



**San Lorenzo Valley Water District
Enterprise Wide Cost of Service Financial Study
Final Report
November 2016**

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SECTION 1. PURPOSE AND OVERVIEW OF THE STUDY

PURPOSE

San Lorenzo Valley Water District (District) retained NBS in February this year to conduct an Enterprise Wide Cost of Service Financial Study for a number of reasons, including performing a thorough cost of service analysis for water and wastewater systems. Additionally, this study included an assessment of the water and wastewater systems as well as a water and wastewater staffing study. These two tasks were performed by sub consultants, V. W. Housen & Associates, Inc. and DeLoach & Associates, Inc., respectively. Both sub consultants provided reports which were prepared independent from this document, but included as appendices (under separate cover) for reference.

A cost-of-service study, unlike a rate study, is intended to identify the annual costs that should be allocated to each of the District's customer classes, whereas a "rate study" results in individual rates for each class. The cost of service analysis performed in this study was developed in a manner that is consistent with industry standards. In addition to documenting the study methodology, this report is provided with the intent of assisting District to maintain transparent communications with its residents and businesses.

NBS worked cooperatively with District staff in developing the cost of service analysis (COS or COSA) and this report summarizes the final results.

OVERVIEW OF THE STUDY

Comprehensive "rate studies" typically include the three components shown in **Figure 1**: (1) preparation of a financial plan which identifies the net revenue requirements for the utility; (2) analysis of the cost to serve each customer class (i.e., the "cost-of-service" addressed in this study), and; (3) the rate structure design.

Figure 1. Primary Components of a Rate Study



These steps are intended to follow industry standards and reflect the fundamental principles embodied in the American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges¹, also referred to as Manual M1. In terms of the chronology of the study, these three steps represent the order they were performed in this Study. Following this chronology, this study completes the first two steps, resulting in the total annual net revenue requirements and the cost-of-service (COS) for each customer class. The District intends to address the third step for rate design in a separate rate study.

The following sections in this report present an overview of the methodologies, assumptions, and data used along with the financial plans and COS results. Appendix A provides more detailed cost-of-service figures; Appendices B and C provide tables and figures documenting the development of the results.

¹ Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, sixth edition, 2012.

Key Financial Assumptions

The following are the key financial assumptions used in the cost of service analyses:

-) **Funding of Water & Wastewater Utility Capital Projects** – The District plans to fund planned capital costs through rate revenues and existing reserves². The capital projects listed in the financial plan are from District’s projection of costs recently provided by V. W. Housen & Associates, Inc. through FY 2025/26.
-) **Reserve Targets** – Reserves for operations and capital needs are set at the target level that was established by the Board in Resolution 9 (16-17). These reserves are considered unrestricted reserves and consist of the following:
 - Water:**
 - ✓ Operating Reserve – equal to \$1.5 million for FY 2016/17 and growing to 180 days of operating expenses over ten years.
 - ✓ Capital Improvement Reserve – equal to \$2.0 million or 3 percent of Net Capital Assets, whichever is greater.
 - Wastewater:**
 - ✓ Operating Reserve – equal to 90 days of operating expenses, or \$31,500 for FY 2016/17.
 - ✓ Capital Improvement Reserve – equal to \$97,000 for FY 2016/17, which approximates the annual average of CIP expenditures.
-) **Inflation and Growth Projections** – Assumptions were made in the analysis with regard to cost inflation in order to project future expenses for the study period. The following inflation factors were used in the analysis, for both water and wastewater utilities:
 - ✓ Customer growth is 0.0 percent annually.
 - ✓ General cost inflation is 2.65 percent annually.
 - ✓ Labor and Health Benefits cost inflation is 2.69 percent annually.
 - ✓ Chemical cost inflation is 5.0 percent annually.
 - ✓ Energy cost inflation is 4.4 percent annually.

These inflation factors are based on specific cost indices and/or common values adopted by other California water agencies; see page 12 of Appendix B for details.

² We have reflected the results of V.W. Housen and Associate’s analysis; how much of those capital project costs the District ultimately funds will be determined by the District’s Board at a future date.

SECTION 2. WATER COST OF SERVICE STUDY

KEY COST OF SERVICE STUDY ISSUES

The District's cost of service analysis was undertaken with a few specific objectives, including:

- J Developing a long-term financial plan incorporating recommended capital improvement program costs and staffing study results, as well as annual operating, debt service and administrative costs.
- J Identifying cost requirements by customer class.

The following are the basic components included in this analysis:

- J **Developing Annual Cost of Service:** NBS developed various financial plan alternatives as requested by District staff over the course of this study to reflect budgeted operating and planned capital improvement costs.
- J **Developing Functionalized Costs:** The water utility costs were "functionalized" into three categories: (1) customer service costs; (2) fixed capacity costs; and (3) commodity (or volume-based) costs.
- J **Determining Cost by Customer Class³:** Costs for each of these functional categories were then allocated to customer classes based on allocation factors, such as water consumption, peaking factors, and number of accounts by meter size. The total cost for each customer class was determined using these functional costs and allocation factors. For example:
 - ✓ Fixed capacity costs are allocated based on peaking requirements.
 - ✓ Volume-related costs are allocated based on the water consumption for each class.
 - ✓ Customer costs are allocated based on number of meters.

Once the costs are allocated and determined, collecting comparable revenue from each customer class would be evaluated in the separate rate design study at a later date.

WATER UTILITY COST OF SERVICE

The basic objective of the cost of service analysis is to identify the annual operating and capital costs as they would be developed based on sound financial management practices. This includes maintaining reasonable reserves in order to handle emergencies, appropriate levels of working capital, and maintaining a good credit rating. The current state of the District, with regard to these objectives, is as follows:

- J **Cost of Service:** For FY 2016/17 through FY 2020/21, the projected annual cost service (total annual expenses plus debt service plus capital costs) increase from approximately \$9.7 million to \$10.6 million.
- J **Maintaining Adequate Bond Coverage:** The District is required by its bond covenants to maintain a debt service coverage ratio of at least 1.25 for the outstanding 2012 Revenue Bond.
- J **Reserve Funds:** As a part of this analysis, target reserve fund levels of approximately \$4 million were developed: this is an increase over the existing \$3.5 million reserve target that was established by the Board in Resolution 9 (16-17). The reserve funds for the Utility are considered unrestricted reserves and consist of the following:
 - ✓ **Operating Reserve** should equal approximately \$1.5 million or up to 180 days of operating expenses. An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures, such as those caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue

³ District currently uses meter sizes as customer classes; however, revenue requirements were established for customer classes, not meter sizes.

streams (volumetric charges), and – particularly in periods of economic distress – changes or trends in age of receivables.

- ✓ **Capital Reserve** should be approximately \$2 million or up to 3 percent of net assets, which is set aside to address long-term capital system replacement and rehabilitation needs. If this reserve is maintained at the target established by the Board, District will have a healthy cash reserve for future capital needs.

) **Capital Improvement Projects:** The District has a number of capital improvement projects that are necessary in order for the Utility to maintain and improve current service levels. District staff has identified roughly \$3.6 million in expected capital expenditures for FY 2015/16, \$3.1 million in FY 2016/17, and every year thereafter \$2.6 to \$2.9 million in capital expenditures are expected (future year value).

Figure 2 summarizes the uses of funds and total costs for the next 5 years. The utility's proposed 10-year financial plan is included in Appendix B, and include costs, reserve funds, and the District's capital improvement program. **Figure 3** summarizes the projected reserve fund balances and reserve targets assuming the capital improvement projects will be fully funded. As this figure shows, the District will need to address projected annual deficits.

Figure 2. Summary of Annual Cost of Service

Cost of Service Summary	Budget		Projected			
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Costs of Water Service						
Water Fund Expenses	\$ 5,716,286	\$ 6,269,040	\$ 6,735,741	\$ 7,114,838	\$ 7,404,526	\$ 7,601,305
Debt Service	896,508	896,508	896,508	896,508	795,095	693,682
Capital Expenses	2,397,525	3,100,000	2,583,059	2,660,550	2,740,367	2,822,578
Total	\$ 9,010,318	\$ 10,265,547	\$ 10,215,307	\$ 10,671,896	\$ 10,939,988	\$ 11,117,565

Figure 3. Summary of Water Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget		Projected			
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Operating Reserve						
Ending Balance	\$ (430,534)	\$ (4,833,859)	\$ (9,186,372)	\$ (13,994,540)	\$ (19,069,865)	\$ (24,321,834)
<i>Recommended Minimum Target</i>	1,500,000	1,500,000	1,684,000	1,779,000	1,851,000	1,900,000
Capital Rehabilitation & Replacement Reserve						
Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Recommended Minimum Target</i>	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Debt Reserve						
Ending Balance	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594
<i>Recommended Minimum Target</i>	373,594	373,594	373,594	373,594	373,594	373,594
Total Ending Balance	\$ (56,940)	\$ (4,460,264)	\$ (8,812,777)	\$ (13,620,945)	\$ (18,696,271)	\$ (23,948,240)
<i>Total Recommended Minimum Target</i>	<i>\$ 3,873,594</i>	<i>\$ 3,873,594</i>	<i>\$ 4,057,594</i>	<i>\$ 4,152,594</i>	<i>\$ 4,224,594</i>	<i>\$ 4,273,594</i>

CHARACTERISTICS OF WATER CUSTOMERS BY CUSTOMER CLASS

The amount of consumption, the peaking factors, and the number of meters by customer class are all factors used in allocating costs as a part of the cost-of-service analysis. The District's most recent consumption data is summarized in **Figure 4**, peaking factors by meter size are summarized in **Figure 5**, and **Figure 6** compares the total number of meters by customer class.

In Figure 4, the impact of expected customer conservation has been included. Staff expects that for FY 2015/16, water customers will consume 634,462 hundred cubic feet (ccf) of water.

Figure 4. Water Consumption by Customer Class

Development of the COMMODITY (Volumetric) Allocation Factor - Water Utility				
Customer Class	FY 2014/15 Volume (ccf) (1)	% Adjustment for Conservation	Estimated FY 2015/16 Volume Adjusted for Conservation	Percent of Total Volume
Residential	457,003	0%	444,202	70.0%
Multi-Family Residential	107,598	0%	100,184	15.8%
Commercial	8,231	0%	7,261	1.1%
Industrial	31,792	0%	31,389	4.9%
Landscape/Irrigation	35,924	0%	36,761	5.8%
Other systems	5,725	0%	5,779	0.9%
Private Mutual	5,310	0%	6,368	1.0%
Surplus (bulk water sales)	1,330	0%	2,149	0.3%
Vacant	452	0%	370	0.1%
Total	653,365	3%	634,462	100%

1. Consumption data is based on the SLVWD's billing data.

Peaking factors for each customer class are shown in Figure 5. A “peaking factor” is the ratio of each meter size’s peak monthly use to its average monthly use. Both operating costs and capital infrastructure costs incurred to accommodate peak system capacity events are generally allocated to each customer class according to its peaking factor.

Figure 5. Peaking Factors by Customer Class

Development of the CAPACITY (MAX MONTH) Allocation Factors				
Customer Class	Average Monthly Use (ccf)	Peak Monthly Use (ccf) (1)	Peak Monthly Factor	Max Month Capacity Factor
Residential	37,017	48,392	1.31	67.6%
Multi-Family Residential	8,349	10,486	1.26	14.6%
Commercial	605	1,163	1.92	1.6%
Industrial	2,616	3,170	1.21	4.4%
Landscape/Irrigation	3,063	4,590	1.50	6.4%
Other systems	482	1,157	2.40	1.6%
Private Mutual	531	1,956	3.69	2.7%
Surplus (bulk water sales)	179	642	3.58	0.9%
Vacant	31	65	2.11	0.1%
Total	52,872	71,622	1.35	100%

1. Based on peak monthly data (peak day data not available).

The number of meters by customer class is shown in Figure 6. The customer costs allocated to each customer class as part of the cost of service analysis are based on their total number of meters.

Figure 6. Number of Meters by Customer Class

Development of the CUSTOMER Allocation Factor		
Customer Class	Number of Meters (1)	Percent of Total
Residential	6,531	88.6%
Multi-Family Residential	502	6.8%
Commercial	199	2.7%
Industrial	52	0.7%
Landscape/Irrigation	13	0.2%
Other systems	7	0.1%
Private Mutual	6	0.1%
Surplus (bulk water sales)	3	0.0%
Vacant	59	0.8%
Total	7,372	100.0%

1. Meter Count data is based on the SLVWD's billing data for February 2016.

COST OF SERVICE ANALYSIS

Once the total costs of service are determined, as described above, the cost of service analysis distributes those requirements to each of the customer classes. The cost of service analysis consists of two major components: (1) the functionalization and classification of expenses, and (2) the allocation of costs to customer classes. This process is described as follows:

Functionalization, Classification and Allocations

Most costs are not typically allocated 100 percent to fixed or variable categories and, therefore, may be allocated to multiple water service functions. The functionalization/classification of costs provides the basis for allocating the costs to the following cost causation components:

- J **Commodity (Variable)** related costs are those costs associated with the total consumption of water over a specified period of time (such as annual).
- J **Capacity (Fixed)** related costs are those costs associated with the maximum demand required or the maximum size of facilities required to meet this demand (i.e., their peaking factors, as shown above).
- J **Customer (Fixed)** related costs are costs associated with having a customer on the water system, such as meter reading, postage and billing.

Once costs have been organized based on the District's budget classifications, they are allocated to these functional cost causation components in determining the cost of service by customer class. When the District proceeds with a rate study, this information will be used to establish new water rates and determine fixed and variable charges. Appendix B includes detailed tables showing how the District's expenses were allocated to these functional cost causation components.

Fixed costs generally consist of costs that a utility incurs to serve customers irrespective of the amount of water they use. These include (1) the infrastructure (capacity-related facilities) required to provide service to customers; (2) costs associated with the peaking requirements, or maximum demand which affects the maximum size of the water supply system, treatment and delivery system, operations and maintenance costs; and (3) administrative and billing costs associated with meter reading, postage and billing.

Variable costs are those that change as the volume of water produced and delivered changes. These commonly include the costs of chemicals used in the treatment process, energy related to pumping for transmission and distribution, and source of supply.

Ideally, utilities should recover all of their fixed costs from fixed charges and all of their variable costs from volumetric charges; when this is the case, fluctuations in water sales revenues would be directly offset by reductions or increases in variable expenses.

The District’s costs were divided into categories that can be more generally grouped into fixed and variable costs. This analysis resulted in a cost distribution that is approximately 67 percent fixed and 33 percent variable⁴. Under the current rate structure, the District collects approximately 53 percent of revenue through fixed charges and 47 percent through variable.

Based on the cost of service analysis, about 67 percent of the District’s costs should be collected from fixed charges and 33 percent from volumetric charges. **Figure 7** summarizes how costs are allocated to each cost component; a test year of FY 2017/18 was used. A detailed breakdown of all expenses allocated to commodity-, capacity- and customer-related cost components is provided in Appendix B.

Figure 7. Allocated Net Cost Requirements - Water

Classification Components	Net Cost Requirements (2017/18)	
Commodity-Related Costs	\$ 3,664,371	33.0%
Capacity-Related Costs	6,701,540	60.4%
Customer-Related Costs	737,660	6.6%
Net Revenue Requirement	\$ 11,103,572	100%

Commodity-related costs are distributed to each customer class based on the percentage of water consumed (previously shown in Figure 4). Capacity-related costs are distributed to each customer class based on the peaking factors (previously shown in Figure 5). Customer related costs are distributed to each customer class based on the number of customers in each customer class (previously shown in Figure 6).

Costs Allocated to Customer Classes

Customer classes are typically determined by grouping customers with similar demand characteristics into categories that reflect the cost differentials to serve each type of customer, such as single-family, multi-family, commercial, etc. This is how customer characteristics and consumption data have been organized in the tables above, and in **Figure 8** which summarizes the costs allocated to each customer class for the test year of FY 2017/18. However, the District currently uses meter sizes as customer classes.

⁴ This analysis is presented in Appendix A.

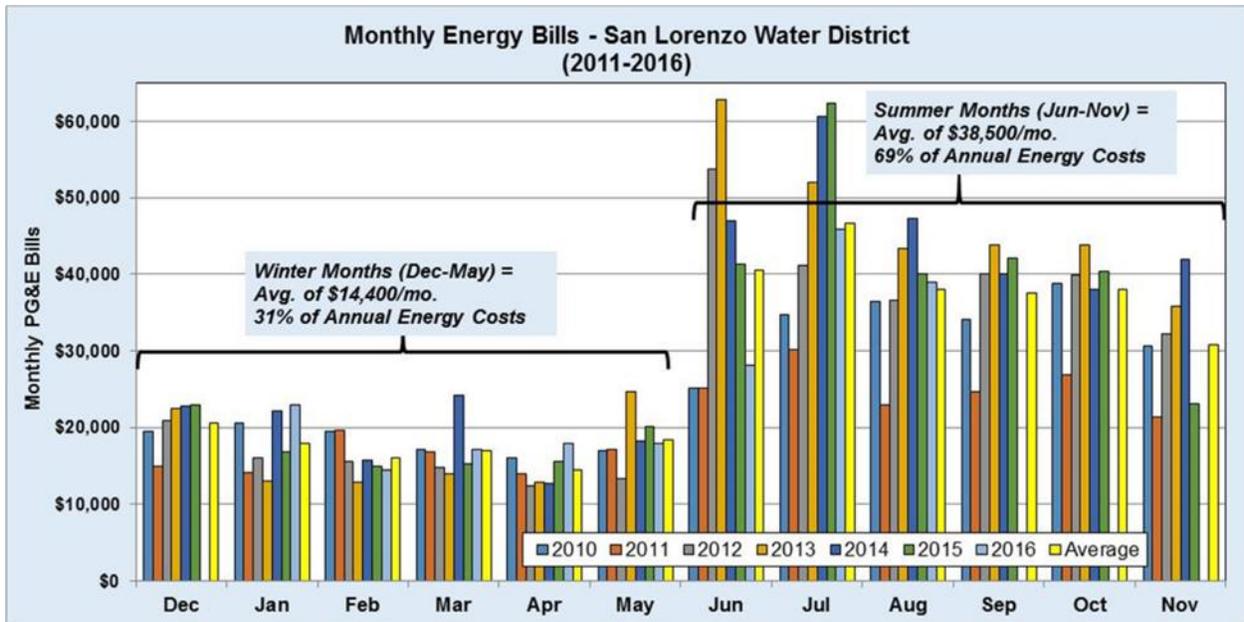
Figure 8. Allocated Net Cost of Service by Customer Class - Water

Allocation of Net Cost Requirements (Water) By Customer Class - FY 2017/18					
Customer Class	Cost Classification Components			Net Cost of Service Requirements	% of Net Cost of Service Requirements
	Commodity (1)	Capacity (2)	Customer (3)		
Residential	\$ 2,565,511	\$ 4,527,989	\$ 653,508	\$ 7,747,008	69.8%
Multi-Family Residential	578,619	981,150	50,231	1,610,000	14.5%
Commercial	41,934	108,848	19,912	170,694	1.5%
Industrial	181,291	296,647	5,203	483,141	4.4%
Landscape/Irrigation	212,316	429,523	1,301	643,140	5.8%
Other systems	33,374	108,258	700	142,333	1.3%
Private Mutual	36,779	183,019	600	220,398	2.0%
Surplus (bulk water sales)	12,412	60,024	300	72,736	0.7%
Vacant	2,136	6,082	5,904	14,122	0.1%
Total	\$ 3,664,371	\$ 6,701,540	\$ 737,660	\$ 11,103,572	100.0%

1. Commodity Costs are allocated based upon percentage of expected consumption.
2. Capacity Costs are allocated based upon Max Month Capacity Factor.
3. Customer Costs are allocated based upon Percentage of Total Accounts.

Since the District plans to conduct a rate study in the future, any modifications to the existing meter-size-only rate structure should be considered at that time. Also, as shown in **Figure 9** below, the District clearly has a seasonal component to its water delivery system (winter and summer). This Figure summarizes fluctuations in energy bills and represents pumping costs of water delivered. These and other infrastructure costs, such as wells and peaking-related storage, could be considered and included in developing seasonal rate and/or zonal surcharges. Costs related to conjunctive use might also be applied to seasonality-related rate components.

Figure 9. Energy Bills for SLVWD



SECTION 3. WASTEWATER COST OF SERVICE STUDY

KEY COST OF SERVICE STUDY ISSUES

The District maintains a small wastewater system for a small residential area. The cost of service study for the wastewater utility has the same goals as the water utility.

NBS developed a ten-year financial plan for the wastewater utility over the course of this study, relying on industry standards and cost-of-service principles. The following are the basic components included in this analysis:

- J **Developing Annual Cost Requirements:** NBS developed financial plan alternatives as requested by District staff to reflect budgeted sewer operating and capital improvement costs.
- J **Developing Functionalized Costs:** The wastewater revenue requirements were “functionalized” into four categories: (1) customer service costs; (2) fixed biochemical demand (BOD) treatment costs; (3) fixed total suspended solids (TSS) treatment costs; and (4) flow (or volume-based) costs.
- J **Determining Customer Class Cost Requirements:** Costs for each of these functional categories were then allocated to the residential customer class based on allocation factors, such as effluent (flow), effluent strength (BOD and TSS), and number of accounts. Once the costs are allocated by customer class, the rate design would be addressed in a future rate study.

SEWER UTILITY COST OF SERVICE

It is important for municipal utilities to maintain reasonable reserves in order to handle emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. The current state of the District, with regard to these objectives, is as follows:

- J **Annual Cost of Service:** For FY 2015/16 through FY 2020/21, the projected net cost requirement (that is, total annual expenses plus debt service and capital costs) range from approximately \$133,500 to \$229,000.
- J **Building and Maintaining Reserve Funds:** The District plans to establish reserve funds for the sewer utility. The reserve fund recommendations for the Utility are considered unrestricted reserves and consist of the following:
 - ✓ **Operating Reserve** should equal approximately 90 days of operating expenses, or \$34,400 in FY 2016/17. An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures, such as those caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue streams (such as volumetric charges), and – particularly in periods of economic distress – changes or trends in age of receivables.
 - ✓ **Capital Reserve** should be approximately \$100,000, which is set aside to address long-term capital system replacement and rehabilitation needs.
- J **Capital Improvement Projects:** The District has a number of capital improvements that are necessary for the Utility in order to maintain current service levels. District staff has identified roughly \$64,000 in expected capital expenditures for FY 2016/17, and growing at 3 percent inflation (construction cost index) annually through FY 2020/21. summarizes the sources and uses of funds and net cost requirements for the next 5 years. As this figure shows, the District will need to address projected annual deficits in the near future.

Figure 10 summarizes the sources and uses of funds and net cost requirements for the next 5 years. As this figure shows, the District will need to address projected annual deficits in the near future.

