

City of Sisters

WATER AND SEWER UTILITY RATE STUDY

FINAL REPORT
January 2018

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TABLE OF CONTENTS

Table of Contents	i
I. Executive Summary.....	1
II. Introduction	3
III. Policy Framework.....	4
III.A. Fiscal Policies	4
III.B. Reserves.....	4
III.C. System Reinvestment	5
III.D. Financial Performance Standards	5
IV. Revenue Requirement Analysis	6
IV.A. General Methodology.....	6
IV.B. Operating Forecast.....	6
IV.C. Capital Forecast	7
IV.D. Evaluation of Revenue Sufficiency	8
V. Rate Structure Analysis	13
V.A. General Methodology.....	13
V.B. Water Rates.....	13
V.C. Sewer Rates	14
V.D. Combined Residential Bill Impacts	15

Appendix A – Water Revenue Requirement

Appendix B – Sewer Revenue Requirement

Section I. EXECUTIVE SUMMARY

The City of Sisters (City) contracted with FCS GROUP in 2017 to conduct a rate study for its water and sewer utilities. The project included the following tasks:

Water Rate Study

The water rate study focused on developing water rates to reflect the cost of providing service. Consistent with industry-approved ratemaking practices, this analysis included determining revenue requirements and developing rate structure alternatives to collect the targeted amount of revenue.

Exhibit ES-1 provides the recommended near-term water rate strategy:

Exhibit ES-1: Summary of Existing & Recommended Water Rates

Monthly Water Rates	Existing	Proposed	Projected			
	2017	2018	2019	2020	2021	2022
Base Rate:						
5/8" × 3/4" Meter	\$20.59	\$15.50	\$16.05	\$16.77	\$17.36	\$18.02
1" or 1-1/2" Meter	\$23.09	\$17.38	\$18.00	\$18.80	\$19.47	\$20.21
2" Meter	\$25.58	\$19.25	\$19.95	\$20.83	\$21.57	\$22.39
3" or Larger Meter	\$62.40	\$46.96	\$48.65	\$50.82	\$52.62	\$54.61
Volume Included in Base Rate	1,000 cf	None	None	None	None	None
Volume Rate per 100 cf ¹	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00

¹Applies to usage above the amount included in the base rate.

The rates shown in **Exhibit ES-1** reflect the following findings and proposed changes:

- 2.0% annual rate revenue increases, driven primarily by capital funding requirements that the City has embedded in its water rates. It is worth noting that these increases are also partially attributable to rising operating costs, particularly for employee benefits that the City expects will increase by 25.0% every two years.
- Removal of the 1,000 cubic feet (cf) allowance currently built into the City's base rates. With this change, customers will pay the volume rate on all water usage. The scenario preferred by City staff contemplates reducing the base rates to account for the increased revenue from volume charges, and retaining the existing volume rate for the five-year study period.

Sewer Rate Study

The sewer rate study focused on developing sewer rates to reflect the cost of providing service. Consistent with industry-approved ratemaking practices, this analysis included determining revenue requirements and developing rate structure alternatives to collect the targeted amount of revenue.

Exhibit ES-2 provides the recommended near-term sewer rate strategy:

Exhibit ES-2: Summary of Existing & Recommended Sewer Rates

Monthly Sewer Rates	Existing	Proposed	Projected			
	2017	2018	2019	2020	2021	2022
Monthly Rate per EDU	\$39.00	\$37.77	\$38.50	\$39.25	\$40.01	\$40.78
Non-Residential "Winter" Period	Jan – Mar	Oct – Apr	Oct – Apr	Oct – Apr	Oct – Apr	Oct – Apr

The rates shown in **Exhibit ES-2** reflect the following findings and proposed changes:

- 2.0% annual rate revenue increases, which the sewer utility needs to cover capital funding requirements that the City has embedded in its sewer rates.
- Adjustment of the “winter” period that the City uses to calculate non-residential equivalent dwelling units (EDUs). The scenario preferred by City staff expands the winter period (currently January – March) to include October, November, December, and April. This change intends to improve equity by recognizing that a number of the City’s non-residential customers do not exhibit representative water usage patterns during the January – March billing periods. With this adjustment, the City can decrease the monthly rate per EDU based on the increased number of EDUs assigned to some of its non-residential customers. The rates shown in **Exhibit ES-2** reflect an adjustment for anticipated reductions in usage from customers with high irrigation demands.

Exhibit ES-3 provides a forecast of the combined water/sewer bill that a typical residential customer would pay:

Exhibit ES-3: Combined Residential Bill Forecast

Monthly Residential Bill	Existing	Proposed	Projected			
	2017	2018	2019	2020	2021	2022
Water Bill @ 700 cf	\$20.59	\$22.50	\$23.05	\$23.77	\$24.36	\$25.02
Sewer Bill	39.00	37.77	38.50	39.25	40.01	40.78
Total Bill	\$59.59	\$60.27	\$61.55	\$63.02	\$64.37	\$65.80
Change From Prior Year		+\$0.68	+\$1.28	+\$1.47	+\$1.35	+\$1.43
% Change From Prior Year		+1.1%	+2.1%	+2.4%	+2.1%	+2.2%

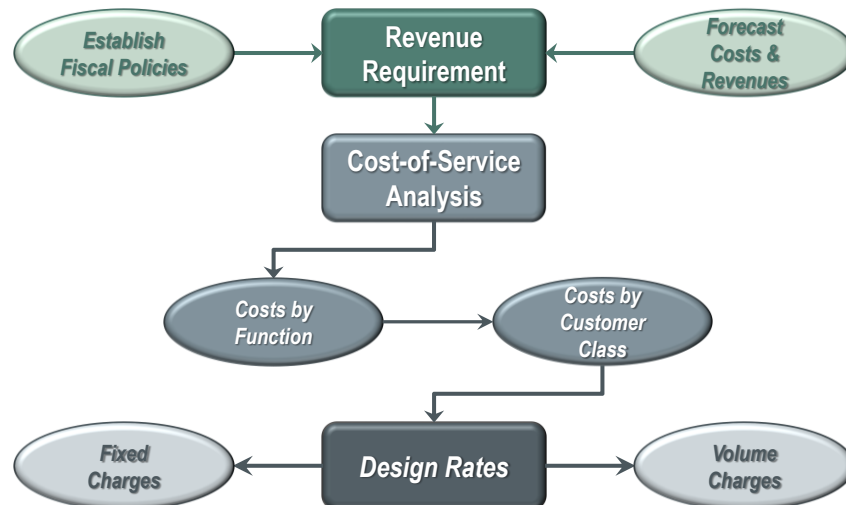
Exhibit ES-3 shows a representative residential bill increasing by 1.1% under the proposed 2018 rates, with a decrease in the sewer charge partially offsetting an increase in the water charge. The subsequent-year increases vary from \$1.28 to \$1.47, and are generally consistent with the aggregate increases in the utilities’ annual costs.

Appendix A and **Appendix B** include printouts of the detailed water rate analysis and sewer rate analysis, respectively.

Section II. INTRODUCTION

The City of Sisters (City) contracted with FCS GROUP in 2017 to conduct a rate study for its water and sewer utilities. **Exhibit 1** shows the ratemaking process commonly used in the utility industry.

Exhibit 1: Ratemaking Methodology



- The first phase defines the amount of revenue that the utility needs to meet its annual financial obligations including operating expenses, capital outlay, debt payments, and other needs attributable to the City's financial policies.
- The second step allocates the revenue requirement to customer classes based on their demands and service characteristics. This phase usually begins with an allocation of the revenue requirement to functions of service, which vary by utility.
- Once the amount of revenue to recover from each customer class is known, the final step involves designing rates that generate the targeted amount of revenue. The City requested the development of alternative rate structures that could potentially improve attainment of the City's policy goals (such as equitable cost recovery and incentives to use water efficiently).

A rate study can include any or all of these phases. The study requested by the City included an evaluation of revenue requirements and development of rate structure alternatives, but not an explicit allocation of costs to customer classes. This study relies on the inter-class cost allocations embedded in the City's existing rates, with potential variations among the rate structure alternatives.

Section III. POLICY FRAMEWORK

III.A. FISCAL POLICIES

The financial plan is based on a framework of fiscal policies that promote the financial integrity and stability of the City's utilities. The ensuing discussion provides a brief summary of the key policies addressed by the City and incorporated into this analysis.

III.B. RESERVES

Like any business, a municipal utility requires certain minimum levels of cash reserves to operate. These reserves address the variability and timing of revenues and expenses as well as occasional disturbances in activities. Given the City's responsibility to provide essential services to its customers at a certain standard, protection against financial disruption is even more important than it would be for private-sector or non-essential counterparts. In addition, a defined reserve structure serves to maintain appropriate segregation of funds and promote the use of resources for their intended purposes. This analysis assumes the following structure of reserves for the City's utilities:

- **Operating Reserves.** Operating reserves provide an unrestricted fund balance to accommodate the short-term cycles of revenues and expenses, addressing unanticipated expenses or revenue shortfalls. This analysis assumes a minimum balance equal to two months (17%) of projected operating expenses, which, based on the operating expense projections in the City's 2017-18 Budget, equates to about \$85,000 for the water utility and \$92,000 for the sewer utility.
- **Capital Improvement Reserve.** The City sets aside cash funding for capital improvement projects in a reserve embedded within the Water/Sewer Funds. This reserve does not have an explicit minimum balance, but the City sets annual transfers based on an average of annual capital project expenditures. It periodically reviews the accrued balance, recalibrating the annual transfers as needed to attain the targeted funding levels.
- **Capital Replacement Reserve.** Also part of the Water/Sewer Funds, the City maintains a reserve dedicated to the replacement of equipment and vehicles. This reserve does not have an explicit minimum balance, but the City sets annual transfers based on the replacement cost allocated to each utility (amortized over the expected life of the related assets). It periodically reviews the accrued balance, recalibrating the annual transfers as needed to attain the targeted funding levels.
- **SDC Fund.** Consistent with the requirements established in Section 223.307 of the Oregon Revised Statutes (ORS) regarding the expenditure of system development charges (SDCs), the City maintains a separate SDC Fund to ensure that reimbursement fee and improvement fee revenues are spent on eligible capital projects.

III.C. SYSTEM REINVESTMENT

A best-management practice in the utility industry, system reinvestment involves setting aside funds to accumulate cash for immediate and future asset replacements. The policy intent is to promote stable and moderate long-term rates and avoid burdening any single generation of customers with the cost of asset replacement. Absent a formal asset replacement plan, system reinvestment policies most often link the annual funding provision to depreciation as a measure of the annual decline in asset value. The City funds system reinvestment via transfers to the Capital Improvement Reserve and Capital Replacement Reserve. Based on projected capital needs, the City plans to make annual transfers of approximately \$149,000 for the water utility and \$46,000 – \$188,000 for the sewer utility. Note that the sewer utility’s transfers include an additional \$142,000 in 2018 and \$128,000 in 2019 to fund near-term capital improvements – beyond 2019, the sewer utility’s transfers remain at \$46,000 per year based on anticipated equipment and vehicle replacement needs.

III.D. FINANCIAL PERFORMANCE STANDARDS

This analysis evaluates the sufficiency of each utility’s revenues to meet its financial obligations including operation and maintenance (O&M) expenses, debt repayment, rate-funded capital needs, and any other policy-based needs. It determines the amount of revenue needed in a given year to meet that year’s expected financial obligations, in the context of two revenue sufficiency tests:

- **Cash Flow Sufficiency Test.** The cash flow test determines whether or not each utility’s annual revenues are sufficient to cover the known cash requirements for each year of the planning period. These cash requirements typically include O&M expenses, debt service payments, rate-funded capital outlays, and any additions to reserve balances.
- **Coverage Test.** The coverage test evaluates the utilities’ ability to meet applicable bond coverage requirements, as specified by the City’s bond covenants and internal debt policies.

In determining the annual revenue requirement, the test with the greatest deficiency generally drives the rate increase in any given year. It is worth noting that the City can temporarily waive the requirements of the cash flow test as part of a conscious decision to phase in rate increases, as long as its operating reserve balance is sufficient to absorb the resulting cash flow deficit. The coverage test, however, must always be met as failure to do so may result in a downgrading of the City’s credit rating. Because the City does not currently have any water or sewer utility debt that requires coverage, the cash flow test defines the utilities’ revenue requirements.

Section IV. REVENUE REQUIREMENT ANALYSIS

IV.A. GENERAL METHODOLOGY

The revenue requirement is the amount of revenue that a utility’s rates must generate to enable it to meet its various financial obligations. This analysis has two main purposes – it serves as a means of evaluating the utility’s fiscal health and adequacy of current rate levels, and it sets the revenue basis for near-term and long-term rate planning. The rate revenue requirement is defined as the net difference between total revenue needs and the revenue generated through non-rate sources. Hence, the revenue requirement analysis involves defining and forecasting both needs and resources.

IV.B. OPERATING FORECAST

Operating costs are initially based on the 2018 Budget, with adjustments for inflation and any anticipated future changes such as changes to programs or staffing levels. The key assumptions and inputs used to develop the operating forecast are described in further detail below:

Operating Revenue

- **Annual Customer Growth:** Varies from 2.6 – 2.8% per year, based on estimates from City staff.
- **Rate Revenue:** Determined by applying the existing rate structures to projected customer counts and water demand (based on detailed utility billing statistics and expected growth).
- **Other Operating Revenue:** Based on the 2018 Budget, assumed to remain constant over the forecast period (no escalation).
- **Interest Earnings:** Calculated based on projected reserve balances, assuming an earnings rate of about 0.9% per year (based on the 2016 average Oregon Short-Term Fund interest rate)

Operating Expenses

- **Operation and Maintenance (O&M) Costs:** Generally based on the 2018 Budget, with adjustments for inflation at the following rates:

Escalator	Assumed Rate	Applies To
General Cost Inflation	1.8% per year	Most operating expenses
Labor Cost Inflation	2.6% per year	Salaries and wages
PERS Escalation	25.0% every other year	Retirement benefit costs
Medical Cost Escalation	Water: 3.6% per year; Sewer: 13.2% per year	Non-PERS benefit costs

- **Franchise Fees:** Set to 7.0% of rate revenue.

Debt Service

- **Existing Debt:** The sewer utility currently has one outstanding debt obligation, the 2016 Full Faith and Credit Refunding Bonds (with an annual payment of approximately \$333,000). Both utilities also make annual transfers to the City Hall Fund to repay a loan; the water utility's share is around \$9,000 per year, and the sewer utility's share is on the order of \$12,000 – \$13,000 per year. The water utility does not have any other outstanding debt.

IV.C. CAPITAL FORECAST

The capital forecast involves developing a funding strategy for the annual project expenditures contemplated in the utilities' capital improvement plans (CIPs). Potential funding sources include existing cash balances, incoming rate and SDC revenues, external grants/contributions, and debt (if necessary). Given the magnitude and variability of capital project expenditures, rates most often fund an ongoing contribution for capital projects (system reinvestment) rather than direct expenditures. The ensuing discussion considers each utility's capital forecast separately.

Water Utility

Exhibit 2 summarizes the water utility CIP and anticipated funding strategy.

Exhibit 2: Summary of Water Capital Costs & Funding Strategy

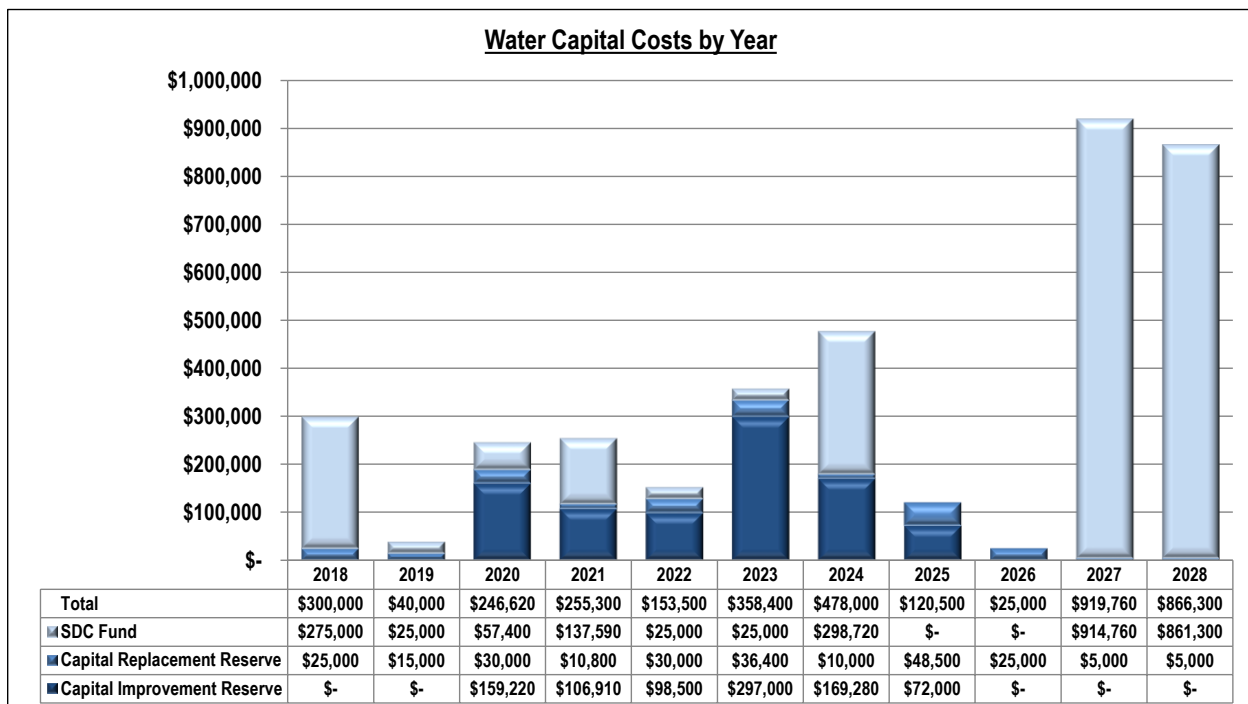


Exhibit 2 indicates that the water utility will spend \$995,420 on capital projects that it plans to complete between 2018 and 2022. The full capital program through 2028 includes \$3.8 million of anticipated expenditures, with the remaining \$2.8 million occurring outside of the five-year planning period. Existing cash balances in the Capital Improvement Reserve, Capital Replacement Reserve,

and SDC Fund appear to be adequate to fund the projected expenditures without any new debt issuance. It is worth noting that this finding relies to an extent on the assumption that water rates fund approximately \$149,000 per year in system reinvestment.

Sewer Utility

Exhibit 3 summarizes the sewer utility CIP and anticipated funding strategy.

Exhibit 3: Summary of Sewer Capital Costs & Funding Strategy

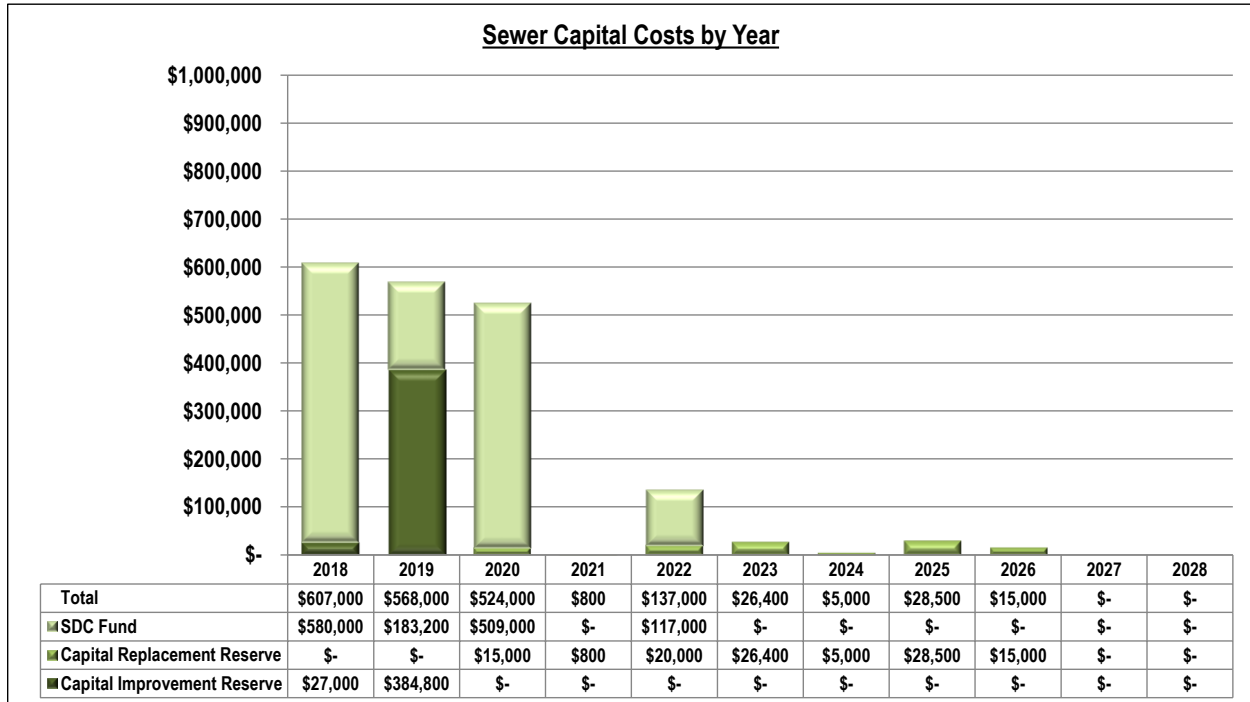


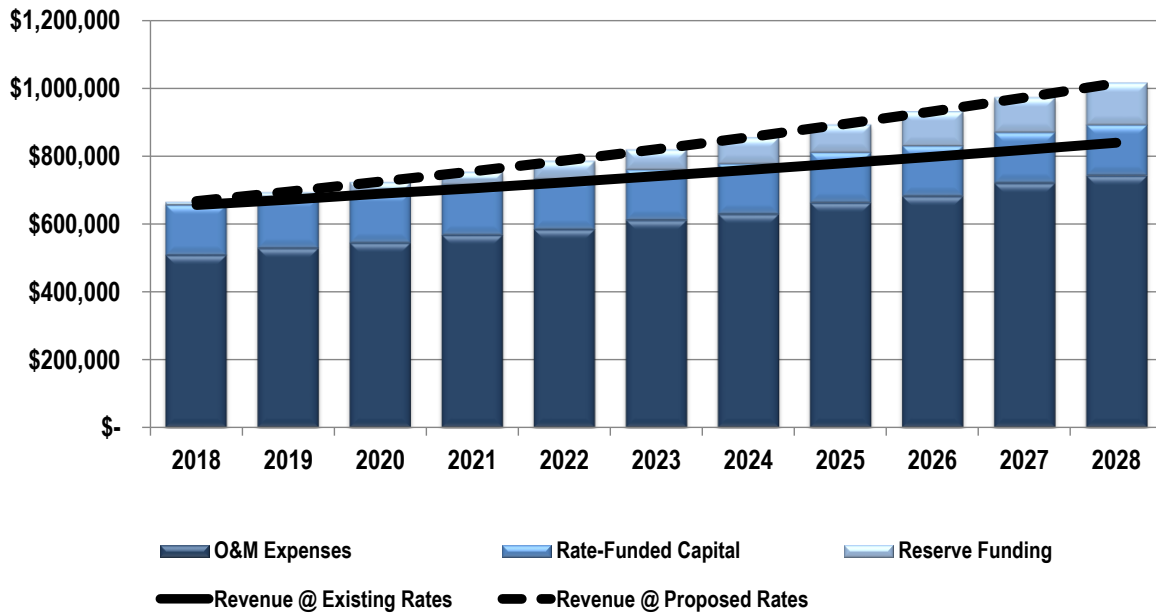
Exhibit 3 indicates that the sewer utility will spend \$1,836,800 on capital projects that it plans to complete between 2018 and 2022. The full capital program through 2031 includes \$2.7 million of anticipated expenditures, with the remaining \$0.9 million occurring outside of the five-year planning period. In addition to these costs, the sewer utility will have to fund 50% of the cost of the West Side Pump Station and Force Main project (total estimated cost of \$1.5 million). Since the timing of this project depends on the U.S. Forest Service, **Exhibit 3** does not include this project. Existing cash balances in the Capital Improvement Reserve, Capital Replacement Reserve, and SDC Fund appear to be adequate to fund the projected expenditures without any new debt issuance. It is worth noting that this finding relies to an extent on the assumption that sewer rates fund approximately \$46,000 – \$188,000 per year in system reinvestment.

