



Aronow Consulting
ECONOMICS & PUBLIC FINANCE

WATER RATE STUDY

Prepared for
Christian Valley Park CSD

August 2019

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Christian Valley Park CSD Water Rate Study

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Introduction and Summary of Findings

1.1 BACKGROUND

The Christian Valley Park Community Services District (the District) provides water service as well as road maintenance to the residents of Christian Valley Park, which is located in a rural area just east of Auburn, California. In 2013/14 the District increased water rates in order to be able to fund future capital improvement projects (CIP), primarily pipeline replacement. Prior to this increase, rates had been flat (no adjustments) since 2008. The District was concerned that without rate increases the level of service provided by the District would erode and therefore, these increases also allowed for inflationary cost adjustments to general operations.

The 2013 rate adjustment period included fiscal years ending 2015 through 2019. The District is currently in the last year of the five year period, with current rates per EDU set at \$59.79 for the base (fixed) rate per month and \$1.28 per water unit (748 gallons) consumed.

These rates were implemented in large part to provide funding for capital improvement projects in addition to ongoing operation and maintenance costs of the District. The District has miles of water transmission lines that are reaching the end of their useful lives and are in need of repair and replacement. Since 2013, the District has been saving funds for projects and has accumulated over \$500,000 in capital reserves for CIP needs.

At the time the updated rates were implemented, the District anticipated a future water storage project, however it wasn't projected to be an imminent project, but rather forecasted to occur after 2030. The cost for the project was estimated to be \$3.25 million in December 2013. Since then, it has been discovered that the need to replace the water storage reservoir is critical and needed now in order to ensure that customers continue to have a reliable water supply. The District is planning to build two steel tanks to replace the existing water storage reservoir. This project is currently estimated at \$3.8 million and the District has secured a low interest loan commitment from USDA Rural Assistance program for approximately \$3.4 million of the project cost. The District plans to use a portion of the accumulated capital reserves to fund the remaining portion of the project, thereby minimizing the amount borrowed and therefore lowering future annual debt service requirements.

However, the need to also repair and replace aging water lines remains a priority to ensure an operational water system. The current rates are insufficient to fund both the needed Water Storage Project as well as the critical repair and replacement of water pipelines while still allowing for adequate funding for ongoing operations and maintenance costs of the District. In order to fund all of these priority expenses, the District will need to increase its water rates and charges.

1.2 PURPOSE OF THE REPORT

The purpose of the report is to provide an explanation and justification of the calculated water rates for the District. Rates have been calculated for the fiscal years 2019-20 through 2024-25. The rates have been calculated in accordance with the requirements of XIID et. seq. of the California Constitution, commonly known as Proposition 218, which mandates that the fee or charge imposed is commensurate with the benefit received by those paying the fee.

1.3 SUMMARY OF FINDINGS

Current water rates are insufficient to fund the on-going expenses and the additional debt service for the \$3.4 million USDA loan the District needs to fund the Water Storage Project, as well as much needed repair and replacement of ageing water pipeline infrastructure. On-going expenses include operations and maintenance costs, capital costs, and repair and replacement of facilities or depreciation. Therefore, the District needs to raise its monthly service charges (which are billed on a quarterly basis).

Table 1 summarizes the current and calculated water rates for a ¾” meter (which reflect the majority of District accounts, for more information on current accounts see Table 2). The calculated rates are projected in three steps as follows:

- Step 1: Reflects current District operation and maintenance expenses including existing debt service, but excluding annual repair and replacement/minor CIP improvements.
- Step 2: Reflects the estimated annual repair and replacement/minor CIP improvements.
- Step 3: Includes major CIP improvement projects, including the estimated debt service for the Tank Storage Project and major CIP pipeline and replacement and Water Treatment Plant (WTP) improvement projects. The CIP pipeline projects are also assumed to be funded with long term loans.

Monthly fixed water rates are projected to increase from the current rate of \$59.79 to \$66.30 in fiscal 2019-20 and to \$86.00 by FY 2024-25. The flow charge, which is charged for each 748 gallons (one unit) of water consumed, is also projected to increase.

The focus of the rate study analysis is to allocate the expenses of the District to all customers in a manner that is equitable and reflects the relative estimated impact each customer has on the water system. In doing so, this ensures that the calculated rates are compliant with Proposition 218 requirements. Section 4 of this report discusses the rate methodology in greater detail.

1.4 ORGANIZATION OF THE REPORT

This report is divided into four sections. Following this introduction, Section 2 provides an overview of the District’s water system and the current customer base. Section 3 details the

projected annual revenue requirements in a five-year financial plan, which serves as the basis for the rate calculations. Section 4 provides the rate analysis and rate calculations for the District.

Appendix A provides the budget detail for 2018-19.

Table 1
Summary of Current and Calculated Water Rates, ¾"Meter

	Existing Mo.	Projected					
	Rate Charge [1]	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Step 1 - Existing O&M							
<i>Revenue Req't - Step 1</i>		\$483,712	\$500,353	\$516,577	\$534,103	\$551,989	\$570,270
Base/Fixed	\$42.07	\$42.14	\$43.59	\$45.00	\$46.53	\$48.09	\$49.68
Flow/Variable - Per Unit [2]	\$0.90	\$1.27	\$1.31	\$1.35	\$1.40	\$1.44	\$1.49
Step 2 - Annual CIP Improvements							
<i>Revenue Req't - Step 2</i>		\$96,200	\$105,833	\$125,982	\$97,610	\$96,512	\$134,186
Base/Fixed	\$4.71	\$8.38	\$9.22	\$10.98	\$8.50	\$8.41	\$11.69
Flow/Variable - Per Unit	\$0.10	\$0.25	\$0.28	\$0.33	\$0.26	\$0.25	\$0.35
Step 3 - Major CIP Projects							
<i>Revenue Req't - Step 3</i>		\$181,000	\$195,300	\$201,500	\$257,400	\$287,900	\$281,900
Base/Fixed	\$13.02	\$15.77	\$17.01	\$17.55	\$22.42	\$25.08	\$24.56
Flow/Variable - Per Unit	\$0.28	\$0.47	\$0.51	\$0.53	\$0.67	\$0.75	\$0.74
Total							
Revenue Requirement		\$760,912	\$801,485	\$844,059	\$889,114	\$936,402	\$986,356
Base/Fixed	\$59.79	\$66.29	\$69.82	\$73.53	\$77.46	\$81.58	\$85.93
Flow/Variable - Per Unit	\$1.28	\$1.99	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58
Total Rounded							
Base/Fixed		\$66.30	\$69.90	\$73.60	\$77.50	\$81.60	\$86.00
Flow/Variable - Per Unit		\$1.99	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58
Total - Quarterly							
Base/Fixed		\$198.90	\$209.70	\$220.80	\$232.50	\$244.80	\$258.00
Flow/Variable - Per Unit		\$1.99	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58

[1] Charges are collected on a quarterly basis.