Figure 10. Summary of Sewer Costs of Service

Cost of Service Summary	Budget		Projected			
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Costs of Sewer Service						
Operating Expenses	\$ 133,470	\$ 137,051	\$ 140,732	\$ 144,509	\$ 148,385	\$ 152,364
Debt Service	-	-	-	-	-	-
Capital Expenses	-	63,880	65,796	67,770	69,803	71,898
Total	\$ 133,470	\$ 200,931	\$ 206,528	\$ 212,279	\$ 218,189	\$ 224,262

Figure 11 summarizes the projected reserve fund balances and reserve targets. A summary of the utility's proposed 10-year financial plan is included in Appendix C. These appendix tables include cost requirements, reserve funds, revenue sources, and the District's capital improvement program.

Figure 11. Summary of Sewer Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget		Projected			
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21
Un-Restricted Reserves						
Operating Reserve						
Ending Balance	\$ (33,381)	\$ (134,224)	\$ (240,664)	\$ (352,855)	\$ (470,955)	\$ (595,129)
<i>Recommended Minimum Target</i>	33,400	34,300	35,200	36,100	37,100	38,100
Capital Rehabilitation & Replacement Reserve						
Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Recommended Minimum Target</i>	89,778	94,503	96,205	97,994	99,882	101,888
Total Ending Balance (Un-Restricted Reserves)	\$ (33,381)	\$ (134,224)	\$ (240,664)	\$ (352,855)	\$ (470,955)	\$ (595,129)
Total Recommended Minimum Target	\$ 123,178	\$ 128,803	\$ 131,405	\$ 134,094	\$ 136,982	\$ 139,988

COST OF SERVICE ANALYSIS

The total cost from the residential customer class was determined using these functional costs and allocation factors:

- ✓ Volume-related costs are allocated based on the effluent flow.
- ✓ Fixed capacity costs are allocated based on effluent strength (BOD and TSS).
- ✓ Customer costs are allocated based on number of accounts, or more specifically the number of equivalent dwelling units (EDUs) connected to the system.

The District only serves residential customers as part of the sewer utility. Since this is not anticipated to change in the near future, all costs are allocated to residential customers as shown in Figure 12. Similar to the Water Cost of Service Analysis, a test year of FY 2017/18 was used. Further tables showing these calculations are included in Appendix C.

Figure 12. Allocated Cost of Service – Sewer

Allocation of FY 2017/18 Cost Requirements by Customer Class - Sewer						
Customer Class	Cost Classification Components				Net Cost-of-Service Requirements	% of Net Cost-of-Service Requirements
	Volume	Treatment		Customer Related		
		BOD	TSS			
Net Cost Requirements (1)	\$ 73,370	\$ 29,899	\$ 29,899	\$ 6,954	\$ 140,124	--
	52.4%	21.3%	21.3%	5.0%	100.0%	
SINGLE FAMILY	\$ 73,370	\$ 29,899	\$ 29,899	\$ 6,954	\$ 140,124	100.0%
TOTAL	\$ 73,370	\$ 29,899	\$ 29,899	\$ 6,954	\$ 140,124	100%

1. Cost requirement for each customer class is determined by multiplying the requirement from each cost classification by the allocation factors for each customer class.

SECTION 4. RECOMMENDATIONS AND NEXT STEPS

CONSULTANT RECOMMENDATIONS

NBS recommends District take the following actions:

-)] **Approve and Accept this Study:** NBS recommends the District Board formally approve and adopt this Study and its recommendations. This will provide documentation of the cost of service study analyses and the basis for analyzing potential changes to future rates.

NEXT STEPS

-)] **Perform a Rate Study in the Future** – Following this cost of service study, the District is poised to move forward with a water and wastewater rate study in the near future to address rate design and actual customer rates. This will ensure the District collects rates to meet revenue requirements in a fair and equitable manner that complies with Proposition 218.

NBS' PRINCIPAL ASSUMPTIONS AND CONSIDERATIONS

In preparing this report and the opinions and recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, conditions, and events that may occur in the future. This information and these assumptions, including District's budgets, capital improvement costs, sub-consultants' findings and recommendations, and information from District staff were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.

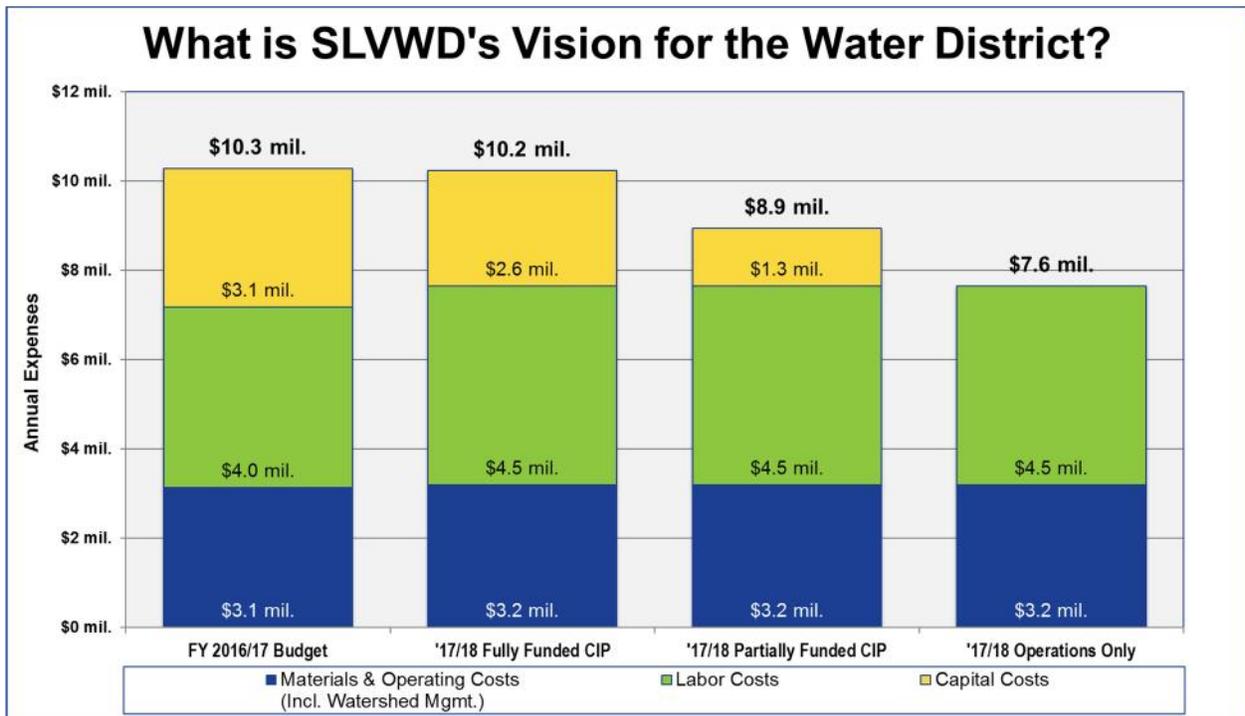
Note: The attached Technical Appendices provide more detailed information on the analysis of the water revenue requirements, cost-of-service analysis and cost allocations, and the rate design analyses that have been summarized in this report.

TECHNICAL APPENDICES

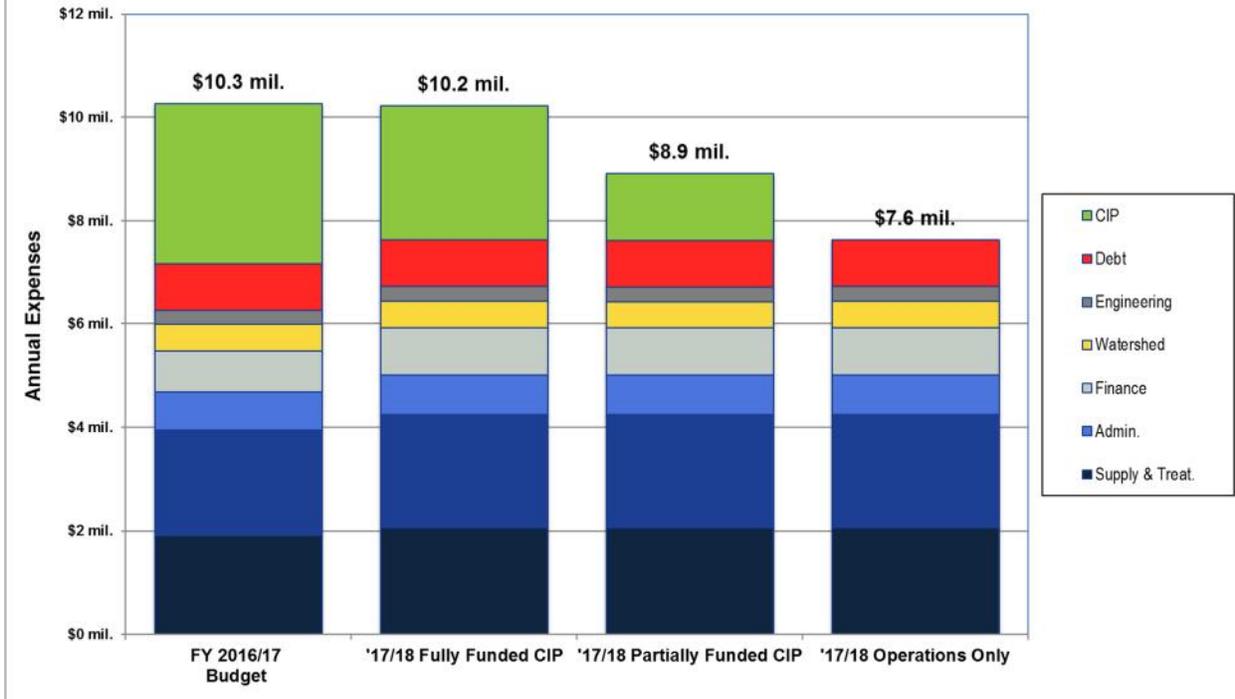
APPENDIX A – COST OF SERVICE FIGURES

WATER UTILITY FIGURES

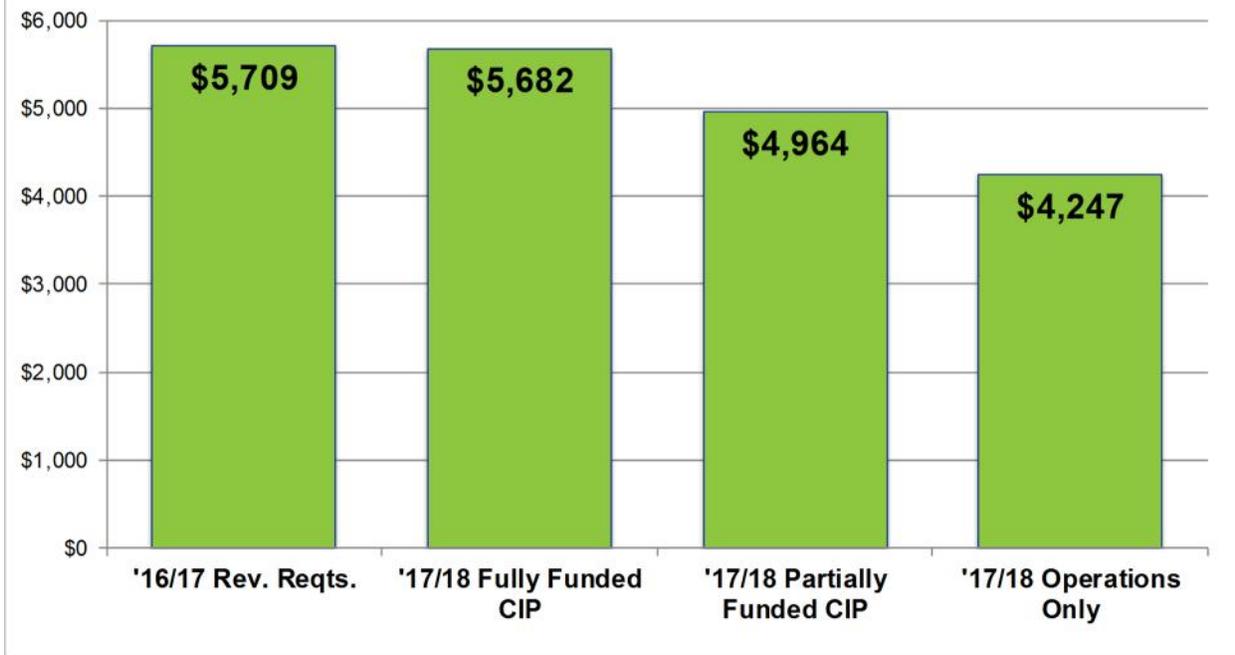
Summary of District Costs	'16/17 Rev. Reqts.	'17/18 Fully Funded CIP	'17/18 Partially Funded CIP	'17/18 Operations Only
Uses of Water Funds				
Water Fund Operating Expenses:				
Administration	739,440	759,041	759,041	759,041
Finance	792,100	913,200	913,200	913,200
Engineering	280,700	287,900	287,900	287,900
Operations/Distribution	2,029,400	2,183,600	2,183,600	2,183,600
Watershed	512,400	526,100	526,100	526,100
Operations/Supply & Treatment	1,915,000	2,065,900	2,065,900	2,065,900
Debt Service	896,508	896,508	896,508	896,508
Capital Expenses	3,100,000	2,583,059	1,291,529	-
Total Use of Funds	\$ 10,265,547	\$ 10,215,307	\$ 8,923,778	\$ 7,632,249
Add'l. Revenue Needed	0%	112%	56%	0%



SLVWD - Total Uses of Water Funds

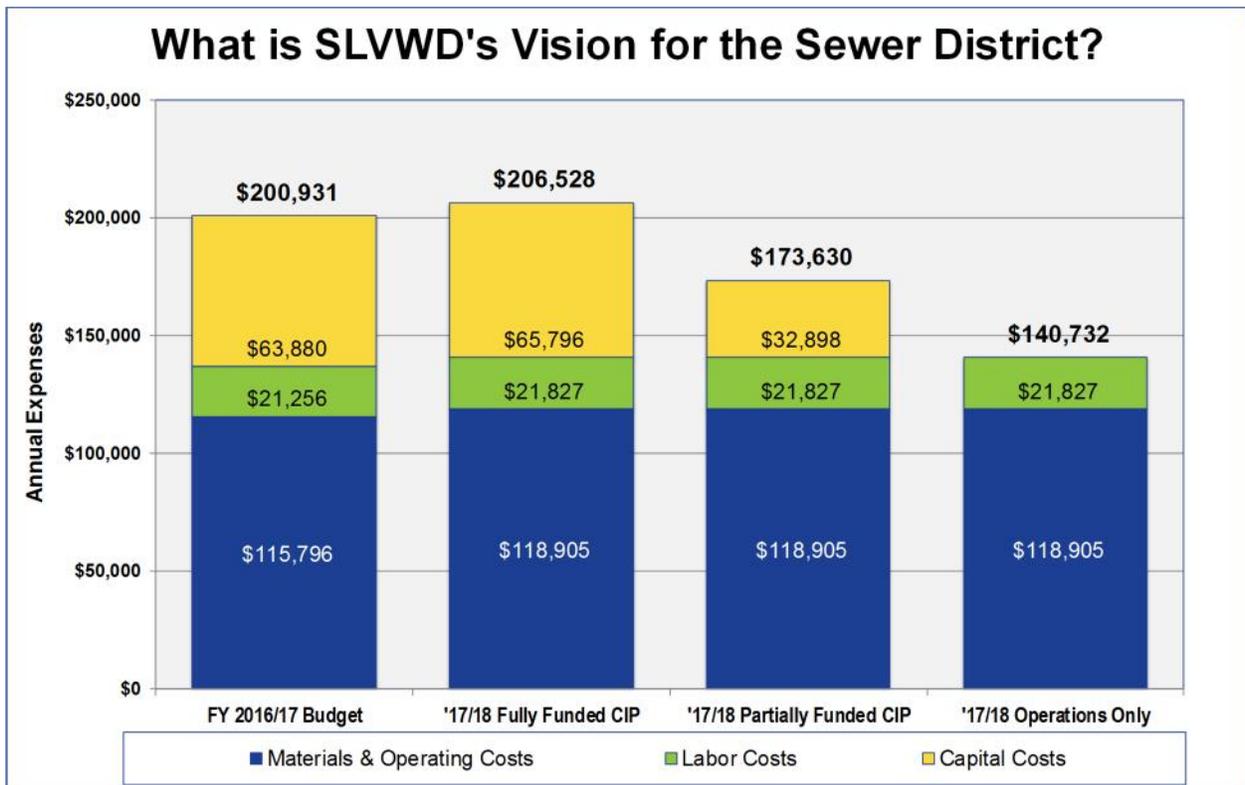


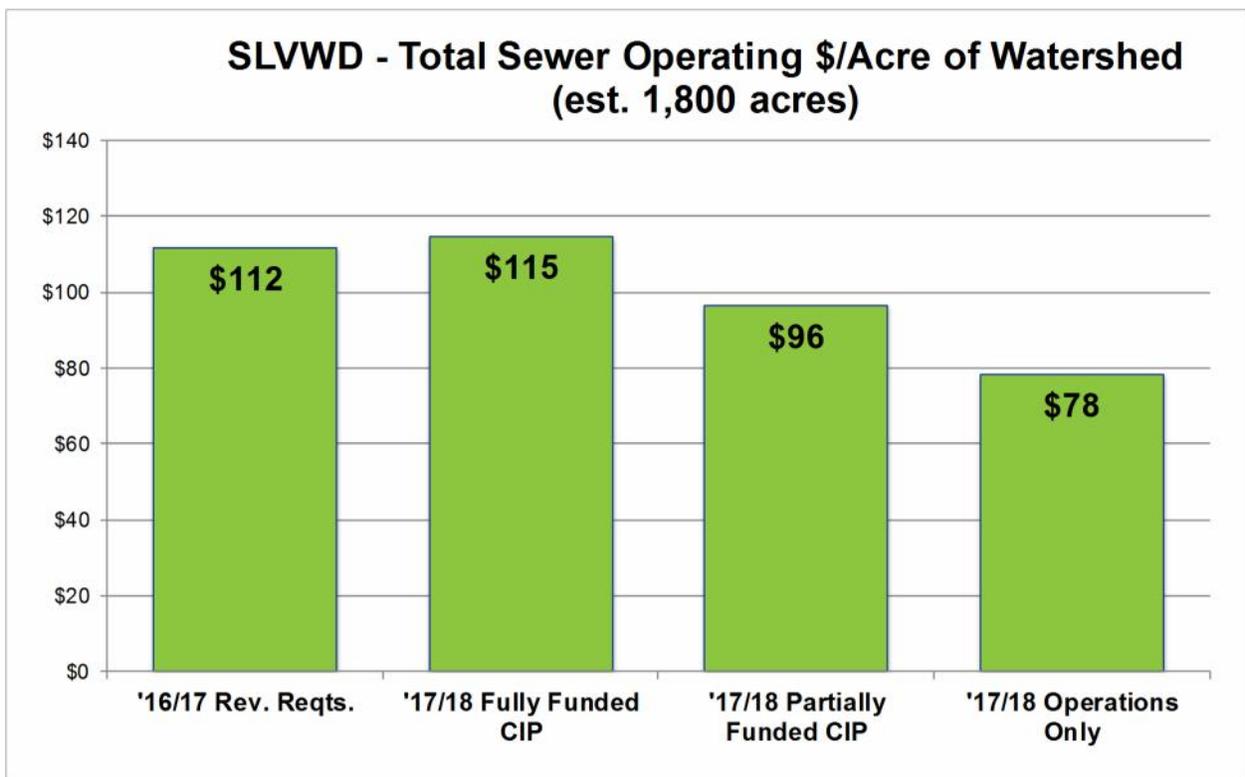
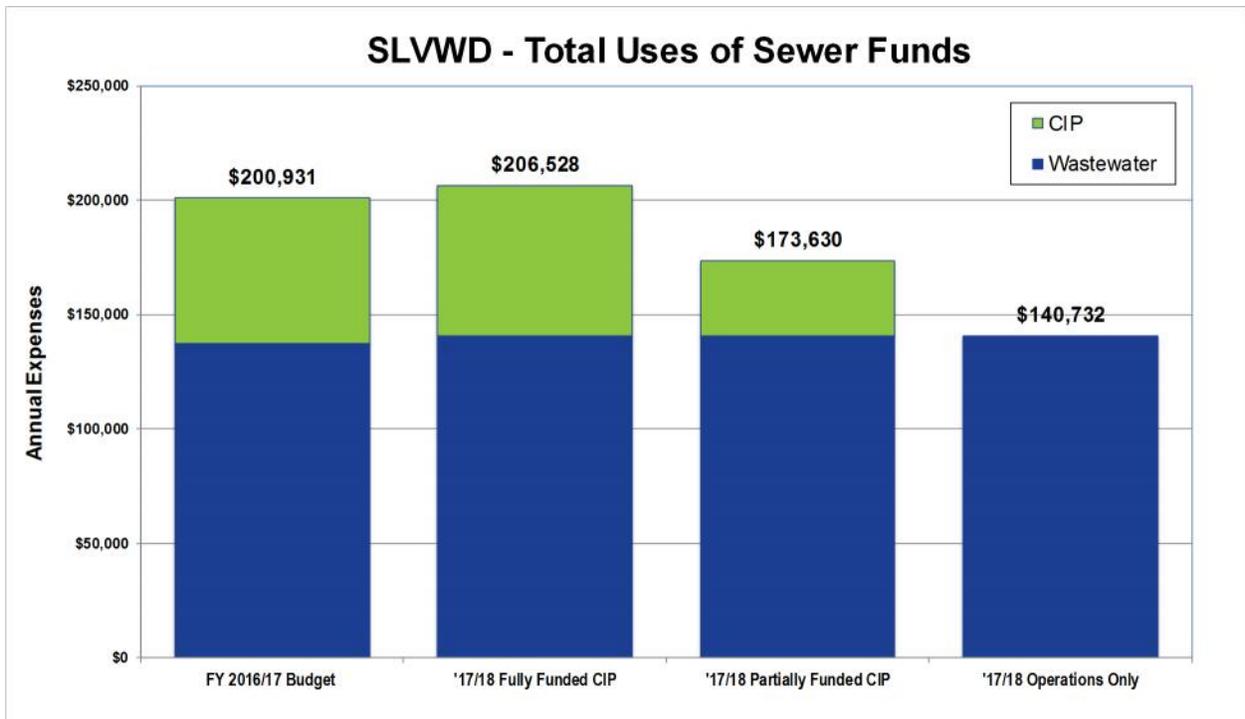
SLVWD - Total Water Operating \$/Acre of Watershed (est. 1,800 acres)



SEWER UTILITY FIGURES

Summary of District Costs	'16/17 Rev. Reqts.	'17/18 Fully Funded CIP	'17/18 Partially Funded CIP	'17/18 Operations Only
Uses of Sewer Funds				
Water Fund Operating Expenses:				
Personnel	21,256	21,827	21,827	21,827
Materials & Services	115,796	118,905	118,905	118,905
Debt Service	-	-	-	-
Capital Expenses	63,880	65,796	32,898	-
Total Use of Funds	\$ 200,931	\$ 206,528	\$ 173,630	\$ 140,732
Add'l. Revenue Needed	0%	9%	5%	0%





APPENDIX B – DETAILED WATER COST-OF-SERVICE TABLES & FIGURES

Appendix B is included under separate cover.

