# Sewer Rate Study

## City of St. Joseph, Missouri

Sewer Rate Study
Project No. 180786

Draft Report
5/29/2025

# Sewer Rate Study

prepared for

City of St. Joseph, Missouri
Sewer Rate Study
St. Joseph, Missouri

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Draft Report
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prepared by

Burns & McDonnell Engineering Company, Inc.

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# LIST OF ABBREVIATIONS

| Abbreviation | Term/Phrase/Name |
|---|---|
| AWWA | American Water Works Association |
| BLS | Bureau of Labor Statistics |
| BOD | Biochemical Oxygen Demand |
| ccf | Hundred Cubic Feet |
| CIP | Capital Improvement Program |
| CPI-U | Consumer Price Index for all Urban Consumers |
| CMOM | Capacity, Management, Operation and Maintenance |
| City | City of St. Joseph, Missouri |
| Department | Public Works Department |
| DSC | Debt Service Coverage |
| FOG | Fats, Oils, and Grease |
| FY | Fiscal Year |
| I/I | Infiltration/Inflow |
| MDNR | Missouri Department of Natural Resources |
| Mgd | Million Gallons per Day |
| NACWA | National Association of Clean Water Agencies |
| NPDES | National Pollutant Discharge Elimination System |
| O&M | Operation & Maintenance Expense |
| SIU | Significant Industrial User |
| SS | Suspended Solids |
| SSES | Sewer System Evaluation Survey |

| Abbreviation | Term/Phrase/Name |
|---|---|
| Study | The 2025 Sewer Rate Study |
| SSJISD | South St. Joseph Industrial Sewer District |
| WEF | Water Environment Federation |

# 1.0 EXECUTIVE SUMMARY

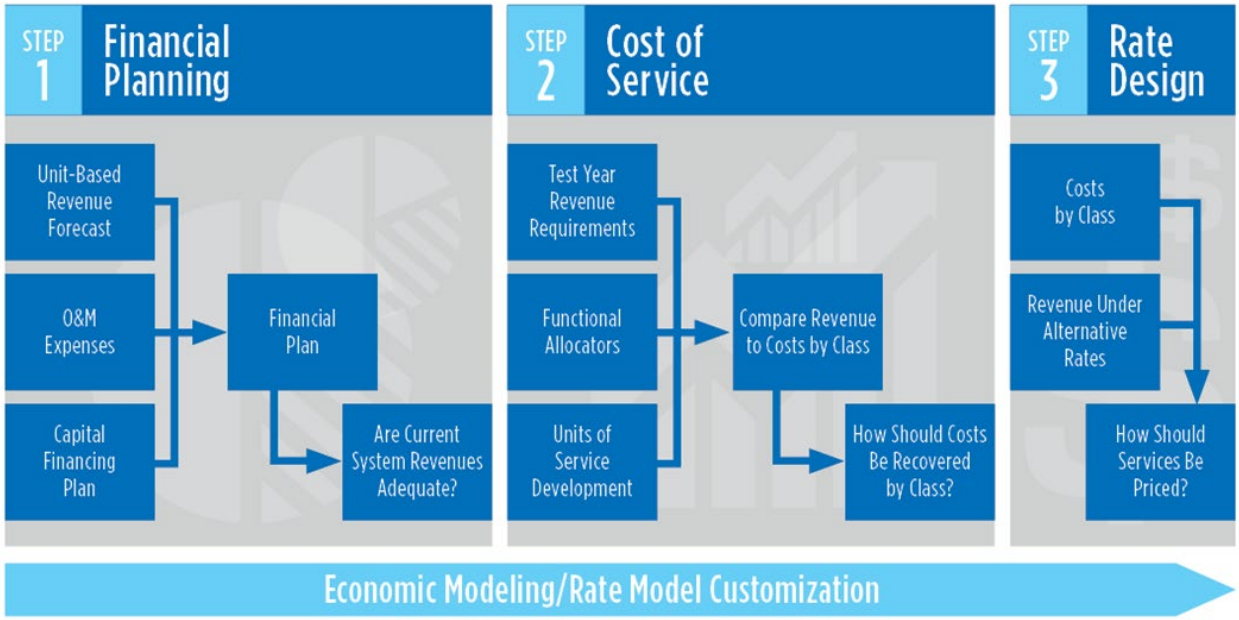
## 1.1 Project Background

Burns & McDonnell was engaged by the City of St. Joseph (City) to perform a comprehensive sewer rate study (Study) that (i) evaluates the financial planning implications of the funding requirements for the utility, and (ii) proposes rates to recover these costs adequately and equitably for the sewer utility. This Report presents the major findings and analysis of the Study.

