Water and Wastewater User Rate Study

Version: Draft

City of Fortuna

CITY OF FORTUNA CA

Water and Wastewater Rate Update

March 2024

Water and Wastewater User Rate Study

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Contents

Appendices

Tables

Figures

Acronyms and Abbreviations

$/ccf	dollar(s) per one hundred cubic feet
$/mo	dollar(s) per month
AWWA	American Water Works Association
ccf	one hundred cubic feet
CIP	capital improvement plan
City or utility	City of Fortuna
CCI	Construction Cost Index
COLA	Cost of living adjustment
CPI	Consumer Price Index
CSD	Community Services District
ft^3	cubic feet (foot)
FY	fiscal year
mgd	million gallon(s) per day
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
report	*Water and Wastewater User Rate Study*
SRF	State Revolving Fund
WWTP	wastewater treatment plant

1. Introduction

This *Water and Wastewater User Rate Study* (report) presents the results of Jacobs' water and wastewater rate analysis and proposed water and wastewater rates for the City of Fortuna (City or utility). The City has experienced increased operating costs and escalating capital costs that have strained the utility's financial resources. Economic pressures caused by supply chain disruptions brought on by the COVID pandemic and a competitive labor market have caused dramatic increases in operating costs. Both the water and wastewater system need capital improvements to replace aging infrastructure or to comply with treatment regulations. The City has managed the utility's increasing costs with a revenue stream that has not increased at the same rate as its costs. The most recent change to the City's water and wastewater rates occurred in 2012. From 2012 to 2024, the California Construction Cost Index (CCI) and the California Consumer Price Index (CPI) have increased approximately 70 percent and 39 percent, respectively.

Jacobs recommends that the City adjust its water and wastewater rates to help ensure that sufficient revenues will be generated to meet current debt service requirements and the City's other financial commitments. Jacobs also recommends that the City continue to deposit monies into the capital reserve fund that will be used to pay for anticipated system repairs and replacements on a "pay-as-you-go" basis.

The information in this report relies on data provided by the utility and other public sources. Financial and customer data presented in this report were provided by the City. Rate and fee data presented for other utilities were collected from publicly available information from utility websites or utility customer service departments. The water and wastewater utilities are distinct enterprise funds within the City and are examined separately. Projected water and wastewater expenditures and revenues presented herein are based on assumptions presented in this report. Proposed water and wastewater rates may need to be adjusted if currently unknown operating or capital expenditures affect the utility's revenue requirements or if material changes to the utility's customer base or usage patterns occur. This report has been prepared exclusively for Jacobs' client and no liability is accepted for any use of or reliance on the report by third parties.

2. Methodology

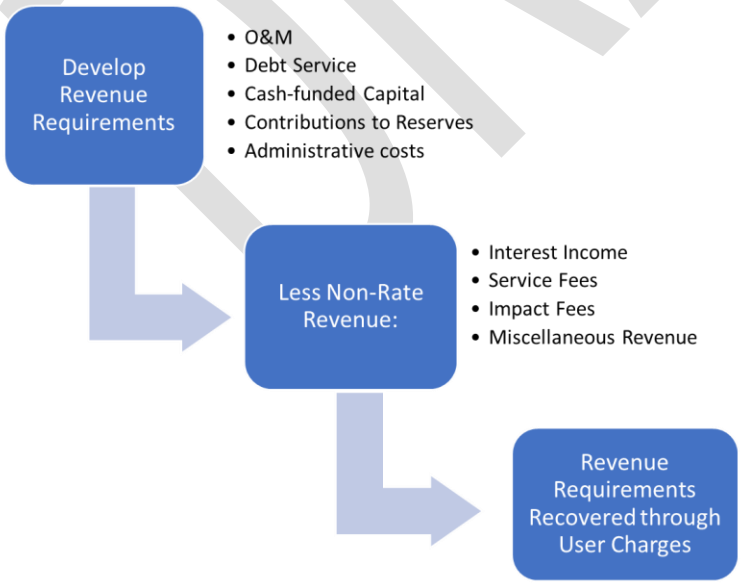
For this analysis, the cash basis method was used to determine the revenue requirements of the water system and wastewater system. The cash basis method is typically used by government-owned utilities and measures the total revenues needed to meet the utility's forecast cash expenditures. The essence of this method is that the revenues generated by the City must be sufficient to cover all its cash needs, as well as any other financial commitments for the period of the analysis. The rate analysis follows rate-making guidance provided in the American Water Works Association document *M1 Principles of Water Rates, Fees, and Charges, Seventh Edition* (2016) that serves as the industry standard for developing water and wastewater rates.

The Jacobs team reviewed the City's financial and customer data and summarized revenue requirements for the water and wastewater utilities. This analysis is the foundation for developing rate models for a 5-year forecast period. Projections consider potential impacts on operations and maintenance (O&M) costs and capital financing requirements of the City's prospective improvements to its water and wastewater systems. Projected revenue requirements will be developed for each utility and may include provisions for the following:

- O&M costs
- Administrative costs
- Renewal and replacement costs
- Debt-funded capital outlays, including existing outstanding debt service and projected debt for bonds and loans anticipated to fund future Capital Improvement Plan (CIP) projects
- Maintaining targeted reserve balances
- New and/or one-time expenditures

In determining the revenue requirements for the City's water and wastewater utilities, Jacobs evaluated the revenue projections based on the cash basis approach. Non-rate revenue is subtracted from the total revenue requirements to determine the amount of revenue requirements to be recovered from user rates. Figure 2-1 presents an overview of the process used to determine the rate revenue requirements.

Figure 2-1. Revenue Requirements Recovered from Rates



Changes in the water and wastewater utilities costs were projected over the 5-year analysis period. Annual percentage changes in the rate revenue requirements were applied to the City's existing rate structure to project the required adjustments in the water and wastewater rate revenues through fiscal year (FY) 2029. The City's existing water rate structure consists of a monthly meter charge that varies based on meter size to reflect the potential demand placed on the system of a larger meter and the higher costs associated with meeting the demands of larger meters. The water rates also have a volumetric charge that is assessed on water consumption. The sewer rates have different classifications for different customer types to reflect the different demands placed on the system by different users. There is a separate rate class for residential, commercial, and industrial customers. The commercial users are classified into low, medium, or high rate classes depending on the strengths of their wastewater flows. The higher strength flows pay a higher rate compared to the lower strength flows because it costs more to treat higher strength flows.

3. Assumptions

This financial analysis and rate study is based on projections of costs (both O&M and capital) that the City is expected to incur during the 5-year planning period, FY 2025 through FY 2029, and the revenues that the City expects to generate during the same period. The financial plan is based on a set of overall assumptions related to customer growth, inflation, and other factors, as well as the specific phasing of the utility's capital spending.

The following general assumptions were used in developing the financial plan:

- Water and wastewater sales under existing rates are expected to remain constant over the analysis period. This is consistent with recent trends of customer accounts and rate revenue over the last 3 years.
- Escalation rates:
  - Salaries: 10.0% Cost of Living Adjustment (COLA) in FY 2024, 3.0% COLA in the remaining years
  - Benefits: 10.0% per year
  - Chemicals: 5.0% per year
  - Utilities: 5.0% per year
  - Capital: 5.0% in FY 2024 and 2025, 4.0% in FY 2026 and beyond
  - General: 3.0% per year
- Interest earned on investments: 1.0%
- Debt service coverage requirement: 1.25
- The City needs to keep a minimum of 6 months (180 days) of operating expenses in operating reserves and an additional targeted minimum balance of $3.0 million in the water capital reserves and $5.0 wastewater capital reserves.
- The City will use available operating and capital reserves to pay for unanticipated operating expenses and scheduled capital projects.
- Beginning available reserve balance in FY 2024 for each fund:
  - Water Operating Fund: $2.5 million
  - Water Capital Fund: $4.5 million
  - Wastewater Operating Fund: $4.0 million
  - Wastewater Capital Fund: $9.0 million
- Debt financing assumptions:
  - No new debt for the water utility
  - For wastewater, it is assumed the utility will receive a grant of $5.5 million for the wastewater plant upgrade and a low interest loan from the State Revolving Fund (SRF). It was assumed the term of the loan would be equal to current interest rates on SRF loans of approximately 1.72% with a term of 30 years.
- For FY 2024, the average residential water use for the City customers is approximately 6 ccf (4,500 gallons) per month. This consumption level will be used to calculate impacts to residential water and wastewater bills.
- The City will add a utility superintendent in FY 2025 at a burdened rate of $120,000 per year. The cost will be shared evenly between the water and wastewater utility.
- To account for consumer response to proposed rate increases, an adjustment was made to consumption based rate revenue to reflect lower consumption after rate increases were implemented. It was assumed water consumption would reduce by 1.5 percent for every 10 percent in rate increases.

4. Water Rate Study

The City maintains and operates a water and wastewater utility serving residential, commercial, and industrial customers in Fortuna, CA. The City is governed by a city council. The day-to-day operations of the system are directed by the Public Works Director and a staff of approximately 16 water personnel. The City's FY runs from July 1 to June 30 (that is, "FY 2023" means the data are from July 2022 through June 2023). Financial data will be reported for the City's FY. Customer data are reported in calendar year (that is, January through December).

4.1 Background Information

The water utility operates as an enterprise fund and pays for its operating and capital costs through user charges. The utility has a water operations fund and a capital improvement fund. The water utility fund has three divisions:

- Administration
- Pumping/Treatment/Storage
- Transmission/Distribution

The utility has the responsibility for:

- Water production and treatment
    - Operate and maintain four water wells producing 500 million gallons per year
    - Water treatment
    - Permitting and reporting
- Water Storage and distribution:
    - O&M of four water storage facilities
    - Maintenance of 42 miles of distribution pipeline
    - O&M of eight pump stations
    - Maintain water service connections and water meters
    - Conduct meter reading, meter testing, and meter replacement
    - Permitting and Reporting

The Water Operations Fund needs to keep a minimum of 6 months of operating expenses in reserve and has a targeted minimum balance of approximately $3.0 million for the Capital Improvement Fund. The 2017 Revenue Bond issuance has a debt service coverage requirement of 1.25, which means the annual net revenues of the system (gross revenues minus operating expenses) must be 125% of the system's annual debt service requirements.

4.1.1 Customer Data

Table 4-1 presents the water customer accounts from 2021 through 2023. The data represents the average number of accounts for each customer class over each 12-month calendar year period. Customer accounts have remained relatively stable over the last 3 years. The average number of accounts for 2023 is 4,628. Residential customers represent nearly 90% of total accounts.

Table 4-1. Water Customer Accounts, 2021-23

Rate Class	2021	2022	2023
Residential	4,123	4,135	4,153
Commercial	341	338	331
Schools	15	15	15
Theatre/Church/Hall	28	27	27
Mobile Home Parks	3	3	3
Motels/RV Parks	11	11	11
Dorm/Convalescent	9	9	9
Hospital	1	1	1
Industrial	4	4	4
Irrigation	33	32	32
Residential Outside City	41	41	41
Comm/Res Combo	1	1	1
Total	**4,610**	**4,616**	**4,628**

Note: Customer data are for calendar year (that is, January through December).

Table 4-2 presents water sales revenues and billed water usage (in ccf) for the water utility for calendar year 2021 through 2023. The revenues and consumption are for all active accounts during the 12-month period. The City provides retail water service to residential, commercial, and industrial customers located inside and outside the City limits. Total water consumption ranged from nearly 440,000 ccf in 2023 to approximately 465,000 ccf in 2021. Water revenue was about $2.28 million in 2021 and in 2023. Residential customers accounted for nearly 74% of water revenues in 2023.

Table 4-2. Water Customer Usage and Revenues, Calendar Year 2021-23

	Water Usage (ccf)			Water Revenue		
Rate Class	2021	2022	2023	2021	2022	2023
Residential	348,743	329,423	325,828	$1,689,663	$1,677,130	$1,690,161
Commercial	49,034	44,966	50,598	$265,216	$262,030	$271,336
Schools	3,537	3,772	4,110	$28,763	$29,269	$29,898
Theatre/Church/Hall	2,521	1,409	1,494	$12,428	$11,190	$11,163
Mobile Home Parks	14,974	16,949	15,932	$76,172	$84,366	$84,748
Motels/RV Parks	11,929	11,635	11,750	$47,451	$46,860	$47,071
Dorm/Convalescent	10,512	11,030	10,275	$37,855	$39,051	$36,831
Hospital	6,098	6,125	3,023	$16,481	$16,487	$15,712
Industrial	1,798	1,648	1,393	$6,053	$5,748	$5,361
Irrigation	10,928	9,184	8,801	$68,437	$64,981	$64,338
Residential Outside City	4,517	3,843	4,215	$26,472	$24,792	$25,861
Comm/Res Combo	178	258	316	$2,212	$2,212	$2,241
Total	**464,767**	**440,241**	**437,734**	**$2,277,203**	**$2,264,116**	**$2,284,719**

Note: Customer data are for Calendar year (that is, January through December).