TABLE 1
 FINANCIAL PLAN AND SUMMARY OF WATER COST REQUIREMENTS

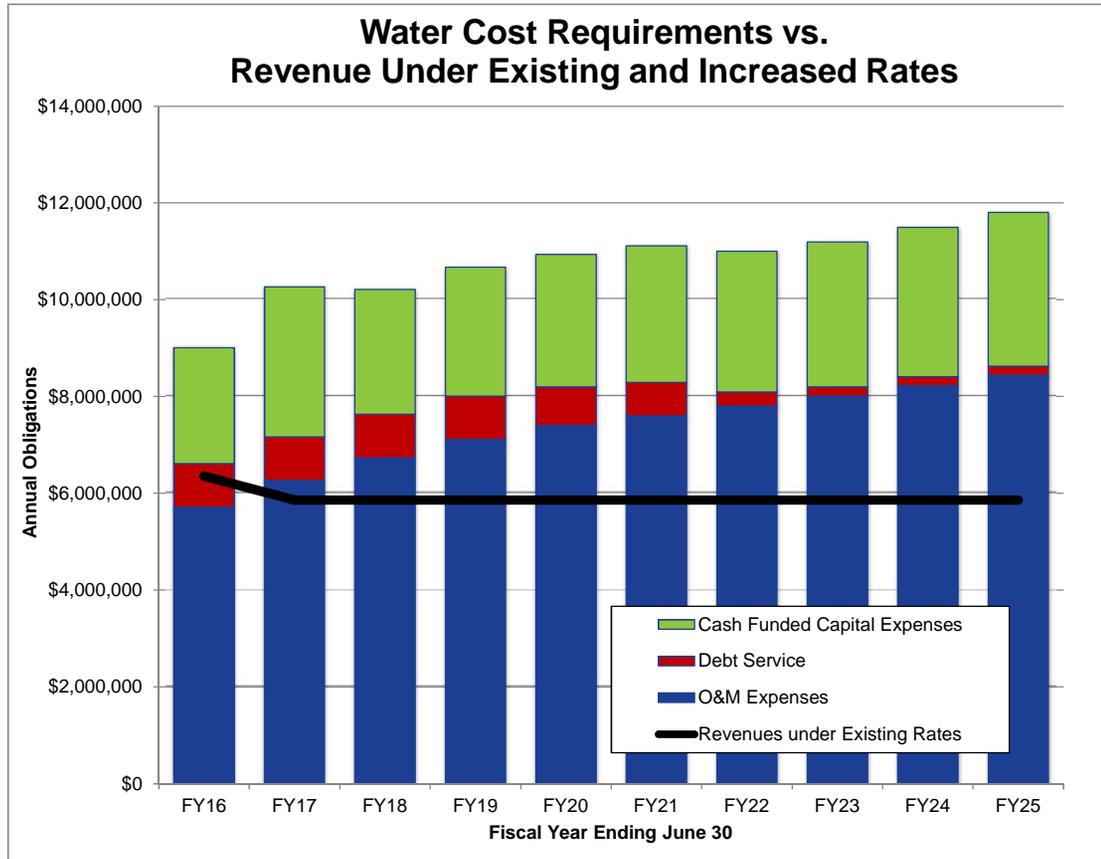
WATER COST REQUIREMENTS SUMMARY	Budget		Projected							
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Sources of Funds										
<i>Water Rate Revenue: (1)</i>										
Service & Usage Fees	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534
<i>Water Non-Rate Revenue: (2)</i>										
7501 Property Taxes	\$ 762,752	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308
7502 Rental Revenue	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713
7503 Investment Earnings	(1,909)	-	-	-	-	-	-	-	-	-
7504 Gain/Loss on Sale of Assets	34,499	-	-	-	-	-	-	-	-	-
7505 Other Income	286,525	66,372	66,372	66,372	66,372	66,372	66,372	66,372	66,372	66,372
Interest Income	7,699	-	-	-	-	-	-	-	-	-
Grand Total: Sources of Funds	\$ 6,356,813	\$ 5,860,926								
Uses of Funds										
<i>Water Fund Operating Expenses (3):</i>										
Administration	\$ 720,331	\$ 739,440	\$ 759,041	\$ 778,938	\$ 799,426	\$ 820,505	\$ 842,175	\$ 864,535	\$ 887,387	\$ 911,027
Finance	674,045	792,100	913,200	1,137,500	1,268,000	1,302,100	1,337,000	1,372,800	1,409,600	1,447,300
Engineering	176,175	280,700	287,900	295,400	303,100	310,900	318,900	327,100	335,400	344,000
Operations/Distribution	1,878,850	2,029,400	2,183,600	2,242,100	2,302,200	2,363,600	2,426,700	2,491,600	2,558,200	2,626,300
Watershed	499,235	512,400	526,100	539,900	554,200	568,800	583,800	599,300	615,200	631,600
Operations/Supply & Treatment	1,767,650	1,915,000	2,065,900	2,121,000	2,177,600	2,235,400	2,294,900	2,356,200	2,418,800	2,483,000
Subtotal: Operating Expenditures	\$ 5,716,286	\$ 6,269,040	\$ 6,735,741	\$ 7,114,838	\$ 7,404,526	\$ 7,601,305	\$ 7,803,475	\$ 8,011,535	\$ 8,224,587	\$ 8,443,227
<i>Other Expenditures:</i>										
Existing Debt Service	\$ 896,508	\$ 896,508	\$ 896,508	\$ 896,508	\$ 795,095	\$ 693,682	\$ 291,596	\$ 186,797	\$ 186,797	\$ 186,797
New Debt Service	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	2,397,525	3,100,000	2,583,059	2,660,550	2,740,367	2,822,578	2,907,255	2,994,473	3,084,307	3,176,836
Subtotal: Other Expenditures	\$ 3,294,033	\$ 3,996,508	\$ 3,479,566	\$ 3,557,058	\$ 3,535,462	\$ 3,516,260	\$ 3,198,851	\$ 3,181,270	\$ 3,271,104	\$ 3,363,634
Grand Total: Uses of Funds	\$ 9,010,318	\$ 10,265,547	\$ 10,215,307	\$ 10,671,896	\$ 10,939,988	\$ 11,117,565	\$ 11,002,326	\$ 11,192,805	\$ 11,495,691	\$ 11,806,860
Annual Surplus/(Deficit)	\$ (2,653,505)	\$ (4,404,621)	\$ (4,354,381)	\$ (4,810,970)	\$ (5,079,062)	\$ (5,256,639)	\$ (5,141,400)	\$ (5,331,878)	\$ (5,634,765)	\$ (5,945,934)
Water Net Cost Req. (Total Uses less Non-Rate Rev)	\$ 7,898,738	\$ 9,642,155	\$ 9,591,915	\$ 10,048,504	\$ 10,316,595	\$ 10,494,173	\$ 10,378,934	\$ 10,569,412	\$ 10,872,298	\$ 11,183,468

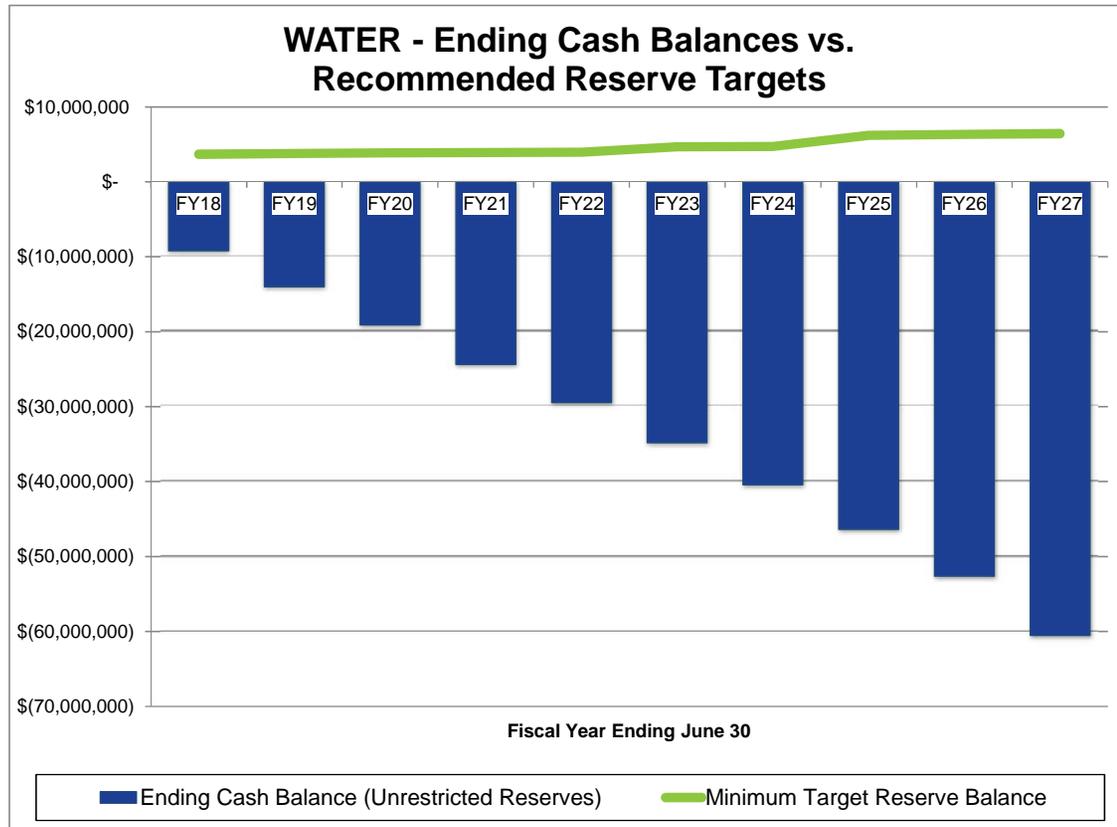
1. Revenues are from the Final Trial Balance on June 30, 2015 from source file: SLVWD 2015 Working TB.xls and are actual revenues from FY 14/15.
 2. OLY Assessment (Property Tax) Revenue expected to cease after FY 2015/16.
 3. Expenses are from the FY 2015/16 Budget and from source file: FY1516 BUDGET FINAL.pdf. All projected expenses are rounded to the nearest \$100.

TABLE 2
 RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY UN-RESTRICTED RESERVES - WATER	Budget	Projected								
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Beginning Cash (1)	\$ 2,595,259									
Operational Reserve Fund										
Beginning Reserve Balance (2)	\$ 2,218,677	\$ (430,534)	\$ (4,833,859)	\$ (9,186,372)	\$ (13,994,540)	\$ (19,069,865)	\$ (24,321,834)	\$ (29,457,630)	\$ (34,782,971)	\$ (40,410,264)
Plus: Net Cash Flow (After Rate Increases)	(2,653,505)	(4,404,621)	(4,354,381)	(4,810,970)	(5,079,062)	(5,256,639)	(5,141,400)	(5,331,878)	(5,634,765)	(5,945,934)
Plus: Transfer in from Debt Reserve Surpluses	4,294	1,296	1,868	2,802	3,736	4,670	5,604	6,538	7,472	7,472
Plus: Transfer in from Capital Replacement Reserve	-	-	-	-	-	-	-	-	-	-
Less: Transfer out to Capital Replacement Reserve	-	-	-	-	-	-	-	-	-	-
Ending Operating Reserve Balance	\$ (430,534)	\$ (4,833,859)	\$ (9,186,372)	\$ (13,994,540)	\$ (19,069,865)	\$ (24,321,834)	\$ (29,457,630)	\$ (34,782,971)	\$ (40,410,264)	\$ (46,348,726)
<i>Target Ending Balance (\$1.5M, then graduating to 6 m</i>	\$ 1,500,000	\$ 1,500,000	\$ 1,684,000	\$ 1,779,000	\$ 1,851,000	\$ 1,900,000	\$ 1,951,000	\$ 2,671,000	\$ 2,742,000	\$ 4,222,000
Capital Reserve Fund										
Beginning Reserve Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Grant Proceeds	1,270,475	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	-	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	(1,270,475)	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Operating Reserve	-	-	-	-	-	-	-	-	-	-
Ending Capital Replacement Reserve Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Capital Replacement Reserve (\$2M or 3% of Net Asse</i>	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
Ending Balance - Excl. Restricted Reserves	\$ (430,534)	\$ (4,833,859)	\$ (9,186,372)	\$ (13,994,540)	\$ (19,069,865)	\$ (24,321,834)	\$ (29,457,630)	\$ (34,782,971)	\$ (40,410,264)	\$ (46,348,726)
Min. Target Ending Balance - Excl. Restricted Reserves	\$ 3,500,000	\$ 3,500,000	\$ 3,684,000	\$ 3,779,000	\$ 3,851,000	\$ 3,900,000	\$ 3,951,000	\$ 4,671,000	\$ 4,742,000	\$ 6,222,000
Ending Surplus/(Deficit) Compared to Reserve Targ	\$ (3,930,534)	\$ (8,333,859)	\$ (12,870,372)	\$ (17,773,540)	\$ (22,920,865)	\$ (28,221,834)	\$ (33,408,630)	\$ (39,453,971)	\$ (45,152,264)	\$ (52,570,726)
Restricted Reserves:										
Debt Service Reserve Fund										
Beginning Reserve Balance (3)	\$ 376,582	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594
Plus: Reserve Funding from New Debt Obligations	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	1,307	1,296	1,868	2,802	3,736	4,670	5,604	6,538	7,472	7,472
Less: Transfer of Surplus to Operating Reserve	(4,294)	(1,296)	(1,868)	(2,802)	(3,736)	(4,670)	(5,604)	(6,538)	(7,472)	(7,472)
Ending Debt Reserve Balance	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594
<i>Target Ending Balance</i>	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594
Bond Project Fund										
Beginning Reserve Balance (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: SRF Loan Funding Proceeds	-	-	-	-	-	-	-	-	-	-
Plus: Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-
Less: Use of Bond & Loan Funds for Capital Projects	-	-	-	-	-	-	-	-	-	-
Ending Bond Project Fund Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Target Ending Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Annual Interest Earnings Rate (4)</i>	0.35%	0.35%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.00%

- The beginning Cash balance is from June 2016 Liquid Assets report.
- Operating Reserve is comprised of Cash and SC County Fund for SLV.
- Debt Reserve Fund is comprised of the Liberty Savings, Morgan Stanley accounts, SC County Fund - Lompico, and LAIF funds.
- Historical interest earning rates were referenced on the CA Treasurer's Office website for funds invested in LAIF. Future years earnings were conservatively estimated through 2024 and phase into the historical 10 year average interest earnings rate.





SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER REVENUE FORECAST:

DESCRIPTION (1)	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
WATER FUND REVENUES:											
7101 Water Sales											
WATER SERVICE FEES	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WATER USAGE FEES	1	-	-	-	-	-	-	-	-	-	-
BASIC SERVICE FEES	1	2,780,938	2,780,938	2,780,938	2,780,938	2,780,938	2,780,938	2,780,938	2,780,938	2,780,938	2,780,938
WATER USAGE FEES	1	2,456,596	2,456,596	2,456,596	2,456,596	2,456,596	2,456,596	2,456,596	2,456,596	2,456,596	2,456,596
Subtotal		\$ 5,237,534									
7501 Property Taxes											
PROPERTY TAXES	1	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308
OLY ASSESSMENT REVENUE	1	235,444	-	-	-	-	-	-	-	-	-
Subtotal		\$ 762,752	\$ 527,308								
7502 Rental Revenue											
MOBILE SERVICES LEASE FEES	1	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713	\$ 15,713
JOHNSON PROPERTY RENTS	1	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000
Subtotal		\$ 29,713									
7503 Investment Earnings											
LOMPICO LOAN - INTEREST	1	\$ 1,222	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
INTEREST - WATER	1	2,284	-	-	-	-	-	-	-	-	-
INTEREST - FELTON LOAN RESERVE	1	-	-	-	-	-	-	-	-	-	-
REALIZED G/L - MSDW	1	(119,479)	-	-	-	-	-	-	-	-	-
UNREALIZED GAINS/LOSS - MSDW	1	77,997	-	-	-	-	-	-	-	-	-
INTEREST DIVIDEND - MSDW	1	36,068	-	-	-	-	-	-	-	-	-
Subtotal		\$ (1,909)	\$ -								
7504 Gain/Loss on Sale of Assets											
SALE OF SURPLUS PROPERTY	1	\$ 34,499	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LOSS ON SALE/ABAND FIXED ASSET	1	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 34,499	\$ -								
7505 Other Income											
ACCT. ESTAB. CHARGES & PENALTY	1	\$ 99,066	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
ASSESSMENT BOND - N.B.C.	1	-	-	-	-	-	-	-	-	-	-
SALE OF METERS	1	25,830	-	-	-	-	-	-	-	-	-
MISCELLANEOUS	1	9,803	9,803	9,803	9,803	9,803	9,803	9,803	9,803	9,803	9,803
REIMB. FOR MANANA WOODS	1	145,257	-	-	-	-	-	-	-	-	-
LOMPICO LOAN - PRINCIPAL	1	-	-	-	-	-	-	-	-	-	-
CSI - #34053 MANANA WOODS	1	237	237	237	237	237	237	237	237	237	237
CSI - # 34057 LYON WTP	1	1,148	1,148	1,148	1,148	1,148	1,148	1,148	1,148	1,148	1,148
CSI - #34058 KIRBY WTP	1	5,184	5,184	5,184	5,184	5,184	5,184	5,184	5,184	5,184	5,184
Subtotal		\$ 286,525	\$ 66,372								
GRAND TOTAL: REVENUE		\$ 6,349,114	\$ 5,860,926								

WATER REVENUE SUMMARY:

WATER REVENUES:											
RATE REVENUE:											
7101 Water Sales		\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534	\$ 5,237,534
OTHER REVENUE:											
7501 Property Taxes		\$ 762,752	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308	\$ 527,308
7502 Rental Revenue		29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713
7503 Investment Earnings		(1,909)	-	-	-	-	-	-	-	-	-
7504 Gain/Loss on Sale of Assets		34,499	-	-	-	-	-	-	-	-	-
7505 Other Income		286,525	66,372	66,372	66,372	66,372	66,372	66,372	66,372	66,372	66,372
GRAND TOTAL: REVENUE		\$ 6,349,114	\$ 5,860,926								
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER FUND OPERATING EXPENSE FORECAST (2):

DEPARTMENT: ADMINISTRATION - 01	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	3	\$ 223,000	\$ 229,000	\$ 235,100	\$ 241,400	\$ 247,900	\$ 254,600	\$ 261,400	\$ 268,400	\$ 275,600	\$ 283,000
DIRECTORS FEES	3	23,000	23,600	24,200	24,800	25,500	26,200	26,900	27,600	28,300	29,100
Subtotal		\$ 246,000	\$ 252,600	\$ 259,300	\$ 266,200	\$ 273,400	\$ 280,800	\$ 288,300	\$ 296,000	\$ 303,900	\$ 312,100
Benefits											
MEDICAL INSURANCE	3	\$ 40,500	\$ 41,600	\$ 42,700	\$ 43,800	\$ 45,000	\$ 46,200	\$ 47,400	\$ 48,700	\$ 50,000	\$ 51,300
DENTAL INSURANCE	3	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800
VISION INSURANCE	3	450	500	500	500	500	500	500	500	500	500
LIFE INSURANCE	3	400	400	400	400	400	400	400	400	400	400
LONG TERM DISABILITY	3	1,150	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
PERS - RETIREMENT	3	24,700	25,400	26,100	26,800	27,500	28,200	29,000	29,800	30,600	31,400
FICA - SOCIAL SECURITY	3	11,000	11,300	11,600	11,900	12,200	12,500	12,800	13,100	13,500	13,900
WORKERS COMPENSATION	3	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
ASSISTANCE PROGRAM	3	100	100	100	100	100	100	100	100	100	100
OTHER PAYROLL CHARGES	3	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900
MEDICARE RETIRED MEDICAL	3	3,250	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100
RETIRED MEDICAL	3	13,000	13,300	13,700	14,100	14,500	14,900	15,300	15,700	16,100	16,500
ANNUAL OPEB	3	35,000	35,900	36,900	37,900	38,900	39,900	41,000	42,100	43,200	44,400
Subtotal		\$ 135,550	\$ 139,200	\$ 143,000	\$ 146,800	\$ 150,700	\$ 154,600	\$ 158,700	\$ 162,900	\$ 167,200	\$ 171,600
TOTAL: PERSONNEL		\$ 381,550	\$ 391,800	\$ 402,300	\$ 413,000	\$ 424,100	\$ 435,400	\$ 447,000	\$ 458,900	\$ 471,100	\$ 483,700
MATERIALS & SERVICES											
CONTRACT/PROFESSIONAL SERVICES	2	\$ 112,550	\$ 115,500	\$ 118,600	\$ 121,700	\$ 124,900	\$ 128,200	\$ 131,600	\$ 135,100	\$ 138,700	\$ 142,400
LEGAL SERVICES	2	60,000	61,600	63,200	64,900	66,600	68,400	70,200	72,100	74,000	76,000
UTILITIES DISTRICT OFFICE	2	12,000	12,300	12,600	12,900	13,200	13,500	13,900	14,300	14,700	15,100
AUTO ALLOWANCE	2	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100
RENTALS/LEASES/PERMITS	2	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
FACILITIES MAINTENANCE	2	12,000	12,300	12,600	12,900	13,200	13,500	13,900	14,300	14,700	15,100
TELEPHONE/COMMUNICATIONS	2	18,000	18,500	19,000	19,500	20,000	20,500	21,000	21,600	22,200	22,800
OFFICE SUPPLIES (includes 5078)	2	10,000	10,300	10,600	10,900	11,200	11,500	11,800	12,100	12,400	12,700
POSTAGE	2	500	500	500	500	500	500	500	500	500	500
SUBSCRIPTIONS/BOOKS	2	500	500	500	500	500	500	500	500	500	500
ADVERTISING	2	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900
TRAINING, CONFERENCES & MEETINGS	2	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,900	6,100
MEMBERSHIPS & DUES (includes 5085)	2	33,000	33,900	34,800	35,700	36,600	37,600	38,600	39,600	40,600	41,700
INSURANCE - PROPERTY (SDRMA)	2	77,000	79,000	81,100	83,200	85,400	87,700	90,000	92,400	94,800	97,300
LEGAL SETTLEMENTS	2	-	-	-	-	-	-	-	-	-	-
ELECTION FEES	2	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 349,750	\$ 358,900	\$ 368,300	\$ 377,800	\$ 387,500	\$ 397,600	\$ 408,000	\$ 418,800	\$ 429,800	\$ 441,200
TOTAL: MATERIALS & SERVICES		\$ 349,750	\$ 358,900	\$ 368,300	\$ 377,800	\$ 387,500	\$ 397,600	\$ 408,000	\$ 418,800	\$ 429,800	\$ 441,200
ADMINISTRATION OVERHEAD ALLOCATION TO SEWER (1.5%) (3)		(10,970)	(11,261)	(11,559)	(11,862)	(12,174)	(12,495)	(12,825)	(13,166)	(13,514)	(13,874)
TOTAL: ADMINISTRATION		\$ 720,331	\$ 739,440	\$ 759,041	\$ 778,938	\$ 799,426	\$ 820,505	\$ 842,175	\$ 864,535	\$ 887,387	\$ 911,027