## 1.2 Project Approach

Burns & McDonnell conducted the Study in a three-step approach. This approach, depicted in Figure 1-1, is grounded in the guidelines established by the American Water Works Association (AWWA) *M1 Rate Manual* and the Water Environment Federation (WEF) *Financing and Charges for Wastewater Systems*.

**Figure 1-1: Study Methodology**




**Step 1: Financial Planning** provides an indication of the adequacy of the revenue generated by current rates. The results of the financial forecast analysis answer the questions "Are the existing rates adequate?" and "If not, what level of overall revenue increase is needed?" The Financial Planning Analysis is presented in Section 2.0 of this report.

**Step 2: Cost of Service** focuses on assigning cost responsibility to customer classes. Each customer class is allocated a share of the overall system costs based on the level of service provided. The net revenue requirements identified in Step 1 are allocated to customers in accordance with industry standards and

principles, system characteristics, and allocation methodologies utilized in prior sewer rate studies for the City. The Cost of Service Analysis is detailed in Section 3.0 of this report.

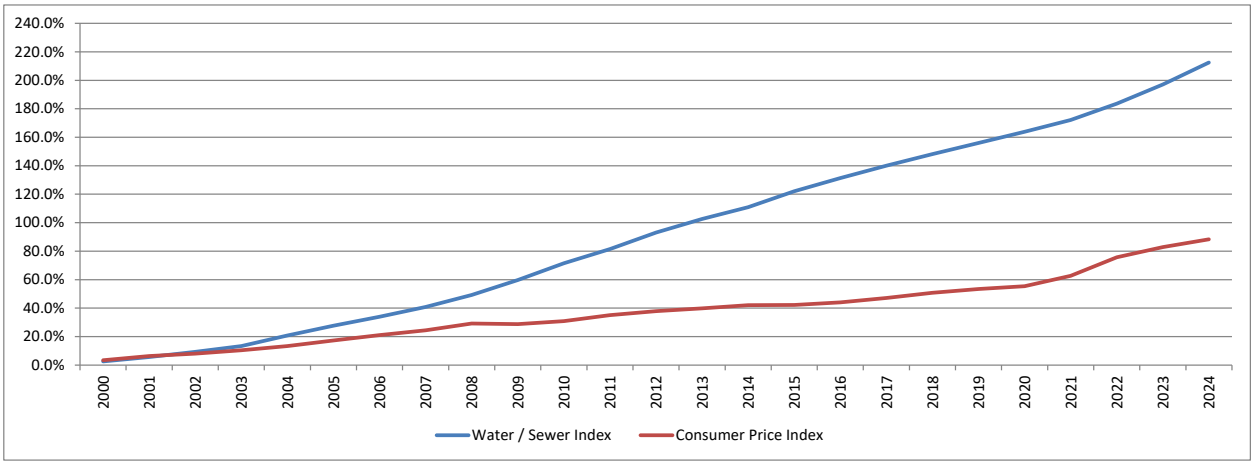
**Step 3: Rate Design** provides for the required revenue recovery. Based on the revenue need identified in Step 1, and the cost of service analysis developed in Step 2, proposed rates are determined. The Proposed Rate Design is detailed in Section 4.0 of this report.

## 1.3 Industry Trends in Sewer Rates

Replacement of aging infrastructure is one of several dynamics impacting sewer utility rates. Other dynamics may include requirements for regulatory compliance, inflation on operating and capital costs, and a general trend in declining consumption most often associated with more efficient fixtures and appliances and greater awareness of water conservation. Effective industrial pre-treatment investments can also create the dual benefit of cost savings for the industry as well as reducing wastewater strength loadings conveyed for treatment.