[2] One unit = 748 gallons

Water System and Customer Summary

This section provides a brief description of the District's water system and an overview of the District's customer base and current billing structure.

2.1 WATER SYSTEM INFRASTRUCTURE

Christian Valley Park Community Services District provides treated water to approximately 625 customers, primarily residential dwellings, in a rural area just east of Auburn. Treated water is currently stored in a 1.5 million gallon (MG) reservoir constructed in the 1960s. Treated or potable water is delivered to customers via underground water transmission lines that were largely constructed in the 1960s. The District recently upgraded the water meter system.

Much of the District's infrastructure is in need of repair and replacement. Water rates were increased in 2013 in order to fund major repair and replacement of the water transmission pipelines. At the time it was thought that the water reservoir, while in need of replacement as well, could be delayed until the mid-2030s. Since 2013, it has been discovered that the need to replace the water storage reservoir was more critical and is needed now in order to ensure that customers continue to have a reliable water supply.

2.2 NEED FOR WATER STORAGE PROJECT

The existing 1.5 million gallon reservoir was constructed in the early 1960's as a concrete lined uncovered reservoir with earthen berms. A flexible liner and cover were installed in the early 1990's to improve water quality. Over the past 25 years the flexible cover has been exposed and damaged by ultra violet radiation and has become brittle and prone to tears that have been repaired on numerous occasions. The original pipeline that fills the reservoir developed a leak under the earthen embankment and has been bypassed with an above ground inlet pipe.

The reservoir including the piping and cover has deteriorated to the point it is no longer considered reliable under current standards. Failure of the reservoir will jeopardize the District's entire water supply, and priority has been given to replacing the reservoir with two steel tanks. Repairing the existing reservoir was considered as an alternative, but State Water Resources Control Board discourages the use of in ground covered reservoirs due to inherent problems with these types of reservoirs.

The District originally planned to begin replacing the 1960's era pipes prior to replacing the reservoir. Pipeline failures are critical issues and concern, but would typically involve a short-term water outage until crews can complete repairs. In contrast, failure of the reservoir could contaminate or interrupt water supply for an extended period of time – weeks or longer depending on the nature of the problem.

The reservoir replacement project has been given priority and the project accelerated. The environmental permitting has been completed, the design is underway and funding has been secured

through the United States Department of Agriculture – Rural Utility Services (USDA-RUS) branch via a low interest loan. Pipeline replacement remains a priority for the long-term viability of the District’s water supply and will be addressed as the reservoir project is completed. A portion of the project cost will also be funded with existing reserves, thereby lowering future debt service annual costs for customers.

The rates projected in this Study will allow the District to both construct the new water storage project and repair and replace water pipelines, although on a somewhat extended time schedule.

2.3 CUSTOMER SUMMARY AND RATE STRUCTURE

The District’s current water rate structure includes a fixed charge and a commodity or flow rate per 748 gallons (which the District defines as one “unit”). While the fixed charge is charged to each water meter and varies with meter size, the commodity rate is applied to a customer’s water usage. The current customers and the District bi-monthly water rates for various meter sizes are shown in **Table 2**.

A typical single family user has a 3/4 inch meter and pays a base fixed charge of \$59.79 per unit per month on a quarterly basis. There is also a water usage or flow charge for each 748 gallons consumed, or portion thereof.

Customers with greater water demands need larger meters. Larger meters are typically charged a higher monthly service charge due to the greater demand that they put on the utility system, as is the case with the District. However, the vast majority of customers have ¾ inch meters.

Table 2
Current Customers, Water Rates and Charges

Meter Size	No. of Customers	Type	Water Service Charges		
			Mo. Service Charge	Qtrly Service Charge	Usage Charge per Unit (748 Gallons)
3/4"	621	Residential	\$59.79	\$179.37	\$1.28
1"	3	Residential	\$99.66	\$298.98	\$1.28
1-1/2"	0		\$199.32		\$1.28
2"	1	Commercial	\$318.91	\$956.73	\$1.28
3"	0		\$597.95		\$1.28
4"	0		\$996.58		\$1.28
Total	625				

Water usage for the District is estimated at 137,685 units for the 12 months of 2018.

Revenue Requirements and Financial Plan

A review of the District's revenue requirements is a key first step in the rate analysis process. The review involves an analysis of current and historical operating revenues and expenses. This section of the report also provides a discussion of projected revenues and expenses which then determine the revenue requirements for purpose of calculating updated water rates.

3.1 HISTORICAL REVENUE AND EXPENSES

Table 3 shows the historical district revenues and expenses through fiscal year 2017-18. The budgeted revenues and expenses are shown for fiscal year 2018-19. The budgeted expenses are used to project future year expenses. The historical summary shows that District expenses have outpaced revenues for the time period shown.

The District's road maintenance fund revenue and expenses are not included in considered in this analysis as the revenues are earmarked for road improvement projects only and so are not shown in **Table 3**. A more detailed look at historical revenues and expenses is included in Table A-1 in Appendix A.