4.1.2 Existing Rates

Tables 4-3 presents the current rate schedules for the City's water system. Metered water rates include a monthly minimum meter charge based on the size of the meter and a volume charge. Larger meter sizes pay a higher monthly charge to reflect the potential demand placed on the water system of providing service to a larger meter and the higher costs associated with meeting those demands. Volumetric charges are based on each customer's monthly water consumption. The monthly minimum charge

includes the first 3 ccf of water use in the winter months (November through April) and 5 ccf in the summer months (May through October). The volume charge is $1.90 per ccf over the minimum water included in the base charge. Outside city customers pay 1.5 times the rate for inside city customers.

Table 4-3. Current Water Rates, Inside City

Meter Size (inches)	Base Charge ($/mo)
5/8 by 3/4	$23.04
1	$44.07
1 1/2	$87.21
2	$147.61
3	$320.16
4	$561.73
6	$1,251.95
Volume Charge ($/ccf)	$1.90

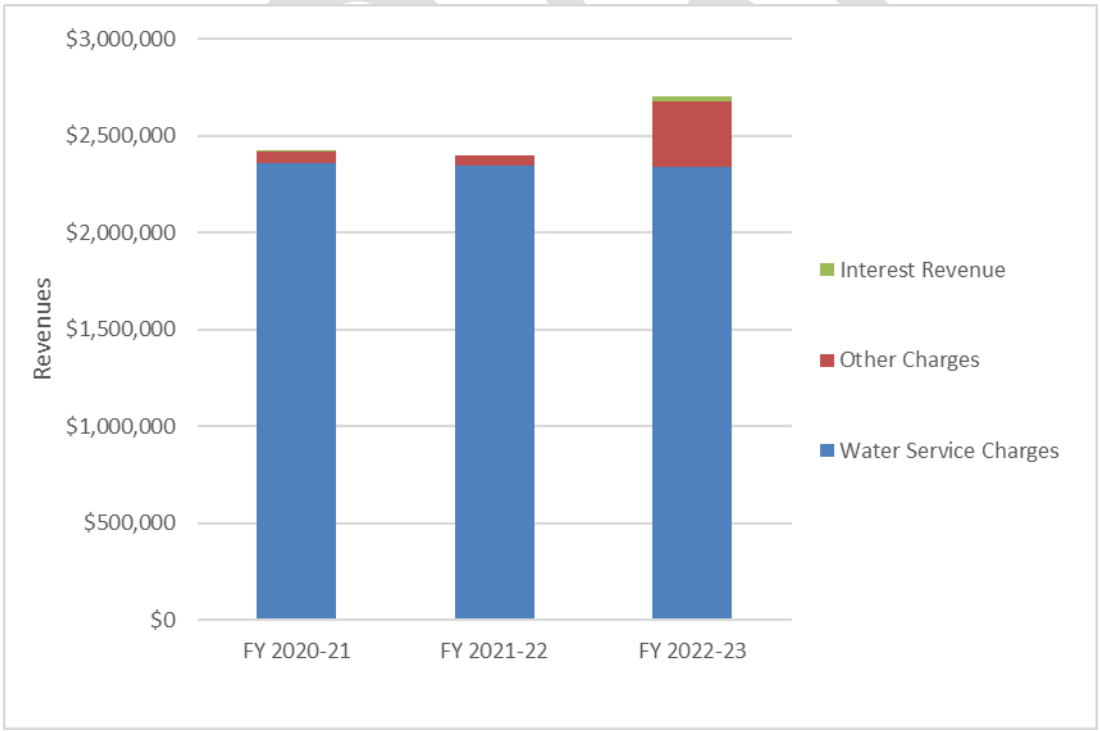
$/ccf =dollar(s) per one hundred cubic feet

$/mo = dollar(s) per month

4.1.3 Historical Revenues

Figure 4-1 shows historical revenues for the water utility for FY 2020/21 through FY 2022/23. Total system revenues ranged from approximately $2.4 million in FY 2020/21 to $2.7 million in FY 2022/23. In FY 2022/23, water rate revenues accounted for approximately $2.3 million, or 87%, of total revenue. The remaining non-rate revenue was generated by miscellaneous other charges and interest revenue.

Figure 4-1. Historical Revenues, FY 2021–2023



4.1.4 Historical Operation and Maintenance Expenses

O&M expenses include all costs associated with operating and maintaining the water utility, including personnel, utilities, materials and supplies, and general and administrative costs. Table 4-4 summarizes actual cash operating expenses for FY 2020/21 through FY 2022/23 and Budget FY 2023/24. Cash operating expenses, which exclude depreciation and debt service expenses, increased from approximately $1.8 million in FY 2021 to approximately $1.9 million in FY 2022/23. The FY 2023/24 has total expense for the water utility increasing to approximately $2.1 million. Each of the three cost centers account for approximately 33 percent of total expense in the FY 2023/24 budget.

Table 4-4. Operation and Maintenance Expenses, FY 2020/21–2023/24

Division	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
Transmission and Distribution				
Salaries and Benefits	$344,043	$398,432	$373,138	$399,982
Services and Supplies	$206,960	$164,200	$260,000	$264,500
Capital Outlay	$24,584	$497,403	$0	$40,000
Subtotal	$575,587	$1,060,035	$633,138	$704,482
Pumping, Treatment, and Storage				
Salaries and Benefits	$273,983	-$12,757	$222,025	$238,487
Services and Supplies	$318,750	$300,628	$358,500	$360,000
Capital Outlay	$7,906	$29,431	$25,000	$122,500
Subtotal	$600,639	$317,302	$605,525	$720,987
Administration				
Salaries and Benefits	$432,186	$452,526	$443,554	$483,589
Services and Supplies	$154,864	$152,100	$169,234	$199,155
Capital Outlay	$0	$0	$0	$0
Subtotal	$587,050	$604,626	$612,788	$682,744
Total	**$1,763,276**	**$1,981,963**	**$1,851,451**	**$2,108,213**

4.2 Existing Debt Service Expenses

Existing debt service costs are the annual principal and interest payments associated with outstanding bonds. In 2017, the City issued the Series 2017 Water Revenue Bond to refund a previous bond issuance. For FY 2024, the principal and interest payments are approximately $400,000.

4.3 Revenue Requirements

For this analysis, the cash basis method was used to determine the revenue requirements of the water system. The essence of this method is that the revenues generated by the City must be sufficient to cover all its cash needs, as well as any other financial commitments for the period of the analysis. The components of the City's water utility revenue requirements include:

- O&M expenses
- Pay-as-you-go capital
- Debt service requirements

The total water system O&M expenses include salaries, materials, supplies, chemicals, and other daily operating expenses. For the purposes of these financial projections, the O&M expenses were separated into the following divisions:

- Transmission and Distribution
- Pumping, Treatment, and Storage
- Administration

Table 4-5 presents the projected operating expenses for the utility for the analysis period. The City's operating expenses are budgeted to be approximately $2.1 million in FY 2023/24. Over the analysis period, O&M expenses are estimated to increase to approximately $2.6 million by FY 2028/29, a cumulative increase of 22% from FY 2023/24 levels.

Table 4-5. Projected Operating Expenses

Cost Center	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Transmission and Distribution						
Salaries and Benefits	$399,982	$410,985	$435,360	$461,671	$490,097	$520,833
Services and Supplies	$264,500	$273,425	$282,667	$292,239	$302,152	$312,420
Capital Outlay	$40,000	$41,600	$43,264	$44,562	$45,899	$47,276
Subtotal	$704,482	$726,010	$761,291	$798,472	$838,148	$880,529
Pumping, Treatment, and Storage						
Salaries and Benefits	$238,487	$248,912	$263,707	$279,678	$296,935	$315,595
Services and Supplies	$360,000	$376,120	$392,988	$410,511	$428,846	$448,032
Capital Outlay	$122,500	$127,400	$132,496	$136,471	$140,565	$144,782
Subtotal	$720,987	$752,432	$789,191	$826,660	$866,346	$908,409
Administration						
Salaries and Benefits	$483,589	$488,805	$514,550	$542,177	$571,851	$603,756
Services and Supplies	$199,155	$205,398	$211,841	$218,492	$225,357	$232,443
Capital Outlay	$0	$0	$0	$0	$0	$0
Subtotal	$682,744	$694,202	$726,391	$760,669	$797,208	$836,200
Total	$2,108,213	$2,172,644	$2,276,874	$2,385,801	$2,501,701	$2,625,137

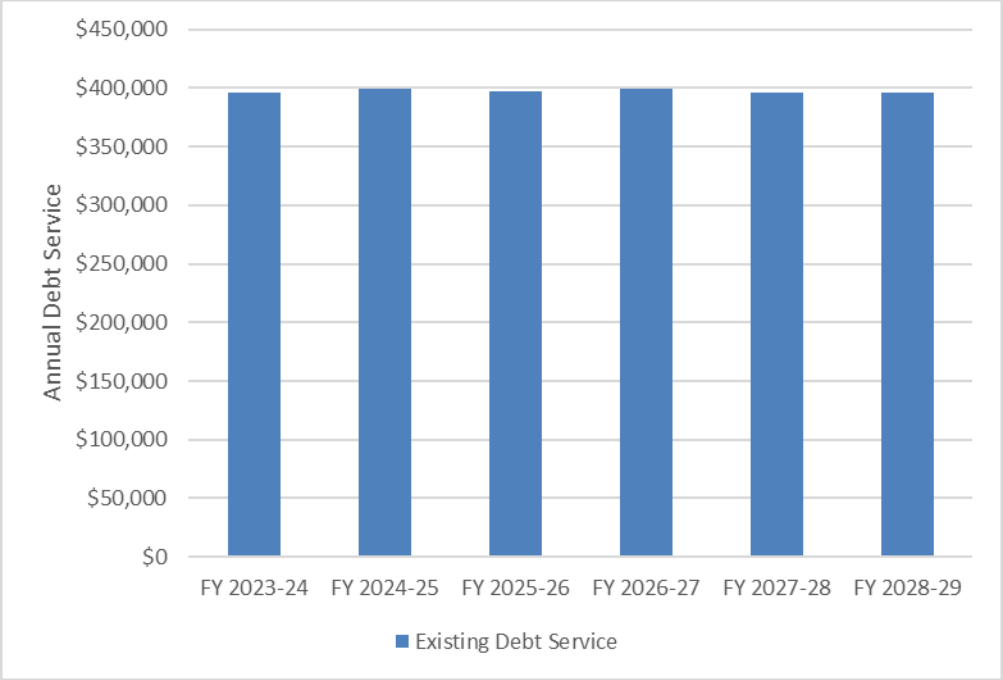
4.4 Debt Service

The system debt service requirements consist of the principal and interest payments on its outstanding debt. In addition, the covenants on the City's outstanding debt requires the City to generate net revenues (gross revenues minus operating expenses) that are 1.25 times the annual debt service payments on its

outstanding debt. Revenues in excess of the debt service and O&M costs can be used to pay for capital outlays. The Series 2017 Revenue Bonds have an annual debt service payment of approximately $400,000 in FY 2023/24 and remain relatively constant through FY 2028/29.

Figure 4-2 presents the projected annual debt service for existing over the analysis period. No new debt is projected to be issued over the analysis period. Annual debt service payments on existing is approximately $400,000 through FY 2028/29.

Figure 4-2. Projected Annual Debt Service, Water



4.5 Capital Improvements

The City's CIP includes water system capital improvements that are needed to replace aging infrastructure and continue to meet forecast system water demands. The largest planned capital expenditures for the water system (in 2023 dollars) during the analysis period are:

- Downtown Waterline Replacement Project: $1.9 million
- Drake Hill Road Water Main Replacement: $950,000
- 12th Street Water Main Project: $880,000
- Carson Woods Road Water Line Replacement Project: $830,000
- Waterline Replacement Project: $1.0 million

Total capital expenditures over the analysis period are approximately $8.0 million (2023 dollars). Project costs were increased annually to adjust for inflation. Total inflated capital costs included in the analysis are nearly $9.0 million. Appendix A provides a list of projects included in the water system CIP from FY 2023/24 through FY 2028/29.

The utility plans to fund the water system capital improvements from capital reserves and user rates. City management will make necessary financial decisions to ensure capital reserves are sufficient to cover future capital expenditures. The City does not currently plan to issue new debt to pay for additional water system capital improvements.

4.6 Total System Revenue Requirements

Table 4-6 summarizes the revenue requirements for the analysis period. The total system rate revenue requirement is expected to range between $2.9 in FY 2024/25 to $4.3 million through FY 2028/29. Rate increases will be necessary to pay for escalation in O&M expenses and to fund the capital improvement projects. Increases are also need to maintain sufficient working capital equal to approximately 6 months of operating expenses and debt service coverage requirements.