Each utility is different, and the relative importance of these dynamics will vary by utility. However, there is no doubt that sewer rate increases have substantially outpaced general inflation in the United States. The United States Bureau of Labor Statistics (BLS) tracks many facets of inflation. The most commonly referenced measure is the Consumer Price Index for all Urban Consumers (CPI-U) which measures inflation at the consumer level. The BLS also tracks a combined inflation index for consumer water and sewer costs. Figure 1-2 compares changes in the consumer price index to changes in the water and sewer cost index since 2000.

**Figure 1-2: Changes in General Inflation and National Water and Sewer Household Costs**



Since 2000, the water and sewer index has risen on average about 4.8 percent per year, while CPI's annual rate of change over the same time period is roughly 2.5 percent per year.

Other industry surveys reach similar conclusions regarding water and/or sewer rates. The National Association of Clean Water (NACWA) annually updates its *Cost of Clean Water Index*, which surveys sewer utilities across the nation regarding the cost of residential sewer service. From 1985 through 2024, the annual increase in this index has averaged about 4.7 percent per year. American Water Works Association (AWWA) conducts a broad annual water and sewer rate survey which shows from 1996 through 2018, sewer rates were indicated to increase approximately 5.6 percent annually.

Each utility will be influenced by specific circumstances that can lead to increases that are higher or lower than these industry trends. However, costs associated with renewal and replacement of existing infrastructure and the increasing cost of regulatory compliance are two of the primary dynamics contributing toward the increases in sewer rates, and both issues impact St. Joseph directly. Understanding the reality of increasing costs within the sewer utility industry provides helpful context in evaluating proposed financial plans and rate changes.

## 1.4 Financial Planning

Financial planning conducted for the sewer utility indicates that revenues under existing rates are not sufficient to meet the projected cash obligations of the utility over the six-year study period. The need for revenue adjustments is influenced by the following factors:

- Inflationary impacts on operation and maintenance expenses and future capital improvements
- Implementation of the proposed capital plan
- Sustaining reasonable reserves and Debt Service Coverage (DSC) levels

The recommended financial plan detailed in this report proposes the following revenue increases to be effective at the start of the utility's fiscal year, July 1 of each fiscal year.

- FY 2026 – 3.0 percent
- FY 2027 – 3.0 percent
- FY 2028 – 2.0 percent
- FY 2029 – 2.0 percent
- FY 2030 – 2.0 percent

## 1.5 Cost of Service

The cost of service analysis is focused on determining revenue responsibility. Once the overall need for revenue increases is identified through financial planning, the results of the cost of service analysis help provide insight into cost causation for customer classes.

To determine each customer class' equitable share of the cost of providing utility service, the cost of service analysis compares the revenues received from each customer class under existing rates with the allocated cost responsibility for that class. Methodologies used to perform this analysis align with industry guidelines prescribed by WEF. Generally speaking, the cost of service analysis indicates retail customer classes bear proportionately more responsibility for costs than wholesale customers.

## 1.6 Proposed Rate Design

The primary focus of Step 3, Rate Design, is the development of proposed rates. A two-year rate ordinance is proposed. Table 1-1 and Table 1-2 show the rates proposed for FY 2026 and FY 2027, assumed to be effective July 1 of their respective fiscal years.

The proposed rates are designed to recover the system revenue increase by year as shown in Section 1.4. The detailed rate design is described in Section 4.0 of this report.

**Table 1-1: Proposed FY 2026 Rates**

| Line No. | RETAIL | Inside City | | Outside City | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 1 | Service Charge | 41.47 | $/month | 53.91 | $/month | | |
| 2 | Volume Charge | 6.52 | $/ccf | 8.48 | $/ccf | | |
| | Overage Charges | | | | | | |
| 3 | BOD in excess of 300 mg/l | 0.265 | $/lb | 0.345 | $/lb | 0.398 | $/lb |
| 4 | Suspended solids in excess of 350 mg/l | 0.204 | $/lb | 0.265 | $/lb | 0.306 | $/lb |
| 5 | Ammonia | 0.109 | $/lb | 0.142 | $/lb | 0.164 | $/lb |
| 6 | Fats, Oils, & Grease in Excess of 100 mg/l | 0.298 | $/lb | 0.387 | $/lb | | |
| 7 | Sulphides in excess of 15 mg/l | 0.349 | $/lb | 0.454 | $/lb | | |
| 8 | Septage (hauled wastewater) | 0.089 | $/gal | 0.089 | $/gal | | |