IV.D. EVALUATION OF REVENUE SUFFICIENCY

Water Utility

Exhibit 4 summarizes the annual revenue requirements for the water utility based on the forecast of revenues, expenses, and fund balances.

Exhibit 4: Water Utility Revenue Requirement Summary



Water Revenue Req. (\$000s)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Expenses											
Operating Expenses	\$508	\$528	\$544	\$567	\$584	\$611	\$628	\$661	\$680	\$720	\$741
System Reinvestment	149	149	149	149	149	149	149	149	149	149	149
Total	\$657	\$677	\$693	\$716	\$733	\$760	\$777	\$810	\$829	\$869	\$890
Revenues											
Rate Revenue @ Existing Rates	\$595	\$611	\$628	\$644	\$662	\$680	\$698	\$717	\$737	\$757	\$778
Other Revenue	61	61	61	61	61	61	61	61	61	61	62
Total	\$656	\$672	\$689	\$705	\$723	\$741	\$759	\$778	\$798	\$818	\$840
Net Cash Flow @ Existing Rates	(\$1)	(\$5)	(\$4)	(\$11)	(\$10)	(\$19)	(\$18)	(\$32)	(\$31)	(\$51)	(\$50)
Annual Rate Increase	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Rate Revenue After Increases	\$607	\$636	\$667	\$698	\$731	\$766	\$802	\$841	\$881	\$923	\$968
Net Cash Flow After Increases	\$11	\$17	\$32	\$38	\$54	\$61	\$79	\$83	\$102	\$104	\$125

Exhibit 4 indicates that at existing rates, the water utility is generating enough revenue to cover operating expenses and most of the planned transfers to the Capital Improvement Reserve and Capital Replacement Reserve (system reinvestment). There is a slight cash-flow deficit that appears to grow over time with inflation, especially in employee benefit costs (assumed 25.0% increase every two years). The proposed rate revenue strategy of 2.0% annual increases intends to cover this deficit and generate additional reserve funding for capital needs.

Exhibit 5 summarizes the projected ending balances for the water utility's reserves:

Exhibit 5: Projected Water Utility Ending Fund Balances (\$000s)

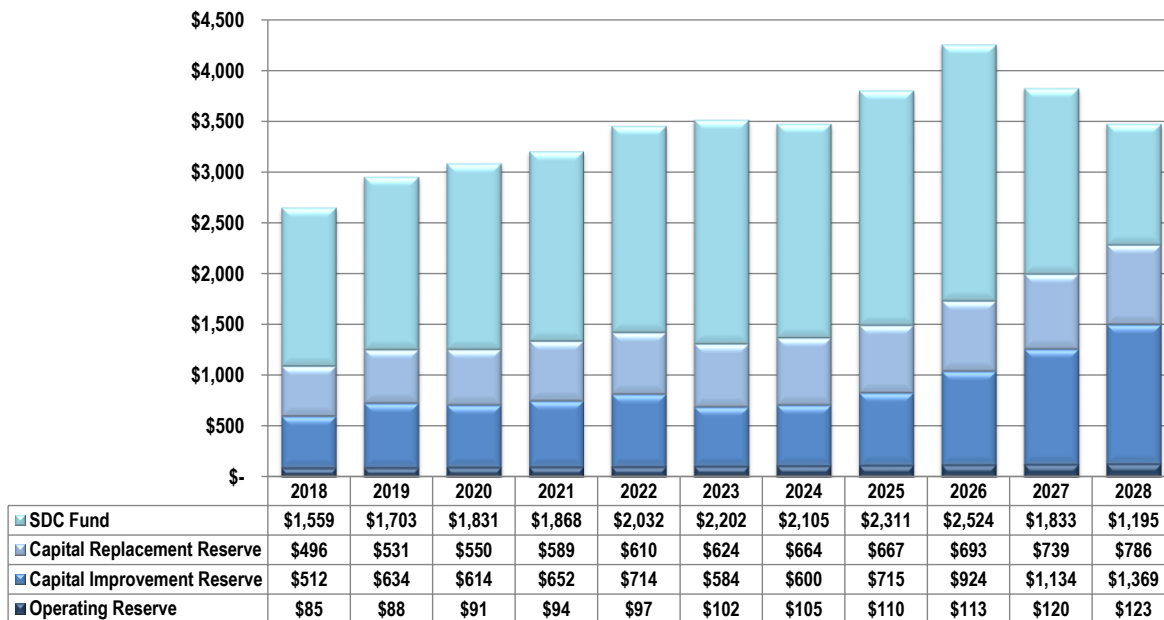


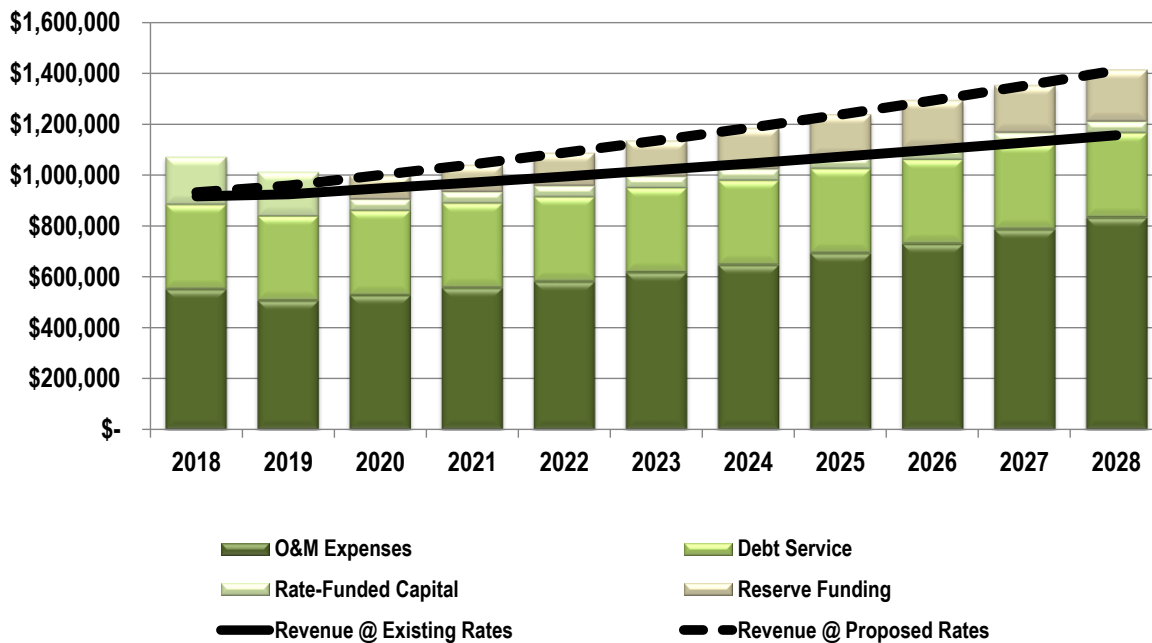
Exhibit 5 generally shows the water utility maintaining a total ending cash balance between \$3.0 and \$4.0 million, including the following components:

- An Operating Reserve balance increasing from \$85,000 to \$123,000, based on the policy target of two months (approximately 17%) of operating expenses. This analysis transfers any excess cash flow to the Capital Improvement Reserve to provide additional funding for capital projects.
- A Capital Improvement Reserve balance increasing from \$512,000 to \$1.4 million. This ending balance reflects \$902,910 of capital project spending from 2018 – 2025, and appears to increase beyond 2025 because the City has yet to evaluate its longer-term capital needs.
- A Capital Replacement Reserve balance increasing from \$496,000 to \$786,000, which reflects an investment of \$240,700 in the replacement of vehicles and equipment. As the City’s contributions to this reserve are based on an allocation of \$1.2 million in replacement costs to the water utility, this balance will decline over time as the City completes its replacement program.
- An SDC Fund balance declining from \$1.6 to \$1.2 million. **Exhibit 5** shows an increasing balance from 2018 – 2026 as the City collects SDCs, but shows drops in the available balance in 2027 and 2028 as the City invests its SDC revenue in a new transmission main and Well #4.

Sewer Utility

Exhibit 6 summarizes the annual revenue requirements for the sewer utility based on the forecast of revenues, expenses, and fund balances.

Exhibit 6: Sewer Utility Revenue Requirement Summary



Sewer Revenue Req. (\$000s)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Expenses											
Operating Expenses	\$551	\$507	\$528	\$557	\$582	\$618	\$647	\$693	\$728	\$787	\$832
Debt Service	333	332	333	333	332	332	332	332	332	333	332
System Reinvestment	188	174	46	46	46	46	46	46	46	46	46
Total	\$1,072	\$1,013	\$907	\$936	\$960	\$996	\$1,025	\$1,071	\$1,106	\$1,166	\$1,210
Revenues											
Rate Revenue @ Existing Rates	\$871	\$893	\$917	\$939	\$963	\$988	\$1,014	\$1,040	\$1,067	\$1,096	\$1,125
Other Revenue	45	32	31	32	32	32	32	32	32	32	32
Total	\$916	\$925	\$948	\$971	\$995	\$1,020	\$1,046	\$1,072	\$1,099	\$1,128	\$1,157
Net Cash Flow @ Existing Rates	(\$156)	(\$88)	\$41	\$35	\$35	\$24	\$21	\$1	(\$7)	(\$38)	(\$53)
Annual Rate Increase	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Rate Revenue After Increases	\$888	\$929	\$973	\$1,016	\$1,063	\$1,113	\$1,165	\$1,219	\$1,276	\$1,336	\$1,399
Net Cash Flow After Increases	(\$140)	(\$55)	\$93	\$106	\$128	\$140	\$161	\$167	\$187	\$185	\$202

Exhibit 6 indicates that the sewer utility has a short-term cash flow deficit in 2018 and 2019 due to the planned system reinvestment transfers and other capital outlays. When the system reinvestment transfers drop in 2020 (after the City has funded its near-term improvement projects), the sewer utility's revenue at existing rates appears to be adequate to cover its costs. Longer-term, inflationary cost increases will create a cash flow deficit unless the City imposes comparable increases in its sewer rates. The proposed rate revenue strategy of 2.0% annual increases intends to generate additional reserve funding for capital needs.

Exhibit 7 summarizes the projected ending balances for the sewer utility's reserves:

Exhibit 7: Projected Sewer Utility Ending Fund Balances (\$000s)

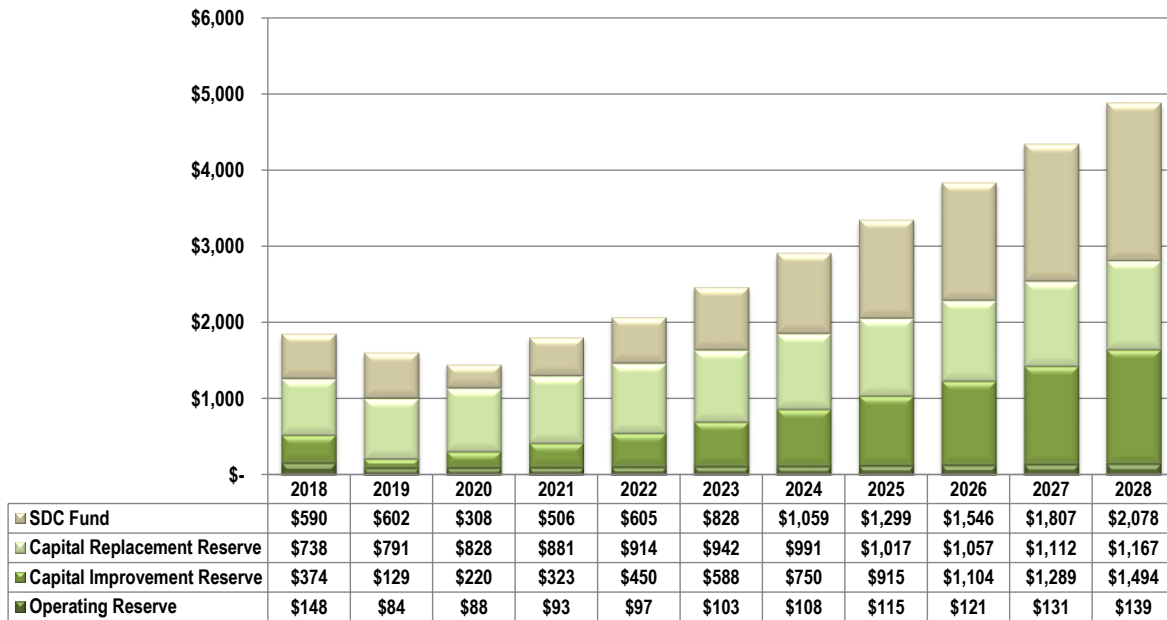


Exhibit 7 shows the sewer utility’s total ending cash balance increasing from \$1.9 million to \$4.9 million, including the following components:

- An Operating Reserve balance ending 2018 with \$148,000, dropping to \$84,000 due to transfers to the Capital Improvement Reserve in 2019, and increasing to \$139,000 (based on the policy target of two months of operating expenses).
- A Capital Improvement Reserve balance increasing from \$374,000 to \$1.5 million. This ending balance reflects \$411,800 of capital project spending from 2018 – 2026, and appears to increase in the future because the City has yet to evaluate its longer-term capital needs.
- A Capital Replacement Reserve balance increasing from \$738,000 to \$1.2 million, which reflects an investment of \$110,700 in the replacement of vehicles and equipment. As the City’s contributions to this reserve are based on an allocation of \$1.3 million in replacement costs to the sewer utility, this balance will decline over time as the City completes its replacement program.
- An SDC Fund balance increasing from \$590,000 to \$2.1 million. The sewer utility’s capital improvement program includes \$1.4 million in SDC-eligible project costs from 2018 – 2028, but the City expects to collect \$2.5 million in SDC revenue during the same period.

Section V. RATE STRUCTURE ANALYSIS

V.A. GENERAL METHODOLOGY

The revenue requirement analysis establishes the amount of rate revenue that the City must collect from each utility through rates, informing across-the-board adjustments to the existing rate structure. The City also requested the development of rate structure alternatives that could improve the alignment of the City's rates with its policy objectives (such as equitable cost recovery).

The rate structure analysis involved the following key steps:

- Review detailed customer billing data (customer counts by meter size, monthly water usage), using the prevailing rate structure and the amount of revenue actually reported by the City to validate the accuracy of the data. This is a critical step, as using accurate billing data to develop rates leads to more accurate projections of future revenue.
- Set fixed and variable charges to generate the targeted amount of revenue. Note that the rate alternatives presented are revenue-neutral to the revenue requirements shown in **Exhibit 4** and **Exhibit 6** (rate revenue after increases).

V.B. WATER RATES

The City's current rate structure consists of a base rate that increases with meter size and volume rate that applies to water usage above 1,000 cubic feet (cf) per month. This rate structure charges all customers for 1,000 cf per month, whether or not they actually use that much water – while this feature promotes revenue stability, it recovers a disproportionate share of costs from low users and provides limited incentive to use water efficiently. To improve equity and conservation incentives, the City requested alternate water rate scenarios that eliminate the 1,000 cf built into the base rate.

Exhibit 8 summarizes the City's current and recommended water rates:

Exhibit 8: Summary of Existing & Recommended Water Rates

Monthly Water Rates	Existing	Proposed	Projected			
	2017	2018	2019	2020	2021	2022
Base Rate:						
5/8" x 3/4" Meter	\$20.59	\$15.50	\$16.05	\$16.77	\$17.36	\$18.02
1" or 1-1/2" Meter	\$23.09	\$17.38	\$18.00	\$18.80	\$19.47	\$20.21
2" Meter	\$25.58	\$19.25	\$19.95	\$20.83	\$21.57	\$22.39
3" or Larger Meter	\$62.40	\$46.96	\$48.65	\$50.82	\$52.62	\$54.61
Volume Included in Base Rate	1,000 cf	None	None	None	None	None
Volume Rate per 100 cf ¹	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00

¹Applies to usage above the amount included in the base rate.

The proposed 2018 rates shown in **Exhibit 8** are based on the 2018 revenue requirement after the planned 2.0% revenue increase (approximately \$607,000 per **Exhibit 4**). Because extending the volume rate to all usage generates additional revenue relative to the existing rate structure, the proposed 2018 rate structure reflects a reduction to the base rates to remain consistent with the targeted revenue level.

In addition to the proposed rates shown in **Exhibit 8**, this analysis included the development of several other rate structure alternatives:

- Across-the-board adjustment to the existing structure
- Elimination of volume built into the base rate, proportional reduction of base and volume rates
- Elimination of volume built into the base rate, reduction of base rates only, application of future increases to both base and volume rates

The City opted against these alternatives for various reasons. For example, the across-the-board scenario retained the 1,000 cubic feet built into the base rate and failed to address the equity concerns that triggered this analysis. The other alternatives would have improved the equity of the City’s rate structure, but did not align as well with the City’s policy objectives as the proposed structure.

V.C. SEWER RATES

The City currently charges a monthly sewer rate of \$39.00 per equivalent dwelling unit (EDU). For the purpose of imposing this rate, the City defines residential customers as one EDU per dwelling unit and calculates EDUs for non-residential customers based on their winter-average water use. One non-residential EDU equates to 3,750 gallons per day (501 cf per month) of water usage during the months of January – March.

Using winter consumption in sewer rate calculations is standard practice because it does not include irrigation water use and adequately represents the amount of water that enters the sewer system. However, it is important to recognize the nature of the City’s customer base and economic cycles. January – March has historically been a slow time of year for economic activity in the City, and as a result there are a number of non-residential customers for which those three months are not representative of “normal” usage patterns.

Exhibit 9 summarizes the City’s current and recommended sewer rates:

Exhibit 9: Summary of Existing & Recommended Sewer Rates

Monthly Sewer Rates	Existing	Proposed	Projected			
	2017	2018	2019	2020	2021	2022
Monthly Rate per EDU	\$39.00	\$37.77	\$38.50	\$39.25	\$40.01	\$40.78
Non-Residential “Winter” Period	Jan – Mar	Oct – Apr	Oct – Apr	Oct – Apr	Oct – Apr	Oct – Apr

The proposed sewer rate structure shown in **Exhibit 9** expands the “winter period” for calculating non-residential EDUs to include the months of October, November, December, and April. Adjusting for anticipated reductions in usage from customers with high irrigation demands, this change is

estimated to increase the number of non-residential EDUs by approximately 14% – this enables the City to decrease the monthly rate per EDU and remain revenue-neutral to the amount of revenue targeted for 2018 (\$888,000 per **Exhibit 6**).

In addition to the proposed rate shown in **Exhibit 9**, this analysis included the development of several other rate structure alternatives:

- Across-the-board adjustment to the existing structure
- Expansion of non-residential “winter” period to include October, November, and December
- Expansion of non-residential “winter” period to include September, October, November, December, April, and May

The City opted against these alternatives for various reasons. For example, the across-the-board scenario retained the January – March winter averaging period for non-residential customers and failed to address the equity concerns that triggered this analysis. The other alternatives would have improved the equity of the City’s rate structure, but would have resulted in a different allocation of costs to non-residential customers relative to the proposed structure.

V.D. COMBINED RESIDENTIAL BILL IMPACTS

Exhibit 10 provides a forecast of the combined water and sewer bill for a single-family residence with a 3/4” water meter and 700 cf of monthly water usage.

Exhibit 10: Combined Residential Bill Forecast

Monthly Residential Bill	Existing	Proposed	Projected			
	2017	2018	2019	2020	2021	2022
Water Bill @ 700 cf	\$20.59	\$22.50	\$23.05	\$23.77	\$24.36	\$25.02
Sewer Bill	39.00	37.77	38.50	39.25	40.01	40.78
Total Bill	\$59.59	\$60.27	\$61.55	\$63.02	\$64.37	\$65.80
Change From Prior Year		+\$0.68	+\$1.28	+\$1.47	+\$1.35	+\$1.43
% Change From Prior Year		+1.1%	+2.1%	+2.4%	+2.1%	+2.2%

Exhibit 10 shows a representative residential bill increasing by 1.1% under the proposed 2018 rates, with a decrease in the sewer charge offsetting an increase in the water charge. The subsequent-year increases vary from \$1.28 to \$1.47, and are generally consistent with the aggregate increases in the utilities’ annual costs.