Table 4-6. Projected Revenue Requirements

Item	Projected FY 2024-25	Projected FY 2025-26	Projected FY 2026-27	Projected FY 2027-28	Projected FY 2028-29
Revenue Requirements					
Operation and Maintenance					
Transmission & Distribution	$726,010	$761,291	$798,472	$838,148	$880,529
Pumping, Treatment & Storage	$752,432	$789,191	$826,660	$866,346	$908,409
Administration	$756,002	$790,045	$826,232	$864,738	$905,756
Other					
Subtotal O&M	**$2,234,444**	**$2,340,528**	**$2,451,364**	**$2,569,232**	**$2,694,694**
Capital Costs					
Existing Debt Service	$399,275	$397,025	$399,150	$395,650	$396,525
New Debt Service	$0	$0	$0	$0	$0
Transfer to Improvement Fund	$1,024,942	$1,210,486	$1,291,299	$1,300,845	$1,298,138
Subtotal Capital Costs	**$1,424,217**	**$1,607,511**	**$1,690,449**	**$1,696,495**	**$1,694,663**
Total Revenue Requirements	**$2,940,749**	**$3,658,661**	**$3,948,039**	**$4,141,814**	**$4,265,727**
Less Non-rate revenue					
Other revenue	$78,000	$78,000	$78,000	$78,000	$78,000
Subtotal	**$78,000**	**$78,000**	**$78,000**	**$78,000**	**$78,000**
Uses of (additions to) Fund Balance	-$62,251	-$52,315	-$54,659	-$58,126	-$61,872
Annual Requirements from Rates	**$3,642,912**	**$3,922,355**	**$4,118,473**	**$4,245,853**	**$4,373,229**

4.7 Proposed Rates

As of the beginning of FY 2023/24, the City has an estimated combined $7.0 million in available operating and capital reserves. As discussed previously, this analysis assumes that the utility will use a combination of rate revenue and existing reserves to pay for the planned projects. To have sufficient funds to pay for increases in operating expenses, fund necessary capital improvements, repay the existing debt service, maintain appropriate debt service coverage requirements, and maintain the 6 months of operating expense in reserves, water rate increases will be required.

For this analysis, rate increases are introduced every year beginning in FY 2024/25. Table 4-7 presents the projected annual rate increases needed to meet the utility's revenue requirements. The rate increases presented would be applied to both fixed and consumption charges and would impact all customer classes. Appendix B presents the water rate schedule for all customers for FY 2024/25-2028/29.

Table 4-7. Projected Annual Rate Increases

FY	Annual Water Increase
FY 2024/25	60.0%

FY	Annual Water Increase
FY 2025/26	5.0%
FY 2026/27	5.0%
FY 2027/288	3.0%
FY 2028/29	3.0%
Overall Increase[a]	87.1%

[a] Overall increase represents compounded increase over the analysis period.

4.8 Projected System Revenues

The revenue projections are made up of two major sources: rate revenues and non-rate revenues. In FY 2023/24, water rate revenues were estimated at $2.3 million. Other revenues are projected to amount to approximately $78,000 in FY 2023/24 and remain at this level throughout the study period.

Projected system rate revenues under existing rates are expected to remain constant over the analysis period. Revenues and the number of accounts has been relatively constant from FY 2020/21 through FY 2022/23. It was assumed this trend would continue through the analysis period. Projected system rate revenues, with the rate increases presented herein, are projected to increase from $2.3 million in FY 2023/24 to nearly $4.5 million in FY 2028/29. Table 4-8 provides the projected total system revenue with proposed rate adjustments.

Table 4-8. Projected Total System Revenue with Proposed Rate Adjustments

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Water Revenue	$2,340,000	$3,642,912	$3,922,355	$4,118,473	$4,245,853	$4,373,229
Misc. Revenues	$78,000	$78,000	$78,000	$78,000	$78,000	$78,000
Total Revenue	**$2,418,000**	**$3,720,912**	**$4,000,355**	**$4,196,473**	**$4,323,853**	**$4,451,229**

Operating and capital reserves will be drawn down to help pay for the planned capital projects and increased O&M expenses. City financial policies target a minimum of 6 months of operating expenses in operating reserves and an additional allowance of approximately $3.0 million capital reserves for unplanned capital needs.

Figure 4-3 presents the rate revenue requirements for the utility during the analysis period and projected revenues under existing and proposed rates. Rate revenue requirements consist of O&M expenses, administrative expenses, and debt service requirements. As Figure 4-3 illustrates, existing rate levels (green line) will not be sufficient to meet the projected revenue requirements and increases in rate revenues will be necessary to pay for projected costs.

Figure 4-3. Revenue Requirements and Rate Revenues

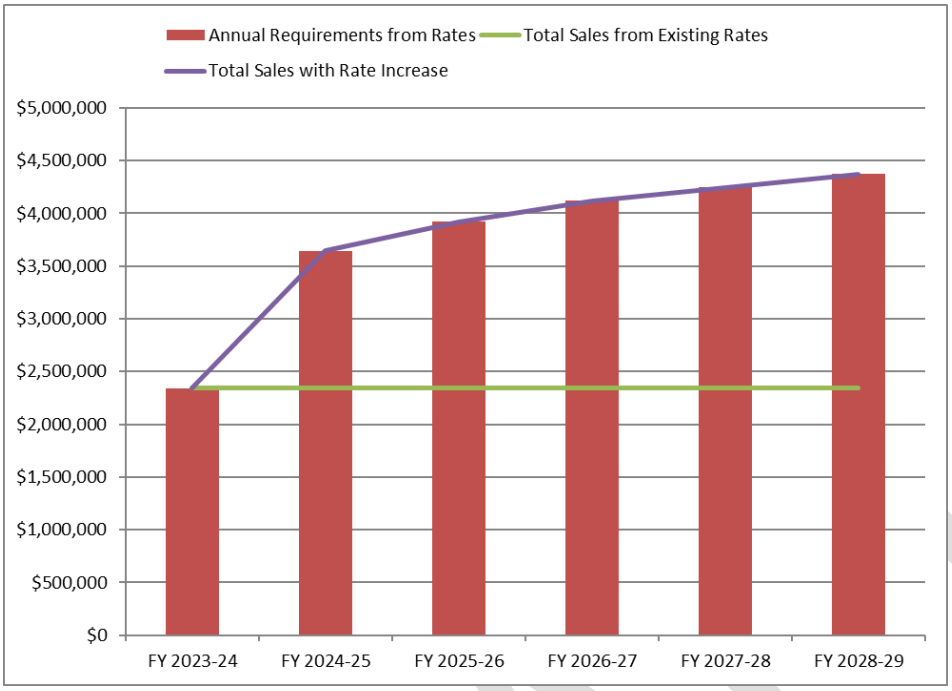


Figure 4-4 presents the ending fund balance for the operating and capital reserve from FY 2023/24 through FY 2028/29. The capital reserve fund is drawn down in FY 2023/24 to pay for budgeted capital improvements. The revenues generated by the system are sufficient to maintain the 6-month operating reserve balance and capital fund target.

Figure 4-4. Ending Capital and Operating Reserve Balance

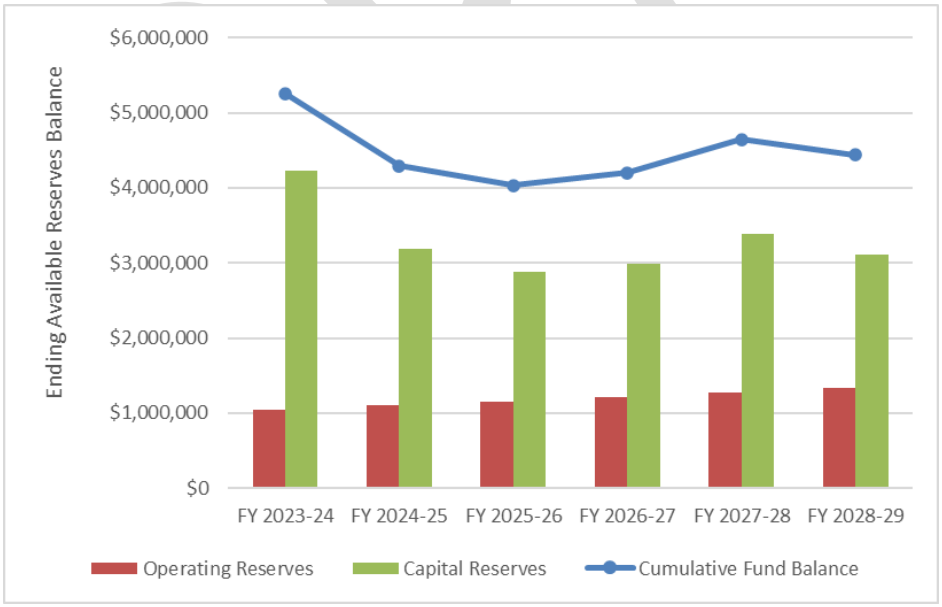
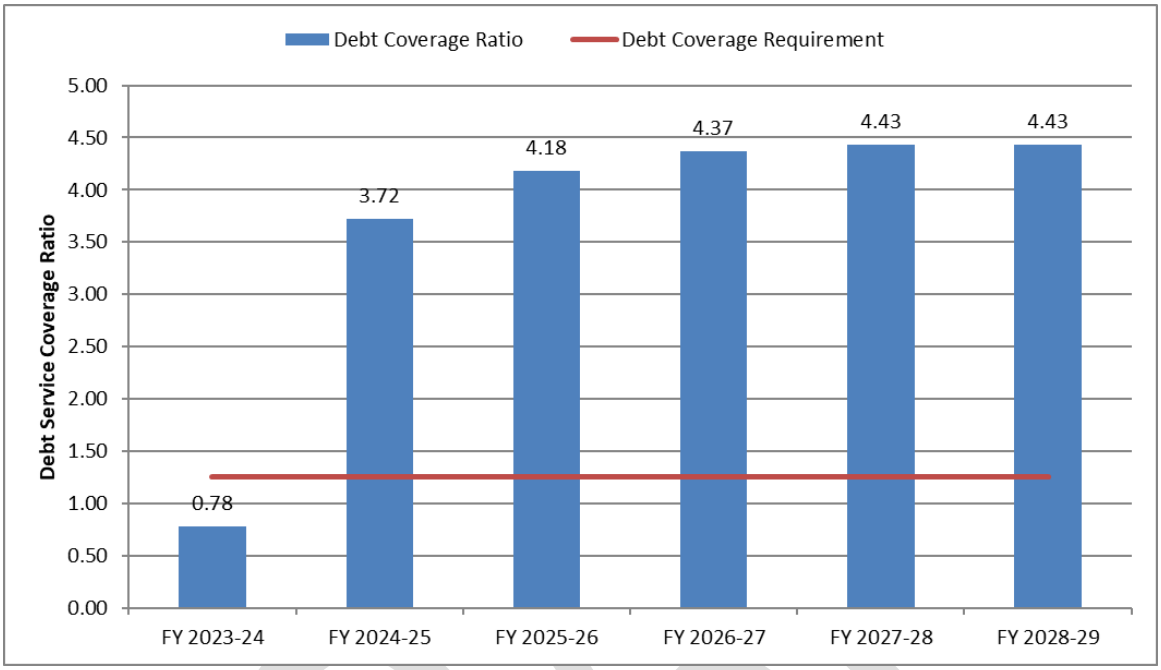


Figure 4-5 presents the projected debt coverage for the water utility. The analysis shows that, with the proposed rates, the utility is projected to exceed the debt coverage requirements on the current bonded

debt of 125% in each year of the study period. The financial plan presented herein does not anticipate any new debt issues during the study period. Based on the proposed water rate increases, Jacobs projects that the City will generate sufficient revenue to cover its projected expenses and to meet any bond coverage requirements for FY 2023/24 through FY 2028/29.

Figure 4-5. Debt Service Coverage, Water Utility

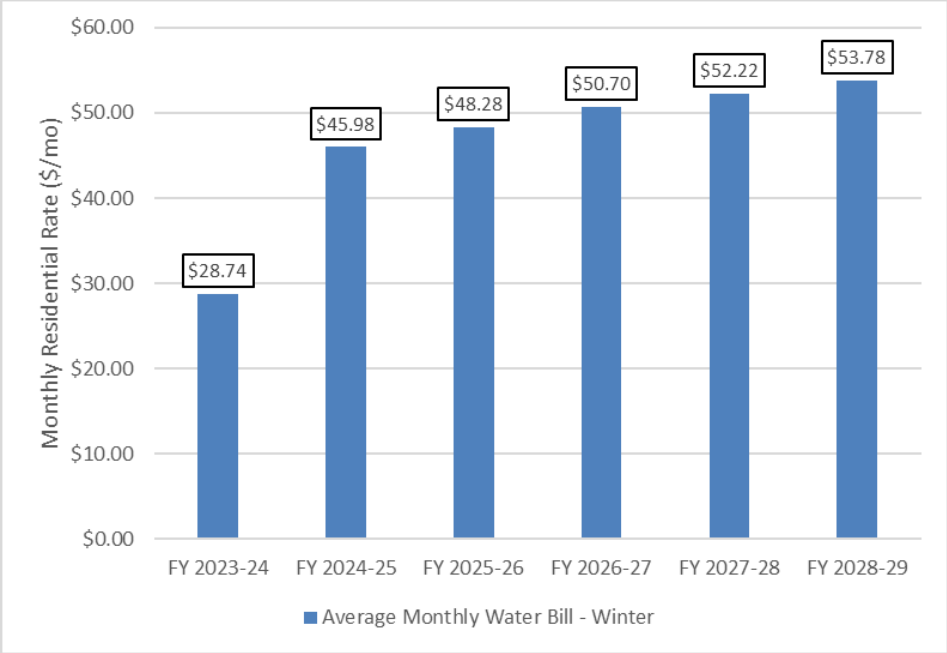


Refer to Appendix C for projected sources and uses of funds for the utility for the analysis period.

