUBTOTAL		$ 7,045,700	$ 7,045,700	$ 7,050,100	0.06%
TOTAL REVENUE REQUIREMENTS			$10,786,046	$11,559,451	$11,883,096	10.17%

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 $2,107,878 and make up approximately 44.03% of LAVWMA's total operating budget. Pumping and chemical costs for FY2023/24 are projected to be 28.11% more than last year. Although DSRSD has done an excellent job of managing the PG&E time of use schedule, the actual rates have increased much greater than the rate of inflation. LAVWMA's kWh costs averaged $0.213 this year as compared with just under $.20 last year. Both DSRSD and EBDA average $0.04-$0.05 more than LAVWMA. PG&E rates could increase to $0.32/kWh by the end of FY2023/24 per their documentation. An average increase to $0.27/kWh has been factored into the budget. The FY2023/24 Budget is based on actual and projected costs. The following table details the variable costs for EBDA.

Facility	**Variable Cost**	**LAVWMA Cost, 16.3%**
General Administration	$66,000	$10,754
Outfall & Forcemains	$281,800	$10,239 (22.3%)
Marina Dechlor Facility	$606,100	$106,215
Oro Loma Pump Station	$598,000	$99,957
Bay & Effluent Monitoring	$250,000	$43,255
Total	**$1,801,900**	**$270,420**

The total estimate for EBDA Variable O&M Costs is 90% of the above total, or $243,378 for a 51.21% increase from last year. One of the increases is LAVWMA's share of sodium hypochlorite to meet bacteriological limits in EBDA's effluent. Due to the long travel time in the pipeline the chlorine residual in LAVWMA's effluent when it reaches EBDA is just slightly above zero. In order to ensure that bacteriological limits are met at the EBDA outfall, sodium hypochlorite is added at the Oro Loma Pump Station to ensure an adequate residual at the Marina Dechlorination Facility, and LAVWMA pays a 5% premium on those costs, or approximately $5,000. This is far less expensive than DSRSD and Livermore increasing their sodium bisulfite dosage at their treatment plants. The other increases are due to rising PG&E costs and increased costs for sodium bisulfite for dechlorination of the effluent prior to discharge to the Bay. Chemical costs have nearly doubled in the last year. The Regional Board Basin Plan amendment was supposed to modify the chlorine residual limit, which would have vastly reduced the costs for sodium bisulfite. EPA did not approve the amendment based on objections from SU Fish and Wildlife. The Regional Board plans on issuing a blanket permit amendment to accomplish the same thing, but the timing of that is not known.

2.2.2 Fixed Costs - DSRSD Maintenance Agreement

Operation and maintenance of LAVWMA facilities for FY2023/24 is estimated by DSRSD to require 5,412 fully burdened labor hours. This is slightly less than last year. Costs for these items are based on projected costs for FY2022/23 and anticipated needs for FY2023/24. DSRSD's budget shows $1,138,299 for labor, which is consistent with this year's projected costs of $1,091,281. The proposed budget includes $1,138,299 for DSRSD labor, which includes a 4.0% COLA and matches DSRSD's budget.

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 30.1% as compared to 17.58% last year for a total of $88,445. LAVWMA's share of the permit fee, $691,768 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 $184,172. There is also a nutrient surcharge that provides funds to BACWA for studies related to nutrient control. LAVWMA's share of this fee is 20.3%, or $48,108. Lastly there is an Alternative Monitoring and Reporting fee related to Regional Board studies. LAVWMA's share of this is 33.3% (2 LAVWMA plants/6 total plants in the EBDA system), or $10,771.