| | WHOLESALE | Monthly Charge | | Flow Charge | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 9 | SSJISD | 40,490 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 10 | National Beef Leathers | 13,410 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 11 | Triumph Foods | 26,680 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 12 | Pump Station | | | 0.410 | $/ccf | | |
| 13 | BOD | | | 0.287 | $/lb | 0.431 | $/lb |
| 14 | SS | | | 0.119 | $/lb | 0.179 | $/lb |
| 15 | Ammonia | | | 0.109 | $/lb | 0.164 | $/lb |
| 16 | FOG | | | 0.298 | $/lb | | |

In 2026, an average residential customer using 4 ccf will see a bill increase of $1.85 per month resulting from the proposed FY 2026 rates. Table 1-3 demonstrates the impact to retail customers with different levels of use.

**Table 1-2: Proposed FY 2027 Rates**

| Line No. | RETAIL | Inside City | | Outside City | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 1 | Service Charge | 42.09 | $/month | 54.72 | $/month | | |
| 2 | Volume Charge | 6.85 | $/ccf | 8.91 | $/ccf | | |
| | Overage Charges | | | | | | |
| 3 | BOD in excess of 300 mg/l | 0.265 | $/lb | 0.345 | $/lb | 0.398 | $/lb |
| 4 | Suspended solids in excess of 350 mg/l | 0.204 | $/lb | 0.265 | $/lb | 0.306 | $/lb |
| 5 | Ammonia | 0.109 | $/lb | 0.142 | $/lb | 0.164 | $/lb |
| 6 | Fats, Oils, & Grease in Excess of 100 mg/l | 0.298 | $/lb | 0.387 | $/lb | | |
| 7 | Sulphides in excess of 15 mg/l | 0.349 | $/lb | 0.454 | $/lb | | |
| 8 | Septage (hauled wastewater) | 0.092 | $/gal | 0.092 | $/gal | | |

| | WHOLESALE | Monthly Charge | | Flow Charge | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 9 | SSJISD | 40,490 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 10 | National Beef Leathers | 13,410 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 11 | Triumph Foods | 26,680 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 12 | Pump Station | | | 0.410 | $/ccf | | |
| 13 | BOD | | | 0.287 | $/lb | 0.431 | $/lb |
| 14 | SS | | | 0.119 | $/lb | 0.179 | $/lb |
| 15 | Ammonia | | | 0.109 | $/lb | 0.164 | $/lb |
| 16 | FOG | | | 0.298 | $/lb | | |

In 2027, an average residential customer using 4 ccf will see a bill increase of $1.94 per month resulting from the proposed FY 2027 rates. Table 1-4 demonstrates the impact to retail customers with different levels of use.

**Table 1-3: Inside City Retail Sewer Bills Under Existing FY 2025 Rates and Proposed FY 2026 Rates**

| Monthly Billed Sewer Volume | Inside City 2025 Rates | 2026 Rates | Increase | Increase |
|---|---|---|---|---|
| ccf | $ | $ | $ | % |
| **0** | 40.86 | 41.47 | 0.61 | 1.49% |
| **2** | 53.28 | 54.51 | 1.23 | 2.31% |
| **3** | 59.49 | 61.03 | 1.54 | 2.59% |
| **4** | 65.70 | 67.55 | 1.85 | 2.82% |
| **6** | 78.12 | 80.59 | 2.47 | 3.16% |
| **10** | 102.96 | 106.67 | 3.71 | 3.60% |
| **30** | 227.16 | 237.07 | 9.91 | 4.36% |
| **50** | 351.36 | 367.47 | 16.11 | 4.59% |
| **75** | 506.61 | 530.47 | 23.86 | 4.71% |
| **100** | 661.86 | 693.47 | 31.61 | 4.78% |
| **150** | 972.36 | 1,019.47 | 47.11 | 4.84% |
| **200** | 1,282.86 | 1,345.47 | 62.61 | 4.88% |
| **500** | 3,145.86 | 3,301.47 | 155.61 | 4.95% |
| **1000** | 6,250.86 | 6,561.47 | 310.61 | 4.97% |