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER FUND OPERATING EXPENSE FORECAST (2):

DEPARTMENT: FINANCE - 02	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	3	\$ 365,000	\$ 374,800	\$ 384,900	\$ 395,200	\$ 405,800	\$ 416,700	\$ 427,900	\$ 439,400	\$ 451,200	\$ 463,300
TEMPORARY SALARIES	3	-	-	-	-	-	-	-	-	-	-
OVERTIME WAGES	3	500	500	500	500	500	500	500	500	500	500
Subtotal		\$ 365,500	\$ 375,300	\$ 385,400	\$ 395,700	\$ 406,300	\$ 417,200	\$ 428,400	\$ 439,900	\$ 451,700	\$ 463,800
Benefits											
MEDICAL INSURANCE	3	\$ 55,700	\$ 57,200	\$ 58,700	\$ 60,300	\$ 61,900	\$ 63,600	\$ 65,300	\$ 67,100	\$ 68,900	\$ 70,700
DENTAL INSURANCE	3	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,800	8,000	8,200
VISION INSURANCE	3	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
LIFE INSURANCE	3	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
LONG TERM DISABILITY	3	1,850	1,900	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700
PERS - RETIREMENT	3	36,500	37,500	38,500	39,500	40,600	41,700	42,800	43,900	45,100	46,300
FICA - SOCIAL SECURITY	3	22,650	23,300	23,900	24,500	25,200	25,900	26,600	27,300	28,000	28,800
WORKERS COMPENSATION	3	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
ASSISTANCE PROGRAM	3	225	200	200	200	200	200	200	200	200	200
MEDICARE RETIRED MEDICAL	3	5,300	5,400	5,500	5,600	5,800	6,000	6,200	6,400	6,600	6,800
Subtotal		\$ 132,325	\$ 135,800	\$ 139,300	\$ 142,900	\$ 146,800	\$ 150,800	\$ 154,800	\$ 158,900	\$ 163,100	\$ 167,400
Additional Positions (4)											
Fully Loaded Cost of New Position #1	3	\$ -	\$ 100,000	\$ 102,700	\$ 105,500	\$ 108,300	\$ 111,200	\$ 114,200	\$ 117,300	\$ 120,400	\$ 123,600
Fully Loaded Cost of New Position #2	3	-	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300	120,400
Fully Loaded Cost of New Position #3	3	-	-	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300
Fully Loaded Cost of New Position #4	3	-	-	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300
Fully Loaded Cost of New Position #5	3	-	-	-	-	100,000	102,700	105,500	108,300	111,200	114,200
Subtotal		\$ -	\$ 100,000	\$ 202,700	\$ 408,200	\$ 519,200	\$ 533,200	\$ 547,500	\$ 562,200	\$ 577,300	\$ 592,800
TOTAL: PERSONNEL		\$ 497,825	\$ 611,100	\$ 727,400	\$ 946,800	\$ 1,072,300	\$ 1,101,200	\$ 1,130,700	\$ 1,161,000	\$ 1,192,100	\$ 1,224,000
MATERIALS & SERVICES											
CONTRACT/PROFESSIONAL SERVICES	2	\$ 60,220	\$ 61,800	\$ 63,400	\$ 65,100	\$ 66,800	\$ 68,600	\$ 70,400	\$ 72,300	\$ 74,200	\$ 76,200
AUDIT SERVICES	2	25,000	25,700	26,400	27,100	27,800	28,500	29,300	30,100	30,900	31,700
OFFICE SUPPLIES (includes 5078)	2	12,000	12,300	12,600	12,900	13,200	13,500	13,900	14,300	14,700	15,100
POSTAGE	2	40,000	41,100	42,200	43,300	44,400	45,600	46,800	48,000	49,300	50,600
TRAINING, CONFERENCES & MEETINGS	2	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900
COLLECTION COSTS/BANK FEES	2	30,000	30,800	31,600	32,400	33,300	34,200	35,100	36,000	37,000	38,000
BAD DEBTS	2	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,800
Subtotal		\$ 176,220	\$ 181,000	\$ 185,800	\$ 190,700	\$ 195,700	\$ 200,900	\$ 206,300	\$ 211,800	\$ 217,500	\$ 223,300
TOTAL: MATERIALS & SERVICES		\$ 176,220	\$ 181,000	\$ 185,800	\$ 190,700	\$ 195,700	\$ 200,900	\$ 206,300	\$ 211,800	\$ 217,500	\$ 223,300
TOTAL: FINANCE		\$ 674,045	\$ 792,100	\$ 913,200	\$ 1,137,500	\$ 1,268,000	\$ 1,302,100	\$ 1,337,000	\$ 1,372,800	\$ 1,409,600	\$ 1,447,300

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER FUND OPERATING EXPENSE FORECAST (2):

DEPARTMENT: ENGINEERING - 03	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	2	\$ 103,550	\$ 106,300	\$ 109,100	\$ 112,000	\$ 115,000	\$ 118,000	\$ 121,100	\$ 124,300	\$ 127,600	\$ 131,000
OVERTIME WAGES	2	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 103,550	\$ 106,300	\$ 109,100	\$ 112,000	\$ 115,000	\$ 118,000	\$ 121,100	\$ 124,300	\$ 127,600	\$ 131,000
Benefits											
MEDICAL INSURANCE	2	\$ 16,000	\$ 16,400	\$ 16,800	\$ 17,200	\$ 17,700	\$ 18,200	\$ 18,700	\$ 19,200	\$ 19,700	\$ 20,200
DENTAL INSURANCE	2	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
VISION INSURANCE	2	200	200	200	200	200	200	200	200	200	200
LIFE INSURANCE	2	200	200	200	200	200	200	200	200	200	200
LONG TERM DISABILITY	2	525	500	500	500	500	500	500	500	500	500
PERS - RETIREMENT	2	13,200	13,500	13,900	14,300	14,700	15,100	15,500	15,900	16,300	16,700
FICA - SOCIAL SECURITY	2	6,450	6,600	6,800	7,000	7,200	7,400	7,600	7,800	8,000	8,200
WORKERS COMPENSATION	2	500	500	500	500	500	500	500	500	500	500
ASSISTANCE PROGRAM	2	50	100	100	100	100	100	100	100	100	100
MEDICARE RETIRED MEDICAL	2	1,525	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
SPECIAL CLOTHING	2	675	700	700	700	700	700	700	700	700	700
ANNUAL OPEB	2	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 40,625	\$ 41,600	\$ 42,600	\$ 43,600	\$ 44,700	\$ 45,800	\$ 46,900	\$ 48,000	\$ 49,100	\$ 50,200
Additional Positions (4)											
Fully Loaded Cost of New Position #6	3	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300	120,400	123,600
Subtotal		\$ -	\$ 100,000	\$ 102,700	\$ 105,500	\$ 108,300	\$ 111,200	\$ 114,200	\$ 117,300	\$ 120,400	\$ 123,600
TOTAL: PERSONNEL		\$ 144,175	\$ 247,900	\$ 254,400	\$ 261,100	\$ 268,000	\$ 275,000	\$ 282,200	\$ 289,600	\$ 297,100	\$ 304,800
MATERIALS & SERVICES											
CONTRACT/PROFESSIONAL SERVICES	2	\$ 20,000	\$ 20,500	\$ 21,000	\$ 21,600	\$ 22,200	\$ 22,800	\$ 23,400	\$ 24,000	\$ 24,600	\$ 25,300
EQUIPMENT REPLACEMENT FUND	2	-	-	-	-	-	-	-	-	-	-
MAINT/OPERATIONS OF VEHICLES	2	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
SMALL TOOLS/MAINT & REPAIRS	2	100	100	100	100	100	100	100	100	100	100
EQUIP. NON-CAP	2	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
COMMUNICATIONS	2	750	800	800	800	800	800	800	800	800	800
OFFICE SUPPLIES	2	750	800	800	800	800	800	800	800	800	800
SUBSCRIPTIONS/BOOKS	2	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
TRAINING, CONFERENCES & MEETINGS	2	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
MEMBERSHIPS & DUES	2	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,800
Subtotal		\$ 32,000	\$ 32,800	\$ 33,500	\$ 34,300	\$ 35,100	\$ 35,900	\$ 36,700	\$ 37,500	\$ 38,300	\$ 39,200
TOTAL: MATERIALS & SERVICES		\$ 32,000	\$ 32,800	\$ 33,500	\$ 34,300	\$ 35,100	\$ 35,900	\$ 36,700	\$ 37,500	\$ 38,300	\$ 39,200
TOTAL: ENGINEERING		\$ 176,175	\$ 280,700	\$ 287,900	\$ 295,400	\$ 303,100	\$ 310,900	\$ 318,900	\$ 327,100	\$ 335,400	\$ 344,000

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER FUND OPERATING EXPENSE FORECAST (2):

DEPARTMENT: OPERATIONS/DISTRIBUTION - 04	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	3	\$ 871,100	\$ 894,500	\$ 918,500	\$ 943,200	\$ 968,500	\$ 994,500	\$ 1,021,200	\$ 1,048,600	\$ 1,076,800	\$ 1,105,700
TEMPORARY SALARIES	3	-	-	-	-	-	-	-	-	-	-
OVERTIME WAGES	3	40,000	41,100	42,200	43,300	44,500	45,700	46,900	48,200	49,500	50,800
STANDBY WAGES	3	27,000	27,700	28,400	29,200	30,000	30,800	31,600	32,400	33,300	34,200
Subtotal		\$ 938,100	\$ 963,300	\$ 989,100	\$ 1,015,700	\$ 1,043,000	\$ 1,071,000	\$ 1,099,700	\$ 1,129,200	\$ 1,159,600	\$ 1,190,700
Benefits											
MEDICAL INSURANCE	3	\$ 183,000	\$ 187,900	\$ 192,900	\$ 198,100	\$ 203,400	\$ 208,900	\$ 214,500	\$ 220,300	\$ 226,200	\$ 232,300
DENTAL INSURANCE	3	19,200	19,700	20,200	20,700	21,300	21,900	22,500	23,100	23,700	24,300
VISION INSURANCE	3	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700
LIFE INSURANCE	3	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000	3,100
LONG TERM DISABILITY	3	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,400
PERS - RETIREMENT	3	103,500	106,300	109,200	112,100	115,100	118,200	121,400	124,700	128,000	131,400
FICA - SOCIAL SECURITY	3	57,500	59,000	60,600	62,200	63,900	65,600	67,400	69,200	71,100	73,000
WORKERS COMPENSATION	3	40,000	41,100	42,200	43,300	44,500	45,700	46,900	48,200	49,500	50,800
ASSISTANCE PROGRAM	3	500	500	500	500	500	500	500	500	500	500
MEDICARE RETIRED MEDICAL	3	13,600	14,000	14,400	14,800	15,200	15,600	16,000	16,400	16,800	17,300
SPECIAL CLOTHING	3	7,200	7,400	7,600	7,800	8,000	8,200	8,400	8,600	8,800	9,000
CERTIFICATIONS	3	750	800	800	800	800	800	800	800	800	800
Subtotal		\$ 434,750	\$ 446,500	\$ 458,500	\$ 470,700	\$ 483,400	\$ 496,400	\$ 509,700	\$ 523,400	\$ 537,300	\$ 551,600
Additional Positions (4)											
Fully Loaded Cost of New Position #7	3	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300	120,400	123,600
Fully Loaded Cost of New Position #8	3	-	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300	120,400
Subtotal		\$ -	\$ 100,000	\$ 202,700	\$ 208,200	\$ 213,800	\$ 219,500	\$ 225,400	\$ 231,500	\$ 237,700	\$ 244,000
TOTAL: PERSONNEL		\$ 1,372,850	\$ 1,509,800	\$ 1,650,300	\$ 1,694,600	\$ 1,740,200	\$ 1,786,900	\$ 1,834,800	\$ 1,884,100	\$ 1,934,600	\$ 1,986,300
MATERIALS & SERVICES											
CONTRACT/PROFESSIONAL SERVICES	2	\$ 70,000	\$ 71,900	\$ 73,800	\$ 75,800	\$ 77,800	\$ 79,900	\$ 82,000	\$ 84,200	\$ 86,400	\$ 88,700
EQUIPMENT REPLACEMENT FUND	2	-	-	-	-	-	-	-	-	-	-
UTILITIES	2	110,000	112,900	115,900	119,000	122,200	125,400	128,700	132,100	135,600	139,200
OPERATING SUPPLIES	2	90,000	92,400	94,800	97,300	99,900	102,500	105,200	108,000	110,900	113,800
MAINT & OPERATIONS OF VEHICLES	2	75,000	77,000	79,000	81,100	83,200	85,400	87,700	90,000	92,400	94,800
RENTAL/LEASES/PERMITS	2	10,000	10,300	10,600	10,900	11,200	11,500	11,800	12,100	12,400	12,700
SMALL TOOLS-MAINT & REPAIRS	2	10,000	10,300	10,600	10,900	11,200	11,500	11,800	12,100	12,400	12,700
EQUIPMENT NON-CAP	2	7,500	7,700	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300
FACILITIES MAINTENANCE	2	15,000	15,400	15,800	16,200	16,600	17,000	17,500	18,000	18,500	19,000
COMMUNICATIONS & TELEMETERING	2	56,000	57,500	59,000	60,600	62,200	63,800	65,500	67,200	69,000	70,800
OFFICE SUPPLIES (included 5078)	2	6,500	6,700	6,900	7,100	7,300	7,500	7,700	7,900	8,100	8,300
SUBSCRIPTIONS/BOOKS	2	-	-	-	-	-	-	-	-	-	-
TRAINING, CONFERENCES & MEETINGS	2	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,900	6,100
SPECIAL PROJECTS	2	51,000	52,400	53,800	55,200	56,700	58,200	59,700	61,300	62,900	64,600
Subtotal		\$ 506,000	\$ 519,600	\$ 533,300	\$ 547,500	\$ 562,000	\$ 576,700	\$ 591,900	\$ 607,500	\$ 623,600	\$ 640,000
TOTAL: MATERIALS & SERVICES		\$ 506,000	\$ 519,600	\$ 533,300	\$ 547,500	\$ 562,000	\$ 576,700	\$ 591,900	\$ 607,500	\$ 623,600	\$ 640,000
TOTAL: OPERATIONS/DISTRIBUTION		\$ 1,878,850	\$ 2,029,400	\$ 2,183,600	\$ 2,242,100	\$ 2,302,200	\$ 2,363,600	\$ 2,426,700	\$ 2,491,600	\$ 2,558,200	\$ 2,626,300

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER FUND OPERATING EXPENSE FORECAST (2):

DEPARTMENT: WATERSHED - 05	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	3	\$ 89,500	\$ 91,900	\$ 94,400	\$ 96,900	\$ 99,500	\$ 102,200	\$ 104,900	\$ 107,700	\$ 110,600	\$ 113,600
TEMPORARY SALARIES	3	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 89,500	\$ 91,900	\$ 94,400	\$ 96,900	\$ 99,500	\$ 102,200	\$ 104,900	\$ 107,700	\$ 110,600	\$ 113,600
Benefits											
MEDICAL INSURANCE	3	\$ 20,100	\$ 20,600	\$ 21,200	\$ 21,800	\$ 22,400	\$ 23,000	\$ 23,600	\$ 24,200	\$ 24,800	\$ 25,500
DENTAL INSURANCE	3	2,150	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
VISION INSURANCE	3	325	300	300	300	300	300	300	300	300	300
LIFE INSURANCE	3	60	100	100	100	100	100	100	100	100	100
LONG TERM DISABILITY	3	500	500	500	500	500	500	500	500	500	500
PERS - RETIREMENT	3	11,400	11,700	12,000	12,300	12,600	12,900	13,200	13,600	14,000	14,400
FICA - SOCIAL SECURITY	3	5,600	5,800	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400
WORKERS COMPENSATION	3	425	400	400	400	400	400	400	400	400	400
ASSISTANCE PROGRAM	3	25	-	-	-	-	-	-	-	-	-
MEDICARE	3	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
SPECIAL CLOTHING	3	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 41,885	\$ 42,900	\$ 44,100	\$ 45,300	\$ 46,500	\$ 47,700	\$ 48,900	\$ 50,200	\$ 51,500	\$ 52,900
TOTAL: PERSONNEL		\$ 131,385	\$ 134,800	\$ 138,500	\$ 142,200	\$ 146,000	\$ 149,900	\$ 153,800	\$ 157,900	\$ 162,100	\$ 166,500
MATERIALS & SERVICES											
CONTRACT/PROFESSIONAL SERVICES	2	\$ 80,000	\$ 82,100	\$ 84,300	\$ 86,500	\$ 88,800	\$ 91,200	\$ 93,600	\$ 96,100	\$ 98,600	\$ 101,200
ROAD MAINTENANCE	2	15,000	15,400	15,800	16,200	16,600	17,000	17,500	18,000	18,500	19,000
OPERATING SUPPLIES	2	500	500	500	500	500	500	500	500	500	500
COMMUNICATIONS & TELEMETERING	2	300	300	300	300	300	300	300	300	300	300
SUBSCRIPTIONS/BOOKS	2	300	300	300	300	300	300	300	300	300	300
TRAINING, CONFERENCES & MEETINGS	2	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900
MEMBERSHIP & DUES	2	1,250	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
WATERSHED & DATA COLLECTION GRNTS	2	15,000	15,400	15,800	16,200	16,600	17,000	17,500	18,000	18,500	19,000
WATER CONSERVATION PROGRAM	2	65,000	66,700	68,500	70,300	72,200	74,100	76,100	78,100	80,200	82,300
EDUCATION GRANT PROGRAM	2	17,500	18,000	18,500	19,000	19,500	20,000	20,500	21,000	21,600	22,200
SPECIAL PROJECTS	2	170,000	174,500	179,100	183,800	188,700	193,700	198,800	204,100	209,500	215,100
Subtotal		\$ 367,850	\$ 377,600	\$ 387,600	\$ 397,700	\$ 408,200	\$ 418,900	\$ 430,000	\$ 441,400	\$ 453,100	\$ 465,100
TOTAL: MATERIALS & SERVICES		\$ 367,850	\$ 377,600	\$ 387,600	\$ 397,700	\$ 408,200	\$ 418,900	\$ 430,000	\$ 441,400	\$ 453,100	\$ 465,100
TOTAL: WATERSHED		\$ 499,235	\$ 512,400	\$ 526,100	\$ 539,900	\$ 554,200	\$ 568,800	\$ 583,800	\$ 599,300	\$ 615,200	\$ 631,600

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Operating Revenue and Expenses

EXHIBIT 1

WATER FUND OPERATING EXPENSE FORECAST (2):

DEPARTMENT: OPERATIONS/SUPPLY & TREATMENT -08	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	3	\$ 681,000	\$ 699,300	\$ 718,100	\$ 737,400	\$ 757,200	\$ 777,500	\$ 798,400	\$ 819,800	\$ 841,800	\$ 864,400
TEMPORARY SALARIES	3	-	-	-	-	-	-	-	-	-	-
OVERTIME WAGES	3	37,000	38,000	39,000	40,000	41,100	42,200	43,300	44,500	45,700	46,900
STANDBY	3	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900
Subtotal		\$ 722,000	\$ 741,400	\$ 761,300	\$ 781,700	\$ 802,700	\$ 824,200	\$ 846,300	\$ 869,000	\$ 892,300	\$ 916,200
Benefits											
MEDICAL INSURANCE	3	\$ 99,000	\$ 101,700	\$ 104,400	\$ 107,200	\$ 110,100	\$ 113,100	\$ 116,100	\$ 119,200	\$ 122,400	\$ 125,700
DENTAL INSURANCE	3	9,900	10,200	10,500	10,800	11,100	11,400	11,700	12,000	12,300	12,600
VISION INSURANCE	3	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
LIFE INSURANCE	3	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
LONG TERM DISABILITY	3	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
PERS - RETIREMENT	3	88,800	91,200	93,600	96,100	98,700	101,400	104,100	106,900	109,800	112,700
FICA - SOCIAL SECURITY	3	44,300	45,500	46,700	48,000	49,300	50,600	52,000	53,400	54,800	56,300
WORKERS COMPENSATION	3	31,500	32,300	33,200	34,100	35,000	35,900	36,900	37,900	38,900	39,900
ASSISTANCE PROGRAM	3	350	400	400	400	400	400	400	400	400	400
MEDICARE RETIRED MEDICAL	3	10,500	10,800	11,100	11,400	11,700	12,000	12,300	12,600	12,900	13,200
SPECIAL CLOTHING	3	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,800	6,000	6,200
CERTIFICATIONS	3	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Subtotal		\$ 297,350	\$ 305,300	\$ 313,300	\$ 321,600	\$ 330,100	\$ 338,800	\$ 347,700	\$ 356,900	\$ 366,300	\$ 375,900
Additional Positions (4)											
Fully Loaded Cost of New Position #9	3	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300	120,400	123,600
Fully Loaded Cost of New Position #10	3	-	-	100,000	102,700	105,500	108,300	111,200	114,200	117,300	120,400
Subtotal		\$ -	\$ 100,000	\$ 202,700	\$ 208,200	\$ 213,800	\$ 219,500	\$ 225,400	\$ 231,500	\$ 237,700	\$ 244,000
TOTAL: PERSONNEL		\$ 1,019,350	\$ 1,146,700	\$ 1,277,300	\$ 1,311,500	\$ 1,346,600	\$ 1,382,500	\$ 1,419,400	\$ 1,457,400	\$ 1,496,300	\$ 1,536,100
MATERIALS & SERVICES											
CONTRACT/PROFESSIONAL SERVICES	2	\$ 100,000	\$ 102,700	\$ 105,400	\$ 108,200	\$ 111,100	\$ 114,000	\$ 117,000	\$ 120,100	\$ 123,300	\$ 126,600
CONTRACT SERVICES MANANA WOODS	2	20,000	20,500	21,000	21,600	22,200	22,800	23,400	24,000	24,600	25,300
OUTSIDE WATER ANALYSIS	2	64,000	65,700	67,400	69,200	71,000	72,900	74,800	76,800	78,800	80,900
LAB SUPPLIES	2	12,000	12,300	12,600	12,900	13,200	13,500	13,900	14,300	14,700	15,100
EQUIPMENT REPLACEMENT	2	-	-	-	-	-	-	-	-	-	-
UTILITIES	2	285,000	292,600	300,400	308,400	316,600	325,000	333,600	342,400	351,500	360,800
CHEMICALS	2	34,000	34,900	35,800	36,700	37,700	38,700	39,700	40,800	41,900	43,000
OPERATING SUPPLIES	2	45,000	46,200	47,400	48,700	50,000	51,300	52,700	54,100	55,500	57,000
MAINTENANCE/OPERATIONS OF VEHICLES	2	22,000	22,600	23,200	23,800	24,400	25,000	25,700	26,400	27,100	27,800
RENTAL/LEASES/PERMITS	2	105,000	107,800	110,700	113,600	116,600	119,700	122,900	126,200	129,500	132,900
SMALL TOOLS-MAINTENANCE & REPAIRS	2	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
EQUIPMENT NON-CAP	2	7,000	7,200	7,400	7,600	7,800	8,000	8,200	8,400	8,600	8,800
FACILITIES MAINTENANCE	2	7,500	7,700	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300
COMMUNICATIONS & TELEMETERING	2	34,000	34,900	35,800	36,700	37,700	38,700	39,700	40,800	41,900	43,000
OFFICE SUPPLIES (included 5078)	2	5,800	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400	7,600
SUBSCRIPTIONS/BOOKS	2	500	500	500	500	500	500	500	500	500	500
TRAINING, CONFERENCES & MEETINGS	2	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900
OTHER HOUSEHOLD SUPPLIES	2	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 748,300	\$ 768,300	\$ 788,600	\$ 809,500	\$ 831,000	\$ 852,900	\$ 875,500	\$ 898,800	\$ 922,500	\$ 946,900
TOTAL: MATERIALS & SERVICES		\$ 748,300	\$ 768,300	\$ 788,600	\$ 809,500	\$ 831,000	\$ 852,900	\$ 875,500	\$ 898,800	\$ 922,500	\$ 946,900
TOTAL: OPERATIONS/SUPPLY & TREATMENT		\$ 1,767,650	\$ 1,915,000	\$ 2,065,900	\$ 2,121,000	\$ 2,177,600	\$ 2,235,400	\$ 2,294,900	\$ 2,356,200	\$ 2,418,800	\$ 2,483,000
GRAND TOTAL: WATER FUND OPERATING EXPENSES		\$ 5,716,286	\$ 6,269,040	\$ 6,735,741	\$ 7,114,838	\$ 7,404,526	\$ 7,601,305	\$ 7,803,475	\$ 8,011,535	\$ 8,224,587	\$ 8,443,227