Appendix A: Water Rate Model

City of Sisters
Utility Rate Study: Water Model
Summary

Fiscal Year Ending 6/30:

High Level Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Rate Increases	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Operating Reserve - Part of Water Fund											
Beginning Balance	\$ 95,518	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873
Total Operating Revenues	668,218	696,584	727,676	758,443	791,767	826,671	863,254	901,567	941,730	984,315	1,028,985
Total Operating Expenditures & System Reinvestment	(657,460)	(679,096)	(695,347)	(719,662)	(737,367)	(765,574)	(784,319)	(818,851)	(839,406)	(880,163)	(903,559)
Operating Surplus: Transfers to Capital Fund	(21,724)	(14,031)	(29,781)	(34,900)	(51,633)	(56,593)	(76,021)	(77,186)	(99,139)	(97,617)	(121,802)
Cash Surplus / (Deficiency)	(10,966)	3,457	2,548	3,881	2,767	4,504	2,914	5,530	3,185	6,535	3,624
Ending Fund Balance	84,552	88,009	90,557	94,438	97,205	101,709	104,623	110,153	113,338	119,873	123,497
Capital Improvement Reserve - Part of Water Fund											
Beginning Balance	\$ 382,439	\$ 511,546	\$ 634,070	\$ 614,178	\$ 651,544	\$ 714,375	\$ 584,205	\$ 600,065	\$ 714,506	\$ 923,883	\$ 1,133,540
Total Capital Inflows	129,107	122,524	139,328	144,276	161,331	166,831	185,139	186,441	209,378	209,657	235,645
Total Capital Expenditures	-	-	(159,220)	(106,910)	(98,500)	(297,000)	(169,280)	(72,000)	-	-	-
Cash Surplus / (Deficiency)	129,107	122,524	(19,892)	37,366	62,831	(130,169)	15,859	114,441	209,378	209,657	235,645
Ending Fund Balance	511,546	634,070	614,178	651,544	714,375	584,205	600,065	714,506	923,883	1,133,540	1,369,184
Capital Replacement Reserve - Part of Water Fund											
Beginning Balance	\$ 471,772	\$ 496,048	\$ 530,533	\$ 550,315	\$ 589,467	\$ 609,755	\$ 623,818	\$ 664,402	\$ 666,835	\$ 692,788	\$ 738,965
Total Capital Inflows	49,276	49,485	49,782	49,952	50,288	50,463	50,584	50,933	50,954	51,177	51,574
Total Capital Expenditures	(25,000)	(15,000)	(30,000)	(10,800)	(30,000)	(36,400)	(10,000)	(48,500)	(25,000)	(5,000)	(5,000)
Cash Surplus / (Deficiency)	24,276	34,485	19,782	39,152	20,288	14,063	40,584	2,433	25,954	46,177	46,574
Ending Fund Balance	496,048	530,533	550,315	589,467	609,755	623,818	664,402	666,835	692,788	738,965	785,539
Improvement SDC Fund											
Beginning Balance	\$ 1,664,807	\$ 1,559,124	\$ 1,702,533	\$ 1,830,672	\$ 1,867,800	\$ 2,032,013	\$ 2,202,343	\$ 2,105,253	\$ 2,311,012	\$ 2,523,641	\$ 1,832,856
Total Capital Inflows	169,317	168,408	185,539	174,718	189,213	195,331	201,629	205,759	212,629	223,975	223,651
Total Capital Expenditures	(275,000)	(25,000)	(57,400)	(137,590)	(25,000)	(25,000)	(298,720)	-	-	(914,760)	(861,300)
Cash Surplus / (Deficiency)	(105,683)	143,408	128,139	37,128	164,213	170,331	(97,091)	205,759	212,629	(690,785)	(637,649)
Ending Fund Balance	1,559,124	1,702,533	1,830,672	1,867,800	2,032,013	2,202,343	2,105,253	2,311,012	2,523,641	1,832,856	1,195,207

Capital Fund Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Beginning Capital Balance	\$ 854,211	\$ 1,007,594	\$ 1,164,604	\$ 1,164,493	\$ 1,241,011	\$ 1,324,130	\$ 1,208,023	\$ 1,264,466	\$ 1,381,340	\$ 1,616,672	\$ 1,872,505
Capital Revenues:											
Rate Funded System Reinvestment											
Minimum Policy	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313
Operating Surplus	21,724	14,031	29,781	34,900	51,633	56,593	76,021	77,186	99,139	97,617	121,802
Total	\$ 171,037	\$ 163,344	\$ 179,094	\$ 184,213	\$ 200,946	\$ 205,906	\$ 225,334	\$ 226,499	\$ 248,452	\$ 246,930	\$ 271,115
Grants / Outside Sources	-	-	-	-	-	-	-	-	-	-	-
Net Debt Proceeds Available for Projects	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings	7,346	8,665	10,016	10,015	10,673	11,388	10,389	10,874	11,880	13,903	16,104
Total Capital Revenues and Beginning Fund Balance	\$ 1,032,594	\$ 1,179,604	\$ 1,353,713	\$ 1,358,721	\$ 1,452,630	\$ 1,541,423	\$ 1,443,746	\$ 1,501,840	\$ 1,641,672	\$ 1,877,505	\$ 2,159,724
Capital Project Expenditures	\$ (25,000)	\$ (15,000)	\$ (189,220)	\$ (117,710)	\$ (128,500)	\$ (333,400)	\$ (179,280)	\$ (120,500)	\$ (25,000)	\$ (5,000)	\$ (5,000)
Ending Capital Balance	\$ 1,007,594	\$ 1,164,604	\$ 1,164,493	\$ 1,241,011	\$ 1,324,130	\$ 1,208,023	\$ 1,264,466	\$ 1,381,340	\$ 1,616,672	\$ 1,872,505	\$ 2,154,724
<i>Minimum Target</i>	<i>\$ 978,524</i>	<i>\$ 1,112,837</i>	<i>\$ 1,072,930</i>	<i>\$ 1,104,533</i>	<i>\$ 1,125,346</i>	<i>\$ 941,259</i>	<i>\$ 911,292</i>	<i>\$ 940,105</i>	<i>\$ 1,064,418</i>	<i>\$ 1,208,731</i>	<i>\$ 1,353,044</i>

Notes:	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Debt-to-Net Assets Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt Service as a Portion of Rates	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

City of Sisters
Utility Rate Study: Water Model
Summary

Fiscal Year Ending 6/30:

Operating Fund Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Summary of Existing Operations Before Rate Increases											
Rate Revenues Under Existing Rates	\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
SDC Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-
Non-Rate Revenues	60,876	60,782	60,812	60,834	60,867	60,891	60,930	60,955	61,002	61,030	61,086
Total Revenues	656,309	671,895	689,213	705,317	722,866	740,881	759,401	778,409	797,956	818,445	839,532
Total Expenditures	(656,626)	(677,368)	(692,655)	(715,943)	(732,544)	(759,568)	(777,049)	(810,230)	(829,342)	(868,552)	(890,297)
Transfers to Capital	(21,724)	(14,031)	(29,781)	(34,900)	(51,633)	(56,593)	(76,021)	(77,186)	(99,139)	(97,617)	(121,802)
Total Expenditures & Transfers	(678,350)	(691,399)	(722,436)	(750,842)	(784,177)	(816,161)	(853,071)	(887,416)	(928,481)	(966,169)	(1,012,099)
Cash Surplus / (Deficiency)	\$ (22,041)	\$ (19,504)	\$ (33,223)	\$ (45,526)	\$ (61,311)	\$ (75,280)	\$ (93,669)	\$ (109,007)	\$ (130,525)	\$ (147,724)	\$ (172,568)
Annual Rate Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Rate Increase	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%	21.90%	24.34%
Revenues After Rate Increases											
Rate Revenues (Before Rate Increases)	\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
Additional Revenue from Rate Increases	11,909	24,689	38,463	53,126	68,901	85,789	103,853	123,158	143,774	165,870	189,454
SDC Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-
Other Revenues & Interest	60,876	60,782	60,812	60,834	60,867	60,891	60,930	60,955	61,002	61,030	61,086
Total Revenues With Rate Increases	\$ 668,218	\$ 696,584	\$ 727,676	\$ 758,443	\$ 791,767	\$ 826,671	\$ 863,254	\$ 901,567	\$ 941,730	\$ 984,315	\$ 1,028,985
Expenses & Transfers											
Cash Operating Expenses	\$ 507,313	\$ 528,055	\$ 543,342	\$ 566,630	\$ 583,231	\$ 610,255	\$ 627,736	\$ 660,917	\$ 680,029	\$ 719,239	\$ 740,984
Existing Debt Service	-	-	-	-	-	-	-	-	-	-	-
New Debt Service	-	-	-	-	-	-	-	-	-	-	-
Capital Improvement Reserve Contribution	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094
Capital Replacement Reserve Contribution	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219
Additional Taxes After Rate Increase	834	1,728	2,692	3,719	4,823	6,005	7,270	8,621	10,064	11,611	13,262
Transfer of Surplus to Capital	21,724	14,031	29,781	34,900	51,633	56,593	76,021	77,186	99,139	97,617	121,802
Total Expenses	\$ 679,184	\$ 693,127	\$ 725,128	\$ 754,561	\$ 789,000	\$ 822,167	\$ 860,340	\$ 896,037	\$ 938,545	\$ 977,780	\$ 1,025,361
Additions / (Subtractions) to Operating Fund Balance	(10,966)	3,457	2,548	3,881	2,767	4,504	2,914	5,530	3,185	6,535	3,624
Impacts to Operating Fund Balance											
Beginning Operating Balance	\$ 95,518	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873
Net Cash Flow After Transfers to Capital	(10,966)	3,457	2,548	3,881	2,767	4,504	2,914	5,530	3,185	6,535	3,624
Ending Operating Balance	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
<i>Minimum Operating Balance Target</i>	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
Net Cash Flow After Rate Increase	10,758	17,488	32,329	38,781	54,400	61,097	78,935	82,716	102,324	104,152	125,426
Coverage After Rate Increase: w/o SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sample Residential Monthly Bill [a]	\$ 21.00	\$ 21.42	\$ 21.85	\$ 22.29	\$ 22.73	\$ 23.19	\$ 23.65	\$ 24.12	\$ 24.61	\$ 25.10	\$ 25.60
[a] Average 3/4" Residential Monthly Bill; In-City; 7 CCF consumption											

City of Sisters
Utility Rate Study: Water Model
Assumptions

Fiscal Year Ending 6/30:

Economic & Financial Factors	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Escalation Rates											
General Cost Inflation	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%
Construction Cost Inflation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Labor Cost Inflation	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
Account Growth	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%
General Inflation Plus Growth	4.50%	4.43%	4.63%	4.36%	4.52%	4.52%	4.52%	4.52%	4.52%	4.58%	4.58%
No Escalation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PERS Inflation	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	0.00%
PERS + Labor Inflation	2.60%	28.25%	2.60%	28.25%	2.60%	28.25%	2.60%	28.25%	2.60%	28.25%	2.60%
Medical Inflation	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%
Medical + Labor Inflation [Extra]	6.30%	6.30%	6.30%	6.30%	6.30%	6.30%	6.30%	6.30%	6.30%	6.30%	6.30%
Investment Interest	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%
Tax Rates											
Franchise Fee	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%

Accounting & Financial Policy Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Beginning Fund Balances											
Operating Reserve	\$ 95,518										
Capital Improvement Reserve	382,439										
Capital Replacement Reserve	471,772										
Improvement SDC Fund	1,664,807										
Reimbursement SDC Fund	-										
Debt Reserve Fund	-										
	\$ 2,614,536										
Fund Balance Target: Minimum & Maximum Operating Balances											
Min. Fund Balance Target (Months of O&M expense)	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months
Max. Fund Balance (Months of O&M expense)	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months
Fund Balance Target: Capital											
Capital Improvement Reserve	\$ 486,533	\$ 590,627	\$ 535,501	\$ 532,685	\$ 538,279	\$ 345,373	\$ 280,187	\$ 312,281	\$ 416,375	\$ 520,469	\$ 624,563
Capital Replacement Reserve	\$ 491,991	\$ 522,210	\$ 537,429	\$ 571,848	\$ 587,067	\$ 595,886	\$ 631,105	\$ 627,824	\$ 648,043	\$ 688,262	\$ 728,481
Rate Funded System Reinvestment											
Capital Improvement Reserve	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094	\$ 104,094
Capital Replacement Reserve	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219
Total	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313	\$ 149,313
<i>Actual Result With Transfers (compared to Annual Depreciation)</i>	69%	62%	69%	69%	75%	75%	80%	76%	83%	81%	83%

City of Sisters
Utility Rate Study: Water Model
Assumptions

Fiscal Year Ending 6/30:

Capital Financing Assumptions		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System Development Charges												
Annual Inflationary Increase			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Existing System Development Charge												
Reimbursement Fee	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Improvement Fee		128	128	128	128	128	128	128	128	128	128	128
Total	\$	128	\$ 128	\$ 128	\$ 128	\$ 128	\$ 128	\$ 128	\$ 128	\$ 128	\$ 128	\$ 128
Citywide												
Total Fixture Units		45,877	47,085	48,417	49,656	51,006	52,392	53,816	55,279	56,781	58,358	59,978
Additional Fixture Units per Year		1,208	1,208	1,332	1,239	1,350	1,386	1,424	1,463	1,502	1,577	1,620
Reimbursement Fee Revenue	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Improvement Fee Revenue		155,000	155,000	170,897	158,974	173,149	177,855	182,689	187,654	192,754	202,272	207,888
Total SDC Revenue to Use in Model	\$	155,000	\$ 155,000	\$ 170,897	\$ 158,974	\$ 173,149	\$ 177,855	\$ 182,689	\$ 187,654	\$ 192,754	\$ 202,272	\$ 207,888
System Development Charges Towards Debt Service												
Total Annual Debt Service	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Annual Improvement Fee SDCs	\$	155,000	\$ 155,000	\$ 170,897	\$ 158,974	\$ 173,149	\$ 177,855	\$ 182,689	\$ 187,654	\$ 192,754	\$ 202,272	\$ 207,888
Total SDCs for Debt Service	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Improvement Fee SDCs for Capital	\$	155,000	\$ 155,000	\$ 170,897	\$ 158,974	\$ 173,149	\$ 177,855	\$ 182,689	\$ 187,654	\$ 192,754	\$ 202,272	\$ 207,888
Actual % SDCs to Pay for Debt Service		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outside Funding Sources (Uses)												
Capital Grants / Contributions												
[Extra]	Function	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]			-	-	-	-	-	-	-	-	-	-
Total: Capital Grants / Contributions		\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bonds												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Coverage Requirement (w/o SDCs)		1.50										
Use Reserves to Pay for Last Payment?		Yes										
Other Bonds												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest-Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
DWSRF Loans												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest-Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Other Loans												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest-Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

City of Sisters
Utility Rate Study: Water Model
 Operating Revenue and Expenditure Forecast

		Fiscal Year Ending 6/30:	Budget										
Operating Revenues		Forecast Basis	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Rate Revenues													
Fixed Revenue	[Calculated]		\$ 404,439	\$ 415,089	\$ 426,831	\$ 437,755	\$ 449,652	\$ 461,873	\$ 474,426	\$ 487,320	\$ 500,564	\$ 514,463	\$ 528,747
Variable Revenue	[Calculated]		190,994	196,024	201,569	206,728	212,346	218,118	224,046	230,135	236,389	242,953	249,699
Total Rate Revenue			\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
Non-Rate Revenues													
02-4-00-314 PUBLIC WORKS FEES	No Escalation		\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
02-4-00-323 TSID IRRIGATION	No Escalation		-	-	-	-	-	-	-	-	-	-	-
02-4-00-324 WATER PROCESSING/TRANS FEE	No Escalation		3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
02-4-00-325 WATER PENALTIES	No Escalation		7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
02-4-00-341 BACKFLOW TESTING FEES	No Escalation		12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
02-4-00-342 SALE OF ASSETS	No Escalation		-	-	-	-	-	-	-	-	-	-	-
02-4-00-359 WATER MITIGATION FEES	No Escalation		2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
02-4-00-360 MISCELLANEOUS	No Escalation		-	-	-	-	-	-	-	-	-	-	-
02-4-00-362 REFUNDS/REIMBURSEMENTS	No Escalation		1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855
02-4-00-372 SERVICE RECONNECT FEE	No Escalation		200	200	200	200	200	200	200	200	200	200	200
02-4-00-373 METER INSTALL	No Escalation		24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
02-4-00-377 BULK WATER	No Escalation		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
02-4-00-388 WATER TAP FEE	No Escalation		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
02-4-00-650 STATE GRANTS	No Escalation		-	-	-	-	-	-	-	-	-	-	-
02-4-00-509 TRANSFERS FROM OTHER FUNDS	No Escalation		-	-	-	-	-	-	-	-	-	-	-
Total Non-Rate Revenues			\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055	\$ 60,055
TOTAL OPERATING REVENUES			\$ 655,488	\$ 671,168	\$ 688,456	\$ 704,538	\$ 722,054	\$ 740,046	\$ 758,526	\$ 777,510	\$ 797,009	\$ 817,471	\$ 838,501

Operating Expenses		Forecast Basis	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TRANSFERS													
02-5-00-602 TRANSFER TO CITY HALL FUND	No Escalation		\$ 8,723	\$ 8,944	\$ 9,293	\$ 8,927	\$ 9,403	\$ 8,653	\$ 8,554	\$ 8,949	\$ 8,816	\$ 8,843	\$ 9,357
SUBTOTAL TRANSFERS			\$ 8,723	\$ 8,944	\$ 9,293	\$ 8,927	\$ 9,403	\$ 8,653	\$ 8,554	\$ 8,949	\$ 8,816	\$ 8,843	\$ 9,357
PERSONNEL SERVICES													
02-5-00-500 CITY MANAGER	Labor Cost Inflation		\$ 11,504	\$ 11,803	\$ 12,110	\$ 12,425	\$ 12,748	\$ 13,079	\$ 13,419	\$ 13,768	\$ 14,126	\$ 14,494	\$ 14,870
02-5-00-501 FINANCE ACCOUNTING ANALYST	Labor Cost Inflation		-	-	-	-	-	-	-	-	-	-	-
02-5-00-502 ADMIN ASST	Labor Cost Inflation		4,064	4,170	4,278	4,389	4,503	4,621	4,741	4,864	4,990	5,120	5,253
02-5-00-503 PUBLIC WORKS DIRECTOR	Labor Cost Inflation		26,362	27,047	27,751	28,472	29,212	29,972	30,751	31,551	32,371	33,213	34,076
02-5-00-504 UTILITY TECHNICIAN II	Labor Cost Inflation		4,569	4,688	4,810	4,935	5,063	5,195	5,330	5,468	5,610	5,756	5,906
02-5-00-505 UTILITY TECHNICIAN	Labor Cost Inflation		49,909	51,207	52,538	53,904	55,305	56,743	58,219	59,732	61,286	62,879	64,514
02-5-00-507 UTILITY BILLING CLERK	Labor Cost Inflation		-	-	-	-	-	-	-	-	-	-	-
02-5-00-511 UTILITY ASST	Labor Cost Inflation		1,317	1,351	1,386	1,422	1,459	1,497	1,536	1,576	1,617	1,659	1,702
02-5-00-513 OVERTIME	Labor Cost Inflation		3,000	3,078	3,158	3,240	3,324	3,411	3,499	3,590	3,684	3,780	3,878
02-5-00-515 PLANNING TECHNICIAN	Labor Cost Inflation		2,283	2,342	2,403	2,466	2,530	2,596	2,663	2,732	2,803	2,876	2,951
02-5-00-517 OFFICE SPECIALIST	Labor Cost Inflation		-	-	-	-	-	-	-	-	-	-	-
02-5-00-518 ACCOUNTING TECHNICIAN	Labor Cost Inflation		13,126	13,467	13,817	14,177	14,545	14,923	15,311	15,710	16,118	16,537	16,967
02-5-00-519 DATA ANALYST	Labor Cost Inflation		3,281	3,366	3,454	3,544	3,636	3,730	3,827	3,927	4,029	4,134	4,241
02-5-00-521 FINANCE OFFICER	Labor Cost Inflation		7,360	7,551	7,748	7,949	8,156	8,368	8,585	8,809	9,038	9,273	9,514
02-5-00-522 PUBLIC WORKS OPS COORDINATOR	Labor Cost Inflation		1,317	1,351	1,386	1,422	1,459	1,497	1,536	1,576	1,617	1,659	1,702
02-5-00-523 ACCOUNTING CLERK	Labor Cost Inflation		-	-	-	-	-	-	-	-	-	-	-
02-5-00-524 MAINTENANCE LEAD	Labor Cost Inflation		7,651	7,850	8,054	8,263	8,478	8,699	8,925	9,157	9,395	9,639	9,890
02-5-00-527 CITY RECORDER	Labor Cost Inflation		5,381	5,521	5,664	5,812	5,963	6,118	6,277	6,440	6,608	6,779	6,956
02-5-00-529 FINANCE & ADMIN DIRECTOR	Labor Cost Inflation		-	-	-	-	-	-	-	-	-	-	-
02-5-00-533 MAINTENANCE SUPERVISOR	Labor Cost Inflation		9,641	9,892	10,149	10,413	10,683	10,961	11,246	11,539	11,839	12,146	12,462
02-5-00-573 ON CALL COMPENSATION	Labor Cost Inflation		1,110	1,139	1,168	1,199	1,230	1,262	1,295	1,328	1,363	1,398	1,435
02-5-00-580 BONUS	Labor Cost Inflation		-	-	-	-	-	-	-	-	-	-	-
02-5-00-581 SOCIAL SECURITY	Labor Cost Inflation		9,066	9,302	9,544	9,792	10,046	10,307	10,575	10,850	11,133	11,422	11,719
02-5-00-582 WORKER'S COMP	Labor Cost Inflation		8,902	9,133	9,371	9,615	9,865	10,121	10,384	10,654	10,931	11,215	11,507
02-5-00-583 PERS/OSPRS	PERS + Labor Inflation		24,944	31,991	32,822	42,095	43,189	55,390	56,830	72,885	74,780	95,905	98,399
02-5-00-584 MED/DENT/VISION INSURANCE	Medical + Labor Inflation		49,915	53,059	56,402	59,955	63,731	67,746	72,013	76,550	81,372	86,498	91,947
02-5-00-586 LTD	Labor Cost Inflation		445	457	468	481	493	506	519	533	546	561	575
02-5-00-587 LIFE INSURANCE	Labor Cost Inflation		65	67	68	70	72	74	76	78	80	82	84
02-5-00-588 UNEMPLOYMENT INS.	Labor Cost Inflation		152	156	160	164	168	173	177	182	187	192	196
02-5-00-589 MEDICARE	Labor Cost Inflation		2,120	2,175	2,232	2,290	2,349	2,410	2,473	2,537	2,603	2,671	2,740
Adjustment to Reconcile with Actuals													
SUBTOTAL PERSONNEL SERVICES			\$ 247,484	\$ 262,163	\$ 270,942	\$ 288,492	\$ 298,211	\$ 319,400	\$ 330,211	\$ 356,037	\$ 368,126	\$ 399,888	\$ 413,485

City of Sisters
Utility Rate Study: Water Model
 Operating Revenue and Expenditure Forecast