Table 3
Comparison of Historical and Budgeted Revenues and Expenses

	Actuals				Budget 2018-19	% Change 14/15 to 18/19
	2014-15	2015-16	2016-17	2017-18		
Revenue						
Water Service						
Service Fee	\$338,832	\$367,476	\$395,878	\$424,356	\$452,252	
Water Usage	\$139,413	\$120,157	\$147,505	\$168,921	\$179,200	
Subtotal	\$478,244	\$487,633	\$543,383	\$593,277	\$631,452	7.19%
Other Op. Revenue	\$96,485	\$95,806	\$62,651	\$97,187	\$104,129	
Non-Operating Inc.	\$13,064	\$5,203	\$6,970	\$28,158	\$3,000	
Total Revenues	\$587,794	\$588,642	\$613,004	\$718,623	\$738,581	5.87%
Expenditures						
Salaries & Benefits	\$42,084	\$44,310	\$45,720	\$48,841	\$55,512	
Material, Serv. & Supplie:	\$270,830	\$266,305	\$247,437	\$253,726	\$363,729	
Power & Utilities	\$45,132	\$39,954	\$35,300	\$44,119	\$48,000	
Capital Outlay	\$0	\$0	\$0	\$0	\$220,340	
Interest Expense	\$35,543	\$35,054	\$34,537	\$34,013	\$0	
Deprec./CIP Set-Asides	\$62,799	\$50,765	\$48,389	\$51,459	\$51,000	
Total Expenditures	\$456,388	\$436,388	\$411,384	\$432,158	\$738,581	12.79%
Net Income	\$131,406	\$152,254	\$201,620	\$286,465	\$0	(100.00%)

3.2 PROJECTED EXPENSES

The projected annual revenue requirements and corresponding rate calculations are directly related to the projected expenses of the District. **Table 4** shows the projected expenses for fiscal years 2019-20 through 2024-25. The cost adjustment factors are standardized at 3% for all expenses. In general, cost adjustment factors vary by public agency but do tend to fall in the range of 2.5 to 7.0 percent based on G Aronow Consulting's experience with other utility rate studies.

The projected expenses are broken out into four categories:

- ❑ **Step 1-Existing O&M:** The existing operating and maintenance (O&M) expenses are based on the FY 18-19 budget. This includes the debt service for the existing USDA loan and an operating reserve that is based on 1.5 months of operating expenses, before CIP set-asides and debt service. Fiscal year 2019 Step 1 expenses were estimated at \$587,901 and are projected to increase by 3% a year.
- ❑ **Step 2-Minor CIP and Set-Asides:** Step 2 includes annual routine CIP expenditures, minor repairs and replacement, as well as a CIP set-aside for depreciation related expenses.

- **Step 3-Major CIP:** Step 3 includes costs related to major CIP expenses. This includes the annual expenses related to the Water Storage Project that the District is currently planning for (the District has secured a loan commitment from the USDA to fund the majority of the \$3.9 million project). It also includes funding for repair and replacement of water pipelines as well as some funding for improvements to the Water Treatment Plant (WTP). The majority of the CIP project funding assumes long term loans and therefore, the projected expenses are based on estimated annual debt service plus the debt service reserve that is typically required as part of the loan terms.

The major CIP expenses are based on projected costs provided by the District's Engineer, Hydros Engineering, through 2029-30 and are summarized in **Table 5**. The CIP project costs are estimated to be approximately \$8.4 million over the next 10 years. However, it was assumed that the Water Storage Project and the pipeline replacement projects would be financed. The District has already received a preliminary funding commitment from the USDA for the Water Storage Project. Therefore a modified schedule of costs assuming loan financing is shown in Table 5. It is assumed that several years' worth of pipeline projects will be lumped together and financed with two long term loan (only one is in the current rate projection period). At the bottom of Table 5, the CIP costs included in the rate calculations are shown and the primary difference is that the estimated debt service costs (annual loan payments) are shown for the major CIP projects (Water Storage and pipeline replacement).

The estimated debt service annual payment calculations are shown in **Table 6**. The District plans to continue to seek low-interest loans from federal or state lenders, such as the USDA or the California State Revolving Loan program.

Table 4
Projected Expenses

	Budget 2018-19	Adj. Factor	1 2019-20	1 2020-21	2 2021-22	3 2022-23	4 2023-24	5 2024-25
Expenses								
Step 1								
Salaries	\$55,512	3.0%	\$57,177	\$58,893	\$60,659	\$62,479	\$64,354	\$66,284
Materials, Supplies, & Services	\$363,729	3.0%	\$374,641	\$385,880	\$397,456	\$409,380	\$421,662	\$434,311
Power and Utilities	\$48,000	3.0%	\$49,440	\$50,923	\$52,451	\$54,024	\$55,645	\$57,315
Subtotal Operating Costs	\$467,241		\$481,258	\$495,696	\$510,567	\$525,884	\$541,660	\$557,910
Existing Debt Service								
USDA Loan (\$888K)	\$46,378		\$46,485	\$46,884	\$46,378	\$46,673	\$46,810	\$46,810
Operating Reserve [1]		3.0%	\$60,157	\$61,962	\$63,821	\$65,735	\$67,708	\$69,739
Step 1: Total Expenses	\$513,619		\$587,901	\$604,542	\$620,766	\$638,292	\$656,178	\$674,459
Step 2								
Minor CIP R&R Projects	\$24,500	3.0%	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851
Other CIP (WTP, Valve Rep.)	\$0	3.0%	\$40,450	\$48,410	\$66,837	\$36,691	\$33,765	\$69,556
CIP Set-Aside	\$51,000	3.0%	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778
Step 2 Subtotal	\$75,500		\$96,200	\$105,833	\$125,982	\$97,610	\$96,512	\$134,186
Step 3 - Major CIP Projects								
2019/20 Tank Storage Project	\$195,840		\$84,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000
New Debt Service - T&D Loan #1	\$0		\$0	\$0	\$0	\$136,000	\$136,000	\$136,000
New Debt Service - T&D Loan #2								
Debt Service Reserve Fund at 10% [2]	\$0		\$0	\$16,800	\$16,800	\$30,400	\$30,400	\$30,400
Step 4 Subtotal	\$0		\$84,000	\$184,800	\$184,800	\$334,400	\$334,400	\$334,400
Total Expenses	\$784,959		\$768,101	\$895,174	\$931,548	\$1,070,303	\$1,087,091	\$1,143,045
Percent Increase			-2.1%	16.5%	4.1%	14.9%	1.6%	5.1%

[1] Operating reserve is based on 1.5 months operating expenses, before depreciation and debt service.