LAVWMA is responsible for a portion of the forcemain system and will be billed accordingly. With the new Master Agreement LAVWMA is responsible for 26.1% of the fixed costs for "shared" EBDA facilities. The new Master Agreement was retroactive to July 1, 2020. 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	$1,377,907	26.1%	$359,634
Outfall & Forcemains	$5,000	26.1%*22.3%=5.8%	$291
Marina Dechlor Facility	$8,000	26.1%	$2,088
Oro Loma Pump Station	$15,000	26.1%	$3,915
Bay & Effluent Monitoring	$459,867	26.1%	$125,221
NPDES Permit Fee	$691,768	26.62%	$184,172
RMP Fee	$293,760	30.11%	$88,445
Nutrients Fee	$237,114	20.29%	$48,108
Alternative Monitoring and Reporting	$32,314	33.33%	$10,771
Total	**$3,120,730**		**$822,644**

Historically, EBDA has averaged approximately 90% of budget for the fixed costs listed above. Accordingly, $740,901 is included in the FY23/24 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 $487,568 as compared with $449,921 last year or an increase of 8.37%. The increase is primarily due to the anticipated costs for the recruitment of a new General Manager. The total includes costs for the new DSRSD administrative staff person, Sheree Davis, to provide assistance to LAVWMA. 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 FY2023/24 debt service (repair and expansion) for the 2021 bonds. Although repair and expansion of the existing pipeline 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 $5,260,000 cost of capital projects in FY2023/24. 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 FY2022/23. The second table lists all recommended projects for FY2023/24. All projects have been recommended and vetted by DSRSD staff.

FY2022/23 Capital Program Expenditures	
Purchase three new pumps and rebuild motors	$5,780
Resealing of all Three Storage Basins	$0
San Leandro Sample Station Design Improvements	$48,315
MCCs and Soft Starters	$164,520
Cathodic Protection Projects	$1,082
PLC / SCADA Upgrade at the Pump Station	$0
Pipeline Inspection	$0
Electrical Improvements to the Main Switchgear	$0
Smart Detectors on Ari/Vac and Air Release Valves	$6,615
Other Misc. LAVWMA	$31,439
Other Misc. EBDA	$30,000
Cip Planning / Management Contingency	$12,250
Total Expenditures	**$300,000**

FY2023/24 Capital Program Expenditures		
Project	**Description**	**Cost**
Purchase three new pumps and rebuild two associated motors.	This project has been delayed from FYE22 and FYE23.The costs include $357,000 for the new pumps, rebuilding two motors, engineering services, and DSRSD staff time to remove the old pumps and install the new pumps and rebuilt motors. The projected delivery date for the new pumps is July 31, 2023	$510,000
San Leandro Sample Station (SLSS) Design Improvements	This project has evolved from what was described for last year's budget and is being carried over. It also now includes: 1. 24-inch flow control valve 2. 20-inch flow control valve 3. Two 30-inch flow meters 4. Two chlorine residual analyzers 5. Miscellaneous piping and fittings to accommodate different pipe sizes 6. Improvements to the Programmable Logic Controller (PLC), Human Machine Interface (HMI), Supervisory Control and Data Acquisition System (SCADA), networking and programming The SLSS station has to be designed to measure chlorine residual and monitor pH continuously. These parameters have to	$1,000,000

FY2023/24 Capital Program Expenditures		
Project	**Description**	**Cost**
	be measured both when effluent is going to EBDA and when effluent is dechlorinated and 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 LAVWMAs 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. The project will now also address probable sea level rise at the discharge point and provide a design to ensure discharge will always be possible. Approximately $135,000 has been spent on design through the end of the fiscal year. The bid packet is scheduled to be issued in May 2023.	
Cathodic Protection Projects	This project is being carried over from FYE23. Treated wastewater is conveyed from the LAVWMA Pump Station to an outfall owned by the East Bay Discharges Authority via the LAVWMA export pipeline. The export pipelines range in size from 24 to 36 - inches in diameter and span approximately 15.6 miles. The pipelines are cathodically protected using an impressed current system, which uses a rectifier and anodes buried in the ground. The project consists of improvements to	$155,000

FY2023/24 Capital Program Expenditures		
Project	**Description**	**Cost**
	the cathodic protection system, including but not limited to, repairs to the existing impressed current system, installation of additional test stations, bonding repairs to rectify electrical discontinuities, and the installation of monitoring equipment to remotely monitor the status and health of the rectifiers.	
SCADA/PLC Upgrade at the Pump Station	This project is being carried over from FYE23. The existing Programmable Logic Controller (PLC) at the pump station is almost 20 years old and is near the end of 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.	$300,000
Pipeline Inspection	This project is being carried over from FYE23. One of the recommendations from the risk analysis project was to inspect portions of the pipeline and provide a report with future recommendations. The report recommended repairs on one section that will cost approximately $35-40,000. The repot also recommends continuing to inspection portions of the forcemains annually such that the entire pipeline will have been inspected within about five years. Much of this cost is for DSRSD staff. DSRSD staff has developed a plan that will be implemented this fall.	$300,000
Replace seventeen valve actuators at the pump station	This project is being carried over from FYE23. There are seventeen valves that have electric actuators at the pump station. All of the valves actuators were installed when the pump station was upgraded twenty years ago and they are at	$255,000