		Fiscal Year Ending 6/30:		Budget									
Operating Expenses (Continued)		Forecast Basis	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
MATERIALS & SERVICES													
02-5-00-704	RECRUITMENT	General Cost Inflation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
02-5-00-705	ADVERTISING	General Cost Inflation	100	102	104	105	107	109	111	113	115	117	120
02-5-00-706	AUDIT FEES	General Cost Inflation	2,600	2,647	2,694	2,743	2,792	2,843	2,894	2,946	2,999	3,053	3,108
02-5-00-710	COMPUTER SOFTWARE MAINT.	General Cost Inflation	5,000	5,090	5,182	5,275	5,370	5,466	5,565	5,665	5,767	5,871	5,977
02-5-00-712	CHEMICALS	General Cost Inflation	2,200	2,240	2,280	2,321	2,363	2,405	2,449	2,493	2,537	2,583	2,630
02-5-00-713	DEVELOPMENT REVIEW	General Cost Inflation	6,000	6,108	6,218	6,330	6,444	6,560	6,678	6,798	6,920	7,045	7,172
02-5-00-714	OFFICE SUPPLIES	General Cost Inflation	1,300	1,323	1,347	1,371	1,396	1,421	1,447	1,473	1,499	1,526	1,554
02-5-00-715	POSTAGE	General Cost Inflation	5,150	5,243	5,337	5,433	5,531	5,630	5,732	5,835	5,940	6,047	6,156
02-5-00-717	OFFICE EQUIPMENT	General Cost Inflation	750	764	777	791	805	820	835	850	865	881	896
02-5-00-721	COPIER/PRINTER	General Cost Inflation	750	764	777	791	805	820	835	850	865	881	896
02-5-00-722	CHLORINATOR REPAIRS	General Cost Inflation	2,200	2,240	2,280	2,321	2,363	2,405	2,449	2,493	2,537	2,583	2,630
02-5-00-726	CONTRACTED SERVICES	General Cost Inflation	25,000	25,450	25,908	26,374	26,849	27,332	27,824	28,325	28,835	29,354	29,883
02-5-00-727	PERMITS & FEES	General Cost Inflation	1,500	1,527	1,554	1,582	1,611	1,640	1,669	1,700	1,730	1,761	1,793
02-5-00-733	DUES & SUBSCRIPTIONS	General Cost Inflation	750	764	777	791	805	820	835	850	865	881	896
02-5-00-735	TELEPHONE	General Cost Inflation	1,000	1,018	1,036	1,055	1,074	1,093	1,113	1,133	1,153	1,174	1,195
02-5-00-736	CELLULAR PHONES	General Cost Inflation	776	790	804	819	833	848	864	879	895	911	928
02-5-00-740	EDUCATION	General Cost Inflation	1,500	1,527	1,554	1,582	1,611	1,640	1,669	1,700	1,730	1,761	1,793
02-5-00-743	ELECTRICITY	General Inflation Plus Growth	37,000	38,640	40,429	42,191	44,097	46,090	48,172	50,348	52,623	55,031	57,550
02-5-00-746	SMALL TOOLS & EQUIPMENT	General Cost Inflation	3,500	3,563	3,627	3,692	3,759	3,827	3,895	3,966	4,037	4,110	4,184
02-5-00-748	BACKFLOW TESTING SERVICE	General Cost Inflation	15,000	15,270	15,545	15,825	16,110	16,399	16,695	16,995	17,301	17,613	17,930
02-5-00-755	GAS/OIL	General Cost Inflation	4,000	4,072	4,145	4,220	4,296	4,373	4,452	4,532	4,614	4,697	4,781
02-5-00-765	IMPROVEMENTS & REPAIRS	General Cost Inflation	6,000	6,108	6,218	6,330	6,444	6,560	6,678	6,798	6,920	7,045	7,172
02-5-00-766	INS: COMP/LIA/UMB	General Cost Inflation	8,500	8,653	8,809	8,967	9,129	9,293	9,460	9,631	9,804	9,980	10,160
02-5-00-768	INTERNAL GENERAL FUND SERVICES	General Cost Inflation	9,300	9,467	9,638	9,811	9,988	10,168	10,351	10,537	10,727	10,920	11,116
02-5-00-769	ENGINEERING	General Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
02-5-00-770	WATER LOCATE SERVICE	General Cost Inflation	200	204	207	211	215	219	223	227	231	235	239
02-5-00-771	MEDICAL TESTING & SERVICES	General Cost Inflation	300	305	311	316	322	328	334	340	346	352	359
02-5-00-772	ROW FRANCHISE FEE	[Calculated]	41,680	42,778	43,988	45,114	46,340	47,599	48,893	50,222	51,587	53,019	54,491
02-5-00-775	LABORATORY FEES	General Cost Inflation	5,000	5,090	5,182	5,275	5,370	5,466	5,565	5,665	5,767	5,871	5,977
02-5-00-777	LEGAL FEES	General Cost Inflation	3,000	3,054	3,109	3,165	3,222	3,280	3,339	3,399	3,460	3,523	3,586
02-5-00-779	WATER SYSTEM REPAIRS	General Cost Inflation	10,000	10,180	10,363	10,550	10,740	10,933	11,130	11,330	11,534	11,742	11,953
02-5-00-780	CREDIT CARD FEE	General Cost Inflation	3,400	3,461	3,524	3,587	3,651	3,717	3,784	3,852	3,922	3,992	4,064
02-5-00-782	UNIFORMS	General Cost Inflation	1,750	1,782	1,814	1,846	1,879	1,913	1,948	1,983	2,018	2,055	2,092
02-5-00-788	METERS & PARTS	General Cost Inflation	36,000	36,648	37,308	37,979	38,663	39,359	40,067	40,788	41,523	42,270	43,031
02-5-00-789	MILEAGE/TRAVEL REIMBURSEMT	General Cost Inflation	100	102	104	105	107	109	111	113	115	117	120
02-5-00-793	MEETINGS/WORKSHOPS	General Cost Inflation	200	204	207	211	215	219	223	227	231	235	239
02-5-00-795	SUPPLIES	General Cost Inflation	4,000	4,072	4,145	4,220	4,296	4,373	4,452	4,532	4,614	4,697	4,781
02-5-00-796	VEHICLE MAINTENANCE	General Cost Inflation	5,500	5,599	5,700	5,802	5,907	6,013	6,121	6,232	6,344	6,458	6,574
02-5-00-799	BAD DEBT EXPENSE	General Cost Inflation	100	102	104	105	107	109	111	113	115	117	120
SUBTOTAL MATERIALS & SERVICES			\$ 251,106	\$ 256,948	\$ 263,106	\$ 269,211	\$ 275,617	\$ 282,202	\$ 288,971	\$ 295,931	\$ 303,087	\$ 310,507	\$ 318,142
CAPITAL OUTLAY													
02-5-00-906	CAPITAL OUTLAY	General Cost Inflation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL CAPITAL OUTLAY			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]	[Extra]	No Escalation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL [Extra]			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CASH OPERATING EXPENSES			\$ 507,313	\$ 528,055	\$ 543,342	\$ 566,630	\$ 583,231	\$ 610,255	\$ 627,736	\$ 660,917	\$ 680,029	\$ 719,239	\$ 740,984

City of Sisters
Utility Rate Study: Water Model
Existing Debt

Fiscal Year Ending 6/30:

Existing Debt Service - Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Debt Payments											
Revenue Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Bonds	-	-	-	-	-	-	-	-	-	-	-
Other Loans	-	-	-	-	-	-	-	-	-	-	-
Total Debt Payments	-	-	-	-	-	-	-	-	-	-	-

Existing Debt Service - Revenue Bonds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL REVENUE BONDS											
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service	-	-	-	-	-	-	-	-	-	-	-
Annual Debt Reserve Target on Existing Rever	-	-	-	-	-	-	-	-	-	-	-

Existing Debt Service - Other Bonds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL OTHER BONDS											
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service - Other Loans	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL OTHER LOANS											
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Water Model
Capital Improvement Program

Project Costs in Year:

2017

Fiscal Year Ending 6/30:

ID	Description	Expenditure by Fund Type				Unescalated Total	UNESCALATED COSTS											
		% SDC Improvement Fee Funded	% Improvement Reserve Funded	% Replacement Reserve Funded	Total		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
	Updated CIP - 10-yr					\$ -												
	Water System Back-up 75hp motor		100%		100%	70,000			70,000									
	Well 1,2 and 3 VFD's		100%		100%	61,620			61,620									
	8" Dist. Imp Hood Alley, Fir to Larch	54%	46%		100%	60,000			60,000									
	Well #3 Generator	50%	50%		100%	148,500				148,500								
	8" Dist. Imp Oak St. - Main to Adams	54%	46%		100%	34,000				34,000								
	8" Dist. Imp Fir St. - Main to Adams	54%	46%		100%	37,000				37,000								
	Hood Ave S. Alley/ Pine to Ash (Reconnections)		100%		100%	36,000				36,000								
	Wash. Ave S. Alley/Cedar to Locust (Reconnections)		100%		100%	28,800				28,800								
	Jeff Ave S Alley/Cedar to Locust (Reconnections)		100%		100%	33,700				33,700								
	Well #1 Improvements		100%		100%	297,000					297,000							
	8" Dist. Imp EOP	54%	46%		100%	368,000						368,000						
	Main Ave N Alley/Pine to Elm (Reconnections)		100%		100%	72,000							72,000					
	Water Right Acquisition	100%			100%	250,000	250,000											
	New 16" Trans Main from Reservoir to 12" split	100%			100%	914,760										914,760		
	New Well #4 with Back-up Generator	100%			100%	861,300											861,300	
	12" Dist Imp - Dev. Upsizing	100%			100%	250,000	25,000	25,000	25,000	25,000	25,000	100,000						
	Capital Replacement Reserve Expenditures					-												
	tractor (10%)			100%	100%	800				800								
	(2) Used Utility trucks			100%	100%	20,000					20,000							
	Backhoe (33%)			100%	100%	26,400						26,400						
	dump truck (33%)			100%	100%	24,750										24,750		
	Dump trailer (25%)			100%	100%	2,500										2,500		
	Utility trailer (25%)			100%	100%	1,250										1,250		
	tools & Equipment			100%	100%	30,000			15,000							15,000		
	(2) used mngmt trucks (25%)			100%	100%	5,000												
	MXU's			100%	100%	110,000	25,000	15,000	15,000	10,000	10,000	10,000	5,000	5,000	5,000	5,000	5,000	
	reservoir re-lining			100%	100%	20,000									20,000			
	TOTAL CAPITAL PROJECTS					3,763,380	\$ 300,000	\$ 40,000	\$ 246,620	\$ 255,300	\$ 153,500	\$ 358,400	\$ 478,000	\$ 120,500	\$ 25,000	\$ 919,760	\$ 866,300	
	Total Improvement Fee SDC Projects	Improvement Fee SDC				1,758,470	\$ 275,000	\$ 25,000	\$ 57,400	\$ 137,590	\$ 25,000	\$ 25,000	\$ 298,720	\$ -	\$ -	\$ 914,760	\$ 861,300	
	Total Improvement Reserve Projects	Improvement Reserve				902,910	\$ -	\$ -	\$ 159,220	\$ 106,910	\$ 98,500	\$ 297,000	\$ 169,280	\$ 72,000	\$ -	\$ -	\$ -	\$ -
	Total Replacement Reserve Projects	Replacement Reserve				235,700	\$ 25,000	\$ 15,000	\$ 30,000	\$ 10,800	\$ 30,000	\$ 36,400	\$ 10,000	\$ 48,500	\$ 25,000	\$ 5,000	\$ 5,000	\$ 5,000
	Projects by CIAC						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Projects by Enterprise Fund						\$ 300,000	\$ 40,000	\$ 246,620	\$ 255,300	\$ 153,500	\$ 358,400	\$ 478,000	\$ 120,500	\$ 25,000	\$ 919,760	\$ 866,300	

City of Sisters
Utility Rate Study: Water Model
Capital Funding

Fiscal Year Ending 6/30:

Capital Project Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL CAPITAL EXPENDITURES	\$ 300,000	\$ 40,000	\$ 246,620	\$ 255,300	\$ 153,500	\$ 358,400	\$ 478,000	\$ 120,500	\$ 25,000	\$ 919,760	\$ 866,300

Manual Input Debt Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Proceeds - Revenue Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds - Other Bonds											
Proceeds - DWSRF Loans											
Proceeds - Other Loans											

*Model will automatically calculate revenue bond debt if 'Revenue Bond Proceeds' is blank.

Capital Financing Plan	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Outside Funding Sources: Grants/CIAC	-	-	-	-	-	-	-	-	-	-	-
Balance/Remained to be Funded	\$ 300,000	\$ 40,000	\$ 246,620	\$ 255,300	\$ 153,500	\$ 358,400	\$ 478,000	\$ 120,500	\$ 25,000	\$ 919,760	\$ 866,300
OTHER FUNDING SOURCES	<i>(Note: Operating transfers in year N are always assumed to be available in year N + 1.)</i>										
Beginning Fund Balances	\$ 854,211	\$ 1,007,594	\$ 1,164,604	\$ 1,164,493	\$ 1,241,011	\$ 1,324,130	\$ 1,208,023	\$ 1,264,466	\$ 1,381,340	\$ 1,616,672	\$ 1,872,505
Capital Improvement Reserve Contribution	Yes 104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094
Capital Replacement Reserve Contribution	Yes 45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219
Use of SDC Reimbursement Fee Revenue	Yes -	-	-	-	-	-	-	-	-	-	-
Use of SDC Improvement Fee Fund Balance	Yes 275,000	25,000	57,400	137,590	25,000	25,000	298,720	-	-	914,760	861,300
Interest Earnings	No -	-	-	-	-	-	-	-	-	-	-
Minimum Capital Balance?	Yes (486,533)	(590,627)	(535,501)	(532,685)	(538,279)	(345,373)	(280,187)	(312,281)	(416,375)	(520,469)	(624,563)
Other Bonds Proceeds	-	-	-	-	-	-	-	-	-	-	-
DWSRF Loans Proceeds	-	-	-	-	-	-	-	-	-	-	-
Other Loans Proceeds	-	-	-	-	-	-	-	-	-	-	-
Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL RESOURCES	\$ 791,991	\$ 591,280	\$ 835,816	\$ 918,711	\$ 877,045	\$ 1,153,070	\$ 1,375,869	\$ 1,101,498	\$ 1,114,278	\$ 2,160,276	\$ 2,258,555

Info: Working Capital Contingency Deficit

City of Sisters
Utility Rate Study: Water Model
Capital Funding

Fiscal Year Ending 6/30:

New Debt Computations	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
REVENUE BONDS											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-
Reserve Required	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Bonds											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DWSRF Loans											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Debt Service Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
EXISTING DEBT SERVICE											
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEW DEBT SERVICE											
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL DEBT SERVICE PAYMENTS											
Total Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Principal Payments	-	-	-	-	-	-	-	-	-	-	-
Total Revenue Bond Payments Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Water Model
 Revenue Requirement Tests

Fiscal Year Ending 6/30:

Cash Flow Test	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
REVENUES											
Rate Revenue	\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
SDC Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-
Other Non-Rate Revenue	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055
Interest Earnings: Operating & Debt Reserve Funds	821	727	757	779	812	836	875	900	947	975	1,031
Total Revenue	\$ 656,309	\$ 671,895	\$ 689,213	\$ 705,317	\$ 722,866	\$ 740,881	\$ 759,401	\$ 778,409	\$ 797,956	\$ 818,445	\$ 839,532
EXPENSES											
Cash Operating Expenses	\$ 507,313	\$ 528,055	\$ 543,342	\$ 566,630	\$ 583,231	\$ 610,255	\$ 627,736	\$ 660,917	\$ 680,029	\$ 719,239	\$ 740,984
Existing Debt Service	-	-	-	-	-	-	-	-	-	-	-
New Debt Service	-	-	-	-	-	-	-	-	-	-	-
Capital Improvement Reserve Contribution	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094
Capital Replacement Reserve Contribution	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219
Additions Required to Meet Min. Op. Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 656,626	\$ 677,368	\$ 692,655	\$ 715,943	\$ 732,544	\$ 759,568	\$ 777,049	\$ 810,230	\$ 829,342	\$ 868,552	\$ 890,297
NET CASH FLOW (DEFICIENCY)	\$ (317)	\$ (5,473)	\$ (3,442)	\$ (10,626)	\$ (9,678)	\$ (18,687)	\$ (17,648)	\$ (31,820)	\$ (31,386)	\$ (50,107)	\$ (50,766)

Coverage Test - w/o SDCs	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
ALLOWABLE REVENUES											
Rate Revenue	\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
Other Revenue	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055	60,055
SDC Revenue	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings - All Funds	4,110	5,126	6,210	6,061	6,415	6,980	5,899	6,060	7,092	8,920	10,779
Total Revenue	\$ 659,598	\$ 676,294	\$ 694,666	\$ 710,598	\$ 728,469	\$ 747,025	\$ 764,425	\$ 783,570	\$ 804,101	\$ 826,391	\$ 849,280
Coverage w/o SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EXPENSES											
Cash Operating Expenses	\$ 507,313	\$ 528,055	\$ 543,342	\$ 566,630	\$ 583,231	\$ 610,255	\$ 627,736	\$ 660,917	\$ 680,029	\$ 719,239	\$ 740,984
Revenue Bond Debt Service	-	-	-	-	-	-	-	-	-	-	-
Revenue Bond Coverage Requirement at 1.5	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 507,313	\$ 528,055	\$ 543,342	\$ 566,630	\$ 583,231	\$ 610,255	\$ 627,736	\$ 660,917	\$ 680,029	\$ 719,239	\$ 740,984
COVERAGE SURPLUS (DEFICIENCY)	\$ 152,285	\$ 148,239	\$ 151,324	\$ 143,969	\$ 145,238	\$ 136,770	\$ 136,689	\$ 122,653	\$ 124,072	\$ 107,152	\$ 108,296

Maximum Revenue Deficiency	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Sufficiency Test Driving the Deficiency	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash
Maximum Revenue Deficiency (Surplus)	\$ 317	\$ 5,473	\$ 3,442	\$ 10,626	\$ 9,678	\$ 18,687	\$ 17,648	\$ 31,820	\$ 31,386	\$ 50,107	\$ 50,766
plus: Additional Tax Expense	24	412	259	800	728	1,407	1,328	2,395	2,362	3,771	3,821
less: Incremental Revenue From Prior Rate Increases	-	(12,222)	(25,387)	(39,447)	(54,570)	(70,774)	(88,121)	(106,675)	(126,505)	(147,766)	(170,475)
Net Revenue Deficiency (Surplus)	\$ 340	\$ (6,337)	\$ (21,686)	\$ (28,022)	\$ (44,163)	\$ (50,681)	\$ (69,144)	\$ (72,460)	\$ (92,757)	\$ (93,888)	\$ (115,889)

City of Sisters
Utility Rate Study: Water Model
 Revenue Requirement Tests

Fiscal Year Ending 6/30:

Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Rate Revenue @ Existing Rates	\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
Revenues from Prior Rate Increases	-	12,222	25,387	39,447	54,570	70,774	88,121	106,675	126,505	147,766	170,475
Rate Revenue Before Rate Increase (incl. previous increases)	\$ 595,433	\$ 623,335	\$ 653,788	\$ 683,930	\$ 716,569	\$ 750,764	\$ 786,592	\$ 824,130	\$ 863,459	\$ 905,182	\$ 948,921
Required Annual Rate Increase	0.06%	-1.02%	-3.32%	-4.10%	-6.16%	-6.75%	-8.79%	-8.79%	-10.74%	-10.37%	-12.21%
Number of Months New Rates Will Be In Effect	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months
Info: % Increase to Generate Required Revenue	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Policy Induced Rate Increases	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
ANNUAL RATE INCREASE	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
CUMULATIVE RATE INCREASE	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%	21.90%	24.34%

Impacts of Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Sufficiency Test Driving the Deficiency	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash
Rate Revenues After Rate Increase	\$ 607,342	\$ 635,802	\$ 666,864	\$ 697,609	\$ 730,900	\$ 765,780	\$ 802,324	\$ 840,612	\$ 880,728	\$ 923,285	\$ 967,899
Full Year Rate Revenues After Rate Increase	\$ 607,342	\$ 635,802	\$ 666,864	\$ 697,609	\$ 730,900	\$ 765,780	\$ 802,324	\$ 840,612	\$ 880,728	\$ 923,285	\$ 967,899
Partial Year Adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Taxes Due to Rate Increases	834	1,728	2,692	3,719	4,823	6,005	7,270	8,621	10,064	11,611	13,262
Net Cash Flow After Rate Increase	\$ 10,758	\$ 17,488	\$ 32,329	\$ 38,781	\$ 54,400	\$ 61,097	\$ 78,935	\$ 82,716	\$ 102,324	\$ 104,152	\$ 125,426
Coverage After Rate Increase: w/ SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Coverage After Rate Increase: w/o SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Fund Balance Impacts	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Ending Fund Balance: Operating Reserve - Part Of Water Fund	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
Minimum Target: Operating Reserve - Part Of Water Fund	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
Ending Fund Balance: Capital Improvement Reserve - Part Of Water Fund	\$ 511,546	\$ 634,070	\$ 614,178	\$ 651,544	\$ 714,375	\$ 584,205	\$ 600,065	\$ 714,506	\$ 923,883	\$ 1,133,540	\$ 1,369,184
Minimum Target: Capital Improvement Reserve - Part Of Water Fund	\$ 486,533	\$ 590,627	\$ 535,501	\$ 532,685	\$ 538,279	\$ 345,373	\$ 280,187	\$ 312,281	\$ 416,375	\$ 520,469	\$ 624,563
Ending Fund Balance: Capital Replacement Reserve - Part Of Water Fund	\$ 496,048	\$ 530,533	\$ 550,315	\$ 589,467	\$ 609,755	\$ 623,818	\$ 664,402	\$ 666,835	\$ 692,788	\$ 738,965	\$ 785,539
Minimum Target: Capital Replacement Reserve - Part Of Water Fund	\$ 491,991	\$ 522,210	\$ 537,429	\$ 571,848	\$ 587,067	\$ 595,886	\$ 631,105	\$ 627,824	\$ 648,043	\$ 688,262	\$ 728,481
Ending Fund Balance: Improvement SDC Fund	\$ 1,559,124	\$ 1,702,533	\$ 1,830,672	\$ 1,867,800	\$ 2,032,013	\$ 2,202,343	\$ 2,105,253	\$ 2,311,012	\$ 2,523,641	\$ 1,832,856	\$ 1,195,207
Minimum Target: Improvement SDC Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Fund Balance: Reimbursement SDC Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Minimum Target: Reimbursement SDC Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Water Model
Fund Activity

Fiscal Year Ending 6/30:

Funds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Operating Reserve - Part of Water Fund											
Beginning Balance	\$ 95,518	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873
plus: Net Cash Flow after Rate Increase	10,758	17,488	32,329	38,781	54,400	61,097	78,935	82,716	102,324	104,152	125,426
less: Transfer to Capital Replacement Reserve	-	-	-	-	-	-	-	-	-	-	-
less: Transfer of Surplus to Capital Improvement Reserve	(21,724)	(14,031)	(29,781)	(34,900)	(51,633)	(56,593)	(76,021)	(77,186)	(99,139)	(97,617)	(121,802)
Ending Balance	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
<i>Minimum Target Balance</i>	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
<i>Maximum Funds to be Kept as Operating Reserves</i>	\$ 84,552	\$ 88,009	\$ 90,557	\$ 94,438	\$ 97,205	\$ 101,709	\$ 104,623	\$ 110,153	\$ 113,338	\$ 119,873	\$ 123,497
<i>Info: # of Months of Cash Operating Expenses</i>	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months
Capital Improvement Reserve - Part of Water Fund											
Beginning Balance	\$ 382,439	\$ 511,546	\$ 634,070	\$ 614,178	\$ 651,544	\$ 714,375	\$ 584,205	\$ 600,065	\$ 714,506	\$ 923,883	\$ 1,133,540
plus: Capital Improvement Reserve Contribution	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094	104,094
plus: Transfers from Operating Fund	21,724	14,031	29,781	34,900	51,633	56,593	76,021	77,186	99,139	97,617	121,802
plus: Capital Grants / Contributions	-	-	-	-	-	-	-	-	-	-	-
plus: Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: Other Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: DWSRF Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	3,289	4,399	5,453	5,282	5,603	6,144	5,024	5,161	6,145	7,945	9,748
Total Funding Sources	\$ 511,546	\$ 634,070	\$ 773,398	\$ 758,454	\$ 812,875	\$ 881,205	\$ 769,345	\$ 786,506	\$ 923,883	\$ 1,133,540	\$ 1,369,184
less: Capital Expenditures Not Funded With SDC Monies	-	-	(159,220)	(106,910)	(98,500)	(297,000)	(169,280)	(72,000)	-	-	-
Ending Capital Fund Balance	\$ 511,546	\$ 634,070	\$ 614,178	\$ 651,544	\$ 714,375	\$ 584,205	\$ 600,065	\$ 714,506	\$ 923,883	\$ 1,133,540	\$ 1,369,184
<i>Minimum Target Balance</i>	\$ 486,533	\$ 590,627	\$ 535,501	\$ 532,685	\$ 538,279	\$ 345,373	\$ 280,187	\$ 312,281	\$ 416,375	\$ 520,469	\$ 624,563
Capital Replacement Reserve - Part of Water Fund											
Beginning Balance	\$ 471,772	\$ 496,048	\$ 530,533	\$ 550,315	\$ 589,467	\$ 609,755	\$ 623,818	\$ 664,402	\$ 666,835	\$ 692,788	\$ 738,965
plus: Transfers from Operating Fund	-	-	-	-	-	-	-	-	-	-	-
plus: Capital Replacement Reserve Contribution	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219	45,219
plus: Interest Earnings	4,057	4,266	4,563	4,733	5,069	5,244	5,365	5,714	5,735	5,958	6,355
Total Funding Sources	\$ 521,048	\$ 545,533	\$ 580,315	\$ 600,267	\$ 639,755	\$ 660,218	\$ 674,402	\$ 715,335	\$ 717,788	\$ 743,965	\$ 790,539
less: Capital Expenditures Not Funded With SDC Monies	(25,000)	(15,000)	(30,000)	(10,800)	(30,000)	(36,400)	(10,000)	(48,500)	(25,000)	(5,000)	(5,000)
Ending Capital Fund Balance	\$ 496,048	\$ 530,533	\$ 550,315	\$ 589,467	\$ 609,755	\$ 623,818	\$ 664,402	\$ 666,835	\$ 692,788	\$ 738,965	\$ 785,539
<i>Minimum Target Balance</i>	\$ 491,991	\$ 522,210	\$ 537,429	\$ 571,848	\$ 587,067	\$ 595,886	\$ 631,105	\$ 627,824	\$ 648,043	\$ 688,262	\$ 728,481