[2] Required as part of the USDA terms and conditions, the District must set aside at least 10% of Debt Service each year until reserve equals one years' payment.

**Table 5
Estimated CIP Costs through 2029-30**

	Annual Cost Escalator	1 2019-20	1 2020-21	2 2021-22	3 2022-23	4 2023-24	5 2024-25	6 2025-26	7 2026-27	8 2027-28	9 2028-29	10 2029-30	TOTAL
CIP Project Costs [1]													
Water Treatment Plan	3%	\$25,000	\$32,960	\$50,923	\$180,300	\$16,883	\$52,167	\$17,911	\$202,929	\$19,002	\$19,572	\$20,159	
Transmission and Distribution													
Valve Clusters	3%	\$15,450	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$18,448	\$19,002	\$19,572	\$20,159	
Est. Pipeline Replacement -Avg	3%	\$0	\$0	\$397,838	\$409,773	\$422,066	\$434,728	\$447,770	\$461,203	\$475,039	\$489,290	\$503,969	
Storage	3%	\$125,000	\$3,400,000										
Total		\$165,450	\$3,448,410	\$464,674	\$606,463	\$455,831	\$504,284	\$483,591	\$682,580	\$513,042	\$528,433	\$544,286	\$8,397,045
Modified Schedule of Costs assuming Loan Financing													
<u>Pay as you go</u>													
Water Treatment Plant		\$25,000	\$32,960	\$50,923	\$20,300	\$16,883	\$52,167	\$17,911	\$18,448	\$19,002	\$19,572	\$20,159	
T&D -Valve Replacement		\$15,450	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$18,448	\$19,002	\$19,572	\$20,159	
Storage [2]													
Subtotal w/Set Aside		\$40,450	\$48,410	\$66,837	\$36,691	\$33,765	\$69,556	\$35,822	\$36,896	\$38,003	\$39,143	\$40,317	
<u>Costs to be Financed</u>													
Water Treatment Plan					\$160,000				\$184,481				
T&D Pipeline Replacement					\$2,112,173				\$1,929,500				
Storage			\$3,400,000										
Subtotal		\$0	\$3,400,000	\$0	\$2,272,173	\$0	\$0	\$0	\$2,113,981	\$0	\$0	\$0	
Total		\$40,450	\$3,448,410	\$66,837	\$2,308,864	\$33,765	\$69,556	\$35,822	\$2,150,877	\$38,003	\$39,143	\$40,317	\$8,272,045
Included in Rate Calculations													
Pay-As-You-Go		\$40,450	\$48,410	\$66,837	\$36,691	\$33,765	\$69,556	\$35,822	\$36,896	\$38,003	\$39,143	\$40,317	
Finance Costs													
Storage - Debt Service			\$0	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000
T&D Loan #1 - Debt Service					\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000
T&D Loan #2 - Debt Service									\$130,000	\$130,000	\$130,000	\$130,000	\$130,000
Total		\$40,450	\$216,410	\$234,837	\$340,691	\$337,765	\$373,556	\$339,822	\$470,896	\$472,003	\$473,143	\$474,317	\$3,773,891

[1] Costs developed by Hydros with CVPCSD.

[2] Storage project planning costs assumed funded by existing reserves.

Table 6
Project Loan/Bond Sizing and Estimated Debt Service

Item	Assumptions	Estimated Bond Sizing		
		Storage	Transmission/Distribution	
		Two Tank Single Phase	#1 2023	#2 2033
<u>Total Loan/Bonds</u>				
Total Estimated Project Costs		\$3,871,000	\$2,272,173	\$2,113,981
District Contribution		\$500,000		
Loan Proceeds		\$3,371,000	\$2,272,173	\$2,113,981
Capitalized Interest	<i>0 Months</i>	\$0	\$0	\$0
Issuance Costs	<i>0.0%</i>	\$0	\$0	\$0
Bond Reserve Fund				
Loan/Bond Size		\$3,371,000	\$2,272,173	\$2,113,981
<i>Adjustment for Rounding</i>		\$0	\$0	\$0
Total Loan/Bond Size		\$3,371,000	\$2,272,173	\$2,113,981
<u>Annual Costs</u>				
Estimated Gross Debt Service		\$167,160	\$135,418	\$129,781
Estimated Gross Debt Service - Rounded		\$168,000	\$136,000	\$130,000
10% Debt Service Coverage	10%	\$16,800	\$13,600	\$13,000
Total			\$149,600	\$143,000
<u>Assumptions</u> ^[1]				
Interest Rate		3.88%	4.25%	4.50%
Term		40 Years	30 Years	30 Years
Bond Load Factor		1.0000	1.0000	1.0000

[1] Bond issuance/loan assumptions are estimates only. Actual pricing will be determined based on market conditions at the time of bond/loan issuance.

3.3 PROJECTED REVENUE REQUIREMENT

Table 7 shows the projected revenue requirement from water sales for a ten year period, through 2029-30. The revenue requirement adjusts projected expenses for other non-water sales related revenues (other revenue sources), such as hook-up fees and interest income. The annual revenue requirement in FY 2019-20 is approximately \$760,912.

The Projected Revenue Requirement includes a rate stabilization fund in Step 3. This allows the District to use funding from rate increases in earlier years to offset rate requirements in later years, thereby allowing for more level rate increases over the projection period.

3.4 FIVE-YEAR CIP CASH FLOW PROJECTION/FINANCIAL PLAN

Table 8 shows the cash flow projection for the water fund through fiscal year 2024-25, the rate projection period. The cash flow projection shows that with updated water rates and the additional revenue provided, the District will be able to fund the costs as identified in the analysis as well as provide sufficient debt service coverage (1.3x) for the existing and new loans.