FY2023/24 Capital Program Expenditures		
Project	**Description**	**Cost**
	the end of their useful lives. The actuators will be replaced with the newest technology and will match the style that are commonly used at DSRSD. The actuators cost approximately $9,000 each and will be installed by DSRSD staff. The total cost includes staff time for the installation.	
Flow meter replacement	The three flowmeters at the junction structure were at the end of their useful lives and were replaced in FYE23. The project consists of any required modifications to improve flow measurement accuracy. The cost of the project includes studies and/or analyses, infrastructure modifications, new instrumentation and controls, and/or other miscellaneous improvements.	$250,000
Replace Exposed Section of Livermore Pipeline	The LAVWMA Livermore Pipeline conveys treated effluent from the Livermore WWTP to the LAVWMA Pump Station. A portion of the LAVWMA Livermore Pipeline (approximately Station 226+00 to approximately Station 232+00) crosses the Arroyo Mocho creek and continues running parallel along the creek. When it was constructed in 1977, the pipeline was at least 4 - feet below the bottom of the Arroyo Mocho and the section running parallel to the creek was set back at least 15 - feet from the edge of the embankment. Since that time, the Arroyo Mocho has experienced significant erosion. The recent 2022/23 storms have further exacerbated the erosion, whereby the pipe crossing is now exposed and the section of pipe running parallel to the creek is within 3 - 5 feet of the edge of the embankment. The project will install a new pipeline using trenchless methods and move the pipeline away from the edge of the embankment. Costs include	$2,000,000

FY2023/24 Capital Program Expenditures		
Project	**Description**	**Cost**
	planning, permitting, design, and construction.	
Air/Vac Valve Assessment and Resolution at EBDA Line	The project will assess entrapped air in the LAVWMA export pipeline, and provide recommendations on how to exhaust any air within the export pipeline. The project cost includes engineering review and potential improvements, such as the installation of combination air valves. Cargill/East Bay Dischargers Authority will reimburse LAVWMA for all of the project costs.	$100,000
Backup Power Improvements at the Pump Station	Recent experience with PG&E unreliability and consultant studies have determined that a system for quickly connecting a portable generator capable of running up to four pumps during emergencies would help ensure continuous pumping even during storms and PG&E outages. A portable generator was tested during the storms of early 2023. However, it took at least two days to make all the connections. A generator tap box provides a safe and efficient means of connecting a portable or auxiliary power source in the event of an electrical outage. The project consists of the installation of a generator tap box and other necessary electrical equipment, including a transformer, to facilitate the connection of a mobile rental genset at the LAVWMA Pump Station. This will allow the connection to be made within a few hours.	$300,000
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		**$5,260,000**

2.3 Changes from FY2022/23 Budget

FY2022/23 expenditures are projected to come in approximately 20.7% above budget due to labor, power, and chemical costs. The annual reconciliation process will resolve any over or under payments. The FY2023/24 Budget is 10.17% more than FY2022/23 in Total Revenue Requirement. Total O&M costs are 29.21% more than 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. Per EBDA's Emergency Reserve Policy adopted November 18, 2021, LAVWMA is responsible for $326,250 of the total $1,250,000 emergency reserve. The tables below depict the projected fund balances during FYE23 and FYE24.