City of Sisters
Utility Rate Study: Water Model
Fund Activity

Fiscal Year Ending 6/30:

Funds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Improvement SDC Fund											
Beginning Balance	\$ 1,664,807	\$ 1,559,124	\$ 1,702,533	\$ 1,830,672	\$ 1,867,800	\$ 2,032,013	\$ 2,202,343	\$ 2,105,253	\$ 2,311,012	\$ 2,523,641	\$ 1,832,856
plus: Improvement Fee SDC Revenue Toward Capital	155,000	155,000	170,897	158,974	173,149	177,855	182,689	187,654	192,754	202,272	207,888
plus: Interest Earnings	14,317	13,408	14,642	15,744	16,063	17,475	18,940	18,105	19,875	21,703	15,763
Total Funding Sources	\$ 1,834,124	\$ 1,727,533	\$ 1,888,072	\$ 2,005,390	\$ 2,057,013	\$ 2,227,343	\$ 2,403,973	\$ 2,311,012	\$ 2,523,641	\$ 2,747,616	\$ 2,056,507
Reference: Capacity Increasing Capital Expenditures	\$ 275,000	\$ 25,000	\$ 57,400	\$ 137,590	\$ 25,000	\$ 25,000	\$ 298,720	\$ -	\$ -	\$ 914,760	\$ 861,300
less: Use of Funds for Capital Expenditures	(275,000)	(25,000)	(57,400)	(137,590)	(25,000)	(25,000)	(298,720)	-	-	(914,760)	(861,300)
Ending Capital Fund Balance	\$ 1,559,124	\$ 1,702,533	\$ 1,830,672	\$ 1,867,800	\$ 2,032,013	\$ 2,202,343	\$ 2,105,253	\$ 2,311,012	\$ 2,523,641	\$ 1,832,856	\$ 1,195,207
Reimbursement SDC Fund											
Beginning Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
plus: Reimbursement Fee SDC Revenue Toward Capital	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	-	-	-	-	-	-	-	-	-	-	-
Total Funding Sources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reference: Capacity Increasing Capital Expenditures	\$ -	\$ -	\$ 159,220	\$ 106,910	\$ 98,500	\$ 297,000	\$ 169,280	\$ 72,000	\$ -	\$ -	\$ -
less: Use of Funds for Capital Expenditures	-	-	-	-	-	-	-	-	-	-	-
Ending Capital Fund Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Reserve Fund											
Beginning Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
plus: Reserve Funding from New Debt	-	-	-	-	-	-	-	-	-	-	-
less: Use of Reserves for Debt Service	-	-	-	-	-	-	-	-	-	-	-
Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Minimum Target Balance</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>
SUMMARY											
Combined Beginning Balance	\$ 2,614,536	\$ 2,651,271	\$ 2,955,146	\$ 3,085,722	\$ 3,203,249	\$ 3,453,347	\$ 3,512,076	\$ 3,474,342	\$ 3,802,505	\$ 4,253,651	\$ 3,825,235
Plus: Inflows	358,459	357,905	406,978	407,727	455,232	473,722	516,287	525,850	575,285	588,961	636,296
Less: Outflows	(321,724)	(54,031)	(276,401)	(290,200)	(205,133)	(414,993)	(554,021)	(197,686)	(124,139)	(1,017,377)	(988,102)
Combined Ending Balance	\$ 2,651,271	\$ 2,955,146	\$ 3,085,722	\$ 3,203,249	\$ 3,453,347	\$ 3,512,076	\$ 3,474,342	\$ 3,802,505	\$ 4,253,651	\$ 3,825,235	\$ 3,473,428
Net Change in Reserves	\$ 36,735	\$ 303,875	\$ 130,577	\$ 117,527	\$ 250,098	\$ 58,728	\$ (37,734)	\$ 328,163	\$ 451,146	\$ (428,416)	\$ (351,807)

City of Sisters

Utility Rate Study: Water Model

Customer Statistics Forecast

Growth Assumptions	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Account Growth		-0.84%	2.70%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%
Annual Consumption Growth		-0.84%	2.70%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%

Units by Meter Size	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Adjustment Category	Meter Size														
Regular	3/4" Meter	1,116	1,107	1,137	1,167	1,198	1,232	1,263	1,298	1,333	1,369	1,406	1,445	1,485	1,526
Regular	1" Meter	211	209	215	221	227	233	239	245	252	259	266	273	281	289
Regular	1 1/2" Meter	39	39	40	41	42	43	44	45	47	48	49	50	52	53
Regular	2" Meter	102	101	104	107	109	113	115	119	122	125	129	132	136	139
Regular	3" or 4" Meter	5	5	5	5	5	6	6	6	6	6	6	7	7	
Outside	3/4" Meter	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Outside	1" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Outside	1 1/2" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Outside	2" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Outside	3" or 4" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Discount	3/4" Meter	19	19	19	20	20	21	22	22	23	23	24	25	25	26
Discount	1" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Discount	1 1/2" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Discount	2" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Discount	3" or 4" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
None	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Accounts		1,499	1,486	1,527	1,568	1,609	1,655	1,697	1,743	1,791	1,839	1,889	1,941	1,994	2,050
Customer Growth		-0.84%	2.70%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	

Future Consumption Statistics	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Adjustment Category															
Regular		285,093	282,692	290,338	298,190	306,043	314,700	322,754	331,526	340,536	349,791	359,298	369,063	379,310	389,842
Outside		1,810	1,795	1,843	1,893	1,943	1,998	2,049	2,105	2,162	2,221	2,281	2,343	2,408	2,475
Low Income		3,010	2,985	3,066	3,148	3,231	3,323	3,408	3,500	3,596	3,693	3,794	3,897	4,005	4,116
Bulk Water		530	525	540	554	569	585	600	616	633	650	668	686	705	725
None		17,093	16,949	17,407	17,878	18,349	18,868	19,351	19,877	20,417	20,972	21,542	22,127	22,742	23,373
Total Consumption		307,536	304,946	313,194	321,664	330,135	339,474	348,162	357,624	367,344	377,328	387,583	398,116	409,170	420,531
Customer Class Growth		-0.84%	2.70%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	
CCF Allowance (reference)	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	10 ccf	
Variable Rate Consumption - After Allowance															
Regular		179,291	177,781	182,589	187,528	192,466	197,911	202,975	208,492	214,158	219,979	225,957	232,099	238,543	245,166
Outside		1,410	1,398	1,436	1,475	1,514	1,556	1,596	1,640	1,684	1,730	1,777	1,825	1,876	1,928
Low Income		1,599	1,586	1,629	1,673	1,717	1,765	1,811	1,860	1,910	1,962	2,016	2,070	2,128	2,187
Consumption not subject to allowance															
Bulk Water		530	525	540	554	569	585	600	616	633	650	668	686	705	725
None		17,093	16,949	17,407	17,878	18,349	18,868	19,351	19,877	20,417	20,972	21,542	22,127	22,742	23,373
Total Consumption After Allowance		199,923	198,240	203,601	209,108	214,614	220,686	226,333	232,485	238,803	245,293	251,960	258,808	265,994	273,379
Customer Growth		-0.84%	2.70%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	

City of Sisters
Utility Rate Study: Water Model
Customer Statistics Forecast

Rate Schedule		2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Outside City Multiplier Discount & Low Income Multiplier	150%														
	75%														
Fixed Rate Schedule															
Regular	3/4" Meter	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59	\$20.59
Regular	1" Meter	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09
Regular	1 1/2" Meter	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09	\$23.09
Regular	2" Meter	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58
Regular	3" or 4" Meter	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40	\$62.40
Outside	3/4" Meter	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89	\$30.89
Outside	1" Meter	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64
Outside	1 1/2" Meter	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64	\$34.64
Outside	2" Meter	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37	\$38.37
Outside	3" or 4" Meter	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60	\$93.60
Discount	3/4" Meter	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44	\$15.44
Discount	1" Meter	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32
Discount	1 1/2" Meter	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32	\$17.32
Discount	2" Meter	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19	\$19.19
Discount	3" or 4" Meter	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80	\$46.80
None	N/A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Percent Increase				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Volume Rate Schedule															
Regular		\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Outside		\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50
Low Income		\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75
Bulk Water		\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47	\$2.47
None		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Percent Increase				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

City of Sisters
Utility Rate Study: Water Model
Customer Statistics Forecast

Future Revenues		2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Fixed Revenues - Base Charge															
Adjustment Category	Meter Size														
Regular	3/4" Meter	\$ 275,741	\$ 273,419	\$ 280,814	\$ 288,409	\$ 296,004	\$ 304,377	\$ 312,167	\$ 320,651	\$ 329,366	\$ 338,317	\$ 347,512	\$ 356,957	\$ 366,868	\$ 377,054
Regular	1" Meter	\$ 58,464	\$ 57,972	\$ 59,539	\$ 61,150	\$ 62,760	\$ 64,535	\$ 66,187	\$ 67,986	\$ 69,834	\$ 71,732	\$ 73,681	\$ 75,684	\$ 77,785	\$ 79,945
Regular	1 1/2" Meter	\$ 10,806	\$ 10,715	\$ 11,005	\$ 11,303	\$ 11,600	\$ 11,928	\$ 12,234	\$ 12,566	\$ 12,908	\$ 13,258	\$ 13,619	\$ 13,989	\$ 14,377	\$ 14,777
Regular	2" Meter	\$ 31,310	\$ 31,046	\$ 31,886	\$ 32,748	\$ 33,611	\$ 34,561	\$ 35,446	\$ 36,409	\$ 37,399	\$ 38,415	\$ 39,459	\$ 40,532	\$ 41,657	\$ 42,814
Regular	3" or 4" Meter	\$ 3,744	\$ 3,712	\$ 3,813	\$ 3,916	\$ 4,019	\$ 4,133	\$ 4,239	\$ 4,354	\$ 4,472	\$ 4,594	\$ 4,719	\$ 4,847	\$ 4,981	\$ 5,120
Outside	3/4" Meter	\$ 1,112	\$ 1,102	\$ 1,132	\$ 1,163	\$ 1,194	\$ 1,227	\$ 1,259	\$ 1,293	\$ 1,328	\$ 1,364	\$ 1,401	\$ 1,439	\$ 1,479	\$ 1,520
Outside	1" Meter	\$ 416	\$ 412	\$ 423	\$ 435	\$ 446	\$ 459	\$ 471	\$ 483	\$ 496	\$ 510	\$ 524	\$ 538	\$ 553	\$ 568
Outside	1 1/2" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside	2" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside	3" or 4" Meter	\$ 1,123	\$ 1,114	\$ 1,144	\$ 1,175	\$ 1,206	\$ 1,240	\$ 1,272	\$ 1,306	\$ 1,342	\$ 1,378	\$ 1,416	\$ 1,454	\$ 1,494	\$ 1,536
Discount	3/4" Meter	\$ 3,521	\$ 3,491	\$ 3,586	\$ 3,683	\$ 3,780	\$ 3,887	\$ 3,986	\$ 4,094	\$ 4,206	\$ 4,320	\$ 4,437	\$ 4,558	\$ 4,684	\$ 4,815
Discount	1" Meter	\$ 208	\$ 206	\$ 212	\$ 217	\$ 223	\$ 229	\$ 235	\$ 242	\$ 248	\$ 255	\$ 262	\$ 269	\$ 276	\$ 284
Discount	1 1/2" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Discount	2" Meter	\$ 230	\$ 228	\$ 234	\$ 241	\$ 247	\$ 254	\$ 261	\$ 268	\$ 275	\$ 282	\$ 290	\$ 298	\$ 306	\$ 315
Discount	3" or 4" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
None	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ 386,675	\$ 383,418	\$ 393,788	\$ 404,439	\$ 415,089	\$ 426,831	\$ 437,755	\$ 449,652	\$ 461,873	\$ 474,426	\$ 487,320	\$ 500,564	\$ 514,463	\$ 528,747
Customer Growth				2.7%	2.7%	2.6%	2.8%	2.6%	2.7%	2.7%	2.7%	2.7%	2.7%	2.8%	2.8%
Volume Revenues															
Adjustment Category															
Regular		\$ 179,291	\$ 177,781	\$ 182,589	\$ 187,528	\$ 192,466	\$ 197,911	\$ 202,975	\$ 208,492	\$ 214,158	\$ 219,979	\$ 225,957	\$ 232,099	\$ 238,543	\$ 245,166
Outside		\$ 2,115	\$ 2,097	\$ 2,154	\$ 2,212	\$ 2,270	\$ 2,335	\$ 2,394	\$ 2,459	\$ 2,526	\$ 2,595	\$ 2,665	\$ 2,738	\$ 2,814	\$ 2,892
Low Income		\$ 1,200	\$ 1,189	\$ 1,222	\$ 1,255	\$ 1,288	\$ 1,324	\$ 1,358	\$ 1,395	\$ 1,433	\$ 1,472	\$ 1,512	\$ 1,553	\$ 1,596	\$ 1,640
Bulk Water		\$ 1,308	\$ 1,297	\$ 1,332	\$ 1,368	\$ 1,404	\$ 1,444	\$ 1,481	\$ 1,521	\$ 1,562	\$ 1,605	\$ 1,648	\$ 1,693	\$ 1,740	\$ 1,789
None		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ 183,914	\$ 182,365	\$ 187,297	\$ 192,362	\$ 197,428	\$ 203,013	\$ 208,209	\$ 213,867	\$ 219,680	\$ 225,650	\$ 231,783	\$ 238,083	\$ 244,693	\$ 251,487
Customer Growth			-0.8%	2.7%	2.7%	2.6%	2.8%	2.6%	2.7%	2.7%	2.7%	2.7%	2.7%	2.8%	2.8%
Total Revenues (with bulk water)		\$ 570,588	\$ 565,783	\$ 581,085	\$ 596,801	\$ 612,517	\$ 629,845	\$ 645,963	\$ 663,520	\$ 681,553	\$ 700,076	\$ 719,103	\$ 738,647	\$ 759,156	\$ 780,234
Total Revenues (without bulk water)		\$ 569,280	\$ 564,486	\$ 579,753	\$ 595,433	\$ 611,113	\$ 628,401	\$ 644,483	\$ 661,999	\$ 679,991	\$ 698,471	\$ 717,455	\$ 736,954	\$ 757,416	\$ 778,446
			-0.8%	2.7%	2.7%	2.6%	2.8%	2.6%	2.7%	2.7%	2.7%	2.7%	2.7%	2.8%	2.8%

Fixed/Variable	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Fixed Revenue as a % of Total	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%	67.77%
Variable Revenue as a % of Total	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%	32.23%

Customer Class	Reported - Billing System	Reported - Finance	Calculated	% Diff from Billing	% Diff from Finance
Total Rate Revenue (excluding bulk water)	\$553,827	\$565,783	\$570,588	-2.94%	-0.84%

City of Sisters

Utility Rate Study: Water Model

Rate Design

Growth Assumptions	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Account Growth		-0.84%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	2.78%
Annual Consumption Growth		-0.84%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	2.78%

Units by Meter Size		2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Adjustment Category	Meter Size														
Regular	3/4" Meter	1,116	1,107	1,137	1,166	1,199	1,230	1,264	1,298	1,333	1,369	1,407	1,446	1,486	1,527
Regular	1" Meter	211	209	215	221	227	233	239	245	252	259	266	273	281	289
Regular	1 1/2" Meter	39	39	40	41	42	43	44	45	47	48	49	51	52	53
Regular	2" Meter	102	101	104	107	110	112	115	119	122	125	129	132	136	140
Regular	3" or 4" Meter	5	5	5	5	5	6	6	6	6	6	6	6	7	7
Outside	3/4" Meter	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Outside	1" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Outside	1 1/2" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Outside	2" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Outside	3" or 4" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Discount	3/4" Meter	19	19	19	20	20	21	22	22	23	23	24	25	25	26
Discount	1" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Discount	1 1/2" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Discount	2" Meter	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Discount	3" or 4" Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	-
None	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Accounts		1,499	1,486	1,527	1,567	1,611	1,652	1,697	1,743	1,791	1,839	1,889	1,942	1,996	2,051
Customer Growth		-0.84%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	2.78%	2.78%

Future Consumption Statistics		2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Adjustment Category															
Regular		285,093	282,692	290,338	297,983	306,413	314,255	322,796	331,569	340,580	349,836	359,344	369,322	379,576	390,115
Outside		1,810	1,795	1,843	1,892	1,945	1,995	2,049	2,105	2,162	2,221	2,281	2,345	2,410	2,477
Low Income		3,010	2,985	3,066	3,146	3,235	3,318	3,408	3,501	3,596	3,694	3,794	3,899	4,008	4,119
Total Consumption		289,913	287,472	295,246	303,021	311,594	319,568	328,253	337,175	346,338	355,751	365,420	375,566	385,994	396,711
Customer Class Growth		-0.84%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	2.78%
CCF Allowance (reference)		10 ccf	10 ccf	10 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf	0 ccf
Variable Rate Consumption - After Allowance															
Regular		179,291	177,781	182,589	297,983	306,413	314,255	322,796	331,569	340,580	349,836	359,344	369,322	379,576	390,115
Outside		1,410	1,398	1,436	1,892	1,945	1,995	2,049	2,105	2,162	2,221	2,281	2,345	2,410	2,477
Low Income		1,599	1,586	1,629	3,146	3,235	3,318	3,408	3,501	3,596	3,694	3,794	3,899	4,008	4,119
Total Consumption After Allowance		182,300	180,765	185,654	303,021	311,594	319,568	328,253	337,175	346,338	355,751	365,420	375,566	385,994	396,711
Customer Growth		-0.84%	2.70%	63.22%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%	2.78%

City of Sisters
Utility Rate Study: Water Model
Rate Design

Rate Schedule		2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Outside City Multiplier Discount & Low Income Multiplier			150%												
			75%												
Annual Rate Revenue Requirement Increase					2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Fixed Rate Schedule				*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*	*Equation*
Regular	3/4" Meter	\$20.59	\$20.59	\$20.59	\$15.50	\$16.05	\$16.77	\$17.36	\$18.02	\$18.69	\$19.37	\$20.07	\$20.76	\$21.48	\$22.22
Regular	1" Meter	\$23.09	\$23.09	\$23.09	\$17.38	\$18.00	\$18.80	\$19.47	\$20.21	\$20.96	\$21.72	\$22.50	\$23.28	\$24.09	\$24.92
Regular	1 1/2" Meter	\$23.09	\$23.09	\$23.09	\$17.38	\$18.00	\$18.80	\$19.47	\$20.21	\$20.96	\$21.72	\$22.50	\$23.28	\$24.09	\$24.92
Regular	2" Meter	\$25.58	\$25.58	\$25.58	\$19.25	\$19.95	\$20.83	\$21.57	\$22.39	\$23.22	\$24.07	\$24.93	\$25.79	\$26.69	\$27.60
Regular	3" or 4" Meter	\$62.40	\$62.40	\$62.40	\$46.96	\$48.65	\$50.82	\$52.62	\$54.61	\$56.64	\$58.70	\$60.81	\$62.90	\$65.10	\$67.34
Outside	3/4" Meter	\$30.89	\$30.89	\$30.89	\$23.24	\$24.08	\$25.15	\$26.04	\$27.03	\$28.03	\$29.06	\$30.10	\$31.13	\$32.22	\$33.33
Outside	1" Meter	\$34.64	\$34.64	\$34.64	\$26.07	\$27.01	\$28.21	\$29.21	\$30.31	\$31.44	\$32.58	\$33.76	\$34.91	\$36.13	\$37.38
Outside	1 1/2" Meter	\$34.64	\$34.64	\$34.64	\$26.07	\$27.01	\$28.21	\$29.21	\$30.31	\$31.44	\$32.58	\$33.76	\$34.91	\$36.13	\$37.38
Outside	2" Meter	\$38.37	\$38.37	\$38.37	\$28.88	\$29.92	\$31.25	\$32.36	\$33.58	\$34.83	\$36.10	\$37.40	\$38.68	\$40.03	\$41.41
Outside	3" or 4" Meter	\$93.60	\$93.60	\$93.60	\$70.44	\$72.98	\$76.23	\$78.93	\$81.91	\$84.95	\$88.06	\$91.22	\$94.36	\$97.65	\$101.01
Discount	3/4" Meter	\$15.44	\$15.44	\$15.44	\$11.62	\$12.04	\$12.58	\$13.02	\$13.51	\$14.02	\$14.53	\$15.05	\$15.57	\$16.11	\$16.66
Discount	1" Meter	\$17.32	\$17.32	\$17.32	\$13.03	\$13.50	\$14.10	\$14.60	\$15.15	\$15.72	\$16.29	\$16.88	\$17.46	\$18.07	\$18.69
Discount	1 1/2" Meter	\$17.32	\$17.32	\$17.32	\$13.03	\$13.50	\$14.10	\$14.60	\$15.15	\$15.72	\$16.29	\$16.88	\$17.46	\$18.07	\$18.69
Discount	2" Meter	\$19.19	\$19.19	\$19.19	\$14.44	\$14.96	\$15.62	\$16.18	\$16.79	\$17.41	\$18.05	\$18.70	\$19.34	\$20.01	\$20.70
Discount	3" or 4" Meter	\$46.80	\$46.80	\$46.80	\$35.22	\$36.49	\$38.11	\$39.46	\$40.96	\$42.48	\$44.03	\$45.61	\$47.18	\$48.82	\$50.50
None	N/A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Percent Increase				0.0%	-24.7%	3.6%	4.5%	3.5%	3.8%	3.7%	3.7%	3.6%	3.4%	3.5%	3.4%
Volume Rate Schedule															
Regular		\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Outside		\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50
Low Income		\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75
Percent Increase				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