4.9 Impact on Typical User Bills

Figure 4-6 shows the impact of the proposed FY 2024/25 to FY 2028/29 rates on the bills of typical residential users. Residential users that consume 4,500 gallons per month will see an increase in their water bills of $20.08 over the 5-year study period.

Figure 4-6. Typical Residential Water Bill for 4,500 Gallons, Proposed Rates (FY 2024/25–FY 2028/29)



4.10 Alternative Water Rate Increase Scenario

Rate increases can be sculpted in several ways to achieve the goals of the utility. Instead of a large, one-time increase in Year 1 of the analysis, the increases could be phased in over a number of years to make the increases more levelized. Table 4-9 presents an alternative rate strategy that achieves the operating and capital reserve targets set by the utility. By the end of the analysis, the overall rate increase would be slightly higher when compared to the impacts of a one-time large increase in Year 1.

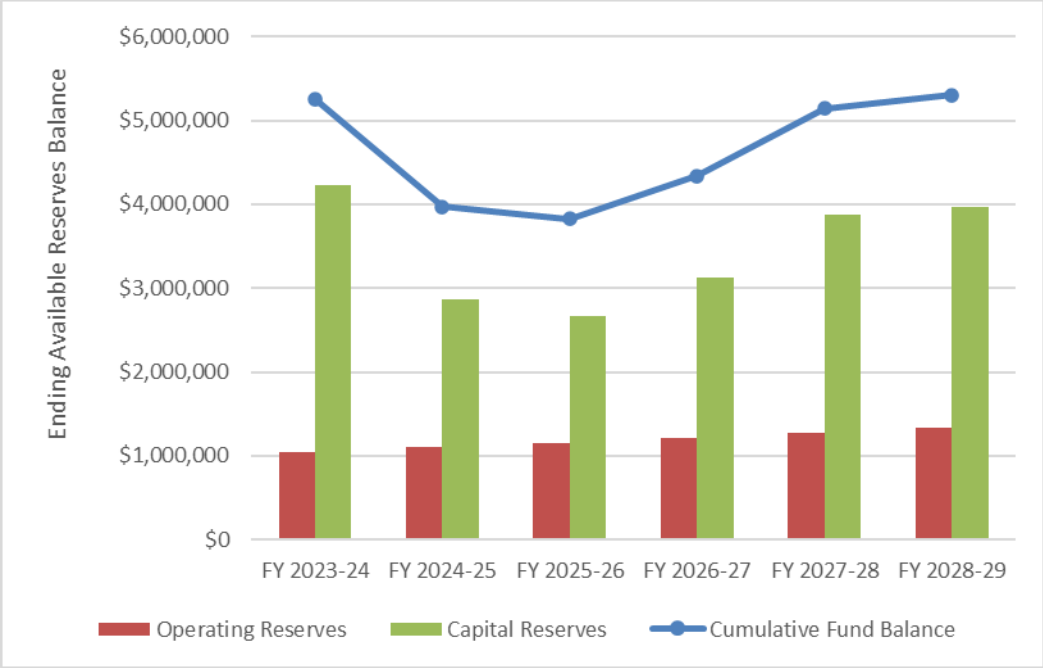
Table 4-9. Projected Annual Rate Increases, Scenario 1

FY	Annual Water Increase
FY 2024/25	45.0%
FY 2025/26	20.0%
FY 2026/27	10.0%
FY 2027/28	3.0%
FY 2028/29	3.0%
Overall Increase[a]	103.1%

[a] Overall increase represents compounded increase over the analysis period.

Figure 4-7 presents the ending fund balance for the operating and capital fund under the alternative rate increase strategy. As mentioned previously, the alternative approach achieves the utility's target fund balances for the operating and capital funds.

Figure 4-7. Ending Capital and Operating Reserve Balance, Scenario 1



5. Wastewater Rate Study

This section outlines the wastewater rate study.

5.1 Background Information

The Public Works Department's Wastewater Division is responsible for the operations, maintenance, and capital infrastructure improvement for the City's wastewater system. The Wastewater Division serves the residential, commercial, and industrial wastewater customers both within and outside the City limits. The Public Works director supervises the daily operational activities of the Wastewater Division with 16 employees.

Like the water utility, the wastewater utility is an enterprise fund and charges service user fees to fund its operations and capital expenditures. The wastewater utility has both a wastewater operations fund and a capital improvement fund. The City's Wastewater Division has three departments:

- Collections
- Treatment
- Administration

The wastewater utility is responsible for:

- Wastewater Collection
    - Maintain 5,000 wastewater service connections
    - Operate and maintain nine sewage lift stations
    - Maintain 42 miles of collection system pipeline
- Wastewater Treatment:
    - Operate and maintain the wastewater treatment facility (with capacity for 1.5 million gallons per day)
    - Coordinate the pretreatment program
    - Implement the sanitary wastewater management plan
        - Fats, oil, and grease program
        - Inflow and Infiltration reduction
    - Process safety management plan

In addition, the Wastewater Operations Fund is required to have in reserves 180 days of operating expenses, and maintain a targeted balance of $5.0 million in the Capital Improvement fund.

The 2017 Revenue Bond issuance has a debt service coverage requirement of 1.25, which means the net revenues of the system (gross revenues minus operating expenses) must be 125% of the system's annual debt service requirements.

5.1.1 Customer Data

Table 5-1 presents the wastewater customer accounts from 2021 through 2023. The data represents the average number of accounts for each customer class over the 12-month period. Customer accounts have remained relatively stable over the last 3 years with growth rates of about 1% and 0.5% in 2022 and 2023 respectively. The average number of accounts for 2023 is 4,260. Residential customers represent

approximately 92% of the total wastewater customers. The wastewater utility also receives flows from Palmer Creek Community Service District (CSD).

Table 5-1. Wastewater Customer Accounts, Calendar Year 2021-23

Rate Class	2021	2022	2023
Residential	1,881	1,911	1,951
Multi-Family	1,980	1,972	1,951
Mobile Home Park	3	3	3
Light Commercial	297	301	302
Medium Commercial	35	36	36
Heavy Commercial	12	13	13
Outside City Limit – Residential	3	3	3
Commercial / Residential Combo	1	1	1
Palmer Creed CSD	1	1	1
Total	4,213	4,241	4,261

Note: Customer data are for Calendar year (that is, January through December).

Table 5-2 presents wastewater sales revenues for calendar years 2021 through 2023. The revenues are for all active accounts during the 12-month period. The City provides wastewater service to residential, commercial, and industrial customers located inside and outside the City limits. Currently the City does not have any industrial wastewater customers. Customer wastewater bills are based on water consumption presented in Table 4-2. Palmer Creek CSD flows ranged from 6.3 million cubic feet in 2021 to 7.9 million cubic feet in 2023. Wastewater revenue increased from $3.5 million in 2021 to approximately $3.6 million in 2023. Residential, multi-family, and mobile home park customers accounted for nearly 78% of water revenues in 2023.

Table 5-2. Wastewater Customer Revenues, FY 2021-2023

Rate Class	2021	2022	2023
Residential	$1,107,279	$1,100,740	$1,116,524
Multi-Family	$1,422,556	$1,508,601	$1,492,220
Mobile Home Park	$131,648	$144,428	$134,022
Light Commercial	$398,070	$403,932	$384,876
Medium Commercial	$235,389	$238,554	$239,739
Heavy Commercial	$114,272	$121,951	$120,787
Outside City Limit – Residential	$3.074	$2,901	$2,525
Commercial / Residential Combo	$5,278	$6,036	$13,088

Palmer Creek CSD	$54,539	$62,729	$68,624
Total	$3,472,106	$3,589,872	$3,572,405

Note: Revenue data is for Calendar year (that is, January through December).

5.1.2 Existing Rates

Tables 5-3 present the current rate schedules for the City's wastewater system. The monthly wastewater rates consist of a base rate and a volume charge. Customer classes include residential, commercial, industrial, and Palmer Creek CSD. Commercial customers are further classified into light, medium, or heavy categories based on the strength of their wastewater flows. The higher strength flows pay a higher rate compared to the lower strength flows because it costs more to treat higher strength flows.

The monthly base charge includes the first 500 cubic feet (ft^3) for residential, light commercial, medium commercial and heavy commercial customers while it is the first 2,590 ft^3 for industrial and Palmer Creek CSD customers. Palmer Creek CSD pays slightly lower rates than other commercial customers as they operate their own collection and billing systems. Volume charges are based on actual wastewater usage with different variable rates for all categories of customers. The outside city customers pay 50% more than the rate for inside city customers.

Table 5-3. Current Wastewater Rates, Inside City

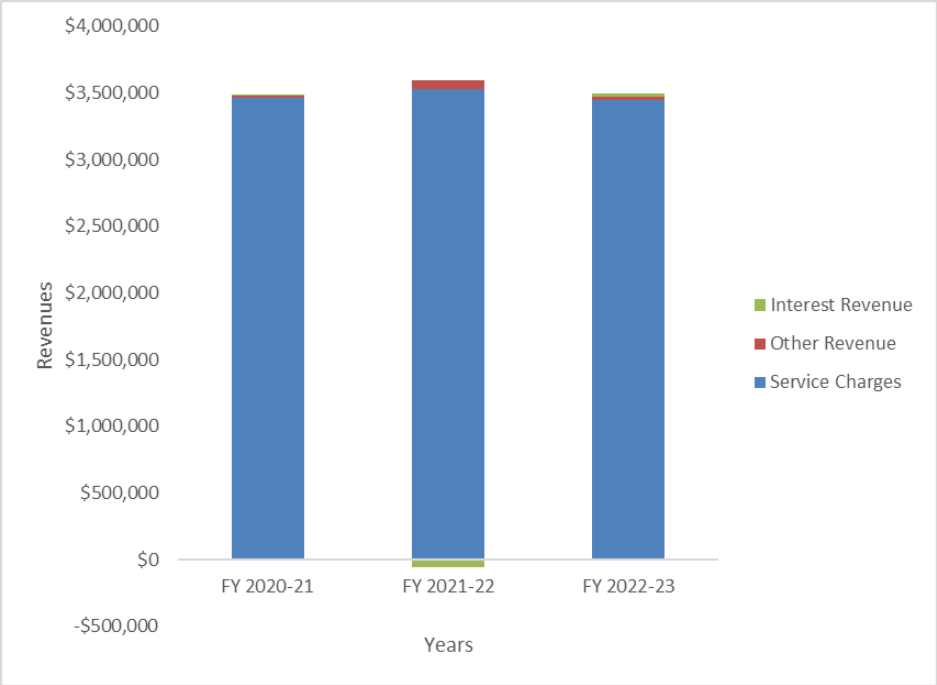
Service Charge	Existing FY 2023-24
Residential (includes first 500ft^3)	$38.75
Volume charge over 500 ft^3 ($/ccf)	$8.61
Light Commercial (includes first 500 ft^3; strength factor <200 mg/l)	$38.02
Volume charge over 500 ft^3 ($/ccf)	$8.45
Medium Commercial (includes first 500 ft^3; strength factor between 200-500 mg/l)	$49.02
Volume charge over 500 ft^3 ($/ccf)	$10.89
Heavy Commercial (includes first 500 ft^3; strength factor >500 mg/l)	$96.69
Volume charge over 500 ft^3 ($/ccf)	$21.49
Industrial (includes first 2590 ft^3)	$767.56
Volume charge over 2590 ft^3 ($/ccf)	$29.64
Palmer Creek CSD (includes first 2590 ft^3)	$168.02
Volume charge over 2590 ft^3 ($/ccf)	$6.49
Special Agreements	
Residential, Commercial, and Industrial	
BOD ($/lb)	$1.36
TSS/ ($/lb)	$1.25
Volume ($/ccf)	$5.19
Palmer Creek CSD	
BOD ($/lb)	$1.23
TSS/ ($/lb)	$1.13
Volume ($/ccf)	$3.91

5.1.3 Historical Revenues

Figure 5-1 shows historical revenues for the wastewater utility for FY 2020/21 through FY 2022/23. Total system revenues were relatively stable and approximately $3.49 million in FY 2020/21, $3.5 million in FY

2021/22, and $3.5 million in FY 2022/23. Over the 3-year period, wastewater service charges accounted for at least 98% of the total revenue. The remaining non-rate revenue was generated by miscellaneous other charges and interest revenue.