R & R Fund Balances, 6/30/22	Joint	Dual	Sole	Total
Start of year	13,884,500	433,526	1,621,874	15,939,900
Deposits	400,000	0	0	400,000
Interest Earnings	600,000	1,431	5,352	606,783
ProJected Expenditures	300,000	0	0	300,000
End of Year, 6/30/23	14,584,500	434,957	1,627,226	16,646,683

R & R Fund Balances, 6/30/23	Joint	Dual	Sole	Total
Start of year	14,584,500	431,863	1,615,786	16,632,149
Deposits	400,000	0	0	400,000
Interest Earnings	650,000	1,425	5,332	656,757
Projected Expenditures	5,260,000	0	0	5,260,000
End of Year, 6/30/24	10,374,500	433,288	1,621,118	12,428,906

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 FY2022/23 and recommendations for FY2023/24 show that LAVWMA maintaining the Joint Use R&R Fund at a sustainable level since FY2010/11. The annual contribution should be reviewed annually.

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
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
FY2020/21	400,000	65,407	(768,000)	(302,593)
FY2021/22	400,000	64,317	(2,598,204)	(2,133,887)
FY2022/23	400,000	600,000	(300,000)	700,000
FY2023/24	400,000	650,000	(5,260,000)	(4,210,000)
Total	**3,700,000**	**2,427,032**	**(11,119,628)**	**(4,992,596)**

3.2 Discussion of Capital Expenditures Proposed for FY2023/24

The following table summarizes $5,260,000 of anticipated FY2023/24 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.

FY2023/24 Capital Program Expenditures *Carryover	
*Purchase three new pumps and rebuild two motors	$510,000
*San Leandro Sample Station Design Improvements	$1,000,000
*Cathodic Protection Projects	$155,000
*SCADA/PLC Upgrade at the Pump Station	$300,000
*Pipeline Inspection	$300,000
*Replace 17 Valve Actuators at Pump Station	$255,000
Flow Meter Replacement	$190,000
Replace exposed section of Livermore Pipeline	$2,000,000
Air/Vac Valve Assessment and Resolution at EBDA line	$100,000
Back Up Power Improvements at Pump Station	$300,000
Other Misc. LAVWMA Renewal/Replacements	$50,000
Other Misc. EBDA Renewal/Replacements	$50,000
CIP Planning/Mgmt/Contingency	$50,000
Total Expenditures	**$5,260,000**

4.0 FY2022/23 Member Agency Cost Sharing & Schedule

Member Agency Costs FY2023/24					
	Total	**Livermore**	**DSRSD/Pleasanton**	**DSRSD**	**Pleasanton**
Variable O&M	$ 2,127,878	$ 744,757	$ 1,383,121		
Fixed O&M	2,680,118	806,716	1,873,402		
Sole Use Fixed O&M	25,000	25,000			
Total O&M	4,832,996	1,576,473	3,256,523		
Replacement Fund	400,000	120,400	279,600		
Repair Debt	2,025,620	809,235	1,216,385		
Expansion Debt	4,624,480	1,041,433	3,583,047		
EBDA Debt	-	-	-		
Total Capital Costs	7,050,100	1,971,068	5,079,032		
Total Revenue Required	**$ 11,883,096**	**$ 3,547,541**	**$ 8,335,555**		
Semi Annual O&M Advance	2,416,498	788,237	1,628,261		
Semi Annual Replacement Fund Advance	200,000	60,200	139,800		
July 1 Bond Debt Service Advance	3,325,050	925,334	2,399,716	1,293,315	1,106,401
Jan 1 Bond Debt Service Advance	3,325,050	925,334	2,399,716	1,293,315	1,106,401
Total July 1 Advance	$ 5,941,548	1,773,771	4,167,777		
Total January 1 Advance	$ 5,941,548	$ 1,773,770	$ 4,167,777		
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%		