NON-CASH ITEMS, EXCLUDED FROM ABOVE:

DESCRIPTION	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DEPRECIATION											
DEPRECIATION TRANSPORTATION	1	\$ 880	900	900	900	900	900	900	900	900	900
DEPRECIATION	1	\$ 1,084,474	1,084,500	1,084,500	1,084,500	1,084,500	1,084,500	1,084,500	1,084,500	1,084,500	1,084,500
DEPRECIATION-PUMPING	1	\$ 11,430	11,400	11,400	11,400	11,400	11,400	11,400	11,400	11,400	11,400
DEPRECIATION-MAINTENANCE	1	\$ 554	600	600	600	600	600	600	600	600	600
DEPRECIATION EXPENSE (Bear Creek)	1	\$ 41,773	41,800	41,800	41,800	41,800	41,800	41,800	41,800	41,800	41,800
SUBTOTAL: DEPRECIATION		\$ 1,139,110	\$ 1,139,200								

FORECASTING ASSUMPTIONS, Shown for Reference Purposes Only

INFLATION FACTORS	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Customer Growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation (5)	2	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%
Labor Cost Inflation (6)	3	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%
Water Purchases	4	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Energy (7)	5	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%
Chemicals (8)	6	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Fuel	7	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
No Escalation	8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenues are from the Final Trial Balance on June 30, 2015 from source file: SLVWD 2015 Working TB.xls and are actual revenues from FY 14/15.
2. Expenses are from the FY 2015/16 Budget and from source file: FY1516 BUDGET FINAL.pdf. All projected expenses are rounded to the nearest \$100.
3. 1.5 percent of Administration budget items are allocated to the sewer utility; per District staff, via email September 2016.
4. New Positions are recommendations found in the Staffing Study Report, prepared by DeLoach & Associates, Inc., August 2016.
5. Expected Inflation factors based on expense type from 5 year average from Bureau of Labor Statistics Data.
http://www.bls.gov/regions/west/news-release/consumerpriceindex_sanfrancisco.htm
6. Labor cost inflation is based on the 5-year average annual change in the Quarterly Census of Employment and Wages (San Jose area, CA).
http://www.bls.gov/regions/west/news-release/2016/employmentcostindex_sanjose_20161031.htm
7. Estimated energy cost inflation provided by a University of California Davis report:
The Future of Electricity Prices in California: Understanding Market Drivers and Forecasting Prices to 2040, by Johnathan Cook, Ph.D., page 31, Table 7.
8. Inflation factor recently used by other California water agencies (e.g., City of Sunnyvale, City of Eureka, Humboldt CSD).

CAPITAL FUNDING SUMMARY - WATER

CAPITAL FUNDING FORECAST - WATER	Budget		Projected							
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Funding Sources:										
Grants	\$ 1,270,475	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capacity Fee Reserves	-	-	-	-	-	-	-	-	-	-
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-
Use of New Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	-	-	-	-	-
Rate Revenue	2,397,525	3,100,000	2,583,059	2,660,550	2,740,367	2,822,578	2,907,255	2,994,473	3,084,307	3,176,836
Total Sources of Capital Funds	\$ 3,668,000	\$ 3,100,000	\$ 2,583,059	\$ 2,660,550	\$ 2,740,367	\$ 2,822,578	\$ 2,907,255	\$ 2,994,473	\$ 3,084,307	\$ 3,176,836
Uses of Capital Funds:										
Total Project Costs	\$ 3,668,000	\$ 3,100,000	\$ 2,583,059	\$ 2,660,550	\$ 2,740,367	\$ 2,822,578	\$ 2,907,255	\$ 2,994,473	\$ 3,084,307	\$ 3,176,836
Capital Funding Surplus (Deficiency)	\$ -									
SRF Loan Funding	\$ -									
New Revenue Bond Proceeds	\$ -									

CAPITAL IMPROVEMENT PROGRAM - WATER

Water Capital Improvement Program Costs (in Current-Year Dollars) (1):

Project Description & ID	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Engineering: Other Capital Projects										
Interties 2, 3 & 4	\$ 2,855,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fall Creek Fish Ladder Design	\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Probation Tank Site Design	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Swim Tank Site Design	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Swim Tank Site Construction	\$ 324,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations/Distribution: Water Meters & Registers										
5888-1736 Replacement Meters	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations/Distribution: Other Capital Projects										
5890-9901 Replacement Pumps & Motors	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5890-1202 Felton Heights Mutual Consolidation Project	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations/Supply & Treatment: Other Capital Projects										
5890-9906 Replacement Pumps & Motors	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA Upgrade/Replacement Lyon	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lyon WTP Control Upgrade	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pasatiempo Well 6 Elect Upgrade	\$ 42,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Capital Expenditures										
Pipes	\$ -	\$ -	\$ 1,064,448	\$ 1,064,448	\$ 1,064,448	\$ 1,064,448	\$ 1,064,448	\$ 1,064,448	\$ 1,064,448	\$ 1,064,448
Tanks (including 10% volume contingency)	\$ -	\$ -	\$ 554,400	\$ 554,400	\$ 554,400	\$ 554,400	\$ 554,400	\$ 554,400	\$ 554,400	\$ 554,400
Pump Stations	\$ -	\$ -	\$ 620,000	\$ 620,000	\$ 620,000	\$ 620,000	\$ 620,000	\$ 620,000	\$ 620,000	\$ 620,000
Wells	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Treatment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Diversions	\$ -	\$ -	\$ 37,500	\$ 37,500	\$ 37,500	\$ 37,500	\$ 37,500	\$ 37,500	\$ 37,500	\$ 37,500
Admin/Operations Building	\$ -	\$ -	\$ 81,476	\$ 81,476	\$ 81,476	\$ 81,476	\$ 81,476	\$ 81,476	\$ 81,476	\$ 81,476
Other	\$ -	\$ 3,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: CIP Program Costs (Future-Year Dollars)	\$ 3,668,000	\$ 3,100,000	\$ 2,507,824							

Water Capital Improvement Program Costs (in Future-Year Dollars) (2):

Project Description	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Engineering: Other Capital Projects										
-- Interties 2, 3 & 4	\$ 2,855,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Fall Creek Fish Ladder Design	\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Probation Tank Site Design	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Swim Tank Site Design	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Swim Tank Site Construction	\$ 324,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations/Distribution: Water Meters & Registers										
5888-1736 Replacement Meters	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations/Distribution: Other Capital Projects										
5890-9901 Replacement Pumps & Motors	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5890-1202 Felton Heights Mutual Consolidation Project	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations/Supply & Treatment: Other Capital Projects										
5890-9906 Replacement Pumps & Motors	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- SCADA Upgrade/Replacement Lyon	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Lyon WTP Control Upgrade	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Pasatiempo Well 6 Elect Upgrade	\$ 42,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
--	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
--	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Capital Expenditures										
-- Pipes	\$ -	\$ -	\$ 1,096,381	\$ 1,129,273	\$ 1,163,151	\$ 1,198,046	\$ 1,233,987	\$ 1,271,007	\$ 1,309,137	\$ 1,348,411
-- Tanks (including 10% volume contingency)	\$ -	\$ -	\$ 571,032	\$ 588,163	\$ 605,808	\$ 623,982	\$ 642,702	\$ 661,983	\$ 681,842	\$ 702,297
-- Pump Stations	\$ -	\$ -	\$ 638,600	\$ 657,758	\$ 677,491	\$ 697,815	\$ 718,750	\$ 740,312	\$ 762,522	\$ 785,397
-- Wells	\$ -	\$ -	\$ 154,500	\$ 159,135	\$ 163,909	\$ 168,826	\$ 173,891	\$ 179,108	\$ 184,481	\$ 190,016
-- Treatment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Diversions	\$ -	\$ -	\$ 38,625	\$ 39,784	\$ 40,977	\$ 42,207	\$ 43,473	\$ 44,777	\$ 46,120	\$ 47,504
-- Admin/Operations Building	\$ -	\$ -	\$ 83,920	\$ 86,438	\$ 89,031	\$ 91,702	\$ 94,453	\$ 97,287	\$ 100,205	\$ 103,211
-- Other	\$ -	\$ 3,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: CIP Program Costs (Future-Year Dollars)	\$ 3,668,000	\$ 3,100,000	\$ 2,583,059	\$ 2,660,550	\$ 2,740,367	\$ 2,822,578	\$ 2,907,255	\$ 2,994,473	\$ 3,084,307	\$ 3,176,836

FORECASTING ASSUMPTIONS:

Economic Variables	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Construction Cost Inflation, Per Engineering News Record (2)	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Construction Cost Multiplier from 2016	1.00	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27

1. Capital project costs were provided by City Staff in source file: *VWHA_Capital_Asset_Cost_of_Service_9_02_16.pdf*.

2. For reference purposes, the annual Construction Cost Inflation percentage is the 10 year average change in the Construction Cost Index for 2005-2015 (3.0%). Source: *Engineering News Record website (http://enr.construction.com)*.

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Debt Service

EXHIBIT 3

EXISTING DEBT OBLIGATIONS - WATER	Budget		Projected							
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Annual Repayment Schedules:										
<u>2004 Refunding Water Revenue Bond, 2012 (1)</u>										
Principal Payment	\$ 616,350	\$ 632,479	\$ 649,030	\$ 666,015	\$ 582,031	\$ 494,531	\$ 103,454	\$ -	\$ -	\$ -
Interest Payment	93,361	77,231	60,680	43,696	26,267	12,354	1,345	-	-	-
Subtotal: Annual Debt Service	\$ 709,710	\$ 709,710	\$ 709,710	\$ 709,710	\$ 608,298	\$ 506,885	\$ 104,799	\$ -	\$ -	\$ -
Coverage Requirement (\$-Amnt above annual payment) (2)	\$ 816,167	\$ 816,167	\$ 816,167	\$ 816,167	\$ 816,167	\$ 816,167	\$ 816,167	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance) (2)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<u>2008 Safe Drinking Water Loan (3)</u>										
Principal Payment	\$ 139,174	\$ 142,556	\$ 146,026	\$ 149,577	\$ 153,215	\$ 156,938	\$ 160,758	\$ 164,668	\$ 168,673	\$ 172,772
Interest Payment	47,623	44,242	40,771	37,220	33,582	29,859	26,039	22,129	18,124	14,025
Subtotal: Annual Debt Service	\$ 186,797									
Coverage Requirement (\$-Amnt above annual payment) (4)	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477	\$ 205,477
Reserve Requirement (total fund balance) (4)	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594
<u>SVWD-SLVWD Short Term Loan, 2015 (5)</u>										
Principal Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	-	-	-	-	-	-	-	-	-	-
Subtotal: Annual Debt Service	\$ -									
Coverage Requirement (\$-Amnt above annual payment)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

1. Source file: *2012 Water Revenue Refunding Bond Payment Schedule.pdf* was provided by staff.
2. Coverage requirement is set to 115% of the maximum annual debt service; Source file: *Revenue Refunding Bond Bank of Nevada.pdf*, page 19, Section 5.13(a)(2).
No reserve fund requirement for refunding bond; Source file: *Revenue Refunding Bond Bank of Nevada.pdf*, page 19, Section 5.13(a)(3).
3. Source file: *Felton WTP SDWBL Loan.pdf* was provided by staff.
4. Coverage requirement is set to 115% of the maximum annual debt service. Reserve requirement equal to two years of annual payments. Source file: *Felton WTP SDWBL Loan.pdf*; Article B-6.
5. Source file: *SVWD-SLVWD Loan Agreement.pdf* was provided by staff.

Existing Annual Debt Obligations to be Satisfied by Water Rates:

Existing Annual Debt Service	\$ 896,508	\$ 896,508	\$ 896,508	\$ 896,508	\$ 795,095	\$ 693,682	\$ 291,596	\$ 186,797	\$ 186,797	\$ 186,797
Existing Annual Coverage Requirement	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 205,477	\$ 205,477	\$ 205,477
Existing Debt Reserve Target	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594

FUTURE DEBT FINANCING ASSUMPTIONS:

Long-Term Debt Terms	State Revolving Fund Loan	Revenue Bonds
Issuance Cost	0.00%	2.00%
Annual Interest Cost (%)	3.00%	5.50%
Term	30	30
Debt Reserve Funded?	Yes	Yes
Coverage Requirement (% above annual pmt)	20%	25%

FUTURE DEBT OBLIGATIONS:

Annual Repayment Schedules	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
SRF Loan Funding										
Principal Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	-	-	-	-	-	-	-	-	-	-
Subtotal: Annual Debt Service	\$ -									
Revenue Bonds										
Principal Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	-	-	-	-	-	-	-	-	-	-
Subtotal: Annual Debt Service	\$ -									
Grand Total: Future Annual Debt Service	\$ -									
Grand Total: Future Annual Coverage Requirement	\$ -									
Grand Total: Future Debt Reserve Target	\$ -									

TOTAL DEBT SERVICE:

Annual Obligations	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Debt Service	\$ 896,508	\$ 896,508	\$ 896,508	\$ 896,508	\$ 795,095	\$ 693,682	\$ 291,596	\$ 186,797	\$ 186,797	\$ 186,797
Annual Coverage Requirement	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 1,021,644	\$ 205,477	\$ 205,477	\$ 205,477
Total Debt Reserve Target	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594	\$ 373,594

**SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Projected Water Rates Under Existing Rate Schedule**

EXHIBIT 4

Current Water Rate Schedule:

Fixed Charges	Current Monthly
<i>Standard Meters:</i>	
5/8 inch	\$34.00
3/4 inch	\$34.00
1 inch	\$56.50
1 1/2 inch	\$114.00
2 inch	\$181.50
3 inch	\$341.00
4 inch	\$567.00
Surplus Water	\$114.00

Volumetric Charges (1)	Tier Thresholds	Current Rates
		Volumetric Charge
Tier 1	0 - 4 ccf	\$3.81
Tier 2	5 - 15 ccf	\$4.97
Tier 3	16 - 50 ccf	\$5.96
Tier 4	51+ ccf	\$6.61
Drought Surcharge	per CCF	\$1.00
Flat Rate	per CCF	\$4.64
Surplus Water	per CCF	\$10.00

1. CCF = Hundred Cubic Feet or 748 gallons.

SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
DEPARTMENT: ADMINISTRATION - 01							
PERSONNEL							
Salaries							
REGULAR SALARIES	\$ 235,100	\$ 94,040	\$ 117,550	\$ 23,510	40.0%	50.0%	10.0%
DIRECTORS FEES	\$ 24,200	\$ 9,680	\$ 12,100	\$ 2,420	40.0%	50.0%	10.0%
<i>Subtotal</i>	\$ 259,300	\$ 103,720	\$ 129,650	\$ 25,930	40.0%	50.0%	10.0%
Benefits							
MEDICAL INSURANCE	\$ 42,700	\$ 17,080	\$ 21,350	\$ 4,270	40.0%	50.0%	10.0%
DENTAL INSURANCE	\$ 3,100	\$ 1,240	\$ 1,550	\$ 310	40.0%	50.0%	10.0%
VISION INSURANCE	\$ 500	\$ 200	\$ 250	\$ 50	40.0%	50.0%	10.0%
LIFE INSURANCE	\$ 400	\$ 160	\$ 200	\$ 40	40.0%	50.0%	10.0%
LONG TERM DISABILITY	\$ 1,200	\$ 480	\$ 600	\$ 120	40.0%	50.0%	10.0%
PERS - RETIREMENT	\$ 26,100	\$ 10,440	\$ 13,050	\$ 2,610	40.0%	50.0%	10.0%
FICA - SOCIAL SECURITY	\$ 11,600	\$ 4,640	\$ 5,800	\$ 1,160	40.0%	50.0%	10.0%
WORKERS COMPENSATION	\$ 1,100	\$ 440	\$ 550	\$ 110	40.0%	50.0%	10.0%
ASSISTANCE PROGRAM	\$ 100	\$ 40	\$ 50	\$ 10	40.0%	50.0%	10.0%
OTHER PAYROLL CHARGES	\$ 2,200	\$ 880	\$ 1,100	\$ 220	40.0%	50.0%	10.0%
MEDICARE RETIRED MEDICAL	\$ 3,400	\$ 1,360	\$ 1,700	\$ 340	40.0%	50.0%	10.0%
RETIRED MEDICAL	\$ 13,700	\$ 5,480	\$ 6,850	\$ 1,370	40.0%	50.0%	10.0%
ANNUAL OPEB	\$ 36,900	\$ 14,760	\$ 18,450	\$ 3,690	40.0%	50.0%	10.0%
<i>Subtotal</i>	\$ 143,000	\$ 57,200	\$ 71,500	\$ 14,300	40.0%	50.0%	10.0%
TOTAL: PERSONNEL	\$ 402,300	\$ 160,920	\$ 201,150	\$ 40,230	40.0%	50.0%	10.0%
MATERIALS & SERVICES							
CONTRACT/PROFESSIONAL SERVICES	\$ 118,600	\$ 59,300	\$ 59,300	\$ -	50.0%	50.0%	0.0%
LEGAL SERVICES	\$ 63,200	\$ 31,600	\$ 31,600	\$ -	50.0%	50.0%	0.0%
UTILITIES DISTRICT OFFICE	\$ 12,600	\$ 6,300	\$ 6,300	\$ -	50.0%	50.0%	0.0%
AUTO ALLOWANCE	\$ 4,400	\$ 2,200	\$ 2,200	\$ -	50.0%	50.0%	0.0%
RENTALS/LEASES/PERMITS	\$ 1,000	\$ 500	\$ 500	\$ -	50.0%	50.0%	0.0%
FACILITIES MAINTENANCE	\$ 12,600	\$ 6,300	\$ 6,300	\$ -	50.0%	50.0%	0.0%
TELEPHONE/COMMUNICATIONS	\$ 19,000	\$ 9,500	\$ 9,500	\$ -	50.0%	50.0%	0.0%
OFFICE SUPPLIES (includes 5078)	\$ 10,600	\$ 5,300	\$ 5,300	\$ -	50.0%	50.0%	0.0%
POSTAGE	\$ 500	\$ 250	\$ 250	\$ -	50.0%	50.0%	0.0%
SUBSCRIPTIONS/BOOKS	\$ 500	\$ 250	\$ 250	\$ -	50.0%	50.0%	0.0%
ADVERTISING	\$ 4,200	\$ 2,100	\$ 2,100	\$ -	50.0%	50.0%	0.0%
TRAINING, CONFERENCES & MEETINGS	\$ 5,200	\$ 2,600	\$ 2,600	\$ -	50.0%	50.0%	0.0%
MEMBERSHIPS & DUES (includes 5085)	\$ 34,800	\$ 17,400	\$ 17,400	\$ -	50.0%	50.0%	0.0%
INSURANCE - PROPERTY (SDRMA)	\$ 81,100	\$ 40,550	\$ 40,550	\$ -	50.0%	50.0%	0.0%
LEGAL SETTLEMENTS	\$ -	\$ -	\$ -	\$ -	50.0%	50.0%	0.0%
ELECTION FEES	\$ -	\$ -	\$ -	\$ -	50.0%	50.0%	0.0%
<i>Subtotal</i>	\$ 368,300	\$ 184,150	\$ 184,150	\$ -	50.0%	50.0%	0.0%
ADMINISTRATION OVERHEAD ALLOCATION TO SEWER (1.5%)	\$ (11,559)	\$ (5,780)	\$ (5,780)	\$ -	50.0%	50.0%	0.0%
TOTAL: MATERIALS & SERVICES	\$ 356,741	\$ 178,371	\$ 178,371	\$ -	50.0%	50.0%	0.0%
TOTAL: ADMINISTRATION	\$ 759,041	\$ 339,291	\$ 379,521	\$ 40,230	44.7%	50.0%	5.3%