Figure 5-1. Historical Revenues, FY 2020/21–2022/23



5.1.4 Historical Operation and Maintenance Expenses

The historical O&M expenses consist of all relevant costs for the operations and maintenance for the public wastewater system over the last 3 years. These include: personnel, utilities, materials, and supplies, overhead and administrative costs across collections, treatment, and administration units of the Wwastewater Division.

Table 5-4 summarizes the actual cash operating expenses, excluding depreciation and debt service expenses, from FY 2022/21 to FY 2022/23 and Budget FY 2023/24. Over the 3-year period, the operating expenses increased by 6.8% from $2.4 million in FY 2020/21 to $2.5 million in FY 2022/23. Operating expenses for FY 2021/22 showed a decrease in overall expenses when compared to FY 2020/21. The primary reason for the decrease was a credit received from the State of California retirement system to account for a higher than normal rate of return on system investments. The FY 2023/24 has total expense for the wastewater utility increasing to approximately $3.0 million. The treatment cost center represents approximately 59% while collections and administration divisions account for 17% and 24% of the total expenses, respectively.

Table 5-4. Operation and Maintenance Expenses, FY 2021–2023

Division	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
Collections				
Salaries and Benefits	$305,812	$348,301	$331,918	$354,543
Services and Supplies	$34,135	$19,991	$56,800	$100,500

Division	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
Capital Outlay	$130,120	$0	$4,050	$40,000
Subtotal	**$470,067**	**$368,292**	**$392,768**	**$495,043**
Treatment				
Salaries and Benefits	$663,743	$295,716	$626,298	$685,125
Services and Supplies	$667,382	$773,908	$878,500	$915,000
Capital Outlay	$4,478	$29,431	$25,000	$179,500
Subtotal	**$1,335,603**	**$1,099,055**	**$1,529,798**	**$1,779,625**
Administration				
Salaries and Benefits	$411,408	$445,132	$432,498	$472,787
Services and Supplies	$187,769	$182,128	$213,330	$258,011
Capital Outlay	$0	$0	$0	$0
Subtotal	**$599,177**	**$627,260**	**$645,828**	**$730,798**
Total	$2,404,847	$2,094,607	$2,568,394	$3,005,466

5.2 Existing Debt Service Expenses

Existing debt service costs are the annual principal and interest payments associated with outstanding bonds. In November 2017, the City issued an $8.74 million Series 2017 Wastewater Revenue Bond to refund a previously issued series 2006 bond. For FY 2023/24, the principal and interest payments are approximately $695,000.

5.3 Revenue Requirements

Like the water system, the cash basis method was used to determine the revenue requirements of the wastewater system. The is imperative to ascertain that the revenues generated by the City is adequate to cover all its cash needs, and other financial obligations for the period of the analysis. The components of the City's revenue requirements include:

- O&M expenses
- Pay-as-you-go capital
- Debt service requirements

The total wastewater system O&M expenses include salaries, materials, supplies, chemicals, and other daily operating expenses. For the purposes of these financial projections, the O&M expenses were separated into the following divisions:

- Collections
- Treatment
- Administration

Table 5-5 presents the projected operating expenses for the utility for the analysis period. The City's operating expenses are budgeted to be approximately $3.0 million in FY 2023/24. Over the analysis period, O&M expenses are estimated to increase to approximately $3.9 million by FY 2028/29, a cumulative increase of 27% from FY 2023/24 levels.

Table 5-5. Projected Operating Expenses

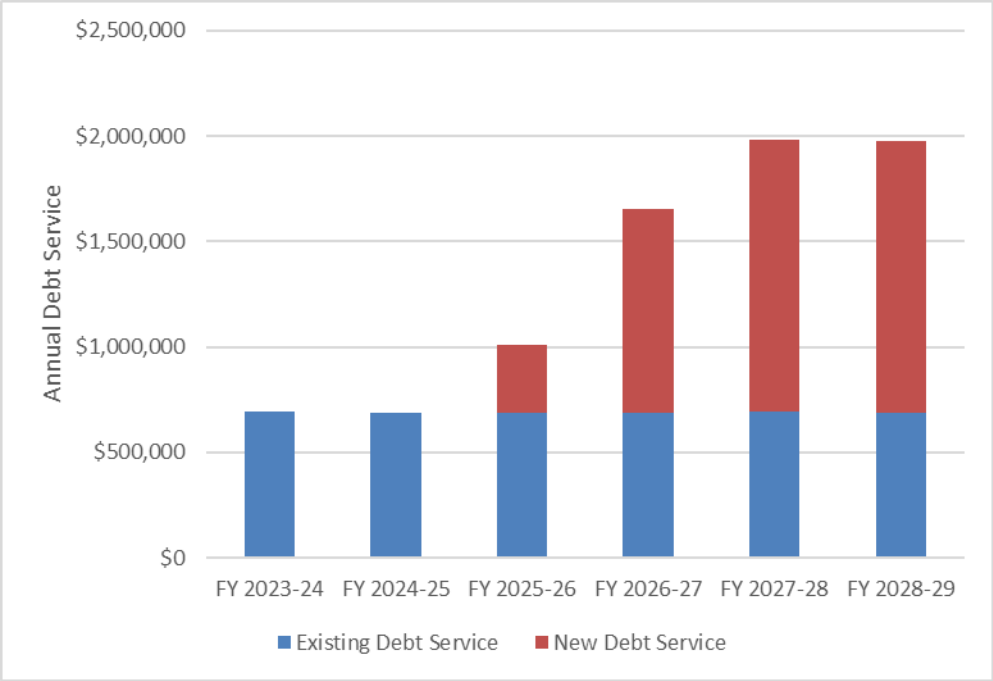
Cost Center	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Collections						
Salaries and Benefits	$354,543	$362,247	$383,703	$406,861	$431,879	$458,929
Services and Supplies	$100,500	$103,575	$106,745	$110,014	$113,384	$116,858
Capital Outlay	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
Subtotal	**$495,043**	**$505,822**	**$530,448**	**$556,875**	**$585,263**	**$615,787**
Treatment						
Salaries and Benefits	$685,125	$702,298	$744,924	$790,985	$840,800	$894,717
Services and Supplies	$915,000	$954,350	$994,268	$1,035,936	$1,079,433	$1,124,843
Capital Outlay	$179,500	$188,475	$196,014	$203,855	$212,009	$220,489
Subtotal	**$1,779,625**	**$1,845,123**	**$1,935,206**	**$2,030,776**	**$2,132,242**	**$2,240,049**
Administration						
Salaries and Benefits	$472,787	$475,966	$501,063	$527,994	$556,924	$588,030
Services and Supplies	$258,011	$268,439	$279,315	$290,658	$302,489	$314,831
Capital Outlay	$0	$0	$0	$0	$0	$0
Subtotal	**$730,798**	**$744,405**	**$780,378**	**$818,652**	**$859,413**	**$902,861**
Total	**$3,005,466**	**$3,095,350**	**$3,246,032**	**$3,406,303**	**$3,576,917**	**$3,758,697**

5.4 Debt Service

The system debt service requirements consist of the principal and interest payments on its outstanding debt. In addition, the covenants on the City's outstanding debt requires the City to generate net revenues (gross revenues minus operating expenses) that are 1.25 times the annual debt service payments on its outstanding debt. Revenues in excess of the debt service and O&M costs can be used to pay for capital outlays. The Series 2017 Revenue Bonds have an annual debt service payment of approximately $695,094 in FY 2023/24 and remain relatively constant through FY 2028/29.

This analysis assumed new debt would be issued to pay for the wastewater treatment plant NPDES project. The financial analysis assumes that the City will receive grants of $5.5 million and a state sponsored low interest loans to cover the costs associated with the CIP. The assumed bonds each have a term of 30 years, an interest rate of 1.72 percent. Figure 5-2 presents the projected annual debt service for existing and new debt over the analysis period. Annual debt service payments on existing and new debt are projected to increase from $695,000 in FY 2023/24 to approximately $2.0 million in FY 2028/29.

Figure 5-2. Projected Annual Debt Service, Wastewater



5.5 Capital Improvements

The CIP for the City includes public wastewater system capital improvements that are needed to replace aging infrastructure and continue to meet forecast system demands. The utility plans to fund the wastewater system capital improvements from capital reserves and user rates. The City management will make necessary financial decisions to ensure capital reserves are sufficient to cover future capital expenditures. The largest planned expenditures for the water system during the analysis period are:

- National Pollutant Discharge Elimination System (NPDES) compliance project: $35.2 million
- Wastewater Lining Project: $3.0 million
- Sanitary Wastewater Collections System CCTV: $0.6 million
- Wastewater Grant Fund Projects: Hilltop Wastewater Main Project: $0.5 million
- Wastewater Lining Project: $1.0 million

Appendix A provides a list of projects included in the wastewater system CIP from FY 2023/24 through FY 2028/29. Total capital expenditures are estimated at $42.2 million (2023$). When the costs are adjusted for inflation, the total capital costs are approximately $48.5 million. Capital projects will be funded through a combination of reserves, rate revenue, debt financing, and grant funding.

5.6 Total System Revenue Requirements

Table 5-6 summarizes the revenue requirements for the analysis period. The total system rate revenue requirement is expected to range between $4.3 million in FY 2024/25 to $6.2 million through FY 2028/29. Rate increases will be necessary to pay for escalation in O&M expenses, new debt service requirements, cash funded capital outlays, and to provide sufficient working capital equal to approximately 6 months of operating expenses.

Table 5-6. Projected Revenue Requirements

Item	Projected FY 2024/25	Projected FY 2025/26	Projected FY 2026/27	Projected FY 2027/28	Projected FY 2028/29
Revenue Requirements					
O&M					
Collection	$505,822	$530,448	$556,875	$585,263	$615,787
Treatment	$1,845,123	$1,935,206	$2,030,776	$2,132,242	$2,240,049
Administration	$806,205	$844,032	$884,216	$926,944	$972,418
Other					
Subtotal	$3,157,150	$3,309,686	$3,471,867	$3,644,448	$3,828,254
Capital Costs					
Existing Debt Service	$688,094	$688,844	$688,594	$692,219	$689,719
New Debt Service	$0	$322,000	$966,000	$1,288,000	$1,288,000
Transfer to Improvement Fund	$3,192,306	$4,374,825	$4,205,925	$1,172,478	$1,190,574
Subtotal	$3,880,400	$5,385,669	$5,860,518	$3,152,696	$3,168,293
Total Requirements	$6,503,490	$7,037,550	$8,695,355	$9,332,385	$6,797,144
Less Non-rate revenue					
Other revenue	$51,000	$51,000	$51,000	$51,000	$51,000
Grant Revenue	$0	$2,750,000	$2,750,000	$0	$0
Subtotal	$51,000	$2,801,000	$2,801,000	$51,000	$51,000
Uses of (additions to) Fund Balance	$2,243,490	-$75,223	-$79,979	-$85,109	-$90,644
Annual Requirements from Rates	$4,743,060	$5,969,578	$6,611,364	$6,831,253	$7,036,190

5.7 Proposed Rates

As of the beginning of FY 2023/24, the City has an estimated combined $13.0 million in available operating and capital reserves, which includes approximately $1.5 million to cover 6 months of operating expenses. As discussed previously, this analysis assumes that the utility will use a combination of rate revenue and existing reserves to pay for the planned projects. It was also assumed the wastewater utility will received a grant from the SRF program of $5.5 million and also issue new debt to help pay for the NPDES wastewater treatment plant project. To have sufficient funds to pay for increases in operating expenses, repay the existing and new debt service, maintain appropriate debt service coverage requirements, and maintain the 6 months of operating expense in reserves, wastewater rate increases will be required.

For this analysis, rate increases are introduced every year beginning in FY 2024/25. Table 5-7 presents the projected annual rate increases needed to meet the utility's revenue requirements. The rate increases presented would be applied to both fixed and consumption charges and would impact all customer classes. Appendix E presents the wastewater rate schedule for all customers for FY 2024/25 through FY 2028/29.

Table 5-7. Projected Annual Rate Increases

FY	Annual Wastewater Increase
FY 2024/25	40.0%

FY	Annual Wastewater Increase
FY 2025/26	25.0%
FY 2026/27	10.0%
FY 2027/28	3.0%
FY 2028/29	3.0%
Overall Increase[a]	104.2%

[a] Overall increase represents compounded increase over the analysis period.

5.8 Projected System Revenues

The revenue projections are made up of two major sources: rate revenues and non-rate revenues. In FY 2023/24, wastewater revenues were estimated at $2.3 million. Other revenues are projected to amount to approximately $51,000 in FY 2023/24 and remain at this level throughout the study period.