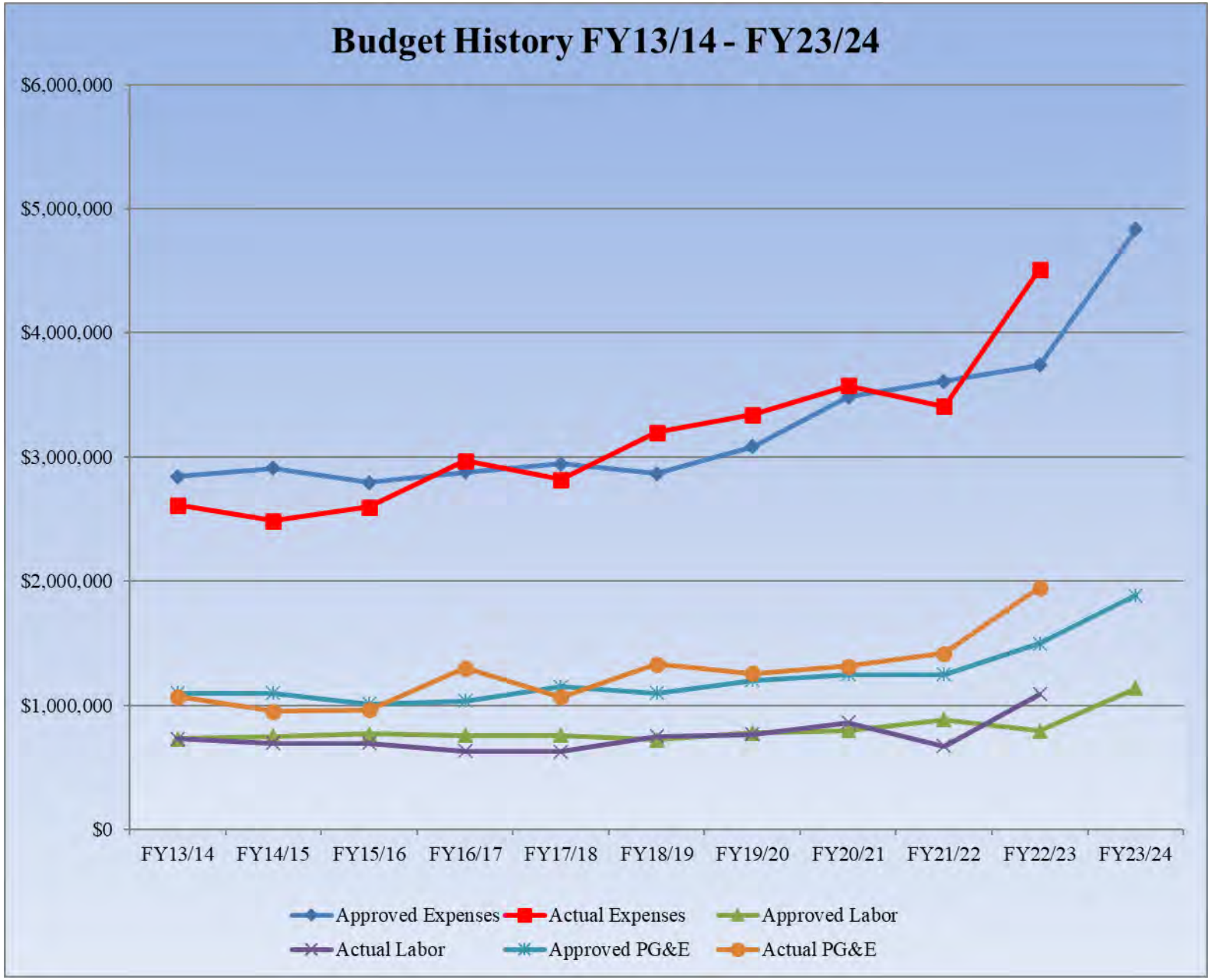
5.0 Budget Trends FY2013/14 – FY2023/24 Still working on this section