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
DEPARTMENT: FINANCE - 02							
PERSONNEL							
Salaries							
REGULAR SALARIES	\$ 384,900	\$ -	\$ 192,450	\$ 192,450	0.0%	50.0%	50.0%
TEMPORARY SALARIES	\$ -	\$ -	\$ -	\$ -	0.0%	50.0%	50.0%
OVERTIME WAGES	\$ 500	\$ -	\$ 250	\$ 250	0.0%	50.0%	50.0%
<i>Subtotal</i>	\$ 385,400	\$ -	\$ 192,700	\$ 192,700	0.0%	50.0%	50.0%
Benefits							
MEDICAL INSURANCE	\$ 58,700	\$ -	\$ 29,350	\$ 29,350	0.0%	50.0%	50.0%
DENTAL INSURANCE	\$ 6,800	\$ -	\$ 3,400	\$ 3,400	0.0%	50.0%	50.0%
VISION INSURANCE	\$ 1,000	\$ -	\$ 500	\$ 500	0.0%	50.0%	50.0%
LIFE INSURANCE	\$ 1,000	\$ -	\$ 500	\$ 500	0.0%	50.0%	50.0%
LONG TERM DISABILITY	\$ 2,000	\$ -	\$ 1,000	\$ 1,000	0.0%	50.0%	50.0%
PERS - RETIREMENT	\$ 38,500	\$ -	\$ 19,250	\$ 19,250	0.0%	50.0%	50.0%
FICA - SOCIAL SECURITY	\$ 23,900	\$ -	\$ 11,950	\$ 11,950	0.0%	50.0%	50.0%
WORKERS COMPENSATION	\$ 1,700	\$ -	\$ 850	\$ 850	0.0%	50.0%	50.0%
ASSISTANCE PROGRAM	\$ 200	\$ -	\$ 100	\$ 100	0.0%	50.0%	50.0%
MEDICARE RETIRED MEDICAL	\$ 5,500	\$ -	\$ 2,750	\$ 2,750	0.0%	50.0%	50.0%
<i>Subtotal</i>	\$ 139,300	\$ -	\$ 69,650	\$ 69,650	0.0%	50.0%	50.0%
Additional Positions (4)							
Fully Loaded Cost of New Position #1	\$ 102,700	\$ -	\$ 51,350	\$ 51,350	0.0%	50.0%	50.0%
Fully Loaded Cost of New Position #2	\$ 100,000	\$ -	\$ 50,000	\$ 50,000	0.0%	50.0%	50.0%
Fully Loaded Cost of New Position #3	\$ -	\$ -	\$ -	\$ -	0.0%	50.0%	50.0%
Fully Loaded Cost of New Position #4	\$ -	\$ -	\$ -	\$ -	0.0%	50.0%	50.0%
Fully Loaded Cost of New Position #5	\$ -	\$ -	\$ -	\$ -	0.0%	50.0%	50.0%
<i>Subtotal</i>	\$ 202,700	\$ -	\$ 101,350	\$ 101,350	0.0%	50.0%	50.0%
TOTAL: PERSONNEL	\$ 727,400	\$ -	\$ 363,700	\$ 363,700	0.0%	50.0%	50.0%
MATERIALS & SERVICES							
CONTRACT/PROFESSIONAL SERVICES	\$ 63,400	\$ -	\$ 31,700	\$ 31,700	0.0%	50.0%	50.0%
AUDIT SERVICES	\$ 26,400	\$ -	\$ 13,200	\$ 13,200	0.0%	50.0%	50.0%
OFFICE SUPPLIES (includes 5078)	\$ 12,600	\$ -	\$ 6,300	\$ 6,300	0.0%	50.0%	50.0%
POSTAGE	\$ 42,200	\$ -	\$ 21,100	\$ 21,100	0.0%	50.0%	50.0%
TRAINING, CONFERENCES & MEETINGS	\$ 3,200	\$ -	\$ 1,600	\$ 1,600	0.0%	50.0%	50.0%
COLLECTION COSTS/BANK FEES	\$ 31,600	\$ -	\$ 15,800	\$ 15,800	0.0%	50.0%	50.0%
BAD DEBTS	\$ 6,400	\$ -	\$ 3,200	\$ 3,200	0.0%	50.0%	50.0%
<i>Subtotal</i>	\$ 185,800	\$ -	\$ 92,900	\$ 92,900	0.0%	50.0%	50.0%
TOTAL: MATERIALS & SERVICES	\$ 185,800	\$ -	\$ 92,900	\$ 92,900	0.0%	50.0%	50.0%
TOTAL: FINANCE	\$ 913,200	\$ -	\$ 456,600	\$ 456,600	0.0%	50.0%	50.0%

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
DEPARTMENT: ENGINEERING - 03							
PERSONNEL							
Salaries							
REGULAR SALARIES	\$ 109,100	\$ 49,095	\$ 54,550	\$ 5,455	45.0%	50.0%	5.0%
OVERTIME WAGES	\$ -	\$ -	\$ -	\$ -	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 109,100	\$ 49,095	\$ 54,550	\$ 5,455	45.0%	50.0%	5.0%
Benefits							
MEDICAL INSURANCE	\$ 16,800	\$ 7,560	\$ 8,400	\$ 840	45.0%	50.0%	5.0%
DENTAL INSURANCE	\$ 1,300	\$ 585	\$ 650	\$ 65	45.0%	50.0%	5.0%
VISION INSURANCE	\$ 200	\$ 90	\$ 100	\$ 10	45.0%	50.0%	5.0%
LIFE INSURANCE	\$ 200	\$ 90	\$ 100	\$ 10	45.0%	50.0%	5.0%
LONG TERM DISABILITY	\$ 500	\$ 225	\$ 250	\$ 25	45.0%	50.0%	5.0%
PERS - RETIREMENT	\$ 13,900	\$ 6,255	\$ 6,950	\$ 695	45.0%	50.0%	5.0%
FICA - SOCIAL SECURITY	\$ 6,800	\$ 3,060	\$ 3,400	\$ 340	45.0%	50.0%	5.0%
WORKERS COMPENSATION	\$ 500	\$ 225	\$ 250	\$ 25	45.0%	50.0%	5.0%
ASSISTANCE PROGRAM	\$ 100	\$ 45	\$ 50	\$ 5	45.0%	50.0%	5.0%
MEDICARE RETIRED MEDICAL	\$ 1,600	\$ 720	\$ 800	\$ 80	45.0%	50.0%	5.0%
SPECIAL CLOTHING	\$ 700	\$ 315	\$ 350	\$ 35	45.0%	50.0%	5.0%
ANNUAL OPEB	\$ -	\$ -	\$ -	\$ -	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 42,600	\$ 19,170	\$ 21,300	\$ 2,130	45.0%	50.0%	5.0%
Additional Positions (4)							
Fully Loaded Cost of New Position #6	\$ 102,700	\$ 46,215	\$ 51,350	\$ 5,135	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 102,700	\$ 46,215	\$ 51,350	\$ 5,135	45.0%	50.0%	5.0%
TOTAL: PERSONNEL	\$ 254,400	\$ 114,480	\$ 127,200	\$ 12,720	45.0%	50.0%	5.0%
MATERIALS & SERVICES							
CONTRACT/PROFESSIONAL SERVICES	\$ 21,000	\$ 9,450	\$ 10,500	\$ 1,050	45.0%	50.0%	5.0%
EQUIPMENT REPLACEMENT FUND	\$ -	\$ -	\$ -	\$ -	45.0%	50.0%	5.0%
MAINT/OPERATIONS OF VEHICLES	\$ 1,000	\$ 450	\$ 500	\$ 50	45.0%	50.0%	5.0%
SMALL TOOLS/MAINT & REPAIRS	\$ 100	\$ 45	\$ 50	\$ 5	45.0%	50.0%	5.0%
EQUIP. NON-CAP	\$ 1,200	\$ 540	\$ 600	\$ 60	45.0%	50.0%	5.0%
COMMUNICATIONS	\$ 800	\$ 360	\$ 400	\$ 40	45.0%	50.0%	5.0%
OFFICE SUPPLIES	\$ 800	\$ 360	\$ 400	\$ 40	45.0%	50.0%	5.0%
SUBSCRIPTIONS/BOOKS	\$ 1,200	\$ 540	\$ 600	\$ 60	45.0%	50.0%	5.0%
TRAINING, CONFERENCES & MEETINGS	\$ 1,000	\$ 450	\$ 500	\$ 50	45.0%	50.0%	5.0%
MEMBERSHIPS & DUES	\$ 6,400	\$ 2,880	\$ 3,200	\$ 320	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 33,500	\$ 15,075	\$ 16,750	\$ 1,675	45.0%	50.0%	5.0%
TOTAL: MATERIALS & SERVICES	\$ 33,500	\$ 15,075	\$ 16,750	\$ 1,675	45.0%	50.0%	5.0%
TOTAL: ENGINEERING	\$ 287,900	\$ 129,555	\$ 143,950	\$ 14,395	45.0%	50.0%	5.0%

SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
DEPARTMENT: OPERATIONS/DISTRIBUTION - 04							
PERSONNEL							
Salaries							
REGULAR SALARIES	\$ 918,500	\$ 597,025	\$ 275,550	\$ 45,925	65.0%	30.0%	5.0%
TEMPORARY SALARIES	\$ -	\$ -	\$ -	\$ -	65.0%	30.0%	5.0%
OVERTIME WAGES	\$ 42,200	\$ 27,430	\$ 12,660	\$ 2,110	65.0%	30.0%	5.0%
STANDBY WAGES	\$ 28,400	\$ 18,460	\$ 8,520	\$ 1,420	65.0%	30.0%	5.0%
<i>Subtotal</i>	\$ 989,100	\$ 642,915	\$ 296,730	\$ 49,455	65.0%	30.0%	5.0%
Benefits							
MEDICAL INSURANCE	\$ 192,900	\$ 125,385	\$ 57,870	\$ 9,645	65.0%	30.0%	5.0%
DENTAL INSURANCE	\$ 20,200	\$ 13,130	\$ 6,060	\$ 1,010	65.0%	30.0%	5.0%
VISION INSURANCE	\$ 3,000	\$ 1,950	\$ 900	\$ 150	65.0%	30.0%	5.0%
LIFE INSURANCE	\$ 2,400	\$ 1,560	\$ 720	\$ 120	65.0%	30.0%	5.0%
LONG TERM DISABILITY	\$ 4,700	\$ 3,055	\$ 1,410	\$ 235	65.0%	30.0%	5.0%
PERS - RETIREMENT	\$ 109,200	\$ 70,980	\$ 32,760	\$ 5,460	65.0%	30.0%	5.0%
FICA - SOCIAL SECURITY	\$ 60,600	\$ 39,390	\$ 18,180	\$ 3,030	65.0%	30.0%	5.0%
WORKERS COMPENSATION	\$ 42,200	\$ 27,430	\$ 12,660	\$ 2,110	65.0%	30.0%	5.0%
ASSISTANCE PROGRAM	\$ 500	\$ 325	\$ 150	\$ 25	65.0%	30.0%	5.0%
MEDICARE RETIRED MEDICAL	\$ 14,400	\$ 9,360	\$ 4,320	\$ 720	65.0%	30.0%	5.0%
SPECIAL CLOTHING	\$ 7,600	\$ 4,940	\$ 2,280	\$ 380	65.0%	30.0%	5.0%
CERTIFICATIONS	\$ 800	\$ 520	\$ 240	\$ 40	65.0%	30.0%	5.0%
<i>Subtotal</i>	\$ 458,500	\$ 298,025	\$ 137,550	\$ 22,925	65.0%	30.0%	5.0%
Additional Positions (4)							
Fully Loaded Cost of New Position #7	\$ 102,700	\$ 66,755	\$ 30,810	\$ 5,135	65.0%	30.0%	5.0%
Fully Loaded Cost of New Position #8	\$ 100,000	\$ 65,000	\$ 30,000	\$ 5,000	65.0%	30.0%	5.0%
<i>Subtotal</i>	\$ 202,700	\$ 131,755	\$ 60,810	\$ 10,135	65.0%	30.0%	5.0%
TOTAL: PERSONNEL	\$ 1,650,300	\$ 1,072,695	\$ 495,090	\$ 82,515	65.0%	30.0%	5.0%
MATERIALS & SERVICES							
CONTRACT/PROFESSIONAL SERVICES	\$ 73,800	\$ 47,970	\$ 22,140	\$ 3,690	65.0%	30.0%	5.0%
EQUIPMENT REPLACEMENT FUND	\$ -	\$ -	\$ -	\$ -	65.0%	30.0%	5.0%
UTILITIES	\$ 115,900	\$ 75,335	\$ 34,770	\$ 5,795	65.0%	30.0%	5.0%
OPERATING SUPPLIES	\$ 94,800	\$ 61,620	\$ 28,440	\$ 4,740	65.0%	30.0%	5.0%
MAINT & OPERATIONS OF VEHICLES	\$ 79,000	\$ 51,350	\$ 23,700	\$ 3,950	65.0%	30.0%	5.0%
RENTAL/LEASES/PERMITS	\$ 10,600	\$ 6,890	\$ 3,180	\$ 530	65.0%	30.0%	5.0%
SMALL TOOLS-MAINT & REPAIRS	\$ 10,600	\$ 6,890	\$ 3,180	\$ 530	65.0%	30.0%	5.0%
EQUIPMENT NON-CAP	\$ 7,900	\$ 5,135	\$ 2,370	\$ 395	65.0%	30.0%	5.0%
FACILITIES MAINTENANCE	\$ 15,800	\$ 10,270	\$ 4,740	\$ 790	65.0%	30.0%	5.0%
COMMUNICATIONS & TELEMETERING	\$ 59,000	\$ 38,350	\$ 17,700	\$ 2,950	65.0%	30.0%	5.0%
OFFICE SUPPLIES (included 5078)	\$ 6,900	\$ 4,485	\$ 2,070	\$ 345	65.0%	30.0%	5.0%
SUBSCRIPTIONS/BOOKS	\$ -	\$ -	\$ -	\$ -	65.0%	30.0%	5.0%
TRAINING, CONFERENCES & MEETINGS	\$ 5,200	\$ 3,380	\$ 1,560	\$ 260	65.0%	30.0%	5.0%
SPECIAL PROJECTS	\$ 53,800	\$ 34,970	\$ 16,140	\$ 2,690	65.0%	30.0%	5.0%
<i>Subtotal</i>	\$ 533,300	\$ 346,645	\$ 159,990	\$ 26,665	65.0%	30.0%	5.0%
TOTAL: MATERIALS & SERVICES	\$ 533,300	\$ 346,645	\$ 159,990	\$ 26,665	65.0%	30.0%	5.0%
TOTAL: OPERATIONS/DISTRIBUTION	\$ 2,183,600	\$ 1,419,340	\$ 655,080	\$ 109,180	65.0%	30.0%	5.0%

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
DEPARTMENT: WATERSHED - 05							
PERSONNEL							
Salaries							
REGULAR SALARIES	\$ 94,400	\$ 42,480	\$ 47,200	\$ 4,720	45.0%	50.0%	5.0%
TEMPORARY SALARIES	\$ -	\$ -	\$ -	\$ -	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 94,400	\$ 42,480	\$ 47,200	\$ 4,720	45.0%	50.0%	5.0%
Benefits							
MEDICAL INSURANCE	\$ 21,200	\$ 9,540	\$ 10,600	\$ 1,060	45.0%	50.0%	5.0%
DENTAL INSURANCE	\$ 2,300	\$ 1,035	\$ 1,150	\$ 115	45.0%	50.0%	5.0%
VISION INSURANCE	\$ 300	\$ 135	\$ 150	\$ 15	45.0%	50.0%	5.0%
LIFE INSURANCE	\$ 100	\$ 45	\$ 50	\$ 5	45.0%	50.0%	5.0%
LONG TERM DISABILITY	\$ 500	\$ 225	\$ 250	\$ 25	45.0%	50.0%	5.0%
PERS - RETIREMENT	\$ 12,000	\$ 5,400	\$ 6,000	\$ 600	45.0%	50.0%	5.0%
FICA - SOCIAL SECURITY	\$ 6,000	\$ 2,700	\$ 3,000	\$ 300	45.0%	50.0%	5.0%
WORKERS COMPENSATION	\$ 400	\$ 180	\$ 200	\$ 20	45.0%	50.0%	5.0%
ASSISTANCE PROGRAM	\$ -	\$ -	\$ -	\$ -	45.0%	50.0%	5.0%
MEDICARE	\$ 1,300	\$ 585	\$ 650	\$ 65	45.0%	50.0%	5.0%
SPECIAL CLOTHING	\$ -	\$ -	\$ -	\$ -	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 44,100	\$ 19,845	\$ 22,050	\$ 2,205	45.0%	50.0%	5.0%
TOTAL: PERSONNEL	\$ 138,500	\$ 62,325	\$ 69,250	\$ 6,925	45.0%	50.0%	5.0%
MATERIALS & SERVICES							
CONTRACT/PROFESSIONAL SERVICES	\$ 84,300	\$ 37,935	\$ 42,150	\$ 4,215	45.0%	50.0%	5.0%
ROAD MAINTENANCE	\$ 15,800	\$ 7,110	\$ 7,900	\$ 790	45.0%	50.0%	5.0%
OPERATING SUPPLIES	\$ 500	\$ 225	\$ 250	\$ 25	45.0%	50.0%	5.0%
COMMUNICATIONS & TELEMETERING	\$ 300	\$ 135	\$ 150	\$ 15	45.0%	50.0%	5.0%
SUBSCRIPTIONS/BOOKS	\$ 300	\$ 135	\$ 150	\$ 15	45.0%	50.0%	5.0%
TRAINING, CONFERENCES & MEETINGS	\$ 3,200	\$ 1,440	\$ 1,600	\$ 160	45.0%	50.0%	5.0%
MEMBERSHIP & DUES	\$ 1,300	\$ 585	\$ 650	\$ 65	45.0%	50.0%	5.0%
WATERSHED & DATA COLLECTION GRNTS	\$ 15,800	\$ 7,110	\$ 7,900	\$ 790	45.0%	50.0%	5.0%
WATER CONSERVATION PROGRAM	\$ 68,500	\$ 68,500	\$ -	\$ -	100.0%	0.0%	0.0%
EDUCATION GRANT PROGRAM	\$ 18,500	\$ 8,325	\$ 9,250	\$ 925	45.0%	50.0%	5.0%
SPECIAL PROJECTS	\$ 179,100	\$ 80,595	\$ 89,550	\$ 8,955	45.0%	50.0%	5.0%
<i>Subtotal</i>	\$ 387,600	\$ 212,095	\$ 159,550	\$ 15,955	54.7%	41.2%	4.1%
TOTAL: MATERIALS & SERVICES	\$ 387,600	\$ 212,095	\$ 159,550	\$ 15,955	54.7%	41.2%	4.1%
TOTAL: WATERSHED	\$ 526,100	\$ 274,420	\$ 228,800	\$ 22,880	52.2%	43.5%	4.3%

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
DEPARTMENT: OPERATIONS/SUPPLY & TREATMENT -08							
PERSONNEL							
Salaries							
REGULAR SALARIES	\$ 718,100	\$ 359,050	\$ 359,050	\$ -	50.0%	50.0%	0.0%
TEMPORARY SALARIES	\$ -	\$ -	\$ -	\$ -	50.0%	50.0%	0.0%
OVERTIME WAGES	\$ 39,000	\$ 19,500	\$ 19,500	\$ -	50.0%	50.0%	0.0%
STANDBY	\$ 4,200	\$ 2,100	\$ 2,100	\$ -	50.0%	50.0%	0.0%
<i>Subtotal</i>	\$ 761,300	\$ 380,650	\$ 380,650	\$ -	50.0%	50.0%	0.0%
Benefits							
MEDICAL INSURANCE	\$ 104,400	\$ 52,200	\$ 52,200	\$ -	50.0%	50.0%	0.0%
DENTAL INSURANCE	\$ 10,500	\$ 5,250	\$ 5,250	\$ -	50.0%	50.0%	0.0%
VISION INSURANCE	\$ 1,500	\$ 750	\$ 750	\$ -	50.0%	50.0%	0.0%
LIFE INSURANCE	\$ 1,500	\$ 750	\$ 750	\$ -	50.0%	50.0%	0.0%
LONG TERM DISABILITY	\$ 3,700	\$ 1,850	\$ 1,850	\$ -	50.0%	50.0%	0.0%
PERS - RETIREMENT	\$ 93,600	\$ 46,800	\$ 46,800	\$ -	50.0%	50.0%	0.0%
FICA - SOCIAL SECURITY	\$ 46,700	\$ 23,350	\$ 23,350	\$ -	50.0%	50.0%	0.0%
WORKERS COMPENSATION	\$ 33,200	\$ 16,600	\$ 16,600	\$ -	50.0%	50.0%	0.0%
ASSISTANCE PROGRAM	\$ 400	\$ 200	\$ 200	\$ -	50.0%	50.0%	0.0%
MEDICARE RETIRED MEDICAL	\$ 11,100	\$ 5,550	\$ 5,550	\$ -	50.0%	50.0%	0.0%
SPECIAL CLOTHING	\$ 5,200	\$ 2,600	\$ 2,600	\$ -	50.0%	50.0%	0.0%
CERTIFICATIONS	\$ 1,500	\$ 750	\$ 750	\$ -	50.0%	50.0%	0.0%
<i>Subtotal</i>	\$ 313,300	\$ 156,650	\$ 156,650	\$ -	50.0%	50.0%	0.0%
Additional Positions (4)							
Fully Loaded Cost of New Position #9	\$ 102,700	\$ 51,350	\$ 51,350	\$ -	50.0%	50.0%	0.0%
Fully Loaded Cost of New Position #10	\$ 100,000	\$ 50,000	\$ 50,000	\$ -	50.0%	50.0%	0.0%
<i>Subtotal</i>	\$ 202,700	\$ 101,350	\$ 101,350	\$ -	50.0%	50.0%	0.0%
TOTAL: PERSONNEL	\$ 1,277,300	\$ 638,650	\$ 638,650	\$ -	50.0%	50.0%	0.0%
MATERIALS & SERVICES							
CONTRACT/PROFESSIONAL SERVICES	\$ 105,400	\$ 52,700	\$ 52,700	\$ -	50.0%	50.0%	0.0%
CONTRACT SERVICES MANANA WOODS	\$ 21,000	\$ 10,500	\$ 10,500	\$ -	50.0%	50.0%	0.0%
OUTSIDE WATER ANALYSIS	\$ 67,400	\$ 33,700	\$ 33,700	\$ -	50.0%	50.0%	0.0%
LAB SUPPLIES	\$ 12,600	\$ 6,300	\$ 6,300	\$ -	50.0%	50.0%	0.0%
EQUIPMENT REPLACEMENT	\$ -	\$ -	\$ -	\$ -	50.0%	50.0%	0.0%
UTILITIES	\$ 300,400	\$ 150,200	\$ 150,200	\$ -	50.0%	50.0%	0.0%
CHEMICALS	\$ 35,800	\$ 17,900	\$ 17,900	\$ -	50.0%	50.0%	0.0%
OPERATING SUPPLIES	\$ 47,400	\$ 23,700	\$ 23,700	\$ -	50.0%	50.0%	0.0%
MAINTENANCE/OPERATIONS OF VEHICLES	\$ 23,200	\$ 11,600	\$ 11,600	\$ -	50.0%	50.0%	0.0%
RENTAL/LEASES/PERMITS	\$ 110,700	\$ 55,350	\$ 55,350	\$ -	50.0%	50.0%	0.0%
SMALL TOOLS-MAINTENANCE & REPAIRS	\$ 3,700	\$ 1,850	\$ 1,850	\$ -	50.0%	50.0%	0.0%
EQUIPMENT NON-CAP	\$ 7,400	\$ 3,700	\$ 3,700	\$ -	50.0%	50.0%	0.0%
FACILITIES MAINTENANCE	\$ 7,900	\$ 3,950	\$ 3,950	\$ -	50.0%	50.0%	0.0%
COMMUNICATIONS & TELEMETERING	\$ 35,800	\$ 17,900	\$ 17,900	\$ -	50.0%	50.0%	0.0%
OFFICE SUPPLIES (included 5078)	\$ 6,200	\$ 3,100	\$ 3,100	\$ -	50.0%	50.0%	0.0%
SUBSCRIPTIONS/BOOKS	\$ 500	\$ 250	\$ 250	\$ -	50.0%	50.0%	0.0%
TRAINING, CONFERENCES & MEETINGS	\$ 3,200	\$ 1,600	\$ 1,600	\$ -	50.0%	50.0%	0.0%
OTHER HOUSEHOLD SUPPLIES	\$ -	\$ -	\$ -	\$ -	50.0%	50.0%	0.0%
<i>Subtotal</i>	\$ 788,600	\$ 394,300	\$ 394,300	\$ -	50.0%	50.0%	0.0%
TOTAL: MATERIALS & SERVICES	\$ 788,600	\$ 394,300	\$ 394,300	\$ -	50.0%	50.0%	0.0%
TOTAL: OPERATIONS/SUPPLY & TREATMENT	\$ 2,065,900	\$ 1,032,950	\$ 1,032,950	\$ -	50.0%	50.0%	0.0%
GRAND TOTAL: WATER FUND OPERATING EXPENSES	\$ 6,735,741	\$ 3,195,556	\$ 2,896,901	\$ 643,285	47.4%	43.0%	9.6%