Table 7
Revenue Requirement Allocated to Water Sales

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	1	1	2	3	4	5	6	7	8	9	10
Revenue Requirements											
Step 1											
Operating Expenses											
Salaries & Benefits	\$57,177	\$58,893	\$60,659	\$62,479	\$64,354	\$66,284	\$68,273	\$70,321	\$72,431	\$74,603	\$76,842
Materials, Supplies, & Services	\$374,641	\$385,880	\$397,456	\$409,380	\$421,662	\$434,311	\$447,341	\$460,761	\$474,584	\$488,821	\$503,486
Power and Utilities	\$49,440	\$50,923	\$52,451	\$54,024	\$55,645	\$57,315	\$59,034	\$60,805	\$62,629	\$64,508	\$66,443
Debt Service (\$900K)	\$46,485	\$46,884	\$46,378	\$46,673	\$46,810	\$46,810	\$46,810	\$46,810	\$46,810	\$46,810	\$46,810
Operating Reserve [1]	\$60,157	\$61,962	\$63,821	\$65,735	\$67,708	\$69,739	\$71,831	\$73,986	\$76,205	\$78,492	\$80,846
Subtotal Expenses	\$587,901	\$604,542	\$620,766	\$638,292	\$656,178	\$674,459	\$693,289	\$712,683	\$732,659	\$753,235	\$774,428
<i>Less Revenues Met from Other Sources</i>											
Gayle Loop Property Tax Income	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)	(\$53,635)
Hook-Up Fees	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)	(\$23,054)
Interest Income	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)	(\$3,000)
Other Revenues	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)	(\$24,500)
Step 1: Revenue Requirement	\$483,712	\$500,353	\$516,577	\$534,103	\$551,989	\$570,270	\$589,100	\$608,494	\$628,470	\$649,046	\$670,239
Step 2											
Minor CIP R&R Projects	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851	\$30,747	\$31,669	\$32,619	\$33,598	\$34,606
Other CIP (WTP, Valve Rep.)	\$40,450	\$48,410	\$66,837	\$36,691	\$33,765	\$69,556	\$35,822	\$36,896	\$38,003	\$39,143	\$40,317
CIP Set-Aside	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778	\$35,822	\$36,896	\$38,003	\$39,143	\$40,317
Step 2: Revenue Requirement	\$96,200	\$105,833	\$125,982	\$97,610	\$96,512	\$134,186	\$102,390	\$105,462	\$108,626	\$111,884	\$115,241
Step 3											
2019/20 Tank Storage Project	\$84,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000
New Debt Service - T&D Loan #1	\$0	\$0	\$0	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000
New Debt Service - T&D Loan #2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$130,000	\$130,000	\$130,000	\$130,000
Debt Service Reserve Fund at 10%	\$0	\$16,800	\$16,800	\$30,400	\$30,400	\$30,400	\$30,400	\$43,400	\$43,400	\$43,400	\$43,400
Rate Stabilization	\$97,000	\$10,500	\$16,700	(\$77,000)	(\$46,500)	(\$52,500)	\$13,000	(\$128,000)	(\$93,000)	(\$55,500)	(\$15,500)
Step 3: Revenue Requirement	\$181,000	\$195,300	\$201,500	\$257,400	\$287,900	\$281,900	\$347,400	\$349,400	\$384,400	\$421,900	\$461,900
Total Revenue Requirement (1, 2, 3)	\$760,912	\$801,485	\$844,059	\$889,114	\$936,402	\$986,356	\$1,038,890	\$1,063,356	\$1,121,496	\$1,182,830	\$1,247,379
<i>Percent Increase</i>	<i>11.77%</i>	<i>5.33%</i>	<i>5.31%</i>	<i>5.34%</i>	<i>5.32%</i>	<i>5.33%</i>	<i>5.33%</i>	<i>2.36%</i>	<i>5.47%</i>	<i>5.47%</i>	<i>5.46%</i>
Rate Stabilization Fund Beg. Balance	\$0	\$127,000	\$168,400	\$216,927	\$172,709	\$159,974	\$142,252	\$191,074	\$99,970	\$44,973	\$28,616
From CIP-Set Aside	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778	\$35,822	\$36,896	\$38,003	\$39,143	\$40,317
From Stabilization	\$97,000	\$10,500	\$16,700	(\$77,000)	(\$46,500)	(\$52,500)	\$13,000	(\$128,000)	(\$93,000)	(\$55,500)	(\$15,500)
Ending Balance	\$127,000	\$168,400	\$216,927	\$172,709	\$159,974	\$142,252	\$191,074	\$99,970	\$44,973	\$28,616	\$53,434

[1] Operating reserve is based on 1.5 months operating expenses, before depreciation and debt service.