City of Sisters
Utility Rate Study: Water Model
Rate Design

Future Revenues		2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Fixed Revenues - Base Charge															
Adjustment Category	Meter Size														
Regular	3/4" Meter	\$ 275,741	\$ 273,419	\$ 280,814	\$ 216,900	\$ 231,079	\$ 247,540	\$ 263,268	\$ 280,643	\$ 298,978	\$ 318,322	\$ 338,727	\$ 360,095	\$ 383,003	\$ 407,171
Regular	1" Meter	\$ 58,464	\$ 57,972	\$ 59,539	\$ 45,988	\$ 48,994	\$ 52,485	\$ 55,819	\$ 59,503	\$ 63,391	\$ 67,492	\$ 71,818	\$ 76,349	\$ 81,206	\$ 86,330
Regular	1 1/2" Meter	\$ 10,806	\$ 10,715	\$ 11,005	\$ 8,500	\$ 9,056	\$ 9,701	\$ 10,317	\$ 10,998	\$ 11,717	\$ 12,475	\$ 13,274	\$ 14,112	\$ 15,010	\$ 15,957
Regular	2" Meter	\$ 31,310	\$ 31,046	\$ 31,886	\$ 24,629	\$ 26,239	\$ 28,108	\$ 29,894	\$ 31,866	\$ 33,948	\$ 36,145	\$ 38,462	\$ 40,888	\$ 43,489	\$ 46,233
Regular	3" or 4" Meter	\$ 3,744	\$ 3,712	\$ 3,813	\$ 2,945	\$ 3,138	\$ 3,361	\$ 3,575	\$ 3,811	\$ 4,060	\$ 4,322	\$ 4,599	\$ 4,889	\$ 5,200	\$ 5,529
Outside	3/4" Meter	\$ 1,112	\$ 1,102	\$ 1,132	\$ 875	\$ 932	\$ 998	\$ 1,062	\$ 1,132	\$ 1,206	\$ 1,284	\$ 1,366	\$ 1,452	\$ 1,544	\$ 1,642
Outside	1" Meter	\$ 416	\$ 412	\$ 423	\$ 327	\$ 348	\$ 373	\$ 397	\$ 423	\$ 451	\$ 480	\$ 511	\$ 543	\$ 577	\$ 614
Outside	1 1/2" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside	2" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside	3" or 4" Meter	\$ 1,123	\$ 1,114	\$ 1,144	\$ 884	\$ 941	\$ 1,008	\$ 1,072	\$ 1,143	\$ 1,218	\$ 1,297	\$ 1,380	\$ 1,467	\$ 1,560	\$ 1,659
Discount	3/4" Meter	\$ 3,521	\$ 3,491	\$ 3,586	\$ 2,770	\$ 2,951	\$ 3,161	\$ 3,362	\$ 3,583	\$ 3,818	\$ 4,065	\$ 4,325	\$ 4,598	\$ 4,890	\$ 5,199
Discount	1" Meter	\$ 208	\$ 206	\$ 212	\$ 163	\$ 174	\$ 187	\$ 198	\$ 212	\$ 225	\$ 240	\$ 255	\$ 271	\$ 289	\$ 307
Discount	1 1/2" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Discount	2" Meter	\$ 230	\$ 228	\$ 234	\$ 181	\$ 193	\$ 207	\$ 220	\$ 234	\$ 250	\$ 266	\$ 283	\$ 301	\$ 320	\$ 340
Discount	3" or 4" Meter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
None	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ 386,675	\$ 383,418	\$ 393,788	\$ 304,161	\$ 324,044	\$ 347,128	\$ 369,183	\$ 393,548	\$ 419,259	\$ 446,386	\$ 475,000	\$ 504,964	\$ 537,089	\$ 570,980
Customer Growth				2.7%	-22.8%	6.5%	7.1%	6.4%	6.6%	6.5%	6.5%	6.4%	6.3%	6.4%	6.3%
Volume Revenues															
Adjustment Category															
Regular		\$ 179,291	\$ 177,781	\$ 182,589	\$ 297,983	\$ 306,413	\$ 314,255	\$ 322,796	\$ 331,569	\$ 340,580	\$ 349,836	\$ 359,344	\$ 369,322	\$ 379,576	\$ 390,115
Outside		\$ 2,115	\$ 2,097	\$ 2,154	\$ 2,838	\$ 2,918	\$ 2,993	\$ 3,074	\$ 3,158	\$ 3,243	\$ 3,332	\$ 3,422	\$ 3,517	\$ 3,615	\$ 3,715
Low Income		\$ 1,200	\$ 1,189	\$ 1,222	\$ 2,360	\$ 2,426	\$ 2,489	\$ 2,556	\$ 2,626	\$ 2,697	\$ 2,770	\$ 2,846	\$ 2,925	\$ 3,006	\$ 3,089
Total		\$ 182,606	\$ 181,068	\$ 185,965	\$ 303,181	\$ 311,758	\$ 319,736	\$ 328,426	\$ 337,352	\$ 346,520	\$ 355,938	\$ 365,612	\$ 375,763	\$ 386,197	\$ 396,920
Customer Growth			-0.8%	2.7%	63.0%	2.8%	2.6%	2.7%	2.7%	2.7%	2.7%	2.7%	2.8%	2.8%	2.8%
Total Revenues		\$ 569,280	\$ 564,486	\$ 579,753	\$ 607,342	\$ 635,802	\$ 666,864	\$ 697,609	\$ 730,900	\$ 765,780	\$ 802,324	\$ 840,612	\$ 880,728	\$ 923,285	\$ 967,899
			-0.8%	2.7%	4.8%	4.7%	4.9%	4.6%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
TOTAL IN MODEL				\$ 579,753	\$ 607,342	\$ 635,802	\$ 666,864	\$ 697,609	\$ 730,900	\$ 765,780	\$ 802,324	\$ 840,612	\$ 880,728	\$ 923,285	\$ 967,899
				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Fixed/Variable	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Fixed Revenue as a % of Total		67.92%	67.92%	67.92%	50.08%	50.97%	52.05%	52.92%	53.84%	54.75%	55.64%	56.51%	57.33%	58.17%	58.99%
Variable Revenue as a % of Total		32.08%	32.08%	32.08%	49.92%	49.03%	47.95%	47.08%	46.16%	45.25%	44.36%	43.49%	42.67%	41.83%	41.01%

Appendix B: Sewer Rate Model

City of Sisters
Utility Rate Study: Sewer Model
Summary

Fiscal Year Ending 6/30:

High Level Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Rate Increases	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Operating Reserve - Part of Sewer Fund											
Beginning Balance	\$ 288,138	\$ 148,381	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100
Total Operating Revenues	933,726	960,884	1,004,323	1,047,942	1,095,121	1,144,557	1,196,400	1,250,679	1,307,570	1,367,902	1,431,151
Total Operating Expenditures & System Reinvestment	(1,073,483)	(1,015,925)	(910,952)	(941,599)	(967,009)	(1,004,270)	(1,035,079)	(1,083,841)	(1,120,972)	(1,182,846)	(1,229,442)
Operating Surplus: Transfers to Capital Fund	-	(8,864)	(89,889)	(101,494)	(123,966)	(134,344)	(156,453)	(159,116)	(180,618)	(175,420)	(194,088)
Cash Surplus / (Deficiency)	(139,757)	(63,905)	3,482	4,849	4,147	5,943	4,867	7,722	5,979	9,635	7,621
Ending Fund Balance	148,381	84,476	87,958	92,807	96,953	102,896	107,763	115,486	121,465	131,100	138,721
Capital Improvement Reserve - Part of Sewer Fund											
Beginning Balance	\$ 256,533	\$ 373,506	\$ 129,049	\$ 220,048	\$ 323,435	\$ 450,182	\$ 588,398	\$ 749,911	\$ 915,477	\$ 1,103,968	\$ 1,288,883
Total Capital Inflows	143,973	140,343	90,999	103,387	126,747	138,216	161,514	165,565	188,491	184,914	205,173
Total Capital Expenditures	(27,000)	(384,800)	-	-	-	-	-	-	-	-	-
Cash Surplus / (Deficiency)	116,973	(244,457)	90,999	103,387	126,747	138,216	161,514	165,565	188,491	184,914	205,173
Ending Fund Balance	373,506	129,049	220,048	323,435	450,182	588,398	749,911	915,477	1,103,968	1,288,883	1,494,055
Capital Replacement Reserve - Part of Sewer Fund											
Beginning Balance	\$ 686,267	\$ 738,195	\$ 790,569	\$ 828,394	\$ 880,743	\$ 914,344	\$ 941,833	\$ 990,958	\$ 1,017,006	\$ 1,056,778	\$ 1,111,892
Total Capital Inflows	51,928	52,374	52,825	53,150	53,600	53,889	54,126	54,548	54,772	55,114	55,588
Total Capital Expenditures	-	-	(15,000)	(800)	(20,000)	(26,400)	(5,000)	(28,500)	(15,000)	-	-
Cash Surplus / (Deficiency)	51,928	52,374	37,825	52,350	33,600	27,489	49,126	26,048	39,772	55,114	55,588
Ending Fund Balance	738,195	790,569	828,394	880,743	914,344	941,833	990,958	1,017,006	1,056,778	1,111,892	1,167,480
Improvement SDC Fund											
Beginning Balance	\$ 972,111	\$ 590,471	\$ 602,349	\$ 308,017	\$ 505,537	\$ 605,133	\$ 828,353	\$ 1,059,418	\$ 1,298,557	\$ 1,546,004	\$ 1,807,246
Total Capital Inflows	198,360	195,078	214,667	197,521	216,595	223,220	231,065	239,139	247,447	261,242	270,373
Total Capital Expenditures	(580,000)	(183,200)	(509,000)	-	(117,000)	-	-	-	-	-	-
Cash Surplus / (Deficiency)	(381,640)	11,878	(294,333)	197,521	99,595	223,220	231,065	239,139	247,447	261,242	270,373
Ending Fund Balance	590,471	602,349	308,017	505,537	605,133	828,353	1,059,418	1,298,557	1,546,004	1,807,246	2,077,619

Capital Fund Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Beginning Capital Balance	\$ 942,800	\$ 1,111,701	\$ 919,618	\$ 1,048,442	\$ 1,204,178	\$ 1,364,526	\$ 1,530,230	\$ 1,740,869	\$ 1,932,483	\$ 2,160,746	\$ 2,400,775
Capital Revenues:											
Rate Funded System Reinvestment											
Minimum Policy	\$ 187,793	\$ 174,293	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026
Operating Surplus	-	8,864	89,889	101,494	123,966	134,344	156,453	159,116	180,618	175,420	194,088
Total	\$ 187,793	\$ 183,157	\$ 135,915	\$ 147,520	\$ 169,992	\$ 180,370	\$ 202,479	\$ 205,142	\$ 226,644	\$ 221,446	\$ 240,114
Grants / Outside Sources	-	-	-	-	-	-	-	-	-	-	-
Net Debt Proceeds Available for Projects	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings	8,108	9,561	7,909	9,017	10,356	11,735	13,160	14,971	16,619	18,582	20,647
Total Capital Revenues and Beginning Fund Balance	\$ 1,138,701	\$ 1,304,418	\$ 1,063,442	\$ 1,204,978	\$ 1,384,526	\$ 1,556,630	\$ 1,745,869	\$ 1,960,983	\$ 2,175,746	\$ 2,400,775	\$ 2,661,536
Capital Project Expenditures	\$ (27,000)	\$ (384,800)	\$ (15,000)	\$ (800)	\$ (20,000)	\$ (26,400)	\$ (5,000)	\$ (28,500)	\$ (15,000)	\$ -	\$ -
Ending Capital Balance	\$ 1,111,701	\$ 919,618	\$ 1,048,442	\$ 1,204,178	\$ 1,364,526	\$ 1,530,230	\$ 1,740,869	\$ 1,932,483	\$ 2,160,746	\$ 2,400,775	\$ 2,661,536
<i>Minimum Target</i>	<i>\$ 732,293</i>	<i>\$ 778,319</i>	<i>\$ 809,344</i>	<i>\$ 854,570</i>	<i>\$ 880,596</i>	<i>\$ 900,222</i>	<i>\$ 941,247</i>	<i>\$ 958,773</i>	<i>\$ 989,799</i>	<i>\$ 1,035,825</i>	<i>\$ 1,081,850</i>

Notes:	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Debt-to-Net Assets Ratio	0.39	0.36	0.32	0.30	0.28	0.26	0.24	0.22	0.20	0.17	0.15
Debt Service as a Portion of Rates	37.5%	35.8%	34.3%	32.8%	31.2%	29.8%	28.5%	27.3%	26.0%	25.0%	23.7%

City of Sisters
Utility Rate Study: Sewer Model
Summary

Fiscal Year Ending 6/30:

Operating Fund Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Summary of Existing Operations Before Rate Increases											
Rate Revenues Under Existing Rates	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
SDC Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-
Non-Rate Revenues	45,349	32,147	31,597	31,627	31,669	31,705	31,756	31,798	31,864	31,916	31,998
Total Revenues	916,307	924,820	948,218	970,545	994,871	1,019,885	1,045,649	1,072,102	1,099,317	1,127,890	1,157,285
Total Expenditures	(1,072,263)	(1,013,401)	(907,025)	(936,181)	(959,991)	(995,543)	(1,024,527)	(1,071,340)	(1,106,395)	(1,166,046)	(1,210,271)
Transfers to Capital	-	(8,864)	(89,889)	(101,494)	(123,966)	(134,344)	(156,453)	(159,116)	(180,618)	(175,420)	(194,088)
Total Expenditures & Transfers	(1,072,263)	(1,022,265)	(996,914)	(1,037,675)	(1,083,957)	(1,129,887)	(1,180,980)	(1,230,457)	(1,287,013)	(1,341,466)	(1,404,360)
Cash Surplus / (Deficiency)	\$ (155,956)	\$ (97,444)	\$ (48,695)	\$ (67,131)	\$ (89,087)	\$ (110,002)	\$ (135,331)	\$ (158,355)	\$ (187,696)	\$ (213,576)	\$ (247,074)
Annual Rate Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Rate Increase	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%	21.90%	24.34%
Revenues After Rate Increases											
Rate Revenues (Before Rate Increases)	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
Additional Revenue from Rate Increases	17,419	36,064	56,105	77,397	100,251	124,671	150,751	178,578	208,252	240,012	273,866
SDC Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-
Other Revenues & Interest	45,349	32,147	31,597	31,627	31,669	31,705	31,756	31,798	31,864	31,916	31,998
Total Revenues With Rate Increases	\$ 933,726	\$ 960,884	\$ 1,004,323	\$ 1,047,942	\$ 1,095,121	\$ 1,144,557	\$ 1,196,400	\$ 1,250,679	\$ 1,307,570	\$ 1,367,902	\$ 1,431,151
Expenses & Transfers											
Cash Operating Expenses	\$ 551,100	\$ 506,858	\$ 527,749	\$ 556,840	\$ 581,721	\$ 617,377	\$ 646,581	\$ 692,915	\$ 728,789	\$ 786,600	\$ 832,326
Existing Debt Service	333,370	332,250	333,250	333,315	332,245	332,140	331,920	332,400	331,580	333,420	331,920
New Debt Service	-	-	-	-	-	-	-	-	-	-	-
Capital Improvement Reserve Contribution	141,767	128,267	-	-	-	-	-	-	-	-	-
Capital Replacement Reserve Contribution	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026
Additional Taxes After Rate Increase	1,219	2,524	3,927	5,418	7,018	8,727	10,553	12,500	14,578	16,801	19,171
Transfer of Surplus to Capital	-	8,864	89,889	101,494	123,966	134,344	156,453	159,116	180,618	175,420	194,088
Total Expenses	\$ 1,073,483	\$ 1,024,789	\$ 1,000,841	\$ 1,043,093	\$ 1,090,975	\$ 1,138,614	\$ 1,191,533	\$ 1,242,957	\$ 1,301,591	\$ 1,358,267	\$ 1,423,530
Additions / (Subtractions) to Operating Fund Balance	(139,757)	(63,905)	3,482	4,849	4,147	5,943	4,867	7,722	5,979	9,635	7,621
Impacts to Operating Fund Balance											
Beginning Operating Balance	\$ 288,138	\$ 148,381	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100
Net Cash Flow After Transfers to Capital	(139,757)	(63,905)	3,482	4,849	4,147	5,943	4,867	7,722	5,979	9,635	7,621
Ending Operating Balance	\$ 148,381	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,763	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
<i>Minimum Operating Balance Target</i>	\$ 91,850	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
Net Cash Flow After Rate Increase	(139,757)	(55,041)	93,371	106,343	128,113	140,287	161,321	166,839	186,597	185,055	201,709
Coverage After Rate Increase: w/o SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sample Residential Monthly Bill	\$ 39.78	\$ 40.58	\$ 41.39	\$ 42.21	\$ 43.06	\$ 43.92	\$ 44.80	\$ 45.69	\$ 46.61	\$ 47.54	\$ 48.49

City of Sisters
Utility Rate Study: Sewer Model
Assumptions

Fiscal Year Ending 6/30:

Economic & Financial Factors	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Escalation Rates											
General Cost Inflation	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%
Construction Cost Inflation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Labor Cost Inflation	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
Account Growth	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%
General Inflation Plus Growth	4.50%	4.43%	4.63%	4.36%	4.52%	4.52%	4.52%	4.52%	4.52%	4.58%	4.58%
No Escalation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PERS Inflation	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	0.00%	25.00%	0.00%
PERS + Labor Inflation	2.60%	28.25%	2.60%	28.25%	2.60%	28.25%	2.60%	28.25%	2.60%	28.25%	2.60%
Medical Inflation	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%	13.20%
Medical + Labor Inflation [Extra]	16.14%	16.14%	16.14%	16.14%	16.14%	16.14%	16.14%	16.14%	16.14%	16.14%	16.14%
Investment Interest	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%
Tax Rates											
Franchise Fee	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%

Accounting & Financial Policy Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Beginning Fund Balances											
Operating Reserve	\$ 288,138										
Capital Improvement Reserve	256,533										
Capital Replacement Reserve	686,267										
Improvement SDC Fund	972,111										
Reimbursement SDC Fund	-										
Debt Reserve Fund	-										
	\$ 2,203,049										
Fund Balance Target: Minimum & Maximum Operating Balances											
Min. Fund Balance Target (Months of O&M expense)	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months
Max. Fund Balance (Months of O&M expense)	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months
Fund Balance Target: Capital											
Capital Improvement Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Replacement Reserve	\$ 732,293	\$ 778,319	\$ 809,344	\$ 854,570	\$ 880,596	\$ 900,222	\$ 941,247	\$ 958,773	\$ 989,799	\$ 1,035,825	\$ 1,081,850
Rate Funded System Reinvestment											
Capital Improvement Reserve	\$ 141,767	\$ 128,267	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Replacement Reserve	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026
Total	\$ 187,793	\$ 174,293	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026	\$ 46,026
<i>Actual Result With Transfers (compared to Annual Depreciation)</i>	49%	45%	29%	31%	38%	40%	46%	47%	53%	51%	57%

City of Sisters
Utility Rate Study: Sewer Model
Assumptions

Fiscal Year Ending 6/30:

Capital Financing Assumptions		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
System Development Charges												
Annual Inflationary Increase			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Existing System Development Charge												
Reimbursement Fee	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Improvement Fee		185	185	185	185	185	185	185	185	185	185	185
Total	\$	185	\$ 185	\$ 185	\$ 185	\$ 185	\$ 185	\$ 185	\$ 185	\$ 185	\$ 185	\$ 185
Citywide												
Total Fixture Units		38,902	39,926	41,056	42,106	43,251	44,426	45,634	46,874	48,148	49,485	50,859
Additional Fixture Units per Year		1,024	1,024	1,129	1,051	1,144	1,175	1,207	1,240	1,274	1,337	1,374
Reimbursement Fee Revenue	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Improvement Fee Revenue		190,000	190,000	209,487	194,872	212,248	218,016	223,942	230,028	236,280	247,946	254,831
Total SDC Revenue to Use in Model	\$	190,000	\$ 190,000	\$ 209,487	\$ 194,872	\$ 212,248	\$ 218,016	\$ 223,942	\$ 230,028	\$ 236,280	\$ 247,946	\$ 254,831
System Development Charges Towards Debt Service												
Total Annual Debt Service	\$	333,370	\$ 332,250	\$ 333,250	\$ 333,315	\$ 332,245	\$ 332,140	\$ 331,920	\$ 332,400	\$ 331,580	\$ 333,420	\$ 331,920
Total Annual Improvement Fee SDCs	\$	190,000	\$ 190,000	\$ 209,487	\$ 194,872	\$ 212,248	\$ 218,016	\$ 223,942	\$ 230,028	\$ 236,280	\$ 247,946	\$ 254,831
Total SDCs for Debt Service	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Improvement Fee SDCs for Capital	\$	190,000	\$ 190,000	\$ 209,487	\$ 194,872	\$ 212,248	\$ 218,016	\$ 223,942	\$ 230,028	\$ 236,280	\$ 247,946	\$ 254,831
Actual % SDCs to Pay for Debt Service		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Outside Funding Sources (Uses)												
Capital Grants / Contributions												
[Extra]	Function	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]			-	-	-	-	-	-	-	-	-	-
Total: Capital Grants / Contributions		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bonds												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Coverage Requirement (w/o SDCs)		1.50										
Use Reserves to Pay for Last Payment?		Yes										
Other Bonds												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest-Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
DWSRF Loans												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest-Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Other Loans												
Term (Years)		20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
Interest-Only Payments (Years)		0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years	0 Years
Interest Cost		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

City of Sisters
Utility Rate Study: Sewer Model
Operating Revenue and Expenditure Forecast

		Fiscal Year Ending 6/30:		Budget									
Operating Revenues		Forecast Basis	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
			\$ 875,000										
Rate Revenues													
05-4-00-327	SEWER RECEIPTS	Account Growth	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
Total Rate Revenue			\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
Non-Rate Revenues													
05-4-00-314	PUBLIC WORKS FEES	No Escalation	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000
05-4-00-337	OVERNIGHT PARK SEWER RECEIPTS	No Escalation	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000
05-4-00-342	SALE OF ASSETS	No Escalation	-	-	-	-	-	-	-	-	-	-	-
05-4-00-346	BOND PREMIUM	No Escalation	-	-	-	-	-	-	-	-	-	-	-
05-4-00-347	LOAN PROCEEDS	No Escalation	-	-	-	-	-	-	-	-	-	-	-
05-4-00-354	PROPERTY RENTAL	No Escalation	12,000	-	-	-	-	-	-	-	-	-	-
05-4-00-360	MISCELLANEOUS	No Escalation	-	-	-	-	-	-	-	-	-	-	-
05-4-00-362	REFUNDS/REIMBURSEMENTS	No Escalation	1,771	1,771	1,771	1,771	1,771	1,771	1,771	1,771	1,771	1,771	1,771
05-4-00-381	SEWER TAP FEE	No Escalation	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
05-4-00-389	PLAN CHECK FEES	No Escalation	-	-	-	-	-	-	-	-	-	-	-
05-4-00-640	STATE GRANTS	No Escalation	-	-	-	-	-	-	-	-	-	-	-
Total Non-Rate Revenues			\$ 42,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871	\$ 30,871
TOTAL OPERATING REVENUES			\$ 913,829	\$ 923,544	\$ 947,492	\$ 969,788	\$ 994,073	\$ 1,019,052	\$ 1,044,764	\$ 1,071,175	\$ 1,098,324	\$ 1,126,845	\$ 1,156,158