Projected system rate revenues under existing rates are expected to remain constant over the analysis period. Revenues and the number of accounts has been relatively constant from FY 2020/21 through FY 2022/23. It was assumed this trend would continue through the analysis period. Projected system rate revenues, including the rate increases presented herein, are projected to increase from $3.5 million in FY 2023/24 to nearly $7.1 million in FY 2028/29. Miscellaneous revenues are projected to average approximately $51,000 per year over the analysis period. Table 5-8 provides projected total system revenue with proposed rate adjustments.

Table 5-8. Projected Total System Revenue with Proposed Rate Adjustments

	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Wastewater Revenue	$3,450,000	$4,743,060	$5,969,578	$6,611,364	$6,831,253	$7,036,190
Misc. Revenues	$46,000	$51,000	$51,000	$51,000	$51,000	$51,000
Total Revenue	$3,496,000	$4,794,060	$6,020,578	$6,662,364	$6,882,253	$7,087,190

Operating and capital reserves will be drawn down to help pay for the planned capital projects and increased O&M expenses. City financial policies target a minimum of 6 months of operating expenses in operating reserves and an additional allowance of approximately $5.0 million in capital fund reserves.

Figure 5-3 presents the rate revenue requirements for the utility during the analysis period and projected revenues under existing and proposed rates. Rate revenue requirements consist of O&M expenses, administrative expenses, and debt service requirements. As Figure 5-3 illustrates, existing rate levels (green line) will not be sufficient to meet the projected revenue requirements and increases in rate revenues will be necessary to pay for projected costs.

Figure 5-3. Revenue Requirements and Rate Revenues

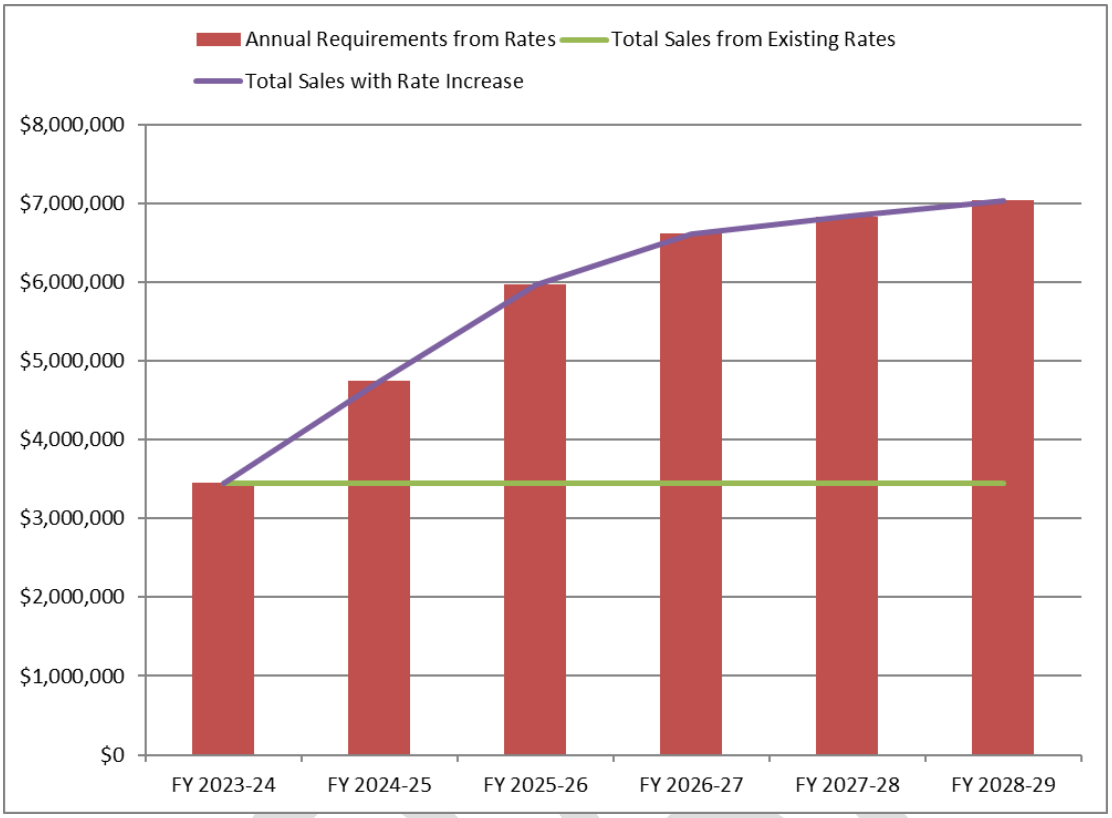


Figure 5-4 presents the combined 6-month operating reserve and capital fund reserve from FY 2023/24 through FY 2028/29. The capital reserve fund is drawn down in FY 2023/24 to pay for budgeted capital improvements. The revenues generated by the system are sufficient to maintain the 6-month operating reserve balance.

Figure 5-4. Ending Capital and Operating Reserve Balance

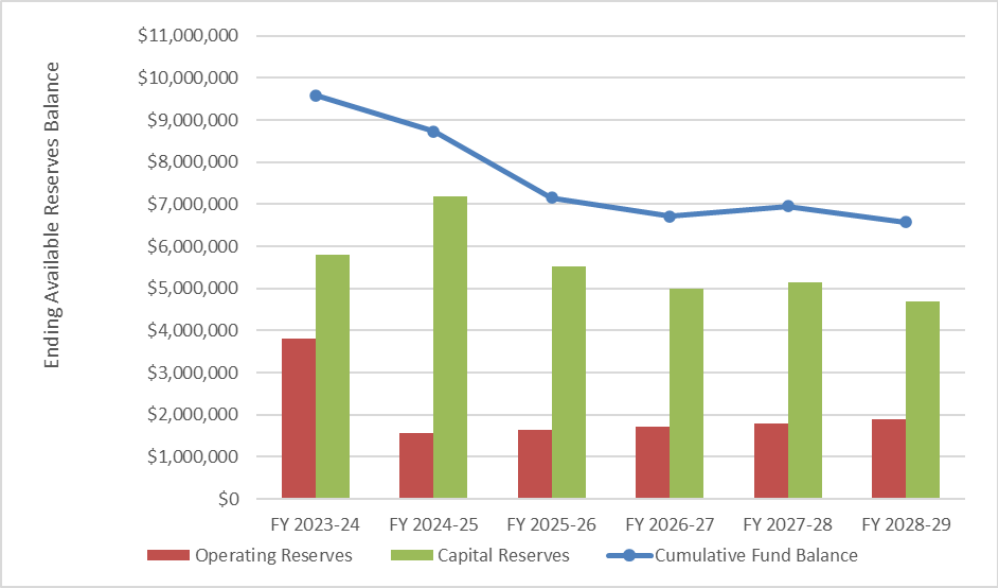
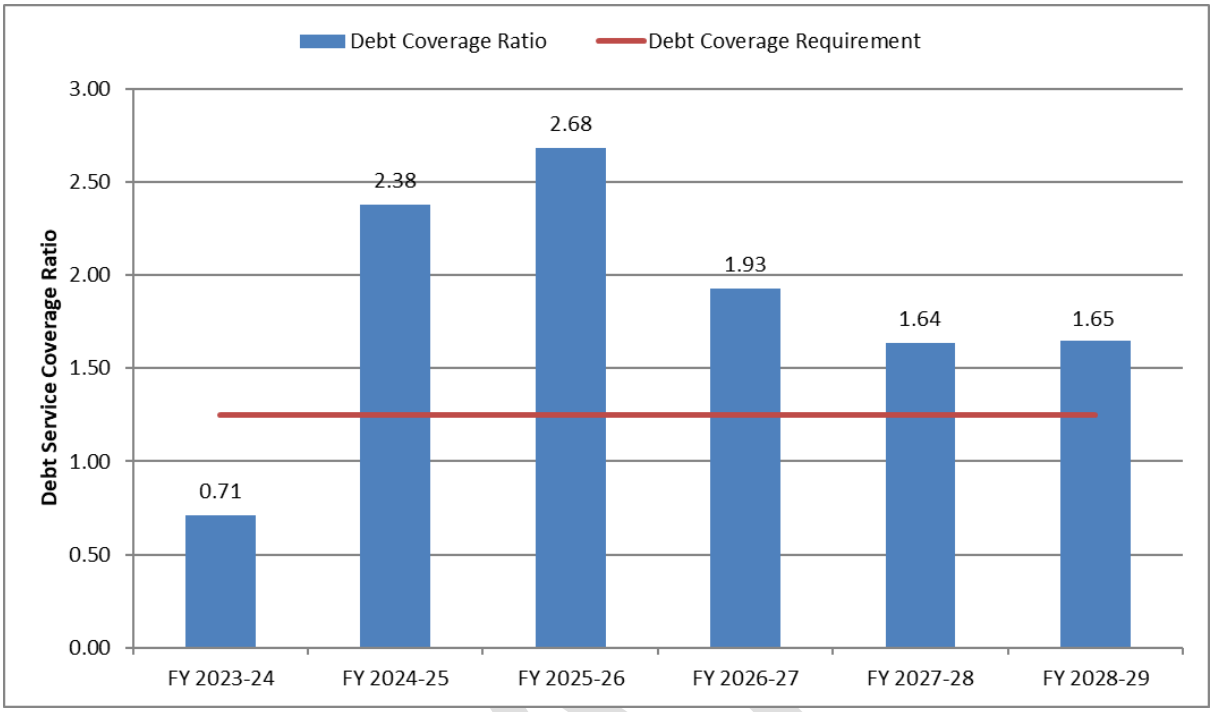


Figure 5-5 presents the projected debt coverage for the wastewater utility. The analysis shows that, with the proposed rates, the utility is projected to exceed the debt coverage requirements on the current and new bonded debt of 125% in each year of the study period. The financial plan presented herein assumes new debt issues in FY 2025/26 and FY 2026/27 to help fund the wastewater treatment plant project. Based on the proposed wastewater rate increases, Jacobs projects that the City will generate sufficient revenue to cover its projected expenses and to meet any bond coverage requirements for FY 2023/24 through FY 2028/29.

Figure 5-5. Debt Service Coverage, Wastewater Utility

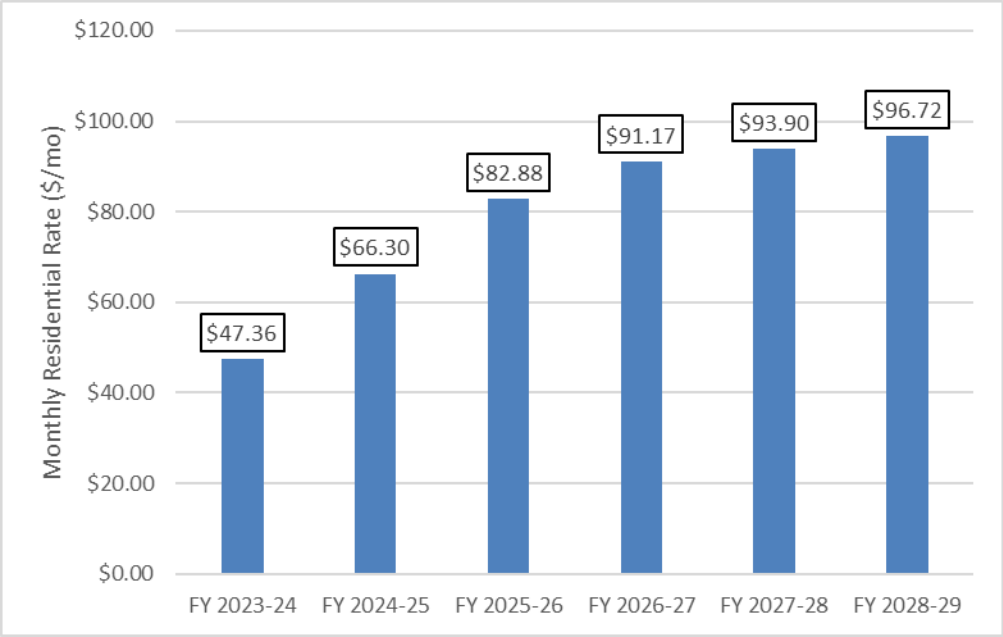


Appendix F provides projected sources and uses of funds for the utility for the analysis period.

5.9 Impact on Typical User Bills

Figure 5-6 shows the impact of the proposed FY 2024/25 to FY 2028/29 rates on the bills of typical residential users. Residential users that consume 6 CCF per month will see an increase in their monthly wastewater bills of approximately $40.00 over the 5-year study period.

Figure 5-6. Typical Residential Wastewater Bill for 4,500 Gallons, Proposed Rates FY 2024/25 through FY 2028/29



5.10 Alternative Wastewater Rate Increase Scenario

Rate increases can be sculpted in several ways to achieve the goals of the utility. Instead of a large, one-time increase in Year 1 of the analysis, the increases could be phased in over a number of years to make the increases more levelized. Table 5-9 presents an alternative rate strategy that achieves the operating and capital reserve targets set by the utility. By the end of the analysis, the overall rate increase would be slightly higher when compared to the impacts of a one-time large increase in Year 1.