Table 8
Projected Cash Flow

	Inflation Assumption	Budget	Projected					
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Revenues								
Current/Projected Mo. Rates - Base/Fixed		\$59.79	\$66.30	\$69.90	\$73.60	\$77.50	\$81.60	\$86.00
Water Sales		\$631,452	\$631,452	\$631,452	\$631,452	\$631,452	\$631,452	\$631,452
Additional Revenue Required:			\$129,460	\$170,033	\$212,607	\$257,662	\$304,950	\$354,904
Sutotal		\$631,452	\$760,912	\$801,485	\$844,059	\$889,114	\$936,402	\$986,356
Other Revenues								
Gayle Loop Property Tax Income		\$53,635	\$53,635	\$53,635	\$53,635	\$53,635	\$53,635	\$53,635
Hook-Up Fees		\$23,054	\$23,054	\$23,054	\$23,054	\$23,054	\$23,054	\$23,054
Interest Income		\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Other Revenues		\$24,500	\$24,500	\$24,500	\$24,500	\$24,500	\$24,500	\$24,500
Subtotal Other Revenues		\$79,689	\$104,189	\$104,189	\$104,189	\$104,189	\$104,189	\$104,189
Total Revenues		\$735,641	\$865,101	\$905,674	\$948,248	\$993,303	\$1,040,591	\$1,090,545
Expenses								
<u>Step 1</u>								
Salaries	3.0%	\$55,512	\$57,177	\$58,893	\$60,659	\$62,479	\$64,354	\$66,284
Materials, Supplies, & Services	3.0%	\$363,729	\$374,641	\$385,880	\$397,456	\$409,380	\$421,662	\$434,311
Power and Utilities	3.0%	\$48,000	\$49,440	\$50,923	\$52,451	\$54,024	\$55,645	\$57,315
Existing Debt Service - USDA		\$46,485	\$46,485	\$46,884	\$46,378	\$46,673	\$46,810	\$46,810
Total Step 1		\$513,726	\$527,743	\$542,580	\$556,945	\$572,557	\$588,471	\$604,721
<u>Step 2</u>								
Annual CIP Projects	3%	\$0	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851
Major Pipeline Repair & Replacement		\$0	\$40,450	\$48,410	\$66,837	\$36,691	\$33,765	\$69,556
CIP Set Aside		\$51,000	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778
Total Step 2		\$51,000	\$96,200	\$105,833	\$125,982	\$97,610	\$96,512	\$134,186
<u>Step 3</u>								
2019/20 Tank Storage Project		\$195,840	\$84,000	\$168,000	\$168,000	\$168,000	\$168,000	\$168,000
New Debt Service - T&D Loan #1		\$0	\$0	\$0	\$0	\$136,000	\$136,000	\$136,000
New Debt Service - T&D Loan #2		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service Reserve Fund at 10%		\$0	\$0	\$16,800	\$16,800	\$30,400	\$30,400	\$30,400
Rate Stabilization		\$0	\$97,000	\$10,500	\$16,700	(\$77,000)	(\$46,500)	(\$52,500)
Total Step 4		\$195,840	\$181,000	\$195,300	\$201,500	\$257,400	\$287,900	\$281,900
Total Expenses		\$760,566	\$804,943	\$843,712	\$884,427	\$927,567	\$972,883	\$1,020,807
Net Revenue		(\$24,925)	\$60,157	\$61,962	\$63,821	\$65,735	\$67,708	\$69,739
<i>Net Revenue Before Debt Service & CIP Aside</i>		<i>\$268,400</i>	<i>\$220,642</i>	<i>\$335,046</i>	<i>\$343,526</i>	<i>\$479,590</i>	<i>\$482,683</i>	<i>\$485,727</i>
<i>Debt Service Coverage Ratio</i>		<i>1.11</i>	<i>1.69</i>	<i>1.56</i>	<i>1.60</i>	<i>1.37</i>	<i>1.38</i>	<i>1.38</i>
<hr/>								
Beginning Operating Balance		\$79,665	\$54,740	\$114,897	\$176,859	\$240,680	\$306,416	\$374,123
Net Revenues		(\$24,925)	\$60,157	\$61,962	\$63,821	\$65,735	\$67,708	\$69,739
Ending Operating Balance		\$54,740	\$114,897	\$176,859	\$240,680	\$306,416	\$374,123	\$443,862
<i>Target Operating Balance [1]</i>		<i>\$171,242</i>	<i>\$175,914</i>	<i>\$180,860</i>	<i>\$185,648</i>	<i>\$190,852</i>	<i>\$196,157</i>	<i>\$201,574</i>

[1] The target operating balance represents 4 months of operating expenses, excluding debt service.

Water Rate Analysis

This section of the report describes the development of water rate calculations for the District. The District's customers as described in Section 2 of this report and the revenue requirements reviewed and finalized through the operating cash flow analysis discussed in Section 3 of the report provide the basis for performing the cost of service analysis and rate calculations.

4.1 COST OF SERVICE AND RATE ANALYSIS

Cost allocation is the method by which the annual water rate revenue requirement is recovered from each customer class based on the cost of providing water service. The total revenue requirements, net of revenue credits from other sources, shown in **Table 7**, is by definition the cost of providing service. These costs must then be allocated to each customer class.

The vast majority of customers in the District are residential customers. As such, there is need for only one customer class. All customers are allocated both a base/fixed charge and a flow/variable charge as shown in **Table 9**. The distribution of fixed and variable charges was established in the 2013 Rate Study analysis.

Water rates are calculated in **Table 10**. The base/fixed charges are determined by computing the rate for one equivalent dwelling unit (EDU), which in this case is assumed to be a 3/4" meter. The base/fixed cost is divided by the total number of equivalent meters. This base/fixed charge for the 3/4" meter is then multiplied by the Capacity Factor for each meter size.

The flow/variable charges are computed by dividing the allocated cost by the water sold. The water sold is based on actual usage for 2018, adjusted downward by 5.6%, to 130,000 units, to account for water conservation.

Table 9
Cost Allocation Categories

		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
		1	1	2	3	4	5	6
Step 1: Revenue Requirement								
Allocated to Water Sales	<i>(From Table 7)</i>	\$483,712	\$500,353	\$516,577	\$534,103	\$551,989	\$570,270	\$589,100
Allocation of Costs to:								
Base/Fixed	66%	\$319,250	\$330,233	\$340,941	\$352,508	\$364,313	\$376,378	\$388,806
Flow/Variable	34%	\$164,462	\$170,120	\$175,636	\$181,595	\$187,676	\$193,892	\$200,294
Step 2: Revenue Requirement								
Allocated to Water Sales	<i>(From Table 7)</i>	\$96,200	\$105,833	\$125,982	\$97,610	\$96,512	\$134,186	\$102,390
Allocation of Costs to:								
Base/Fixed	66%	\$63,492	\$69,849	\$83,148	\$64,423	\$63,698	\$88,563	\$67,577
Flow/Variable	34%	\$32,708	\$35,983	\$42,834	\$33,188	\$32,814	\$45,623	\$34,813
Step 3: Revenue Requirement								
Allocated to Water Sales	<i>(From Table 7)</i>	\$181,000	\$195,300	\$201,500	\$257,400	\$287,900	\$281,900	\$347,400
Allocation of Costs to:								
Base/Fixed	66%	\$119,460	\$128,898	\$132,990	\$169,884	\$190,014	\$186,054	\$229,284
Flow/Variable	34%	\$61,540	\$66,402	\$68,510	\$87,516	\$97,886	\$95,846	\$118,116