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Cost of Service Analysis

Classification of Expenses - Water							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2017/18	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
Debt Service Payments							
2004 Refunding Water Revenue Bond, 2012 (1)	\$ 709,710	\$ -	\$ 709,710	\$ -	0.0%	100.0%	0.0%
2008 Safe Drinking Water Loan (3)	\$ 186,797	\$ -	\$ 186,797	\$ -	0.0%	100.0%	0.0%
Future New Debt	\$ -	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%
Total Debt Service Payments	\$ 896,508	\$ -	\$ 896,508	\$ -	0.0%	100.0%	0.0%
Capital Expenditures							
Rate Funded Capital Expenses	\$ 2,583,059	\$ -	\$ 2,583,059	\$ -	0.0%	100.0%	0.0%
TOTAL REVENUE REQUIREMENTS	\$ 10,215,307	\$ 3,195,556	\$ 6,376,467	\$ 643,285	31.3%	62.4%	6.3%
Less: Non-Rate Revenues							
7501 Property Taxes							
PROPERTY TAXES	\$ (527,308)	\$ -	\$ (527,308)	\$ -	0.0%	100.0%	0.0%
PROPERTY ASSESSMENT REVENUE	\$ -	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%
7502 Rental Revenue							
MOBILE SERVICES LEASE FEES	\$ (15,713)	\$ (4,915)	\$ (9,808)	\$ (989)	31.3%	62.4%	6.3%
JOHNSON PROPERTY RENTS	\$ (14,000)	\$ (4,379)	\$ (8,739)	\$ (882)	31.3%	62.4%	6.3%
7503 Investment Earnings							
LOMPICO LOAN - INTEREST	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
INTEREST - WATER	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
INTEREST - FELTON LOAN RESERVE	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
REALIZED G/L - MSDW	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
UNREALIZED GAINS/LOSS - MSDW	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
INTEREST DIVIDEND - MSDW	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
7504 Gain/Loss on Sale of Assets							
SALE OF SURPLUS PROPERTY	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
LOSS ON SALE/ABAND FIXED ASSET	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
7505 Other Income							
ACCT. ESTAB. CHARGES & PENALTY	\$ (50,000)	\$ (15,641)	\$ (31,210)	\$ (3,149)	31.3%	62.4%	6.3%
ASSESSMENT BOND - N.B.C.	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
SALE OF METERS	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
MISCELLANEOUS	\$ (9,803)	\$ (3,067)	\$ (6,119)	\$ (617)	31.3%	62.4%	6.3%
REIMB. FOR MANANA WOODS	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
LOMPICO LOAN - PRINCIPAL	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
CSI - #34053 MANANA WOODS	\$ (237)	\$ (74)	\$ (148)	\$ (15)	31.3%	62.4%	6.3%
CSI - # 34057 LYON WTP	\$ (1,148)	\$ (359)	\$ (717)	\$ (72)	31.3%	62.4%	6.3%
CSI - #34058 KIRBY WTP	\$ (5,184)	\$ (1,622)	\$ (3,236)	\$ (326)	31.3%	62.4%	6.3%
Deduction to Uses of Funds for Revenue to Meet Net Rev. Req't	\$ -	\$ -	\$ -	\$ -	31.3%	62.4%	6.3%
NET REVENUE REQUIREMENTS - WATER	\$ 9,591,915	\$ 3,165,498	\$ 5,789,182	\$ 637,234			
Allocation of Revenue Requirements	100.0%	33.0%	60.4%	6.6%			

Net Revenue Req't. Check from Financial Plan \$ -

Classification of Expenses - Water, continued				
Adjustments to Classification of Expenses				
Adjustment for Current Rate Level:	Total	(COM)	(CAP)	(CA)
Test Year (FY 2017/18) Target Rate Revenue	\$ 11,103,572			
Projected Rate Revenue at Current Rates	\$ 5,237,534			
Adjusted Net Revenue Req'ts	\$ 11,103,572	\$ 3,664,371	\$ 6,701,540	\$ 737,660
Percent of Revenue	100.0%	33.0%	60.4%	6.6%

Existing Allocation of Fixed vs. Variable Charges		
Variable Charges	\$ 2,435,625	46%
Fixed Charges	\$ 2,806,166	53%
Drought Surcharges	\$ 80,021	2%
Total	\$ 5,321,811	100%

**SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
Water Cost of Service Analysis**

Development of the COMMODITY (Volumetric) Allocation Factor - Water Utility				
Customer Class	FY 2014/15 Volume (ccf) (1)	% Adjustment for Conservation	Estimated FY 2015/16 Volume Adjusted for Conservation	Percent of Total Volume
Residential	457,003	0%	444,202	70.0%
Multi-Family Residential	107,598	0%	100,184	15.8%
Commercial	8,231	0%	7,261	1.1%
Industrial	31,792	0%	31,389	4.9%
Landscape/Irrigation	35,924	0%	36,761	5.8%
Other systems	5,725	0%	5,779	0.9%
Private Mutual	5,310	0%	6,368	1.0%
Surplus (bulk water sales)	1,330	0%	2,149	0.3%
Vacant	452	0%	370	0.1%
Total	653,365	3%	634,462	100%

1. Consumption data is based on the SLVWD's billing data.

Commodity Related Costs: *These costs are associated with the total consumption (flow) of water over a specified period of time (e.g. annual).*

Development of the CAPACITY (MAX MONTH) Allocation Factor - Water Utility				
Customer Class	Average Monthly Use (ccf)	Peak Monthly Use (ccf) (1)	Peak Monthly Factor	Max Month Capacity Factor
Residential	37,017	48,392	1.31	67.6%
Multi-Family Residential	8,349	10,486	1.26	14.6%
Commercial	605	1,163	1.92	1.6%
Industrial	2,616	3,170	1.21	4.4%
Landscape/Irrigation	3,063	4,590	1.50	6.4%
Other systems	482	1,157	2.40	1.6%
Private Mutual	531	1,956	3.69	2.7%
Surplus (bulk water sales)	179	642	3.58	0.9%
Vacant	31	65	2.11	0.1%
Total	52,872	71,622	1.35	100%

1. Based on peak monthly data (peak day data not available).

Capacity Related Costs: *Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.*

**SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
 Water Cost of Service Analysis**

Development of the CUSTOMER Allocation Factor - Water Utility		
Customer Class	Number of Meters (1)	Percent of Total
Residential	6,531	88.6%
Multi-Family Residential	502	6.8%
Commercial	199	2.7%
Industrial	52	0.7%
Landscape/Irrigation	13	0.2%
Other systems	7	0.1%
Private Mutual	6	0.1%
Surplus (bulk water sales)	3	0.0%
Vacant	59	0.8%
Total	7,372	100.0%

1. Meter Count data is based on the SLVWD's billing data for February 2016.

Customer Related Costs : *Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.*

SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
Water Cost of Service Analysis

ALLOCATION OF WATER COST REQUIREMENTS:

Classification Components	Net Cost Requirements (2017/18)	
Commodity-Related Costs	\$ 3,664,371	33.0%
Capacity-Related Costs	6,701,540	60.4%
Customer-Related Costs	737,660	6.6%
Net Revenue Requirement	\$ 11,103,572	100%

Unadjusted Net Cost Req'ts.

Total variable: 33%

Total fixed: 67%

Total: 100%

Allocation of Net Cost Requirements (Water) By Customer Class - FY 2017/18

Customer Class	Cost Classification Components			Net Cost of Service Requirements	% of Net Cost of Service Requirements
	Commodity (1)	Capacity (2)	Customer (3)		
Residential	\$ 2,565,511	\$ 4,527,989	\$ 653,508	\$ 7,747,008	69.8%
Multi-Family Residential	578,619	981,150	50,231	1,610,000	14.5%
Commercial	41,934	108,848	19,912	170,694	1.5%
Industrial	181,291	296,647	5,203	483,141	4.4%
Landscape/Irrigation	212,316	429,523	1,301	643,140	5.8%
Other systems	33,374	108,258	700	142,333	1.3%
Private Mutual	36,779	183,019	600	220,398	2.0%
Surplus (bulk water sales)	12,412	60,024	300	72,736	0.7%
Vacant	2,136	6,082	5,904	14,122	0.1%
Total	\$ 3,664,371	\$ 6,701,540	\$ 737,660	\$ 11,103,572	100.0%

1. Commodity Costs are allocated based upon percentage of expected consumption.

2. Capacity Costs are allocated based upon Max Month Capacity Factor.

3. Customer Costs are allocated based upon Percentage of Total Accounts.

Current Water Rate Revenue Comparison

Customer Class	Rate Revenue (FY 2014/15)			Total	% of Total	% of Net Cost of Service Requirements	Difference
	Fixed	Variable	Drought Surcharges				
					a	b	= b - a
Residential	\$ 2,307,236	\$ 1,694,355	\$ 56,555	\$ 4,058,146	76.3%	69.8%	-6.5%
Multi-Family Residential	310,348	343,692	13,948	667,988	12.6%	14.5%	1.9%
Commercial	95,875	123,522	4,849	224,246	4.2%	1.5%	-2.7%
Industrial	52,597	192,316	3,269	248,181	4.7%	4.4%	-0.3%
Landscape/Irrigation	8,191	21,677	45	29,913	0.6%	5.8%	5.2%
Other systems	3,274	9,018	194	12,487	0.2%	1.3%	1.0%
Private Mutual	8,426	32,276	889	41,591	0.8%	2.0%	1.2%
Surplus (bulk water sales)	-	17,403	249	17,652	0.3%	0.7%	0.3%
Vacant	20,219	1,365	24	21,608	0.4%	0.1%	-0.3%
Total	\$ 2,806,166	\$ 2,435,625	\$ 80,021	\$ 5,321,811	100.0%	100.0%	0.0%
	53%	46%	2%	100%			

SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - WATER UTILITY
Customer Data

Water Consumption Data used for San Lorenzo Valley Water District Rates:					
Summary of Consumption by Class	Consumption	meters*	Avg. hcf by Month		
			Annual	Summer	Winter
Residential	444,202	6,531	6	7	5
Multi-Family Residential	100,184	502	17	20	15
Commercial	7,261	199	3	5	2
Industrial	31,389	52	50	57	47
Landscape/Irrigation	36,761	13	236	343	153
Other systems	5,779	7	69	137	21
Private Mutual	6,368	6	88	219	29
Surplus (bulk water sales)	2,149	3	60	92	22
Vacant	370	59	1	1	0
Total	634,462	7,372			

* Number of meters is per SLVWD billing data. Meter count is from February 2016.

FY 2014/15 Approximate Rate Revenue from Water Rates (1)				
Revenue by Customer Class	Fixed Charges	Variable Charges	Drought Surcharges	TOTAL
Residential	\$ 2,307,236	\$ 1,694,355	\$ 56,555	\$ 4,058,146
Multi-Family Residential	\$ 310,348	\$ 343,692	\$ 13,948	\$ 667,988
Commercial	\$ 95,875	\$ 123,522	\$ 4,849	\$ 224,246
Industrial	\$ 52,597	\$ 192,316	\$ 3,269	\$ 248,181
Landscape/Irrigation	\$ 8,191	\$ 21,677	\$ 45	\$ 29,913
Other systems	\$ 3,274	\$ 9,018	\$ 194	\$ 12,487
Private Mutual	\$ 8,426	\$ 32,276	\$ 889	\$ 41,591
Surplus (bulk water sales)	\$ -	\$ 17,403	\$ 249	\$ 17,652
Vacant	\$ 20,219	\$ 1,365	\$ 24	\$ 21,608
Total	\$ 2,806,166	\$ 2,435,625	\$ 80,021	\$ 5,321,811
Fixed vs. Variable %	53%	46%	2%	

1. Rate Revenue For March 2015 - February 2016 from SLVWD billing data.

APPENDIX C – DETAILED SEWER COST-OF-SERVICE TABLES & FIGURES

Appendix C is included under separate cover.

TABLE 1
 FINANCIAL PLAN AND SUMMARY OF SEWER COST REQUIREMENTS (1)

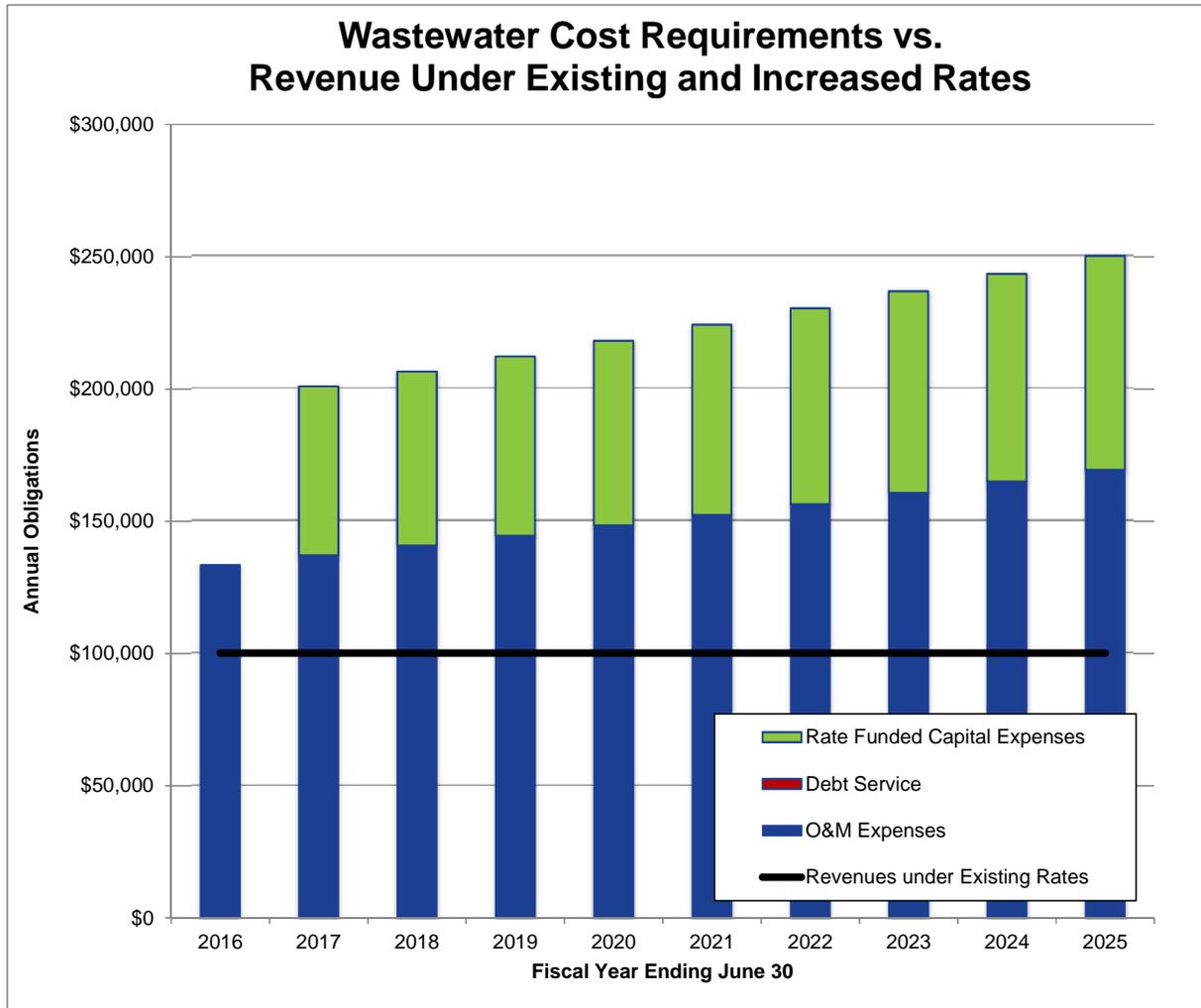
SEWER COST REQUIREMENTS SUMMARY	Budget	Projected								
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Sources of Funds										
SEWER REVENUES:										
Sewer Service Charge	100,088	100,088	100,088	100,088	100,088	100,088	100,088	100,088	100,088	100,088
Other Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Sources of Funds	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088
Uses of Funds										
OPERATING EXPENSES (2):										
PERSONNEL	\$ 20,700	\$ 21,256	\$ 21,827	\$ 22,413	\$ 23,014	\$ 23,632	\$ 24,267	\$ 24,918	\$ 25,587	\$ 26,274
MATERIALS & SERVICES	112,770	115,796	118,905	122,096	125,371	128,732	132,185	135,732	139,371	143,112
Subtotal: Operating Expenses	\$ 133,470	\$ 137,051	\$ 140,732	\$ 144,509	\$ 148,385	\$ 152,364	\$ 156,451	\$ 160,651	\$ 164,958	\$ 169,386
OTHER EXPENDITURES:										
Existing Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Debt Service	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses (3)	-	63,880	65,796	67,770	69,803	71,898	74,054	76,276	78,564	80,921
Subtotal: Other Expenditures	\$ -	\$ 63,880	\$ 65,796	\$ 67,770	\$ 69,803	\$ 71,898	\$ 74,054	\$ 76,276	\$ 78,564	\$ 80,921
Total Uses of Water Funds	\$ 133,470	\$ 200,931	\$ 206,528	\$ 212,279	\$ 218,189	\$ 224,262	\$ 230,506	\$ 236,927	\$ 243,523	\$ 250,308
Annual Surplus/(Deficit)	\$ (33,381)	\$ (100,843)	\$ (106,440)	\$ (112,191)	\$ (118,100)	\$ (124,174)	\$ (130,418)	\$ (136,838)	\$ (143,434)	\$ (150,219)
Net Cost Requirement (Total Uses less Non-Rate Revenue)	\$ 133,470	\$ 200,931	\$ 206,528	\$ 212,279	\$ 218,189	\$ 224,262	\$ 230,506	\$ 236,927	\$ 243,523	\$ 250,308

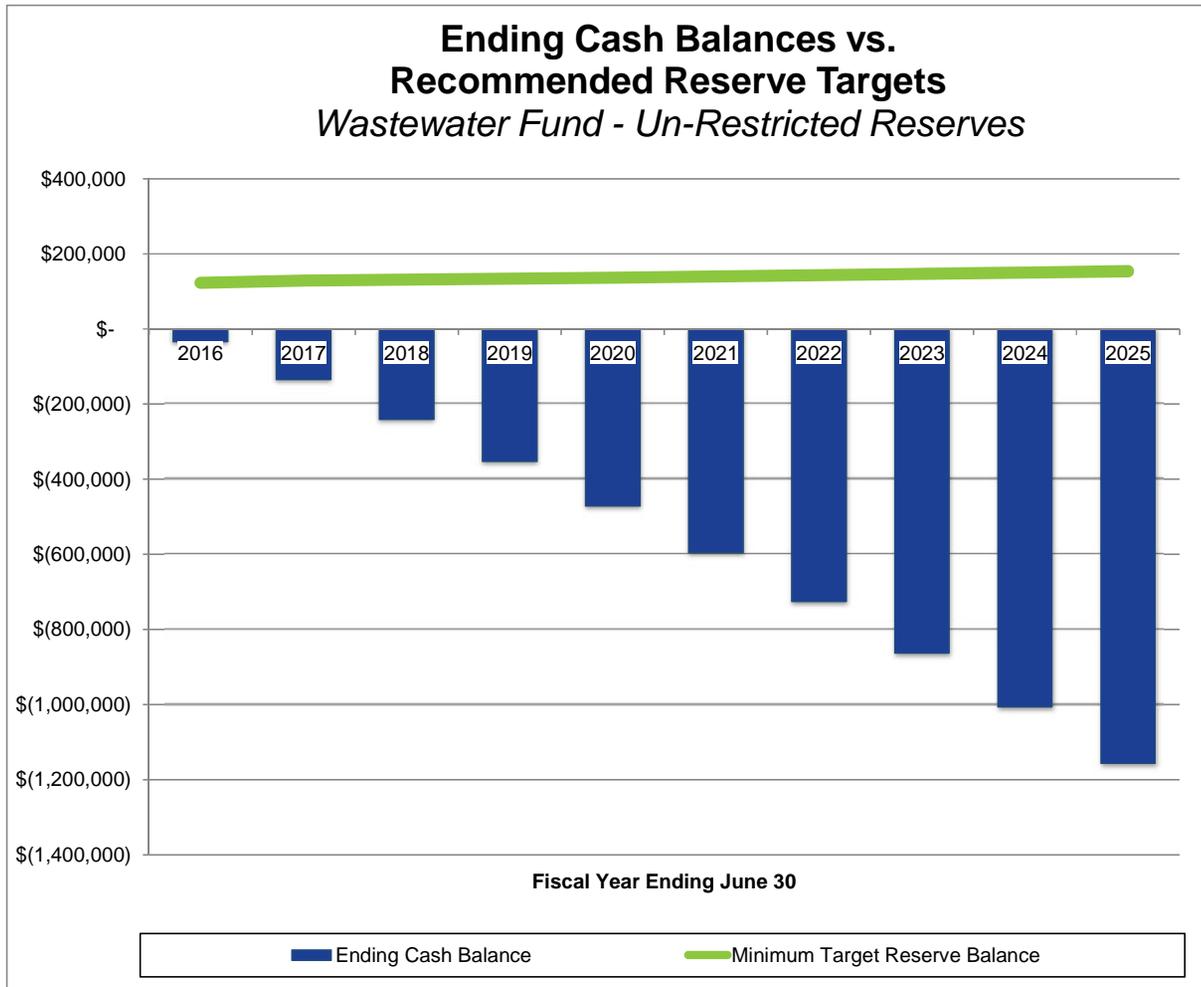
1. Revenue and expenses for FY 2015/16 through FY 2020/21 were provided by City Staff. Source File: 2016 Sanitation Fund Rate Analysis-2.xlsx.
2. Assumes annual inflation of 4%, beyond FY 2020/21 (file: 2016 Sanitation Fund Rate Analysis.xls).
3. Assumes annual inflation of the 10 year average change in the Construction Cost Index for 2006-2015; applied to estimated future expenditures beyond FY 2020/21. Source: Engineering News Record website (<http://enr.construction.com>).
4. Assumes new rates are implemented July 1, 2017.