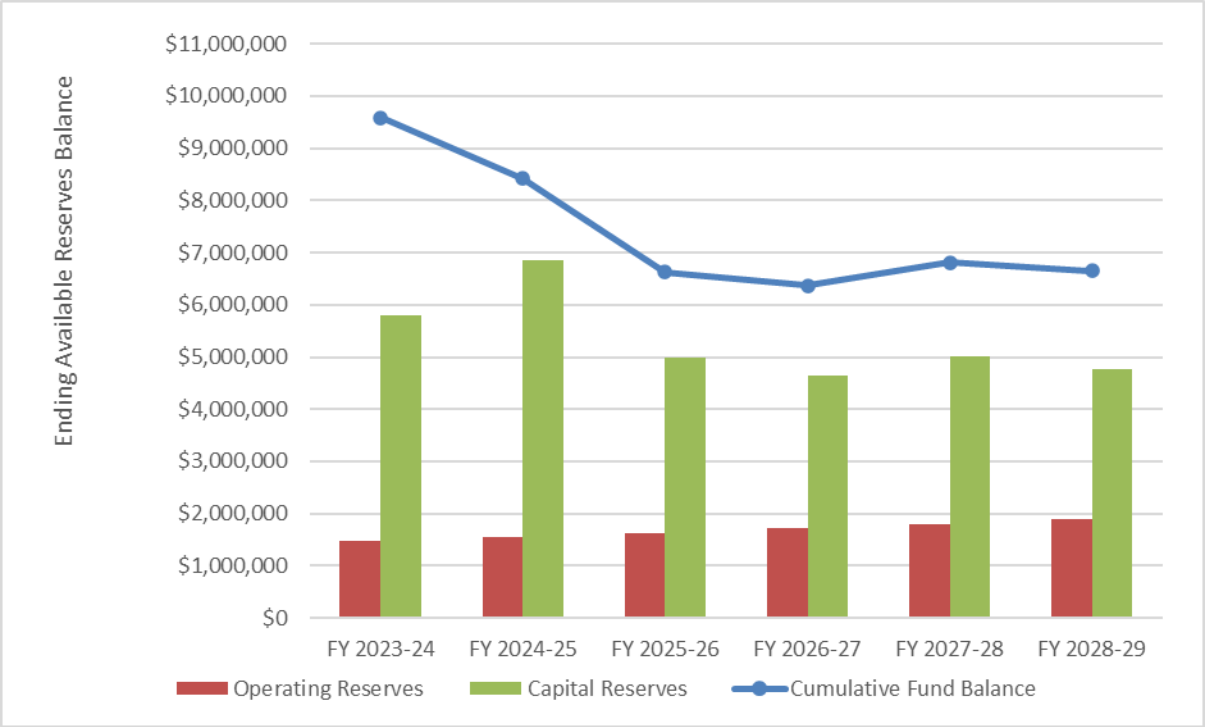
Table 5-9. Projected Annual Rate Increases, Scenario 1

FY	Annual Water Increase
FY 2025	30.0%
FY 2026	30.0%
FY 2027	17.5%
FY 2028	3.0%
FY 2029	3.0%
Overall Increase[a]	110.7%

[a] Overall increase represents compounded increase over the analysis period.

Figure 5-7 presents the ending fund balance for the operating and capital fund under the alternative rate increase strategy. As mentioned previously, the alternative approach achieves the utility's target fund balances for the operating and capital funds.

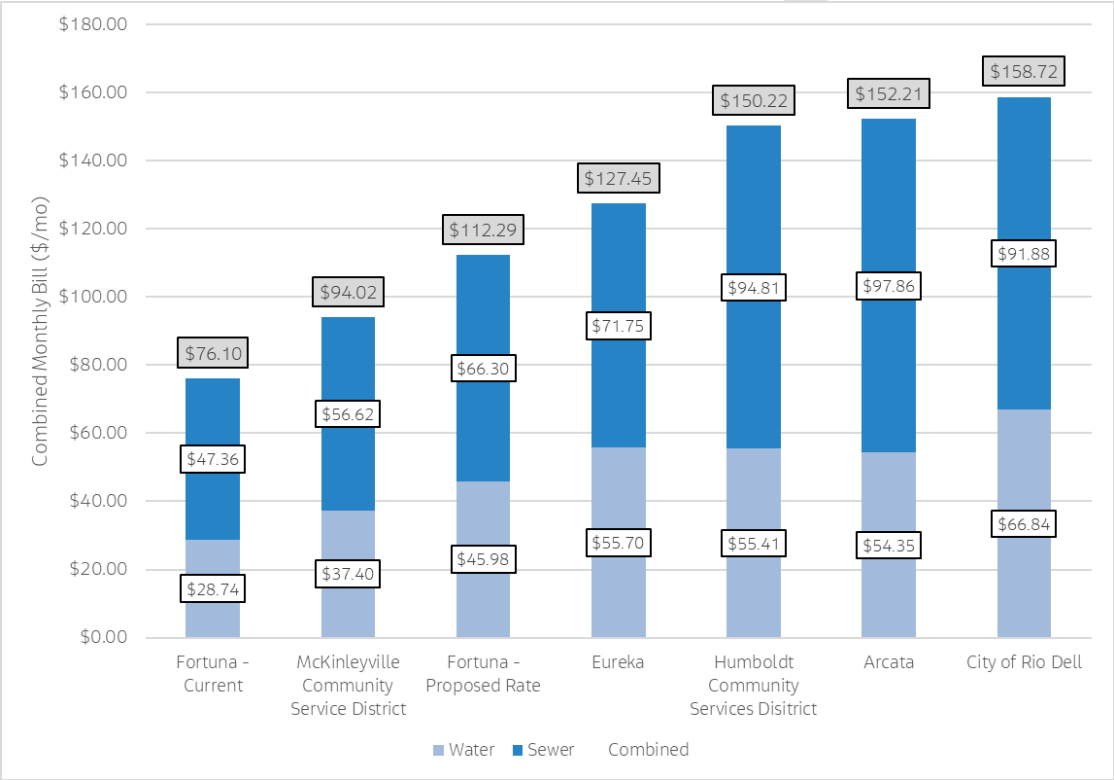
Figure 5-7. Ending Capital and Operating Reserve Balance, Scenario 1



6. Rates Comparison Across Communities

Figure 6-1 shows how the combined monthly water and wastewater bills for the City compare with other neighboring communities. Data was collected from publicly available information and are the current rates as of March 2024. The chart reveals that the current combined bills of the City are less than the average monthly bill for the surveyed communities. When the proposed first year rate increases are included, the City's combined bill is still lower than most surveyed communities.

Figure 6-1. Comparison of the City's Water and Wastewater Bills with Other Communities for 6 CCF of Water Consumed

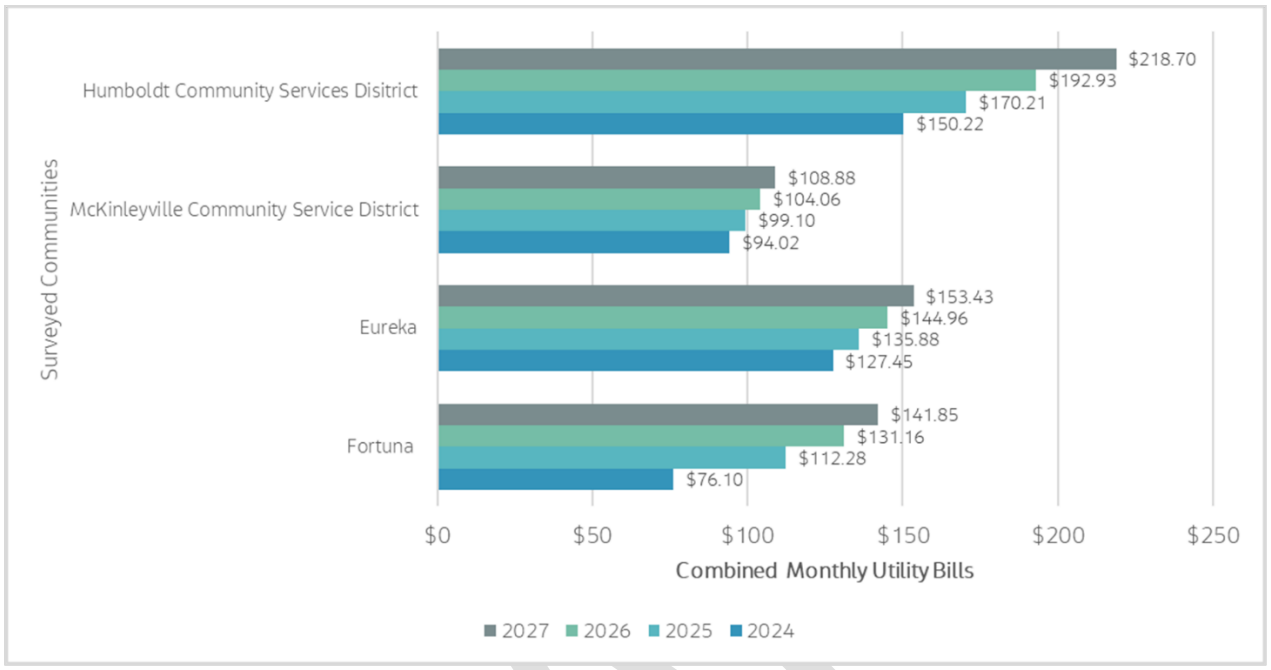


Note: rates for each community are from March 2024

A customer who uses the minimum amount of water included in the water and wastewater base charge would experience an increase of their combined utility bill from $59.90 per month to $93.00 per month.

The combined water and wastewater monthly bill based on 6 ccf of water consumption was estimated through FY 2026-27 for the City and neighboring communities. Data beyond FY 2026-27 for the other surveyed communities was not always available. Some of the rate adjustments are considered proposed as they are from recent rate studies and it is unclear if the rates were adopted by each community. Based on available information of proposed future rate increases for other neighboring communities, other communities are also planning for future water and wastewater rate increases. By FY 2026-27, the City's rates are projected to be one of the lowest of the communities surveyed.

Figure 6-2. Comparison of the City's Water and Wastewater Bills with Other Communities for 6 CCF of Water Consumed, FY 2023-24 through FY 2026-27



7. Conclusions and Recommendations

Jacobs recommends that the City adjust its water and wastewater rates in each year from FY 2024/25 through FY 2028/29 to help ensure that sufficient revenues will be generated to meet current operating and capital needs, debt service requirements and other financial commitments, and to cover operating and capital reserve targets.

With the proposed rate adjustments presented herein, the City's water and wastewater rates should generate sufficient revenues, under the forecast assumptions, to meet the water and wastewater systems' needs through FY 2028/29. The mentioned rates include the assumption that the City will issue new debt to fund the wastewater treatment plant upgrade and will receive a grant of $5.5 million. All other projected CIP will be funded through available capital reserves and rate revenues.

In addition, Jacobs recommends:

- Review the financial plan regularly to confirm actual revenues and expenditures are tracking with the projections developed in this analysis. The City should review the financial plan annually and adjust the rates as needed to reflect current conditions and assumptions. The projected rate increases presented herein are based on the best available data and assumptions developed by the utility and Jacobs as of March 2024.
- The City should consider conducting a water and wastewater rate study after completion of the water system plan.
- Update the CIP for the water and wastewater utility. This process would include developing a list of priority projects, updating cost estimates, and creating a schedule of implementation.
- Consider implementing an inflationary adjustment for service fees and other charges to keep up with the rising costs of labor and materials when they have not gone through a more detailed review. The annual inflationary adjustment would follow a national, statewide, or local price index such as the CPI for all items for the State of California.
- Actively pursue other sources of funds to pay for the planned capital expenditures. While the grant process is very competitive, Jacobs recommends the City apply for grants through various state and federal agencies, as well as grants offered by other organizations. The utility may be able to secure a grant or principal forgiveness loan if the service area meets eligibility criteria.
- After adoption of the rate study, the City should proceed with notifying impacted property owners of the proposed rate increases. The notification mailer will begin the minimum 45 day protest period and will set the date for the Proposition 218 hearing.
- The City should proceed with adopting the proposed rates after completion of the Proposition 218 hearing and balloting process. The City should adopt the proposed rates if the rate increase is not opposed by a majority of property owners through the Proposition 218 balloting process.