**Table 10
Calculation of Water Charges – Base/Fixed and Flow/Variable**

	Number of Accts/Meters	Number of Equiv. Mtrs	Capacity Factor [2]	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
STEP 1									
Base/Fixed Cost Allocation [1]				\$319,250	\$330,233	\$340,941	\$352,508	\$364,313	\$376,378
3/4"	621	621.00	1.00	\$42.14	\$43.59	\$45.00	\$46.53	\$48.09	\$49.68
1"	3	5.00	1.67	\$70.23	\$72.65	\$75.00	\$77.55	\$80.15	\$82.80
1-1/2"	-	-	3.33	\$140.47	\$145.30	\$150.01	\$155.10	\$160.29	\$165.60
2"	1	5.33	5.33	\$224.74	\$232.48	\$240.01	\$248.16	\$256.47	\$264.96
3"	-	-	10.00	\$421.40	\$435.89	\$450.03	\$465.30	\$480.88	\$496.80
4"	-	-	16.67	\$702.33	\$726.49	\$750.05	\$775.49	\$801.46	\$828.01
Total	625	631.33							
Variable/Flow Cost Allocation [1]				\$164,462	\$170,120	\$175,636	\$181,595	\$187,676	\$193,892
Total Annual Use (1 unit=748 Gal)		130,000 units		\$1.27	\$1.31	\$1.35	\$1.40	\$1.44	\$1.49
STEP 2									
Base/Fixed Cost Allocation [1]				\$63,492	\$69,849	\$83,148	\$64,423	\$63,698	\$88,563
3/4"	621	621.00	1.00	\$8.38	\$9.22	\$10.98	\$8.50	\$8.41	\$11.69
1"	3	5.00	1.67	\$13.97	\$15.37	\$18.29	\$14.17	\$14.01	\$19.48
1-1/2"	-	-	3.33	\$27.94	\$30.73	\$36.58	\$28.35	\$28.03	\$38.97
2"	1	5.33	5.33	\$44.70	\$49.17	\$58.53	\$45.35	\$44.84	\$62.35
3"	-	-	10.00	\$83.81	\$92.20	\$109.75	\$85.04	\$84.08	\$116.90
4"	-	-	16.67	\$139.68	\$153.66	\$182.92	\$141.73	\$140.13	\$194.83
Total	625	631.33							
Variable/Flow Cost Allocation [1]				\$32,708	\$35,983	\$42,834	\$33,188	\$32,814	\$45,623
Total Annual Use [1]		130,000 units		\$0.25	\$0.28	\$0.33	\$0.26	\$0.25	\$0.35
STEP 3									
Base/Fixed Cost Allocation [1]				\$119,460	\$128,898	\$132,990	\$169,884	\$190,014	\$186,054
3/4"	621	621.00	1.00	\$15.77	\$17.01	\$17.55	\$22.42	\$25.08	\$24.56
1"	3	5.00	1.67	\$26.28	\$28.36	\$29.26	\$37.37	\$41.80	\$40.93
1-1/2"	-	-	3.33	\$52.56	\$56.71	\$58.51	\$74.75	\$83.60	\$81.86
2"	1	5.33	5.33	\$84.10	\$90.74	\$93.62	\$119.59	\$133.77	\$130.98
3"	-	-	10.00	\$157.68	\$170.14	\$175.54	\$224.24	\$250.81	\$245.58
4"	-	-	16.67	\$262.80	\$283.57	\$292.57	\$373.73	\$418.02	\$409.31
Total	625	631.33							
Variable/Flow Cost Allocation [1]				\$61,540	\$66,402	\$68,510	\$87,516	\$97,886	\$95,846
Total Annual Use [1]		130,000 units		\$0.47	\$0.51	\$0.53	\$0.67	\$0.75	\$0.74

Table 10
Calculation of Water Charges – Base/Fixed and Flow/Variable, continued

	Number of Accts/Meters	Number of Equiv. Mtrs	Capacity Factor [2]	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
TOTAL									
Base/Fixed Cost Allocation [1]				\$502,202	\$528,980	\$557,079	\$586,815	\$618,025	\$650,995
3/4"	621	621	1.00	\$66.29	\$69.82	\$73.53	\$77.46	\$81.58	\$85.93
1"	3	5	1.67	\$110.48	\$116.37	\$122.55	\$129.10	\$135.96	\$143.21
1-1/2"	-	-	3.33	\$220.96	\$232.74	\$245.11	\$258.19	\$271.92	\$286.43
2"	1	5	5.33	\$353.54	\$372.39	\$392.17	\$413.10	\$435.08	\$458.29
3"	-	-	10.00	\$662.88	\$698.23	\$735.32	\$774.57	\$815.77	\$859.29
4"	-	-	16.67	\$1,104.81	\$1,163.72	\$1,225.53	\$1,290.95	\$1,359.61	\$1,432.14
Total	625	631.33							
TOTAL - ROUNDED									
Base/Fixed Cost Allocation [1]									
3/4"			1.00	\$66.30	\$69.90	\$73.60	\$77.50	\$81.60	\$86.00
1"			1.67	\$110.50	\$116.40	\$122.60	\$129.10	\$136.00	\$143.30
1-1/2"			3.33	\$221.00	\$232.80	\$245.20	\$258.20	\$272.00	\$286.50
2"			5.33	\$353.60	\$372.40	\$392.20	\$413.20	\$435.10	\$458.30
3"			10.00	\$662.90	\$698.30	\$735.40	\$774.60	\$815.80	\$859.30
4"			16.67	\$1,104.90	\$1,163.80	\$1,225.60	\$1,291.00	\$1,359.70	\$1,432.20
Variable/Flow Cost Allocation [1]				\$258,710	\$272,505	\$286,980	\$302,299	\$318,377	\$335,361
Total Annual Use [1]		130,000 units		\$1.99	\$2.10	\$2.21	\$2.33	\$2.45	\$2.58

[1] 1 unit = 748 Gal

Appendix A

Historical Revenue and Expense Detail

Table A-1
Christian Valley Park CSD
Historical and Budgeted Revenues and Expenses Detail