**Table 1-4: Inside City Retail Sewer Bills Under Proposed FY 2026 and FY 2027 Rates**

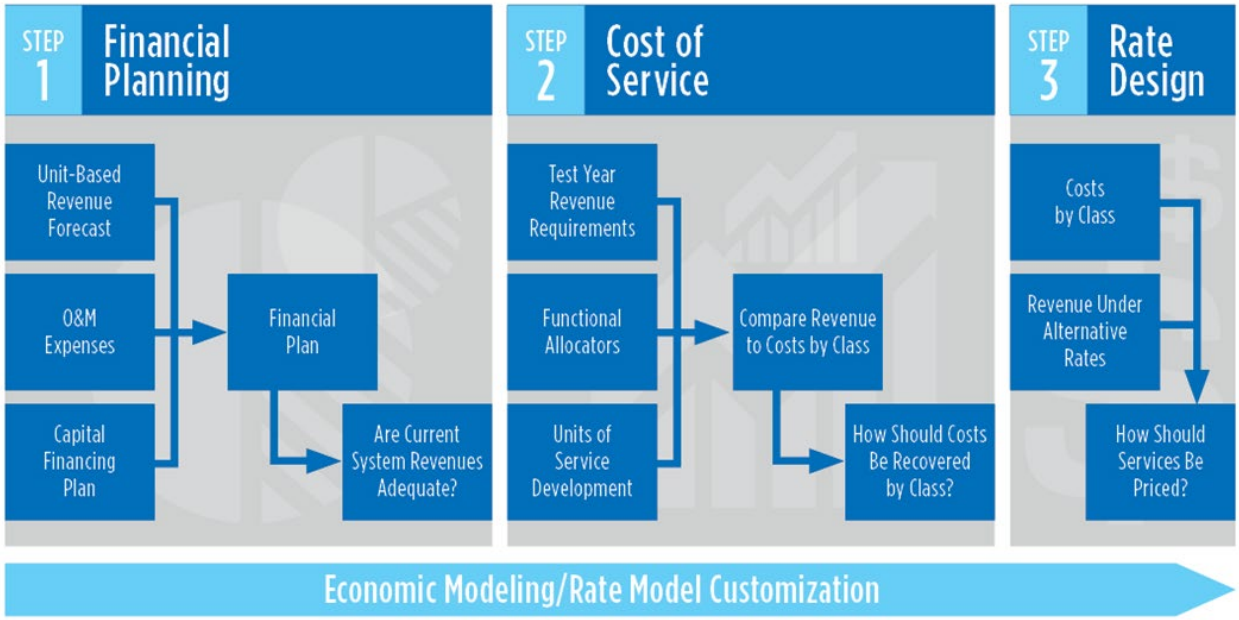
| Monthly Billed Sewer Volume | Inside City 2026 Rates | 2027 Rates | Increase | Increase |
|---|---|---|---|---|
| ccf | $ | $ | $ | % |
| **0** | 41.47 | 42.09 | 0.62 | 1.50% |
| **2** | 54.51 | 55.79 | 1.28 | 2.35% |
| **3** | 61.03 | 62.64 | 1.61 | 2.64% |
| **4** | 67.55 | 69.49 | 1.94 | 2.87% |
| **6** | 80.59 | 83.19 | 2.60 | 3.23% |
| **10** | 106.67 | 110.59 | 3.92 | 3.67% |
| **30** | 237.07 | 247.59 | 10.52 | 4.44% |
| **50** | 367.47 | 384.59 | 17.12 | 4.66% |
| **75** | 530.47 | 555.84 | 25.37 | 4.78% |
| **100** | 693.47 | 727.09 | 33.62 | 4.85% |
| **150** | 1,019.47 | 1,069.59 | 50.12 | 4.92% |
| **200** | 1,345.47 | 1,412.09 | 66.62 | 4.95% |
| **500** | 3,301.47 | 3,467.09 | 165.62 | 5.02% |
| **1000** | 6,561.47 | 6,892.09 | 330.62 | 5.04% |