Operating Expenses		Forecast Basis	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TRANSFERS													
02-5-00-602	TRANSFER TO CITY HALL FUND	No Escalation	\$ 12,314	\$ 12,626	\$ 13,120	\$ 12,602	\$ 13,274	\$ 12,216	\$ 12,077	\$ 12,634	\$ 12,446	\$ 12,485	\$ 13,210
SUBTOTAL TRANSFERS			\$ 12,314	\$ 12,626	\$ 13,120	\$ 12,602	\$ 13,274	\$ 12,216	\$ 12,077	\$ 12,634	\$ 12,446	\$ 12,485	\$ 13,210
PERSONNEL SERVICES													
05-5-00-500	CITY MANAGER	Labor Cost Inflation	\$ 11,504	\$ 11,803	\$ 12,110	\$ 12,425	\$ 12,748	\$ 13,079	\$ 13,419	\$ 13,768	\$ 14,126	\$ 14,494	\$ 14,870
05-5-00-501	FINANCE ACCOUNTING ANALYST	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-502	ADMIN ASST	Labor Cost Inflation	4,064	4,170	4,278	4,389	4,503	4,621	4,741	4,864	4,990	5,120	5,253
05-5-00-503	PUBLIC WORKS DIRECTOR	Labor Cost Inflation	26,362	27,047	27,751	28,472	29,212	29,972	30,751	31,551	32,371	33,213	34,076
05-5-00-504	UTILITY TECHNICIAN II	Labor Cost Inflation	18,274	18,749	19,237	19,737	20,250	20,776	21,317	21,871	22,439	23,023	23,621
05-5-00-505	UTILITY TECHNICIAN	Labor Cost Inflation	18,273	18,748	19,236	19,736	20,249	20,775	21,315	21,870	22,438	23,022	23,620
05-5-00-507	UTILITY BILLING CLERK	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-511	UTILITY ASSISTANT	Labor Cost Inflation	1,317	1,351	1,386	1,422	1,459	1,497	1,536	1,576	1,617	1,659	1,702
05-5-00-513	OVERTIME	Labor Cost Inflation	1,500	1,539	1,579	1,620	1,662	1,705	1,750	1,795	1,842	1,890	1,939
05-5-00-515	PLANNING TECHNICIAN	Labor Cost Inflation	2,283	2,342	2,403	2,466	2,530	2,596	2,663	2,732	2,803	2,876	2,951
05-5-00-517	OFFICE SPECIALIST I	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-518	ACCOUNTING TECHNICIAN	Labor Cost Inflation	8,750	8,978	9,211	9,450	9,696	9,948	10,207	10,472	10,745	11,024	11,310
05-5-00-519	DATA ANALYST	Labor Cost Inflation	3,281	3,366	3,454	3,544	3,636	3,730	3,827	3,927	4,029	4,134	4,241
05-5-00-521	FINANCE OFFICER	Labor Cost Inflation	7,360	7,551	7,748	7,949	8,156	8,368	8,585	8,809	9,038	9,273	9,514
05-5-00-522	PUBLIC WORKS OPS COORDINATOR	Labor Cost Inflation	12,924	13,260	13,605	13,959	14,321	14,694	15,076	15,468	15,870	16,283	16,706
05-5-00-523	ACCOUNTING CLERK	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-524	MAINTENANCE LEAD	Labor Cost Inflation	7,651	7,850	8,054	8,263	8,478	8,699	8,925	9,157	9,395	9,639	9,890
05-5-00-527	CITY RECORDER	Labor Cost Inflation	5,381	5,521	5,664	5,812	5,963	6,118	6,277	6,440	6,608	6,779	6,956
05-5-00-529	FINANCE & ADMIN DIRECTOR	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-533	MAINTENANCE SUPERVISOR	Labor Cost Inflation	9,641	9,892	10,149	10,413	10,683	10,961	11,246	11,539	11,839	12,146	12,462
05-5-00-552	CELL PHONE ALLOWANCE	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-573	ON CALL COMPENSATION	Labor Cost Inflation	1,110	1,139	1,168	1,199	1,230	1,262	1,295	1,328	1,363	1,398	1,435
05-5-00-580	BONUS	Labor Cost Inflation	-	-	-	-	-	-	-	-	-	-	-
05-5-00-581	SOCIAL SECURITY	Labor Cost Inflation	8,331	8,548	8,770	8,998	9,232	9,472	9,718	9,971	10,230	10,496	10,769
05-5-00-582	WORKER'S COMP	Labor Cost Inflation	7,428	7,621	7,819	8,023	8,231	8,445	8,665	8,890	9,121	9,358	9,602
05-5-00-583	PERS/OSPRS	PERS + Labor Inflation	23,041	29,550	30,318	38,883	39,894	51,164	52,495	67,324	69,075	88,589	90,892
05-5-00-584	MED/DENT/VISION INSURANCE	Medical + Labor Inflation	46,887	54,454	63,242	73,448	85,302	99,068	115,056	133,625	155,190	180,235	209,323
05-5-00-586	LTD	Labor Cost Inflation	410	421	432	443	454	466	478	491	503	517	530
05-5-00-587	LIFE INSURANCE	Labor Cost Inflation	55	56	58	59	61	63	64	66	68	69	71
05-5-00-588	UNEMPLOYMENT INS.	Labor Cost Inflation	140	144	147	151	155	159	163	168	172	176	181
05-5-00-589	MEDICARE	Labor Cost Inflation	1,948	-	-	-	-	-	-	-	-	-	-
SUBTOTAL PERSONNEL SERVICES			\$ 227,915	\$ 244,100	\$ 257,819	\$ 280,861	\$ 298,107	\$ 327,639	\$ 349,570	\$ 387,701	\$ 415,872	\$ 465,413	\$ 501,915

City of Sisters
Utility Rate Study: Sewer Model
 Operating Revenue and Expenditure Forecast

		Fiscal Year Ending 6/30:		Budget										
Operating Expenses (Continued)		Forecast Basis		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
MATERIALS & SERVICES														
05-5-00-704	RECRUITMENT	General Cost Inflation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
05-5-00-705	ADVERTISING	General Cost Inflation	-	-	-	-	-	-	-	-	-	-	-	-
05-5-00-706	AUDIT FEES	General Cost Inflation	4,800	4,886	4,974	5,064	5,155	5,248	5,342	5,438	5,536	5,636	5,737	
05-5-00-710	COMPUTER SOFTWARE MAINT.	General Cost Inflation	3,200	3,258	3,316	3,376	3,437	3,499	3,562	3,626	3,691	3,757	3,825	
05-5-00-712	CHEMICALS	General Cost Inflation	4	4	4	4	4	4	4	5	5	5	5	
05-5-00-713	DEVELOPMENT REVIEW	General Cost Inflation	5,000	5,090	5,182	5,275	5,370	5,466	5,565	5,665	5,767	5,871	5,977	
05-5-00-714	OFFICE SUPPLIES	General Cost Inflation	950	967	985	1,002	1,020	1,039	1,057	1,076	1,096	1,115	1,136	
05-5-00-715	POSTAGE	General Cost Inflation	5,200	5,294	5,389	5,486	5,585	5,685	5,787	5,892	5,998	6,106	6,216	
05-5-00-717	OFFICE EQUIPMENT	General Cost Inflation	500	509	518	527	537	547	556	567	577	587	598	
05-5-00-721	COPIER/PRINTER	General Cost Inflation	750	764	777	791	805	820	835	850	865	881	896	
05-5-00-722	CHLORINATOR REPAIRS	General Cost Inflation	500	509	518	527	537	547	556	567	577	587	598	
05-5-00-726	CONTRACTED SERVICES	General Cost Inflation	20,000	20,360	20,726	21,100	21,479	21,866	22,260	22,660	23,068	23,483	23,906	
05-5-00-727	PERMITS & FEES	General Cost Inflation	7,000	7,126	7,254	7,385	7,518	7,653	7,791	7,931	8,074	8,219	8,367	
05-5-00-733	DUES & SUBSCRIPTIONS	General Cost Inflation	400	407	415	422	430	437	445	453	461	470	478	
05-5-00-735	TELEPHONE	General Cost Inflation	2,700	2,749	2,798	2,848	2,900	2,952	3,005	3,059	3,114	3,170	3,227	
05-5-00-736	CELLULAR PHONES	General Cost Inflation	500	509	518	527	537	547	556	567	577	587	598	
05-5-00-740	EDUCATION	General Cost Inflation	2,000	2,036	2,073	2,110	2,148	2,187	2,226	2,266	2,307	2,348	2,391	
05-5-00-743	ELECTRICITY	General Inflation Plus Growth	55,000	57,438	60,097	62,717	65,550	68,512	71,607	74,842	78,223	81,803	85,547	
05-5-00-746	SMALL TOOLS & EQUIPMENT	General Cost Inflation	4,000	4,072	4,145	4,220	4,296	4,373	4,452	4,532	4,614	4,697	4,781	
05-5-00-750	TREE NURSERY	General Cost Inflation	500	509	518	527	537	547	556	567	577	587	598	
05-5-00-755	GAS/OIL	General Cost Inflation	5,000	5,090	5,182	5,275	5,370	5,466	5,565	5,665	5,767	5,871	5,977	
05-5-00-765	SEWER SYSTEM IMPROVEMENTS	General Cost Inflation	5,000	5,090	5,182	5,275	5,370	5,466	5,565	5,665	5,767	5,871	5,977	
05-5-00-766	INS: COMP/LIA/UMB	General Cost Inflation	12,000	12,216	12,436	12,660	12,888	13,120	13,356	13,596	13,841	14,090	14,344	
05-5-00-768	INTERNAL GENERAL FUND SERVICES	General Cost Inflation	9,300	9,467	9,638	9,811	9,988	10,168	10,351	10,537	10,727	10,920	11,116	
02-5-00-770	SEWER LOCATE SERVICE	General Cost Inflation	200	204	207	211	215	219	223	227	231	235	239	
05-5-00-771	MEDICAL TESTING & SERVICES	General Cost Inflation	200	204	207	211	215	219	223	227	231	235	239	
05-5-00-772	ROW FRANCHISE FEE	[Calculated]	60,967	62,487	64,163	65,724	67,424	69,173	70,972	72,821	74,722	76,718	78,770	
05-5-00-775	LABORATORY FEES	General Cost Inflation	1,000	1,018	1,036	1,055	1,074	1,093	1,113	1,133	1,153	1,174	1,195	
05-5-00-777	LEGAL FEES	General Cost Inflation	1,000	1,018	1,036	1,055	1,074	1,093	1,113	1,133	1,153	1,174	1,195	
05-5-00-780	CREDIT CARD FEE	General Cost Inflation	3,500	3,563	3,627	3,692	3,759	3,827	3,895	3,966	4,037	4,110	4,184	
05-5-00-782	UNIFORMS	General Cost Inflation	1,200	1,222	1,244	1,266	1,289	1,312	1,336	1,360	1,384	1,409	1,434	
05-5-00-787	SEWER SYSTEM REPAIRS	General Cost Inflation	20,000	20,360	20,726	21,100	21,479	21,866	22,260	22,660	23,068	23,483	23,906	
05-5-00-789	MILEAGE/TRAVEL REIMBURSEMT	General Cost Inflation	200	204	207	211	215	219	223	227	231	235	239	
05-5-00-793	MEETINGS/WORKSHOPS	General Cost Inflation	200	204	207	211	215	219	223	227	231	235	239	
05-5-00-795	SUPPLIES	General Cost Inflation	3,000	3,054	3,109	3,165	3,222	3,280	3,339	3,399	3,460	3,523	3,586	
05-5-00-796	VEHICLE MAINTENANCE	General Cost Inflation	8,000	8,144	8,291	8,440	8,592	8,746	8,904	9,064	9,227	9,393	9,562	
05-5-00-799	BAD DEBT EXPENSE	General Cost Inflation	100	102	104	105	107	109	111	113	115	117	120	
SUBTOTAL MATERIALS & SERVICES			\$ 243,871	\$ 250,132	\$ 256,811	\$ 263,377	\$ 270,339	\$ 277,522	\$ 284,934	\$ 292,580	\$ 300,470	\$ 308,702	\$ 317,201	
CAPITAL OUTLAY														
02-5-00-906	CAPITAL OUTLAY	General Cost Inflation	\$ 67,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL CAPITAL OUTLAY			\$ 67,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]														
[Extra]	[Extra]	No Escalation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL [Extra]			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CASH OPERATING EXPENSES			\$ 551,100	\$ 506,858	\$ 527,749	\$ 556,840	\$ 581,721	\$ 617,377	\$ 646,581	\$ 692,915	\$ 728,789	\$ 786,600	\$ 832,326	

City of Sisters
Utility Rate Study: Sewer Model
Existing Debt

Fiscal Year Ending 6/30:

Existing Debt Service - Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Debt Payments											
Revenue Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Bonds	333,370	332,250	333,250	333,315	332,245	332,140	331,920	332,400	331,580	333,420	331,920
Other Loans	-	-	-	-	-	-	-	-	-	-	-
Total Debt Payments	333,370	332,250	333,250	333,315	332,245	332,140	331,920	332,400	331,580	333,420	331,920

Existing Debt Service - Revenue Bonds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL REVENUE BONDS											
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service	-	-	-	-	-	-	-	-	-	-	-
Annual Debt Reserve Target on Existing Rever	-	-	-	-	-	-	-	-	-	-	-

Existing Debt Service - Other Bonds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Series 2016 Bond Refunding											
Annual Interest Payment	\$ 178,370	\$ 175,250	\$ 171,250	\$ 166,315	\$ 161,245	\$ 155,140	\$ 147,920	\$ 140,400	\$ 132,580	\$ 124,420	\$ 115,920
Annual Principal Payment	155,000	157,000	162,000	167,000	171,000	177,000	184,000	192,000	199,000	209,000	216,000
Total Annual Payment	\$ 333,370	\$ 332,250	\$ 333,250	\$ 333,315	\$ 332,245	\$ 332,140	\$ 331,920	\$ 332,400	\$ 331,580	\$ 333,420	\$ 331,920
TOTAL OTHER BONDS											
Annual Interest Payment	\$ 178,370	\$ 175,250	\$ 171,250	\$ 166,315	\$ 161,245	\$ 155,140	\$ 147,920	\$ 140,400	\$ 132,580	\$ 124,420	\$ 115,920
Annual Principal Payment	155,000	157,000	162,000	167,000	171,000	177,000	184,000	192,000	199,000	209,000	216,000
Total Annual Payment	\$ 333,370	\$ 332,250	\$ 333,250	\$ 333,315	\$ 332,245	\$ 332,140	\$ 331,920	\$ 332,400	\$ 331,580	\$ 333,420	\$ 331,920

Existing Debt Service - Other Loans	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL OTHER LOANS											
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Sewer Model
Capital Improvement Program

Project Costs in Year:

2017

 Fiscal Year Ending 6/30:

ID	Description	Expenditure by Fund Type				Unescalated Total	UNESCALATED COSTS											
		% SDC Improvement Fee Funded	% Improvement Reserve Funded	% Replacement Reserve Funded	Total		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
	2017 Sewer CIP					\$ -												
	Biosolids Management Plan		100%		100%	27,000	27,000											
	Forest Irrigation Effluent Expansion Construction	100%			100%	580,000	580,000											
	Treatment Facility Software and Security Upgrades	61%	39%		100%	80,000		80,000										
	Locust Street Interceptor	100%			100%	509,000			509,000									
	Aeration Improvements at Treatment Plant	60%	40%		100%	224,000		224,000										
	Biosolids Removal at Treatment Plant		100%		100%	264,000		264,000										
	Pump Station #1 New Pumps	100%			100%	117,000				117,000								
	Crop Irrigation Effluent Expansion	100%			100%	787,000												
	West Side Pump Station and Force Main (City portion)	100%			100%	-											-	
	West Side Pump Station and Force Main (Developer portion)		100%		100%	-											-	
	Capital Replacement Reserve Expenditures					-												
	Tools & Equip tractor (10%)			100%	100%	15,000			15,000									
	(2) Used Utility trucks			100%	100%	800				800								
	lab equipment			100%	100%	20,000					20,000							
	backhoe (33%)			100%	100%	15,000											15,000	
	dump truck (33%)			100%	100%	26,400						26,400						
	dump truck (33%)			100%	100%	24,750											24,750	
	Dump trailer (25%)			100%	100%	2,500											2,500	
	Utility trailer (25%)			100%	100%	1,250											1,250	
	(2) Used Mngmt trucks (25%)			100%	100%	5,000							5,000					
	TOTAL CAPITAL PROJECTS					2,698,700	\$ 607,000	\$ 568,000	\$ 524,000	\$ 800	\$ 137,000	\$ 26,400	\$ 5,000	\$ 28,500	\$ 15,000	\$ -	\$ -	
	Total Improvement Fee SDC Projects	Improvement Fee SDC				1,389,200	\$ 580,000	\$ 183,200	\$ 509,000	\$ -	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Improvement Reserve Projects	Improvement Reserve				411,800	\$ 27,000	\$ 384,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Replacement Reserve Projects	Replacement Reserve				110,700	\$ -	\$ -	\$ 15,000	\$ 800	\$ 20,000	\$ 26,400	\$ 5,000	\$ 28,500	\$ 15,000	\$ -	\$ -	\$ -
	Projects by CIAC					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Projects by Enterprise Fund					\$ 607,000	\$ 568,000	\$ 524,000	\$ 800	\$ 137,000	\$ 26,400	\$ 5,000	\$ 28,500	\$ 15,000	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Sewer Model
Capital Funding

Fiscal Year Ending 6/30:

Capital Project Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
TOTAL CAPITAL EXPENDITURES	\$ 607,000	\$ 568,000	\$ 524,000	\$ 800	\$ 137,000	\$ 26,400	\$ 5,000	\$ 28,500	\$ 15,000	\$ -	\$ -

Manual Input Debt Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Proceeds - Revenue Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds - Other Bonds											
Proceeds - DWSRF Loans											
Proceeds - Other Loans											

*Model will automatically calculate revenue bond debt if 'Revenue Bond Proceeds' is blank.

Capital Financing Plan	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Outside Funding Sources: Grants/CIAC	-	-	-	-	-	-	-	-	-	-	-
Balance/Remained to be Funded	\$ 607,000	\$ 568,000	\$ 524,000	\$ 800	\$ 137,000	\$ 26,400	\$ 5,000	\$ 28,500	\$ 15,000	\$ -	\$ -
OTHER FUNDING SOURCES	<i>(Note: Operating transfers in year N are always assumed to be available in year N + 1.)</i>										
Beginning Fund Balances	\$ 942,800	\$ 1,111,701	\$ 919,618	\$ 1,048,442	\$ 1,204,178	\$ 1,364,526	\$ 1,530,230	\$ 1,740,869	\$ 1,932,483	\$ 2,160,746	\$ 2,400,775
Capital Improvement Reserve Contribution	Yes 141,767	128,267	-	-	-	-	-	-	-	-	-
Capital Replacement Reserve Contribution	Yes 46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026
Use of SDC Reimbursement Fee Revenue	Yes -	-	-	-	-	-	-	-	-	-	-
Use of SDC Improvement Fee Fund Balance	Yes 580,000	183,200	509,000	-	117,000	-	-	-	-	-	-
Interest Earnings	No -	-	-	-	-	-	-	-	-	-	-
Minimum Capital Balance?	Yes -	-	-	-	-	-	-	-	-	-	-
Other Bonds Proceeds	-	-	-	-	-	-	-	-	-	-	-
DWSRF Loans Proceeds	-	-	-	-	-	-	-	-	-	-	-
Other Loans Proceeds	-	-	-	-	-	-	-	-	-	-	-
Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL RESOURCES	\$ 1,710,593	\$ 1,469,194	\$ 1,474,644	\$ 1,094,467	\$ 1,367,204	\$ 1,410,552	\$ 1,576,256	\$ 1,786,895	\$ 1,978,509	\$ 2,206,772	\$ 2,446,801

Info: Working Capital Contingency Deficit

City of Sisters
Utility Rate Study: Sewer Model
Capital Funding

Fiscal Year Ending 6/30:

New Debt Computations	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
REVENUE BONDS											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-
Reserve Required	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Bonds											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DWSRF Loans											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans											
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Debt Service Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
EXISTING DEBT SERVICE											
Annual Interest Payments	\$ 178,370	\$ 175,250	\$ 171,250	\$ 166,315	\$ 161,245	\$ 155,140	\$ 147,920	\$ 140,400	\$ 132,580	\$ 124,420	\$ 115,920
Annual Principal Payments	155,000	157,000	162,000	167,000	171,000	177,000	184,000	192,000	199,000	209,000	216,000
Total Debt Service Payments	\$ 333,370	\$ 332,250	\$ 333,250	\$ 333,315	\$ 332,245	\$ 332,140	\$ 331,920	\$ 332,400	\$ 331,580	\$ 333,420	\$ 331,920
Revenue Bond Payments Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NEW DEBT SERVICE											
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL DEBT SERVICE PAYMENTS											
Total Interest Payments	\$ 178,370	\$ 175,250	\$ 171,250	\$ 166,315	\$ 161,245	\$ 155,140	\$ 147,920	\$ 140,400	\$ 132,580	\$ 124,420	\$ 115,920
Total Principal Payments	155,000	157,000	162,000	167,000	171,000	177,000	184,000	192,000	199,000	209,000	216,000
Total Revenue Bond Payments Only	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Sewer Model
 Revenue Requirement Tests

Fiscal Year Ending 6/30:

Cash Flow Test	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
REVENUES											
Rate Revenue	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
SDC Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-
Other Non-Rate Revenue	42,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871
Interest Earnings: Operating & Debt Reserve Funds	2,478	1,276	726	756	798	834	885	927	993	1,045	1,127
Total Revenue	\$ 916,307	\$ 924,820	\$ 948,218	\$ 970,545	\$ 994,871	\$ 1,019,885	\$ 1,045,649	\$ 1,072,102	\$ 1,099,317	\$ 1,127,890	\$ 1,157,285
EXPENSES											
Cash Operating Expenses	\$ 551,100	\$ 506,858	\$ 527,749	\$ 556,840	\$ 581,721	\$ 617,377	\$ 646,581	\$ 692,915	\$ 728,789	\$ 786,600	\$ 832,326
Existing Debt Service	333,370	332,250	333,250	333,315	332,245	332,140	331,920	332,400	331,580	333,420	331,920
New Debt Service	-	-	-	-	-	-	-	-	-	-	-
Capital Improvement Reserve Contribution	141,767	128,267	-	-	-	-	-	-	-	-	-
Capital Replacement Reserve Contribution	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026
Additions Required to Meet Min. Op. Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 1,072,263	\$ 1,013,401	\$ 907,025	\$ 936,181	\$ 959,991	\$ 995,543	\$ 1,024,527	\$ 1,071,340	\$ 1,106,395	\$ 1,166,046	\$ 1,210,271
NET CASH FLOW (DEFICIENCY)	\$ (155,956)	\$ (88,581)	\$ 41,194	\$ 34,364	\$ 34,879	\$ 24,343	\$ 21,122	\$ 761	\$ (7,077)	\$ (38,156)	\$ (52,986)