	Actuals					Budget 2018-19	% Change 14/15 to 18/19
	2013-14	2014-15	2015-16	2016-17	2017-18		
Operating Revenue							
Water Service							
Service Fee	\$219,543.47	\$338,831.60	\$367,476.09	\$395,878.17	\$424,356.15	\$452,252.00	
Water Usage	\$161,004.72	\$139,412.69	\$120,156.50	\$147,505.14	\$168,921.30	\$179,200.00	
Subtotal	\$380,548.19	\$478,244.29	\$487,632.59	\$543,383.31	\$593,277.45	\$631,452.00	7.19%
Hook-Up Fees	\$25,096.17	\$38,319.91	\$35,349.37	\$4,938.37	\$36,834.20	\$23,054.00	
Hook-Up Fees - Gayle Loop	\$18,799.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Stand-By Fees	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,940.00	
Late Fees	\$1,649.87	\$560.00	\$3,269.63	\$3,507.43	\$3,234.83	\$0.00	
Gail Loop Prop. Tax	\$57,415.40	\$57,187.40	\$54,145.63	\$53,974.63	\$56,758.40	\$53,635.00	
Other Income	\$7,300.19	\$418.00	\$3,041.50	\$230.62	\$360.00	\$24,500.00	
Total Op. Revenue	\$490,809.34	\$574,729.60	\$583,438.72	\$606,034.36	\$690,464.88	\$735,581.00	6.36%
Operating Expenditures							
Salaries							
Salaries	\$35,526.13	\$37,382.00	\$39,850.96	\$40,848.06	\$43,902.03	\$48,695.00	
Payroll Taxes	\$5,059.63	\$4,702.05	\$4,459.06	\$4,871.79	\$4,939.28	\$6,817.00	
Subtotal Salaries	\$40,585.76	\$42,084.05	\$44,310.02	\$45,719.85	\$48,841.31	\$55,512.00	7.17%
Materials, Supplies, & Services							
Water Purchases	\$49,470.99	\$42,228.48	\$39,571.58	\$45,737.19	\$49,216.13	\$55,000.00	
Contract Labor	\$86,687.50	\$86,687.50	\$91,243.80	\$92,023.80	\$97,249.86	\$99,409.00	
Water Plant Maintenance	\$19,189.38	\$28,395.43	\$29,613.33	\$17,793.70	\$11,993.08	\$19,000.00	
Short Lived Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,835.00	
Property Taxes	\$51.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Outside Services	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Water Testing	\$4,440.54	\$6,074.85	\$5,183.60	\$5,807.32	\$3,740.50	\$6,000.00	
Engineering Services	\$605.00	\$0.00	\$1,450.00	\$700.00	\$0.00	\$7,500.00	
Government Fees	\$3,490.05	\$4,439.57	\$4,827.43	\$1,676.30	\$9,063.57	\$4,000.00	
Water Meter & Boxes	\$2,811.43	\$0.00	\$0.00	\$0.00	\$4,246.54	\$2,400.00	
Water Line Repair	\$24,015.31	\$52,082.74	\$47,293.33	\$36,697.34	\$24,259.62	\$40,000.00	
Mileage	\$1,072.38	\$1,716.28	\$2,451.19	\$2,321.12	\$2,632.66	\$0.00	
Office Expense	\$11,515.37	\$12,243.17	\$9,411.46	\$9,160.84	\$13,459.63	\$20,200.00	
Telephone	\$2,616.38	\$3,193.65	\$3,494.30	\$3,610.05	\$4,025.64	\$2,500.00	
Insurance	\$6,886.33	\$6,739.00	\$5,431.80	\$4,051.45	\$5,778.81	\$7,000.00	
Accounting	\$9,437.60	\$9,679.60	\$10,006.90	\$10,260.50	\$10,694.00	\$12,000.00	
Legal	\$2,792.38	\$1,850.00	\$576.60	\$1,847.90	\$1,865.65	\$10,000.00	
Director Fees	\$17,332.14	\$15,500.00	\$15,750.01	\$15,749.85	\$15,499.95	\$16,250.00	
Election	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Public Outreach	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,000.00	
Gayle Loop Property Tax Exp	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$53,635.00	
Subtotal Materials, Supplie	\$242,413.86	\$270,830.27	\$266,305.33	\$247,437.36	\$253,725.64	\$363,729.00	7.65%
Power and Utilities							
Chemicals	\$17,553.31	\$25,602.77	\$18,975.68	\$13,688.97	\$19,885.34	\$22,000.00	
Electricity	\$21,013.36	\$19,529.01	\$20,978.45	\$21,611.29	\$24,233.95	\$26,000.00	
Subtotal Power and Utilitie	\$38,566.67	\$45,131.78	\$39,954.13	\$35,300.26	\$44,119.29	\$48,000.00	1.55%
CIP							
Capital Outlays	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,500.00	
Tank Project Phase 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$195,840.00	
Subtotal CIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$220,340.00	
Depreciation	\$76,984.43	\$62,799.02	\$50,765.00	\$48,389.49	\$51,458.92	\$51,000.00	(5.07%)
Total Op. Expenditures	\$398,550.72	\$420,845.12	\$401,334.48	\$376,846.96	\$398,145.16	\$738,581.00	15.10%

Table A-1
Christian Valley Park CSD
Historical and Budgeted Revenues and Expenses Detail

	Actuals					Budget 2018-19	% Change 14/15 to 18/19
	2013-14	2014-15	2015-16	2016-17	2017-18		
Operating Income	\$92,258.62	\$153,884.48	\$182,104.24	\$229,187.40	\$292,319.72	(\$3,000.00)	
Other Income							
Interest Expense	(\$36,010.19)	(\$35,542.69)	(\$35,053.94)	(\$34,537.23)	(\$34,012.69)		
Interest Income	\$935.00	\$1,094.43	\$2,318.03	\$4,110.78	\$13,569.35	\$3,000.00	
Miscellaneous Income		\$11,969.77	\$2,885.45	\$2,858.77	\$14,588.75		
Subtotal Other Income	(\$35,075.19)	(\$22,478.49)	(\$29,850.46)	(\$27,567.68)	(\$5,854.59)	\$3,000.00	
Net Income (Loss)	\$57,183.43	\$131,405.99	\$152,253.78	\$201,619.72	\$286,465.13	\$0.00	(100.00%)
Road Maintenance Fund [1]							
Property Taxes	\$46,264.73	\$48,783.36	\$54,114.53	\$54,338.53	\$57,558.40	\$44,500.00	
Interest Income				\$3,014.21		\$500.00	
Road Maintenance Expense	\$21,494.88	\$26,506.19	\$64,510.50	\$6,862.46	\$75,735.21	\$45,000.00	
Net Income (Loss)	\$24,769.85	\$22,277.17	(\$10,395.97)	\$50,490.28	(\$18,176.81)	\$0.00	

[1] The Road Maintenance income and expense is excluded from the water rate review analysis.