# 2.0 FINANCIAL PLANNING ANALYSIS

## 2.1 Project Approach

To meet the project objectives identified by the City, Burns & McDonnell conducted the sewer rate study in a three-step approach. This approach, depicted in Figure 2-1, is grounded in the principles established by the American Water Works Association (AWWA) *M1 Rate Manual* and the Water Environment Federation (WEF) *Financing and Charges for Wastewater Systems*.

**Figure 2-1: Study Methodology**




**Step 1: Financial Planning** provides an indication of the adequacy of the revenue generated by current rates. The results of the financial forecast analysis answer the questions "Are the existing rates adequate?" and "If not, what level of overall revenue increase is needed?" The Financial Planning Analysis is presented in this section of the report.

**Step 2: Cost of Service** focuses on assigning cost responsibility to customer classes. Each customer class is allocated a share of the overall system costs based on the level of service provided. The net revenue requirements identified in Step 1 are allocated to customers in accordance with industry standards and principles, system characteristics, and allocation methodologies utilized in prior sewer rate studies for the City. The Cost of Service Analysis is detailed in Section 3.0 of this report.

**Step 3: Rate Design** provides for the required revenue recovery. Based on the revenue need identified in Step 1, and the cost of service analysis developed in Step 2, proposed rates are determined. The Proposed Rate Design is detailed in Section 4.0 of this report.

## 2.2 Introduction to Financial Planning

The primary issue addressed in the Financial Planning Analysis is revenue sufficiency. The results of the Financial Planning Analysis answer the questions:

- "Are the existing rates sufficient to fund anticipated operating and capital costs?"
- "If not, what level of overall revenue increase is needed?"

To determine if the existing schedule of rates can be expected to generate sufficient revenues to meet the City's operating and capital costs, Burns & McDonnell prepared a five-year financial projection of revenues and expenditures for the sewer utility. A comparison of projected revenues and expenditures provides insight into the adequacy of overall revenue levels.

Our approach to Financial Planning involves the following basic steps:

1. Project revenues under existing rates.
2. Project sewer utility expenditures, including operating and capital costs.
3. Develop a six-year financial plan, including the budget year and a five-year forecast period.

The planning period includes the current fiscal year (FY) 2025 as a budget year and a five-year forecast period, FY 2026 through FY 2030. The projected periods in the financial plan recognize the City's fiscal year of July 1$^{st}$ through June 30$^{th}$.

## 2.3 Sewer Utility Revenues under Existing Rates

The first step in the Financial Planning Analysis was to project revenues under the existing rates. To complete this effort required an analysis of sewer customers, volumes, and revenues.

### 2.3.1 Historical and Projected Customers

Table 2-1 presents the historical sewer customers served by the City for 2021 through 2024 and the projection of customers for the 2025 to 2030 planning period. In recent years, St. Joseph has experienced a relatively stable number of accounts. Projected accounts are assumed to remain constant over the forecast period.