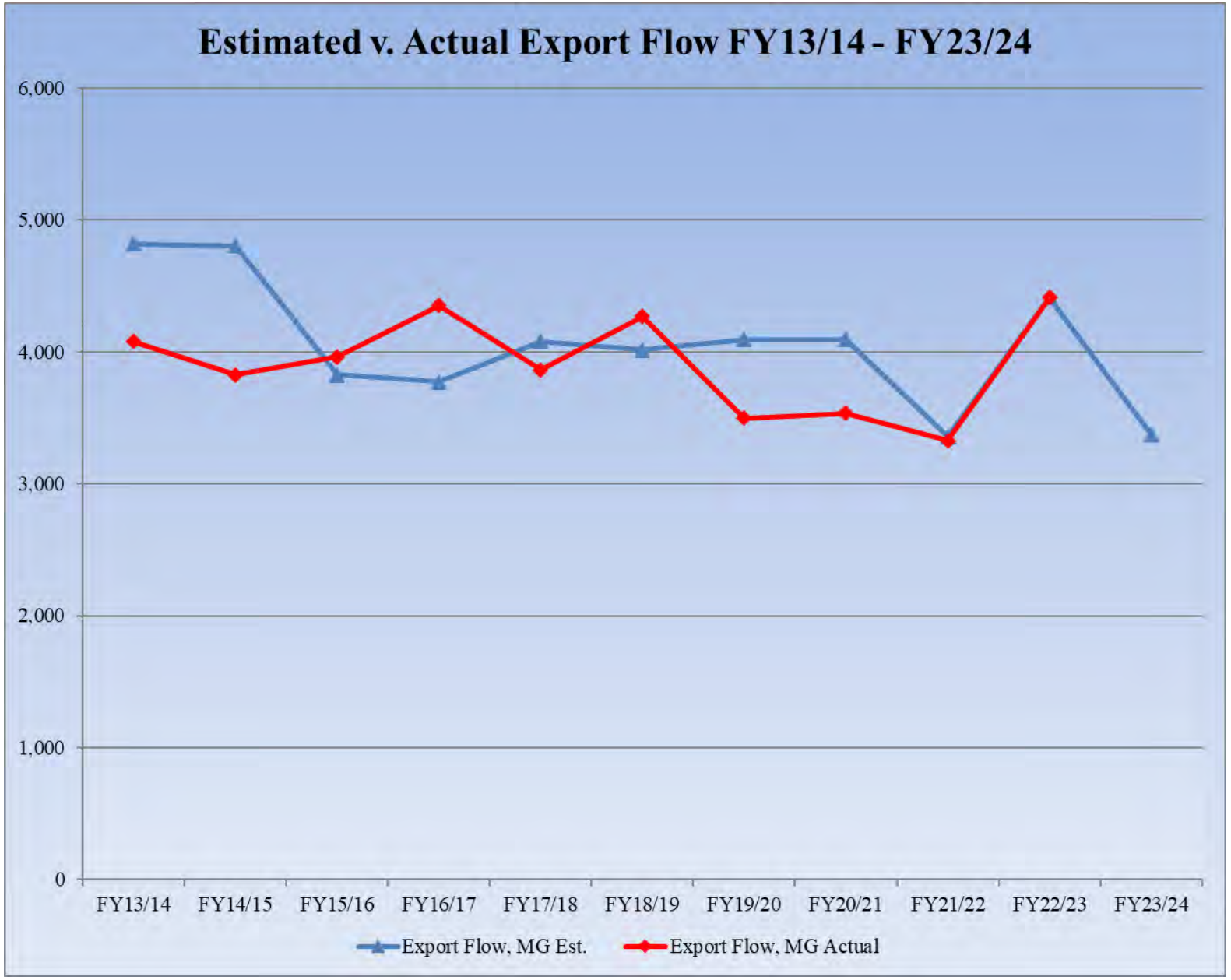
The following charts show expense trends from FY2013/14 through FY2023/24. The charts show the following:

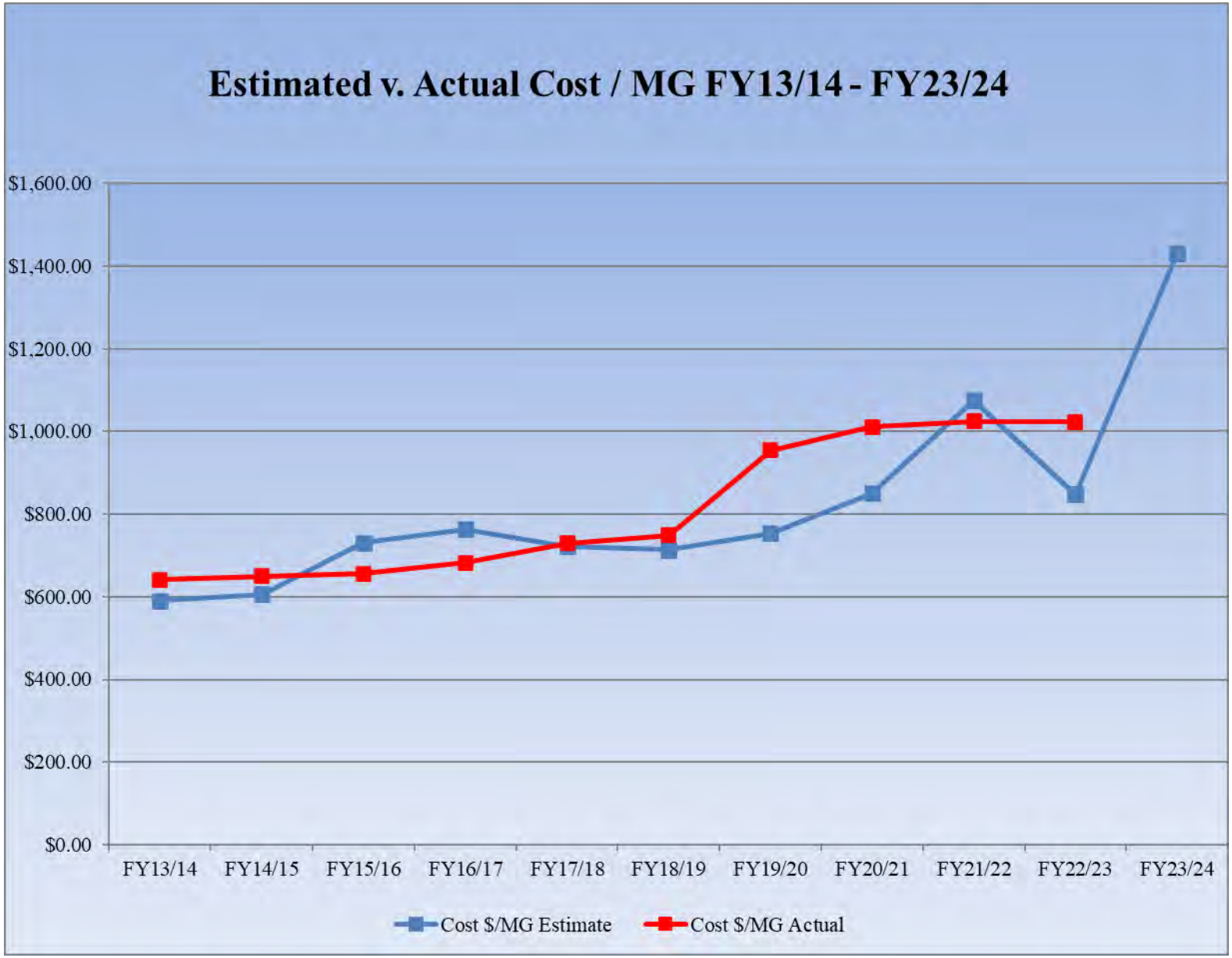
- Approved versus actual expenses for total expenses, labor costs, and PG&E power
- Estimated versus actual export flow
- Estimated versus actual cost per million gallons

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 electrical cost for just pumping over the Dublin Grade is approximately $442/MG as compared with $427/MG last year, while the full disposal cost, including EBDA costs is approximately $1,024 versus $1,024 last year. Although flow and PG&E costs are directly 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 had been decreasing over time due to water recycling efforts, but this year's storms changed that significantly.

LAVWMA FY2023/24 Budget




Estimated v. Actual Export Flow FY13/14 - FY23/24
6,000
5,000
4,000
3,000
2,000
1,000
0
FY13/14
FY14/15
FY15/16
FY16/17
FY17/18
FY18/19
FY19/20
FY20/21
FY21/22
FY22/23
FY23/24
Export Flow, MG Est.
Export Flow, MG Actual


Estimated v. Actual Cost / MG FY13/14 - FY23/24
$1,600.00
$1,400.00
$1,200.00
$1,000.00
$800.00
$600.00
$400.00
$200.00
$0.00
FY13/14
FY14/15
FY15/16
FY16/17
FY17/18
FY18/19
FY19/20
FY20/21
FY21/22
FY22/23
FY23/24
Cost $/MG Estimate
Cost $/MG Actual