Coverage Test - w/o SDCs	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
ALLOWABLE REVENUES											
Rate Revenue	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
Other Revenue	42,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871	30,871
SDC Revenue	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings - All Funds	4,684	4,488	1,836	2,649	3,580	4,705	5,945	7,376	8,866	10,539	12,212
Total Revenue	\$ 918,513	\$ 928,032	\$ 949,328	\$ 972,437	\$ 997,652	\$ 1,023,757	\$ 1,050,709	\$ 1,078,551	\$ 1,107,190	\$ 1,137,384	\$ 1,168,370
Coverage w/o SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EXPENSES											
Cash Operating Expenses	\$ 551,100	\$ 506,858	\$ 527,749	\$ 556,840	\$ 581,721	\$ 617,377	\$ 646,581	\$ 692,915	\$ 728,789	\$ 786,600	\$ 832,326
Revenue Bond Debt Service	-	-	-	-	-	-	-	-	-	-	-
Revenue Bond Coverage Requirement at 1.5	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 551,100	\$ 506,858	\$ 527,749	\$ 556,840	\$ 581,721	\$ 617,377	\$ 646,581	\$ 692,915	\$ 728,789	\$ 786,600	\$ 832,326
COVERAGE SURPLUS (DEFICIENCY)	\$ 367,412	\$ 421,174	\$ 421,579	\$ 415,597	\$ 415,932	\$ 406,380	\$ 404,128	\$ 385,636	\$ 378,402	\$ 350,784	\$ 336,044

Maximum Revenue Deficiency	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Sufficiency Test Driving the Deficiency	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash
Maximum Revenue Deficiency (Surplus)	\$ 155,956	\$ 88,581	\$ (41,194)	\$ (34,364)	\$ (34,879)	\$ (24,343)	\$ (21,122)	\$ (761)	\$ 7,077	\$ 38,156	\$ 52,986
plus: Additional Tax Expense	11,739	6,667	(3,101)	(2,587)	(2,625)	(1,832)	(1,590)	(57)	533	2,872	3,988
less: Incremental Revenue From Prior Rate Increases	-	(17,853)	(37,031)	(57,469)	(79,399)	(102,851)	(127,915)	(154,678)	(183,238)	(213,816)	(246,432)
Net Revenue Deficiency (Surplus)	\$ 167,695	\$ 77,395	\$ (81,326)	\$ (94,419)	\$ (116,903)	\$ (129,025)	\$ (150,627)	\$ (155,497)	\$ (175,628)	\$ (172,789)	\$ (189,457)

City of Sisters
Utility Rate Study: Sewer Model
 Revenue Requirement Tests

Fiscal Year Ending 6/30:

Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Rate Revenue @ Existing Rates	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
Revenues from Prior Rate Increases	-	17,853	37,031	57,469	79,399	102,851	127,915	154,678	183,238	213,816	246,432
Rate Revenue Before Rate Increase (incl. previous increases)	\$ 870,958	\$ 910,527	\$ 953,652	\$ 996,386	\$ 1,042,600	\$ 1,091,031	\$ 1,141,808	\$ 1,194,982	\$ 1,250,692	\$ 1,309,790	\$ 1,371,718
Required Annual Rate Increase	19.25%	8.50%	-8.53%	-9.48%	-11.21%	-11.83%	-13.19%	-13.01%	-14.04%	-13.19%	-13.81%
Number of Months New Rates Will Be In Effect	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months
Info: % Increase to Generate Required Revenue	19.25%	8.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Policy Induced Rate Increases	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
ANNUAL RATE INCREASE	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
CUMULATIVE RATE INCREASE	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%	21.90%	24.34%

Impacts of Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Sufficiency Test Driving the Deficiency	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash
Rate Revenues After Rate Increase	\$ 888,377	\$ 928,737	\$ 972,726	\$ 1,016,314	\$ 1,063,452	\$ 1,112,852	\$ 1,164,644	\$ 1,218,882	\$ 1,275,705	\$ 1,335,986	\$ 1,399,153
Full Year Rate Revenues After Rate Increase	\$ 888,377	\$ 928,737	\$ 972,726	\$ 1,016,314	\$ 1,063,452	\$ 1,112,852	\$ 1,164,644	\$ 1,218,882	\$ 1,275,705	\$ 1,335,986	\$ 1,399,153
Partial Year Adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Taxes Due to Rate Increases	1,219	2,524	3,927	5,418	7,018	8,727	10,553	12,500	14,578	16,801	19,171
Net Cash Flow After Rate Increase	\$ (139,757)	\$ (55,041)	\$ 93,371	\$ 106,343	\$ 128,113	\$ 140,287	\$ 161,321	\$ 166,839	\$ 186,597	\$ 185,055	\$ 201,709
Coverage After Rate Increase: w/ SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Coverage After Rate Increase: w/o SDCs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Fund Balance Impacts	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Ending Fund Balance: Operating Reserve - Part Of Sewer Fund	\$ 148,381	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
Minimum Target: Operating Reserve - Part Of Sewer Fund	\$ 91,850	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
Ending Fund Balance: Capital Improvement Reserve - Part Of Sewer Fund	\$ 373,506	\$ 129,049	\$ 220,048	\$ 323,435	\$ 450,182	\$ 588,398	\$ 749,911	\$ 915,477	\$ 1,103,968	\$ 1,288,883	\$ 1,494,055
Minimum Target: Capital Improvement Reserve - Part Of Sewer Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Fund Balance: Capital Replacement Reserve - Part Of Sewer Fund	\$ 738,195	\$ 790,569	\$ 828,394	\$ 880,743	\$ 914,344	\$ 941,833	\$ 990,958	\$ 1,017,006	\$ 1,056,778	\$ 1,111,892	\$ 1,167,480
Minimum Target: Capital Replacement Reserve - Part Of Sewer Fund	\$ 732,293	\$ 778,319	\$ 809,344	\$ 854,570	\$ 880,596	\$ 900,222	\$ 941,247	\$ 958,773	\$ 989,799	\$ 1,035,825	\$ 1,081,850
Ending Fund Balance: Improvement SDC Fund	\$ 590,471	\$ 602,349	\$ 308,017	\$ 505,537	\$ 605,133	\$ 828,353	\$ 1,059,418	\$ 1,298,557	\$ 1,546,004	\$ 1,807,246	\$ 2,077,619
Minimum Target: Improvement SDC Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Fund Balance: Reimbursement SDC Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Minimum Target: Reimbursement SDC Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Sisters
Utility Rate Study: Sewer Model
Fund Activity

Fiscal Year Ending 6/30:

Funds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Operating Reserve - Part of Sewer Fund											
Beginning Balance	\$ 288,138	\$ 148,381	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100
plus: Net Cash Flow after Rate Increase	(139,757)	(55,041)	93,371	106,343	128,113	140,287	161,321	166,839	186,597	185,055	201,709
less: Transfer to Capital Replacement Reserve	-	-	-	-	-	-	-	-	-	-	-
less: Transfer of Surplus to Capital Improvement Reserve	-	(8,864)	(89,889)	(101,494)	(123,966)	(134,344)	(156,453)	(159,116)	(180,618)	(175,420)	(194,088)
Ending Balance	\$ 148,381	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
<i>Minimum Target Balance</i>	\$ 91,850	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
<i>Maximum Funds to be Kept as Operating Reserves</i>	\$ 91,850	\$ 84,476	\$ 87,958	\$ 92,807	\$ 96,953	\$ 102,896	\$ 107,764	\$ 115,486	\$ 121,465	\$ 131,100	\$ 138,721
<i>Info: # of Months of Cash Operating Expenses</i>	3 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months	2 Months
Capital Improvement Reserve - Part of Sewer Fund											
Beginning Balance	\$ 256,533	\$ 373,506	\$ 129,049	\$ 220,048	\$ 323,435	\$ 450,182	\$ 588,398	\$ 749,911	\$ 915,477	\$ 1,103,968	\$ 1,288,883
plus: Capital Improvement Reserve Contribution	141,767	128,267	-	-	-	-	-	-	-	-	-
plus: Transfers from Operating Fund	-	8,864	89,889	101,494	123,966	134,344	156,453	159,116	180,618	175,420	194,088
plus: Capital Grants / Contributions	-	-	-	-	-	-	-	-	-	-	-
plus: Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: Other Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: DWSRF Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	2,206	3,212	1,110	1,892	2,782	3,872	5,060	6,449	7,873	9,494	11,084
Total Funding Sources	\$ 400,506	\$ 513,849	\$ 220,048	\$ 323,435	\$ 450,182	\$ 588,398	\$ 749,911	\$ 915,477	\$ 1,103,968	\$ 1,288,883	\$ 1,494,055
less: Capital Expenditures Not Funded With SDC Monies	(27,000)	(384,800)	-	-	-	-	-	-	-	-	-
Ending Capital Fund Balance	\$ 373,506	\$ 129,049	\$ 220,048	\$ 323,435	\$ 450,182	\$ 588,398	\$ 749,911	\$ 915,477	\$ 1,103,968	\$ 1,288,883	\$ 1,494,055
<i>Minimum Target Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Replacement Reserve - Part of Sewer Fund											
Beginning Balance	\$ 686,267	\$ 738,195	\$ 790,569	\$ 828,394	\$ 880,743	\$ 914,344	\$ 941,833	\$ 990,958	\$ 1,017,006	\$ 1,056,778	\$ 1,111,892
plus: Transfers from Operating Fund	-	-	-	-	-	-	-	-	-	-	-
plus: Capital Replacement Reserve Contribution	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026	46,026
plus: Interest Earnings	5,902	6,348	6,799	7,124	7,574	7,863	8,100	8,522	8,746	9,088	9,562
Total Funding Sources	\$ 738,195	\$ 790,569	\$ 843,394	\$ 881,543	\$ 934,344	\$ 968,233	\$ 995,958	\$ 1,045,506	\$ 1,071,778	\$ 1,111,892	\$ 1,167,480
less: Capital Expenditures Not Funded With SDC Monies	-	-	(15,000)	(800)	(20,000)	(26,400)	(5,000)	(28,500)	(15,000)	-	-
Ending Capital Fund Balance	\$ 738,195	\$ 790,569	\$ 828,394	\$ 880,743	\$ 914,344	\$ 941,833	\$ 990,958	\$ 1,017,006	\$ 1,056,778	\$ 1,111,892	\$ 1,167,480
<i>Minimum Target Balance</i>	\$ 732,293	\$ 778,319	\$ 809,344	\$ 854,570	\$ 880,596	\$ 900,222	\$ 941,247	\$ 958,773	\$ 989,799	\$ 1,035,825	\$ 1,081,850

City of Sisters
Utility Rate Study: Sewer Model
Fund Activity

Fiscal Year Ending 6/30:

Funds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Improvement SDC Fund											
Beginning Balance	\$ 972,111	\$ 590,471	\$ 602,349	\$ 308,017	\$ 505,537	\$ 605,133	\$ 828,353	\$ 1,059,418	\$ 1,298,557	\$ 1,546,004	\$ 1,807,246
plus: Improvement Fee SDC Revenue Toward Capital	190,000	190,000	209,487	194,872	212,248	218,016	223,942	230,028	236,280	247,946	254,831
plus: Interest Earnings	8,360	5,078	5,180	2,649	4,348	5,204	7,124	9,111	11,168	13,296	15,542
Total Funding Sources	\$ 1,170,471	\$ 785,549	\$ 817,017	\$ 505,537	\$ 722,133	\$ 828,353	\$ 1,059,418	\$ 1,298,557	\$ 1,546,004	\$ 1,807,246	\$ 2,077,619
Reference: Capacity Increasing Capital Expenditures	\$ 580,000	\$ 183,200	\$ 509,000	\$ -	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
less: Use of Funds for Capital Expenditures	(580,000)	(183,200)	(509,000)	-	(117,000)	-	-	-	-	-	-
Ending Capital Fund Balance	\$ 590,471	\$ 602,349	\$ 308,017	\$ 505,537	\$ 605,133	\$ 828,353	\$ 1,059,418	\$ 1,298,557	\$ 1,546,004	\$ 1,807,246	\$ 2,077,619
Reimbursement SDC Fund											
Beginning Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
plus: Reimbursement Fee SDC Revenue Toward Capital	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	-	-	-	-	-	-	-	-	-	-	-
Total Funding Sources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reference: Capacity Increasing Capital Expenditures	\$ 27,000	\$ 384,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
less: Use of Funds for Capital Expenditures	-	-	-	-	-	-	-	-	-	-	-
Ending Capital Fund Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Reserve Fund											
Beginning Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
plus: Reserve Funding from New Debt	-	-	-	-	-	-	-	-	-	-	-
less: Use of Reserves for Debt Service	-	-	-	-	-	-	-	-	-	-	-
Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Minimum Target Balance</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>
SUMMARY											
Combined Beginning Balance	\$ 2,203,049	\$ 1,850,553	\$ 1,606,444	\$ 1,444,416	\$ 1,802,522	\$ 2,066,612	\$ 2,461,480	\$ 2,908,051	\$ 3,346,526	\$ 3,828,216	\$ 4,339,121
Plus: Inflows	254,504	332,754	451,862	460,400	525,055	555,612	608,025	626,091	677,308	686,326	732,843
Less: Outflows	(607,000)	(576,864)	(613,889)	(102,294)	(260,966)	(160,744)	(161,453)	(187,616)	(195,618)	(175,420)	(194,088)
Combined Ending Balance	\$ 1,850,553	\$ 1,606,444	\$ 1,444,416	\$ 1,802,522	\$ 2,066,612	\$ 2,461,480	\$ 2,908,051	\$ 3,346,526	\$ 3,828,216	\$ 4,339,121	\$ 4,877,876
Net Change in Reserves	\$ (352,496)	\$ (244,110)	\$ (162,027)	\$ 358,106	\$ 264,090	\$ 394,868	\$ 446,572	\$ 438,475	\$ 481,690	\$ 510,905	\$ 538,755

City of Sisters
Utility Rate Study: Sewer Model
Customer Statistics Forecast

Growth Assumptions	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Account Growth		-2.96%	2.73%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%

Consumption by Account	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Account	Month													
01-5169	July	1	158	153	158	162	166	171	175	180	185	190	195	200
04-6332	June	12	221	214	220	226	232	239	245	252	258	265	273	280
Total Accounts			90,082	87,412	89,797	92,226	94,654	97,332	99,823	102,536	105,323	108,185	111,125	114,146
Customer Growth			-2.96%	2.73%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%

EDUs by Account	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Adjustment Category														
EDU Calculation	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf
Beginning Month	January	January	January	January	January	January	January	January	January	January	January	January	January	January
Ending Month	March	March	March	March	March	March	March	March	March	March	March	March	March	March
Months in Analysis	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Account	*Add months and difference between months													
01-5169	8.31	8.06	8.28	8.51	8.73	8.98	9.21	9.46	9.72	9.98	10.25	10.53	10.82	11.12
04-6332	2.86	2.77	2.85	2.93	3.00	3.09	3.17	3.25	3.34	3.43	3.53	3.62	3.72	3.83
Total Accounts	669	652	667	682	698	715	730	748	765	784	803	822	842	863
Customer Growth		-2.50%	2.29%	2.30%	2.25%	2.43%	2.21%	2.36%	2.38%	2.40%	2.41%	2.42%	2.49%	2.49%

Future EDUs	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Variable Rate Consumption - After Allowance														
Commercial	669	652	667	682	698	715	730	748	765	784	803	822	842	863
Non-Commercial	1,137	1,103	1,133	1,164	1,195	1,229	1,260	1,294	1,329	1,365	1,403	1,441	1,481	1,522
Low Income	19	18	19	19	20	21	21	22	22	23	23	24	25	25
Total Consumption After Allowance	1,825	1,774	1,819	1,866	1,912	1,964	2,011	2,063	2,117	2,172	2,229	2,287	2,348	2,411
Customer Growth		-2.79%	2.57%	2.56%	2.49%	2.68%	2.43%	2.59%	2.59%	2.60%	2.61%	2.61%	2.67%	2.67%

Rate Schedule	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Discount & Low Income Multiplier	76%													
Volume Rate Schedule														
Regular	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00	\$39.00
Low Income	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50	\$29.50
Percent Increase			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Future Revenues	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Volume Revenues														
Customer Category														
Commercial	\$ 312,952	\$ 305,120	\$ 312,117	\$ 319,291	\$ 326,479	\$ 334,410	\$ 341,806	\$ 349,862	\$ 358,172	\$ 366,761	\$ 375,584	\$ 384,668	\$ 394,231	\$ 404,060
Non-Commercial	532,116	516,346	530,434	544,780	559,126	574,944	589,658	605,684	622,145	639,054	656,422	674,262	692,984	712,225
Low Income	6,726	6,527	6,705	6,886	7,067	7,267	7,453	7,656	7,864	8,078	8,297	8,523	8,759	9,003
Total	\$ 851,794	\$ 827,993	\$ 849,256	\$ 870,958	\$ 892,673	\$ 916,621	\$ 938,917	\$ 963,202	\$ 988,181	\$ 1,013,893	\$ 1,040,304	\$ 1,067,453	\$ 1,095,974	\$ 1,125,287
Customer Growth		-2.8%	2.6%	2.6%	2.5%	2.7%	2.4%	2.6%	2.6%	2.6%	2.6%	2.6%	2.7%	2.7%

Fixed/Variable	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Commercial Revenue as a % of Total	36.74%	36.85%	36.75%	36.66%	36.57%	36.48%	36.40%	36.32%	36.25%	36.17%	36.10%	36.04%	35.97%	35.91%
Non-Commercial Revenue as a % of Total	63.26%	63.15%	63.25%	63.34%	63.43%	63.52%	63.60%	63.68%	63.75%	63.83%	63.90%	63.96%	64.03%	64.09%

Customer Class	Reported - Billing System	Reported - Finance	Calculated	% Diff from Billing	% Diff from Finance
Total Rate Revenue	\$824,033	\$827,993	\$851,794	-3.26%	-2.79%

City of Sisters
Utility Rate Study: Sewer Model
Rate Design

Growth Assumptions	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Account Growth		-2.96%	2.73%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%

Consumption by Account	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Account	Month													
01-5169	July	1	158	153	158	162	166	171	175	180	185	190	195	200
04-6332	June	12	221	214	220	226	232	239	245	252	258	265	273	280
Total Accounts			90,082	87,412	89,797	92,226	94,654	97,332	99,823	102,536	105,323	108,185	111,125	114,146
Customer Growth			-2.96%	2.73%	2.70%	2.63%	2.83%	2.56%	2.72%	2.72%	2.72%	2.72%	2.78%	2.78%

EDUs by Account - 7 Month	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Adjustment Category														
EDU Calculation	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf	5.01 ccf
Beginning Month	January	January	January	October	October	October	October	October	October	October	October	October	October	October
Ending Month	March	March	March	April	April	April	April	April	April	April	April	April	April	April
Months in Analysis	3	3	3	7	7	7	7	7	7	7	7	7	7	7
Account	*Add months and difference between months													
01-5169	8.31	8.06	8.28	12.14	12.46	12.81	13.14	13.49	13.86	14.24	14.62	15.02	15.44	15.87
04-6332	2.86	2.77	2.85	9.71	9.97	10.25	10.52	10.80	11.09	11.40	11.71	12.02	12.36	12.70
Total Accounts	669	652	667	880	902	925	948	972	997	1,022	1,048	1,075	1,104	1,133
Customer Growth		-2.50%	2.29%	31.97%	2.45%	2.64%	2.39%	2.55%	2.56%	2.56%	2.57%	2.57%	2.63%	2.64%

EDU Reduction (Direct Customer Stats)	7-Mo EDU	5-Mo EDU	EDU Reduction
Total EDUs	158.71	59.68	99.03

Future EDUs	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Variable Rate Consumption - After Allowance														
Commercial	669	652	667	781	800	821	841	862	884	907	930	954	979	1,005
Non-Commercial	1,137	1,103	1,133	1,164	1,195	1,229	1,260	1,294	1,329	1,365	1,403	1,441	1,481	1,522
Low Income	19	18	19	19	20	21	21	22	22	23	23	24	25	25
Total Consumption After Allowance	1,825	1,774	1,819	1,965	2,015	2,070	2,122	2,178	2,236	2,295	2,356	2,419	2,485	2,553
Customer Growth		-2.79%	2.57%	7.99%	2.56%	2.75%	2.49%	2.65%	2.65%	2.66%	2.66%	2.66%	2.72%	2.72%

Rate Schedule	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Discount & Low Income Multiplier	76%													
Annual Rate Revenue Requirement Increase				2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Volume Rate Schedule				*Equation										
Regular	\$39.00	\$39.00	\$39.00	\$37.77	\$38.50	\$39.25	\$40.01	\$40.78	\$41.58	\$42.38	\$43.21	\$44.05	\$44.91	\$45.79
Low Income	\$29.50	\$29.50	\$29.50	\$28.57	\$29.13	\$29.69	\$30.26	\$30.85	\$31.45	\$32.06	\$32.68	\$33.32	\$33.97	\$34.64
Percent Increase			0.0%	-3.1%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	2.0%	2.0%

Future Revenues	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Volume Revenues														
Customer Category														
Commercial	\$ 312,952	\$ 305,120	\$ 312,117	\$ 354,055	\$ 369,733	\$ 386,808	\$ 403,743	\$ 422,047	\$ 441,238	\$ 461,351	\$ 482,411	\$ 504,470	\$ 527,858	\$ 552,357
Non-Commercial	532,116	516,346	530,434	527,652	552,026	578,604	604,925	633,399	663,230	694,514	727,277	761,609	798,041	836,226
Low Income	6,726	6,527	6,705	6,670	6,978	7,314	7,646	8,006	8,383	8,779	9,193	9,627	10,087	10,570
Total	\$ 851,794	\$ 827,993	\$ 849,256	\$ 888,377	\$ 928,737	\$ 972,726	\$ 1,016,314	\$ 1,063,452	\$ 1,112,852	\$ 1,164,644	\$ 1,218,882	\$ 1,275,705	\$ 1,335,986	\$ 1,399,153
Customer Growth		-2.8%	2.6%	4.6%	4.5%	4.7%	4.5%	4.6%	4.6%	4.7%	4.7%	4.7%	4.7%	4.7%
TOTAL IN MODEL				\$ 888,377	\$ 928,737	\$ 972,726	\$ 1,016,314	\$ 1,063,452	\$ 1,112,852	\$ 1,164,644	\$ 1,218,882	\$ 1,275,705	\$ 1,335,986	\$ 1,399,153
				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Fixed/Variable	2016 Price Out Stats	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Commercial Revenue as a % of Total	36.74%	36.85%	36.75%	39.85%	39.81%	39.77%	39.73%	39.69%	39.65%	39.61%	39.58%	39.54%	39.51%	39.48%
Non-Commercial Revenue as a % of Total	63.26%	63.15%	63.25%	60.15%	60.19%	60.23%	60.27%	60.31%	60.35%	60.39%	60.42%	60.46%	60.49%	60.52%

	Current (3 Month EDU)	5 Month EDU	7 Month EDU	9 Month EDU
Commercial Revenue as a % of Total	36.66%	39.85%	42.75%	49.41%
Non-Commercial Revenue as a % of Total	63.34%	60.15%	57.25%	50.59%