8. References

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Appendix A. Water System Capital Improvement Plan

Project	2023 Cost	Year of Construction	Budget FY 2023-24	Projected FY 2024-25	Projected FY 2025-26	Projected FY 2026-27	Projected FY 2027-28	Projected FY 2028-29
Vancil Reservoir Site Rehabilitation Project	$200,000	2024	$206,000					
Corrosion Control Facility Piping & Well Replacement Project	$300,000	2024	$309,000					
Water Tank Recoating Project	$600,000	2024	$618,000					
Downtown Water Line Replacement Project-Design	$160,000	2024	$164,800					
Downtown Water Line Replacement Project-Construction	$1,800,000	2025		$1,909,620				
Drake Hill Road Water Main Replacement-Design	$100,000	2025		$106,090				
Drake Hill Road Water Main Replacement-Construction	$850,000	2026			$928,818			
Lower Barney Drainage and Culvert Repair	$100,000	2024	$103,000					
Corrosion Control Facility Electrical Project	$200,000	2026			$218,545			
Kenmar & Drake Hill Pump Station Stationary GenSets	$50,000	2024	$51,500					
Water System Master Plan	$150,000	2024	$154,500					
Meadow Lane Main Replacement with C900	$220,000	2026			$240,400			
12th St Water Main Project-Design	$80,000	2026			$87,418			
12th St Water Main Project-Construction	$800,000	2027				$900,407		
Carson Woods Road Water Line Replacement-Design	$80,000	2027				$90,041		
Carson Woods Road Water Line Replacement-Construction	$750,000	2028					$869,456	
Kenmar & Drake Hill Pump Station Stationary GenSets	$150,000	2024	$154,500					
Waterline Replacement	$1,000,000	2029						$1,194,052
Replace loader (share with wastewater)	$125,000	2027				$140,689		
Replace vaccon (share with wastewater)	$275,000	2029						$328,364
Replace service truck (share with wastewater)	$40,000	Annual	$41,200	$42,436	$43,709	$45,020	$46,371	$47,762
Total			$1,802,500	$2,058,146	$1,518,891	$1,176,157	$915,827	$1,570,179

Appendix B. Projected Water Rates

Base Monthly Service Charge	Current Rate	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
Inside City - Meter Size						
5/8" by 3/4"	$23.04	$36.86	$38.71	$40.64	$41.86	$43.12
1"	$44.07	$70.51	$74.04	$77.74	$80.07	$82.47
1 1/2"	$87.21	$139.54	$146.51	$153.84	$158.45	$163.21
2"	$147.61	$236.18	$247.98	$260.38	$268.20	$276.24
3"	$320.16	$512.26	$537.87	$564.76	$581.71	$599.16
4"	$561.73	$898.77	$943.71	$990.89	$1,020.62	$1,051.24
6"	$1,251.95	$2,003.12	$2,103.28	$2,208.44	$2,274.69	$2,342.93
Volume charge over 300 cf ($/ccf)	$1.90	$3.04	$3.19	$3.35	$3.45	$3.56

Volume charge for consumption exceeding 300 ft^3 in the winter; in summer months (May to October), consumption charge applied for usage exceeding 500 ft^3.

Outside City Limits (1.5 times Inside City Rate)

Appendix C. Projected Sources and Uses of Funds, Water

Item	Budget FY 2023-24	Projected FY 2024-25	Projected FY 2025-26	Projected FY 2026-27	Projected FY 2027-28	Projected FY 2028-29
Sources of Funds						
Beginning Balance	$2,500,000	$1,039,667	$1,101,918	$1,154,233	$1,208,892	$1,267,018
Water Service Charges	$2,340,000	$3,642,912	$3,922,355	$4,118,473	$4,245,853	$4,373,229
Other Charges	$58,000	$58,000	$58,000	$58,000	$58,000	$58,000
Interest Revenue	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Total Sources of Funds	$4,918,000	$4,760,579	$5,102,273	$5,350,706	$5,532,745	$5,718,247
Uses of Funds						
Transmission & Distribution	$704,482	$726,010	$761,291	$798,472	$838,148	$880,529
Pumping, Treatment & Storage	$720,987	$752,432	$789,191	$826,660	$866,346	$908,409
Administration	$682,744	$756,002	$790,045	$826,232	$864,738	$905,756
Existing Debt Service	$395,900	$399,275	$397,025	$399,150	$395,650	$396,525
New Debt Service	$0	$0	$0	$0	$0	$0
Capital Contribution	$706,321	$1,024,942	$1,210,486	$1,291,299	$1,300,845	$1,298,138
Bond Issuance	$0	$0	$0	$0	$0	$0
Debt Service Other Fee						
Ending Fund Balance	$0	$0	$0	$0	$0	$0
Operating contingency	$1,039,667	$1,101,918	$1,154,233	$1,208,892	$1,267,018	$1,328,890
New Debt Service Reserve	$0	$0	$0	$0	$0	$0
Total Uses of Funds	$4,918,000	$4,760,579	$5,102,273	$5,350,706	$5,532,745	$5,718,247
Capital Improvement Fund						
Beginning Balance	$4,500,000	$4,221,720	$3,188,516	$2,880,112	$2,995,254	$3,380,273
Debt Proceeds	$0	$0	$0	$0	$0	$0
Grant Funding	$150,000	$0				
Transfer from Water Operating Fund	$1,374,220	$1,024,942	$1,210,486	$1,291,299	$1,300,845	$1,298,138
Subtotal	$6,024,220	$5,246,662	$4,399,002	$4,171,411	$4,296,099	$4,678,411
CIP	$1,802,500	$2,058,146	$1,518,891	$1,176,157	$915,827	$1,570,179
Transfer to Bond Reserve Fund	$0	$0	$0	$0	$0	$0
Subtotal	$1,802,500	$2,058,146	$2,058,146	$1,518,891	$1,176,157	$915,827
Ending Balance	$4,221,720	$3,188,516	$2,880,112	$2,995,254	$3,380,273	$3,108,232

Appendix D. Wastewater System Capital Improvement Plan

Project	2023 Cost	Year of Construction	Budget FY 2023-24	Projected FY 2024-25	Projected FY 2025-26	Projected FY 2026-27	Projected FY 2027-28	Projected FY 2028-29
NPDES Compliance Project	$2,000,000	2024	$2,100,000					
NPDES Compliance Project - Construction	$16,600,000	2026			$18,672,742			
NPDES Compliance Project - Construction	$16,600,000	2027				$19,419,652		
Wastewater System Model & Master Plan	$165,000	2024	$173,250					
Wastewater Lining Project - Design	$100,000	2024	$105,000					
Wastewater Lining Project - Construction	$1,500,000	2025		$1,653,750				
Wastewater Lining Project - Design	$100,000	2025		$110,250				
Wastewater Lining Project - Construction	$1,500,000	2026			$1,687,296			
East Downtown Wastewater Replacement Project (consider combine w/ downtown wtr)	$550,000	2026			$618,675			
Treatment Plant PLC, VPN, and Hardware Upgrades - Design	$50,000	2027				$58,493		
Treatment Plant PLC, VPN, and Hardware Upgrades -Construction	$350,000	2028					$425,829	
P Street Wastewater Replacement Project	$150,000	2024	$157,500					
Sanitary Wastewater Collections System CCTV	$600,000	2024	$630,000					
Wastewater Grant Fund Projects: Hilltop Wastewater Main Project - Design	$50,000	2027				$58,493		
Wastewater Grant Fund Projects: Hilltop Wastewater Main Project -Construction	$450,000	2028					$547,494	
Wastewater Lining Project	$1,000,000	2029						$1,265,319
Replace loader (share with water)	$125,000	2027				$146,232		
Replace vaccon (share with water)	$275,000	2029						$347,963
Replace service truck (share with water)	$40,000	Annual	$42,000	$44,100	$44,995	$46,794	$48,666	$50,613
Total	**$42,205,000**		**$3,207,750**	**$1,808,100**	**$21,023,708**	**$19,729,665**	**$1,021,988**	**$1,663,895**

Appendix E. Projected Wastewater Rates

Monthly Base Charge	Current Rate	FY2024-25	FY2025-26	FY2026-27	FY2027-28	FY2028-29
Residential (includes first 500 cf)	$38.75	$54.25	$67.81	$74.59	$76.83	$79.14
Light Commercial (includes first 500 cf; strength factor <200 mg/l)	$38.02	$53.23	$66.54	$73.19	$75.38	$77.65
Medium Commercial (includes first 500 cf; strength factor bewteen 200-500 mg/l)	$49.02	$68.63	$85.79	$94.36	$97.19	$100.11
Heavy Commercial (includes first 500 cf; strength factor >500 mg/l)	$96.69	$135.37	$169.21	$186.13	$191.71	$197.46
Industrial (includes first 2590 cf)	$767.56	$1,074.58	$1,343.23	$1,477.55	$1,521.88	$1,567.54
Palmer Creek CSD (includes first 2590 cf)	$168.02	$235.23	$294.04	$323.44	$333.14	$343.14
Volume Rate						
Residential (includes first 500 cf)	$8.61	$12.05	$15.07	$16.57	$17.07	$17.58
Light Commercial (includes first 500 cf; strength factor <200 mg/l)	$8.45	$11.83	$14.79	$16.27	$16.75	$17.26
Medium Commercial (includes first 500 cf; strength factor bewteen 200-500 mg/l)	$10.89	$15.25	$19.06	$20.96	$21.59	$22.24
Heavy Commercial (includes first 500 cf; strength factor >500 mg/l)	$21.49	$30.09	$37.61	$41.37	$42.61	$43.89
Industrial (includes first 2590 cf)	$29.64	$41.50	$51.87	$57.06	$58.77	$60.53
Palmer Creek CSD (includes first 2590 cf)	$6.49	$9.09	$11.36	$12.49	$12.87	$13.25
Special Agreements						
Residential, Commercial, and Industrial						
BOD ($/lb)	$1.36	$1.90	$2.38	$2.62	$2.70	$2.78
TSS/ ($/lb)	$1.25	$1.75	$2.19	$2.41	$2.48	$2.55
Volume ($/ccf)	$5.19	$7.27	$9.08	$9.99	$10.29	$10.60
Palmer Creek CSD						
BOD ($/lb)	$1.23	$1.72	$2.15	$2.37	$2.44	$2.51
TSS/ ($/lb)	$1.13	$1.58	$1.98	$2.18	$2.24	$2.31
Volume ($/ccf)	$3.91	$5.47	$6.84	$7.53	$7.75	$7.99

Appendix F. Projected Sources and Uses of Funds, Wastewater

Item	Budget FY 2023-24	Projected FY 2024-25	Projected FY 2025-26	Projected FY 2026-27	Projected FY 2027-28	Projected FY 2028-29
Sources of Funds						
Beginning Balance	$4,000,000	$3,800,440	$1,556,951	$1,632,174	$1,712,153	$1,797,262
Service Charges	$3,450,000	$4,743,060	$5,969,578	$6,611,364	$6,831,253	$7,036,190
Other Revenue	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000
Interest Revenue	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
Grant Revenue	$0	$0	$2,750,000	$2,750,000	$0	$0
Total Sources of Funds	$7,501,000	$8,594,500	$10,327,529	$11,044,538	$8,594,406	$8,884,452
Uses of Funds						
Collection	$495,043	$505,822	$530,448	$556,875	$585,263	$615,787
Treatment	$1,779,625	$1,845,123	$1,935,206	$2,030,776	$2,132,242	$2,240,049
Administration	$730,798	$806,205	$844,032	$884,216	$926,944	$972,418
Existing Debt Service	$695,094	$688,094	$688,844	$688,594	$692,219	$689,719
New Debt Service	$0	$0	$322,000	$966,000	$1,288,000	$1,288,000
Capital Contribution	$0	$3,192,306	$4,374,825	$4,205,925	$1,172,478	$1,190,574
Ending Fund Balance	$2,318,293	$0	$0	$0	$0	$0
Operating contingency	$1,482,148	$1,556,951	$1,632,174	$1,712,153	$1,797,262	$1,887,906
Debt Service Reserve	$0	$0	$0	$0	$0	$0
Total Uses of Funds	$7,501,000	$8,594,500	$10,327,529	$11,044,538	$8,594,406	$8,884,452
Capital Improvement Fund						
Beginning Balance	$9,000,000	$5,792,250	$7,176,456	$5,527,573	$5,003,832	$5,154,322
Debt Proceeds	$0	$0	$15,000,000	$15,000,000	$0	$0
Transfer from Wastewater Fund	$0	$3,192,306	$4,374,825	$4,205,925	$1,172,478	$1,190,574
Subtotal	$9,000,000	$8,984,556	$26,551,281	$24,733,497	$6,176,310	$6,344,895
CIP	$3,207,750	$1,808,100	$21,023,708	$19,729,665	$1,021,988	$1,663,895
Bond Issuance Cost	$0	$0	$0	$0	$0	$0
Transfer to Bond Reserve Fund	$0	$0	$0	$0	$0	$0
Subtotal	$3,207,750	$1,808,100	$21,023,708	$19,729,665	$1,021,988	$1,663,895
Ending Balance	$5,792,250	$7,176,456	$5,527,573	$5,003,832	$5,154,322	$4,681,001