TABLE 2
 SEWER RESERVE FUND SUMMARY, UN-RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY UN-RESTRICTED RESERVES - SEWER	Budget	Projected								
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Total Beginning Cash (1)	\$ -	\$ -								
Un-Restricted Reserves:										
Operating Reserve										
Beginning Reserve Balance	\$ -	\$ (33,381)	\$ (134,224)	\$ (240,664)	\$ (352,855)	\$ (470,955)	\$ (595,129)	\$ (725,547)	\$ (862,385)	\$ (1,005,819)
Plus: Net Cash Flow (After Rate Increases)	(33,381)	(100,843)	(106,440)	(112,191)	(118,100)	(124,174)	(130,418)	(136,838)	(143,434)	(150,219)
Plus: Transfer of Debt Reserve Surplus	-	-	-	-	-	-	-	-	-	-
Less: Transfer Out to Capital Replacement Reserve	-	-	-	-	-	-	-	-	-	-
Ending Operating Reserve Balance	\$ (33,381)	\$ (134,224)	\$ (240,664)	\$ (352,855)	\$ (470,955)	\$ (595,129)	\$ (725,547)	\$ (862,385)	\$ (1,005,819)	\$ (1,156,039)
Target Ending Balance (90 days of O&M)	\$ 33,400	\$ 34,300	\$ 35,200	\$ 36,100	\$ 37,100	\$ 38,100	\$ 39,100	\$ 40,200	\$ 41,200	\$ 42,300
Capital Rehabilitation & Replacement Reserve										
Beginning Reserve Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	-	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-	-
Ending Capital Rehab & Replacement Reserve Balance	\$ -	\$ -	\$ -							
Target Ending Balance (2)	\$ 89,778	\$ 94,503	\$ 96,205	\$ 97,994	\$ 99,882	\$ 101,888	\$ 104,030	\$ 106,336	\$ 108,841	\$ 111,593
Ending Balance - Excl. Restricted Reserves	\$ (33,381)	\$ (134,224)	\$ (240,664)	\$ (352,855)	\$ (470,955)	\$ (595,129)	\$ (725,547)	\$ (862,385)	\$ (1,005,819)	\$ (1,156,039)
Min. Target Ending Balance - Excl. Restricted Reserves	\$ 123,178	\$ 128,803	\$ 131,405	\$ 134,094	\$ 136,982	\$ 139,988	\$ 143,130	\$ 146,536	\$ 150,041	\$ 153,893
Ending Surplus/(Deficit) Compared to Reserve Targets	\$ (156,560)	\$ (263,028)	\$ (372,069)	\$ (486,948)	\$ (607,938)	\$ (735,117)	\$ (868,676)	\$ (1,008,921)	\$ (1,155,860)	\$ (1,309,932)
Annual Interest Earnings Rate (3)	0.35%	0.35%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.00%

1. Total beginning cash is based on FY 2014/15 ending Fund Balance, as listed in Source File: 2016 Sanitation Fund Rate Analysis-2.xlsx.
2. The Capital Rehabilitation & Replacement Reserve target is set to the annual average of Capital Project expenditures (in future year dollars).
3. Historical interest earning rates were referenced on the CA Treasurer's Office website for funds invested in LAIF. Future years earnings were conservatively estimated through 2021 and phase into the historical 10 year average interest earnings rate.





SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY
 Operating Revenue and Expenses

EXHIBIT 1

SEWER REVENUE FORECAST:

DESCRIPTION (1)	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
SEWER REVENUE											
7102 Wastewater Service											
SEWER CHARGES	1	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088
TOTAL: REVENUE		\$ 100,088									

SEWER REVENUE SUMMARY:

SEWER REVENUE											
Other Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sewer Service Charge		\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088	\$ 100,088
TOTAL: REVENUE		\$ 100,088									

SEWER FUND OPERATING EXPENSE FORECAST (2):

DESCRIPTION - WASTEWATER	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PERSONNEL											
Salaries											
REGULAR SALARIES	3	\$ 15,000	\$ 15,403	\$ 15,816	\$ 16,241	\$ 16,677	\$ 17,125	\$ 17,585	\$ 18,057	\$ 18,542	\$ 19,039
OVERTIME WAGES	3	2,500	2,567	2,636	2,707	2,780	2,854	2,931	3,009	3,090	3,173
STANDBY WAGES	3	500	513	527	541	556	571	586	602	618	635
Subtotal		\$ 18,000	\$ 18,483	\$ 18,980	\$ 19,489	\$ 20,012	\$ 20,550	\$ 21,102	\$ 21,668	\$ 22,250	\$ 22,847
Benefits											
MEDICAL INSURANCE	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DENTAL INSURANCE	3	-	-	-	-	-	-	-	-	-	-
PERS - RETIREMENT	3	1,300	1,335	1,371	1,408	1,445	1,484	1,524	1,565	1,607	1,650
FICA - SOCIAL SECURITY	3	1,100	1,130	1,160	1,191	1,223	1,256	1,290	1,324	1,360	1,396
WORKERS COMPENSATION	3	-	-	-	-	-	-	-	-	-	-
MEDICARE RETIRED MEDICAL	3	300	308	316	325	334	342	352	361	371	381
SPECIAL CLOTHING	3	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 2,700	\$ 2,772	\$ 2,847	\$ 2,923	\$ 3,002	\$ 3,082	\$ 3,165	\$ 3,250	\$ 3,337	\$ 3,427
Additional Positions											
Fully Loaded Cost of New Position(s)	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ -									
TOTAL: PERSONNEL		\$ 20,700	\$ 21,256	\$ 21,827	\$ 22,413	\$ 23,014	\$ 23,632	\$ 24,267	\$ 24,918	\$ 25,587	\$ 26,274
MATERIALS & SERVICES											
ADMIN OVERHEAD ALLOCATION FROM WATER	1	\$ 10,970	\$ 11,298	\$ 11,639	\$ 11,987	\$ 12,344	\$ 12,710	\$ 13,088	\$ 13,479	\$ 13,878	\$ 14,294
CONTRACT/PROFESSIONAL SERVICES	2	\$ 51,000	\$ 52,352	\$ 53,739	\$ 55,163	\$ 56,625	\$ 58,125	\$ 59,666	\$ 61,247	\$ 62,870	\$ 64,536
OUTSIDE WATER ANALYSIS	2	14,600	14,987	15,384	15,792	16,210	16,640	17,081	17,533	17,998	18,475
ADMINISTRATION OVERHEAD	2	4,000	4,106	4,215	4,327	4,441	4,559	4,680	4,804	4,931	5,062
EQUIPMENT REPLACEMENT FUND	2	-	-	-	-	-	-	-	-	-	-
UTILITIES	2	7,000	7,186	7,376	7,571	7,772	7,978	8,189	8,406	8,629	8,858
OPERATING SUPPLIES	2	6,000	6,159	6,322	6,490	6,662	6,838	7,019	7,205	7,396	7,592
MAINT & OPERATIONS OF VEHICLES	2	500	513	527	541	555	570	585	600	616	633
RENTAL/LEASES/PERMITS	2	15,000	15,398	15,806	16,224	16,654	17,096	17,549	18,014	18,491	18,981
FACILITIES MAINTENANCE	2	500	513	527	541	555	570	585	600	616	633
COMMUNICATIONS & TELEMETERING	2	3,200	3,285	3,372	3,461	3,553	3,647	3,744	3,843	3,945	4,049
OFFICE SUPPLIES (included 5078)	2	-	-	-	-	-	-	-	-	-	-
POSTAGE	2	-	-	-	-	-	-	-	-	-	-
Subtotal		\$ 112,770	\$ 115,796	\$ 118,905	\$ 122,096	\$ 125,371	\$ 128,732	\$ 132,185	\$ 135,732	\$ 139,371	\$ 143,112
TOTAL: MATERIALS & SERVICES		\$ 112,770	\$ 115,796	\$ 118,905	\$ 122,096	\$ 125,371	\$ 128,732	\$ 132,185	\$ 135,732	\$ 139,371	\$ 143,112
GRAND TOTAL: WASTEWATER EXPENSES		\$ 133,470	\$ 137,051	\$ 140,732	\$ 144,509	\$ 148,385	\$ 152,364	\$ 156,451	\$ 160,651	\$ 164,958	\$ 169,386

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY
 Operating Revenue and Expenses

EXHIBIT 1

NON-CASH ITEMS, EXCLUDED FROM ABOVE:

DESCRIPTION	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DEPRECIATION											
Depreciation Expense	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL: DEPRECIATION		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

FORECASTING ASSUMPTIONS:

COST INFLATION FACTORS	Basis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Customer Growth	1	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation (4)	2	--	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%	2.65%
Labor Cost Inflation (5)	3	--	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%	2.69%
Water Purchases	4	--	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Energy (6)	5	--	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%
Chemicals (7)	6	--	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Fuel	7	--	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
No Escalation	8	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenues are from the Final Trial Balance on June 30, 2015 from source file: *SLVWD 2015 Working TB.xls* and are actual revenues from FY 14/15.
2. Expenses are from the FY 2015/16 Budget and from source file: *FY1516 BUDGET FINAL.pdf*. All projected expenses are rounded to the nearest \$100.
3. 1.5 percent of Administration budget items are allocated to the sewer utility; per District staff, via email September 2016.
4. Expected Inflation factors based on expense type from 5 year average from Bureau of Labor Statistics Data.
http://www.bls.gov/regions/west/news-release/consumerpriceindex_sanfrancisco.htm
5. Labor cost inflation is based on the 5-year average annual change in the Quarterly Census of Employment and Wages (San Jose area, CA).
http://www.bls.gov/regions/west/news-release/2016/employmentcostindex_sanjose_20161031.htm
6. Estimated energy cost inflation provided by a University of California Davis report:
The Future of Electricity Prices in California: Understanding Market Drivers and Forecasting Prices to 2040, by Johnathan Cook, Ph.D., page 31, Table 7.
7. Inflation factor recently used by other California water agencies (e.g., City of Sunnyvale, City of Eureka, Humboldt CSD).

CAPITAL FUNDING SUMMARY - SEWER

CAPITAL FUNDING FORECAST		Budget		Projected						
Sewer Funding Sources:	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capacity Fee Reserves	-	-	-	-	-	-	-	-	-	-
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-
Use of Future Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	-	-	-	-	-
Rate Revenue	-	63,880	65,796	67,770	69,803	71,898	74,054	76,276	78,564	80,921
Total Sources of Capital Funds	\$ -	\$ 63,880	\$ 65,796	\$ 67,770	\$ 69,803	\$ 71,898	\$ 74,054	\$ 76,276	\$ 78,564	\$ 80,921
Uses of Capital Funds:										
Total Project Costs	\$ -	\$ 63,880	\$ 65,796	\$ 67,770	\$ 69,803	\$ 71,898	\$ 74,054	\$ 76,276	\$ 78,564	\$ 80,921
Capital Funding Surplus (Deficiency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SRF Loan Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Revenue Bond Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

CAPITAL IMPROVEMENT PROGRAM - SEWER

Sewer Capital Improvement Program Costs (1):

Project Description	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pipes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tanks (including 10% volume contingency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pump Stations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wells	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treatment	\$ -	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200
Diversions	\$ -	\$ 44,680	\$ 44,680	\$ 44,680	\$ 44,680	\$ 44,680	\$ 44,680	\$ 44,680	\$ 44,680	\$ 44,680
Admin/Operations Building	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Placeholder for Future Year Capital Projects</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: CIP Program Costs	\$ -	\$ 63,880								

Sewer Capital Improvement Program Costs (in Future-Year Dollars):

Project Description	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pipes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tanks (including 10% volume contingency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pump Stations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wells	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treatment	\$ -	\$ 19,200	\$ 19,776	\$ 20,369	\$ 20,980	\$ 21,610	\$ 22,258	\$ 22,926	\$ 23,614	\$ 24,322
Diversions	\$ -	\$ 44,680	\$ 46,020	\$ 47,401	\$ 48,823	\$ 50,288	\$ 51,796	\$ 53,350	\$ 54,951	\$ 56,599
Admin/Operations Building	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Placeholder for Future Year Capital Projects</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Capital Improvement Program Costs (Future-Year Dollars)	\$ -	\$ 63,880	\$ 65,796	\$ 67,770	\$ 69,803	\$ 71,898	\$ 74,054	\$ 76,276	\$ 78,564	\$ 80,921

FORECASTING ASSUMPTIONS:

Economic Variables	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Construction Cost Inflation, Per Engineering News Record(2)	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Construction Cost Multiplier from 2016	1.00	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27

1. Capital project costs were provided by City Staff in source file: VWHA_Capital_Asset_Cost_of_Service_9_02_16.pdf.

2. For reference purposes, the annual Construction Cost Inflation percentage is the 10 year average change in the Construction Cost Index for 2005-2015 (3.0%). Source: Engineering News Record website (<http://enr.construction.com>).

WASTEWATER UTILITY EXISTING DEBT OBLIGATIONS	Budget	Projected									
	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	
Annual Repayment Schedules:											
Grand Total: Existing Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grand Total: Existing Annual Coverage Requirement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grand Total: Existing Debt Reserve Target	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Annual Debt Obligations to be Satisfied by Wastewater Rates:

Existing Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Annual Coverage Requirement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Debt Reserve Target	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - SEWER UTILITY
Projected Wastewater Rates Under Existing Rate Schedule**

EXHIBIT 4

Current Wastewater Rate Schedule:

Fixed Charges	Current Monthly
Sewer	\$149.00

SAN LORENZO VALLEY WATER DISTRICT
ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - SEWER UTILITY
Cost of Service Analysis

Classification of Expenses - Sewer									
Budget Categories	Total Cost Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2017/18	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
PERSONNEL									
PERSONNEL									
Salaries	\$ -	\$ -	\$ -	\$ -	\$ -	56%	22%	22%	0%
REGULAR SALARIES	\$ 15,816	\$ 8,857	\$ 3,480	\$ 3,480	\$ -	56%	22%	22%	0%
OVERTIME WAGES	\$ 2,636	\$ 1,450	\$ 527	\$ 527	\$ 132	55%	20%	20%	5%
STANDBY WAGES	\$ 527	\$ 290	\$ 105	\$ 105	\$ 26	55%	20%	20%	5%
Subtotal	\$ 18,980	\$ 10,597	\$ 4,112	\$ 4,112	\$ 158	56%	22%	22%	1%
Benefits									
MEDICAL INSURANCE	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
DENTAL INSURANCE	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
PERS - RETIREMENT	\$ 1,371	\$ 754	\$ 274	\$ 274	\$ 69	55%	20%	20%	5%
FICA - SOCIAL SECURITY	\$ 1,160	\$ 638	\$ 232	\$ 232	\$ 58	55%	20%	20%	5%
WORKERS COMPENSATION	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
MEDICARE RETIRED MEDICAL	\$ 316	\$ 174	\$ 63	\$ 63	\$ 16	55%	20%	20%	5%
SPECIAL CLOTHING	\$ -	\$ -	\$ -	\$ -	\$ -	56%	22%	22%	0%
Subtotal	\$ 2,847	\$ 1,566	\$ 569	\$ 569	\$ 142	55%	20%	20%	5%
TOTAL: PERSONNEL	\$ 21,827	\$ 12,163	\$ 4,682	\$ 4,682	\$ 301	56%	21%	21%	1%
MATERIALS & SERVICES									
ADMIN OVERHEAD ALLOCATION FROM WATER (3)	\$ 11,639	\$ 6,401	\$ 2,328	\$ 2,328	\$ 582	55%	20%	20%	5%
CONTRACT/PROFESSIONAL SERVICES	\$ 53,739	\$ 29,556	\$ 10,748	\$ 10,748	\$ 2,687	55%	20%	20%	5%
OUTSIDE WATER ANALYSIS	\$ 15,384	\$ 8,461	\$ 3,077	\$ 3,077	\$ 769	55%	20%	20%	5%
ADMINISTRATION OVERHEAD	\$ 4,215	\$ -	\$ -	\$ -	\$ 4,215	0%	0%	0%	100%
EQUIPMENT REPLACEMENT FUND	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
UTILITIES	\$ 7,376	\$ 4,057	\$ 1,475	\$ 1,475	\$ 369	55%	20%	20%	5%
OPERATING SUPPLIES	\$ 6,322	\$ 3,477	\$ 1,264	\$ 1,264	\$ 316	55%	20%	20%	5%
MAINT & OPERATIONS OF VEHICLES	\$ 527	\$ 290	\$ 105	\$ 105	\$ 26	55%	20%	20%	5%
RENTAL/LEASES/PERMITS	\$ 15,806	\$ 8,693	\$ 3,161	\$ 3,161	\$ 790	55%	20%	20%	5%
FACILITIES MAINTENANCE	\$ 527	\$ 290	\$ 105	\$ 105	\$ 26	55%	20%	20%	5%
COMMUNICATIONS & TELEMETERING	\$ 3,372	\$ 1,855	\$ 674	\$ 674	\$ 169	55%	20%	20%	5%
OFFICE SUPPLIES (included 5078)	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	100%
POSTAGE	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	100%
Subtotal	\$ 118,905	\$ 63,080	\$ 22,938	\$ 22,938	\$ 9,949	53%	19%	19%	8%
TOTAL: MATERIALS & SERVICES	\$ 118,905	\$ 63,080	\$ 22,938	\$ 22,938	\$ 9,949	53%	19%	19%	8%
GRAND TOTAL: WASTEWATER EXPENSES	\$ 140,732	\$ 75,243	\$ 27,620	\$ 27,620	\$ 10,250	53%	20%	20%	7%

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - SEWER UTILITY
 Cost of Service Analysis

Classification of Expenses - Sewer, continued									
Budget Categories	Total Revenue Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2017/18	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Debt Service Payments									
Existing Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	50%	25%	25%	0%
Future Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	50%	25%	25%	0%
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	0%
Capital Expenditures									
Rate Funded Capital Expenses	\$ 65,796	\$ 32,898	\$ 16,449	\$ 16,449	\$ -	50%	25%	25%	0%
TOTAL COST REQUIREMENTS	\$ 206,528	\$ 108,141	\$ 44,069	\$ 44,069	\$ 10,250	52%	21%	21%	5%
Less: Non-Rate Revenues									
SEWER REVENUE									
Other Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	52%	21%	21%	5%
Sewer Service Charge	\$ -	\$ -	\$ -	\$ -	\$ -	52%	21%	21%	5%
NET SEWER COST REQUIREMENTS	\$ 206,528	\$ 108,141	\$ 44,069	\$ 44,069	\$ 10,250				
Allocation of Sewer Cost Requirements	100.0%	52.4%	21.3%	21.3%	5.0%				

Net Revenue Req. Check from Financial Plan \$ -

SAN LORENZO VALLEY WATER DISTRICT
 ENTERPRISE WIDE COST OF SERVICE FINANCIAL STUDY - SEWER UTILITY
 Wastewater Cost of Service Analysis

Development of the BASE CAPACITY Allocation Factor (1) - Sewer					
Customer Class	Number of Accounts	Monthly Average Consumption	Estimated Annual Volume Total (HCF)	Adjusted Annual Volume Total (HCF)	Percentage of Adjusted Volume
Residential	55	292	3,505	3,505	100.0%
Grand Total:	55		3,505	3,505	100.0%
<i>3,505 Flow (cct/yr.)</i>					
<i>1.00 Flow Adj. Factor</i>					

1. Consumption data is based on SLVWD water customer data; several months of consumption have been approximated.

Development of the Strength Allocation Factor - Sewer									
Customer Class	Biochemical Oxygen Demand (BOD)					Total Suspended Solids (TSS)			
	Annual Flow (gallons)	Average Strength Factor (mg/l) (1)	Calculated BOD (lbs./yr.)	Adjusted BOD (lbs./yr.)	Percent of Total	Average Strength Factor (mg/l) (1)	Calculated TSS (lbs./yr.)	Adjusted TSS (lbs./yr.)	Percent of Total
Residential	2,621,915	200	4,373	4,373	100.00%	200	4,373	4,373	100.00%
Grand Total:	2,621,915		4,373	4,373			4,373	4,373	
<i>Target, from WWTP Data</i>				<i>4,373 BOD (lbs./yr.)</i>		<i>4,373 TSS (lbs./yr.)</i>			
				<i>1.000 BOD Adj. Factor</i>		<i>1.000 TSS Adj. Factor</i>			

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

Capacity Related Costs: Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.

Development of the Customer Allocation Factor - Sewer		
Customer Class	Number of Accounts	Percent of Total
Residential	55	100.00%
Grand Total:	55	100.00%

Allocation of FY 2017/18 Cost Requirements by Customer Class - Sewer						
Customer Class	Cost Classification Components				Net Cost-of-Service Requirements	% of Net Cost-of-Service Requirements
	Volume	Treatment		Customer Related		
		BOD	TSS			
Net Cost Requirements (1)	\$ 73,370	\$ 29,899	\$ 29,899	\$ 6,954	\$ 140,124	--
	<i>52.4%</i>	<i>21.3%</i>	<i>21.3%</i>	<i>5.0%</i>	<i>100.0%</i>	
SINGLE FAMILY	\$ 73,370	\$ 29,899	\$ 29,899	\$ 6,954	\$ 140,124	100.0%
TOTAL	\$ 73,370	\$ 29,899	\$ 29,899	\$ 6,954	\$ 140,124	100%

1. Cost requirement for each customer class is determined by multiplying the requirement from each cost classification by the allocation factors for each customer class.