**Table 2-1: Historical and Projected Sewer Accounts and Volume**

| Line No. | | Historical | | | | Projected | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| | **Accounts** | | | | | | | | | | |
| 1 | Residential - Inside | 23,437 | 23,422 | 23,453 | 23,524 | 23,524 | 23,524 | 23,524 | 23,524 | 23,524 | 23,524 |
| 2 | Commercial | 2,320 | 2,339 | 2,356 | 2,356 | 2,356 | 2,356 | 2,356 | 2,356 | 2,356 | 2,356 |
| 3 | Industrial/ Surcharge | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 4 | Residential - Outside | 163 | 157 | 152 | 152 | 152 | 152 | 152 | 152 | 152 | 152 |
| 5 | Commercial/ Industrial - Outside | 33 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 6 | SSJISD | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 7 | National Beef Leathers | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 8 | Triumph Foods | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | Total Accounts | 25,971 | 25,970 | 26,013 | 26,084 | 26,084 | 26,084 | 26,084 | 26,084 | 26,084 | 26,084 |
| | **Billed Volume *(ccf)*** | | | | | | | | | | |
| 10 | Residential - Inside | 1,132,267 | 1,131,344 | 1,170,920 | 1,101,371 | 1,092,900 | 1,084,400 | 1,076,100 | 1,067,800 | 1,059,500 | 1,051,400 |
| 11 | Commercial | 1,066,484 | 991,877 | 1,043,057 | 1,056,140 | 1,056,100 | 1,056,100 | 1,056,100 | 1,056,100 | 1,056,100 | 1,056,100 |
| 12 | Industrial/ Surcharge | 461,549 | 472,777 | 462,362 | 446,611 | 429,200 | 429,200 | 429,200 | 429,200 | 429,200 | 429,200 |
| 13 | Residential - Outside | 8,169 | 8,159 | 8,323 | 7,997 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 |
| 14 | Commercial/ Industrial - Outside | 4,234 | 5,084 | 4,362 | 3,903 | 3,900 | 3,900 | 3,900 | 3,900 | 3,900 | 3,900 |
| 15 | SSJISD | 725,349 | 837,491 | 739,046 | 810,134 | 810,100 | 810,100 | 810,100 | 810,100 | 810,100 | 810,100 |
| 16 | National Beef Leathers | 349,886 | 366,320 | 349,957 | 347,567 | 347,600 | 347,600 | 347,600 | 347,600 | 347,600 | 347,600 |
| 17 | Triumph Foods | 1,086,169 | 1,117,497 | 1,063,882 | 1,024,987 | 1,030,700 | 1,030,700 | 1,030,700 | 1,030,700 | 1,030,700 | 1,030,700 |
| 18 | Total Volume | 4,834,108 | 4,930,548 | 4,841,909 | 4,798,709 | 4,778,500 | 4,770,000 | 4,761,700 | 4,753,400 | 4,745,100 | 4,737,000 |

### 2.3.2 Historical and Projected Volumes

Table 2-1 also presents historical sewer volumes for 2021 through 2024 and the projection of volumes for the 2025 to 2030 planning period. A review of historical demand indicates billed volume for most classes to be generally stable; however a slight erosion in residential use per account has been observed. For this Study, the residential average use per account is forecasted to decline 0.75 percent per year over the forecast, resulting in slightly declining residential billed flow. All other classes are assumed to remain steady at their current usage levels over the forecast.

### 2.3.3 Existing Sewer Rates

The current sewer rate schedule is shown in Table 2-2. The current rate structure includes a monthly service charge and volumetric charge for retail customers. High strength industrial customers are subject to the same service and volume charges plus additional high strength surcharges and limit fees. Further, the City has three Wholesale customers that are subject to specific service, volume, and high strength charges and limit fees associated with their use of the treatment plant's ammonia treatment facilities.

### 2.3.4 User Revenues under Existing Rates

Table 2-3 presents historical user charge revenues for 2021 through 2024 and a projection of user charge revenues under existing FY 2025 rates for the 2026 to 2030 planning period. The projection of user charge revenues was calculated based on the forecasted accounts, volumes, and current rates.

**Table 2-2: Existing Sewer Rates**

| Line No. | RETAIL | Inside City | | Outside City | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 1 | Service Charge | 40.86 | $/month | 53.12 | $/month | | |
| 2 | Volume Charge | 6.21 | $/ccf | 8.07 | $/ccf | | |
| | Overage Charges | | | | | | |
| 3 | BOD in excess of 300 mg/l | 0.265 | $/lb | 0.345 | $/lb | 0.398 | $/lb |
| 4 | Suspended solids in excess of 350 mg/l | 0.204 | $/lb | 0.265 | $/lb | 0.306 | $/lb |
| 5 | Ammonia | 0.109 | $/lb | 0.142 | $/lb | 0.164 | $/lb |
| 6 | Fats, Oils, & Grease in Excess of 100 mg/l | 0.298 | $/lb | 0.387 | $/lb | | |
| 7 | Sulfides | 0.349 | $/lb | 0.454 | $/lb | | |
| 8 | Septage | 0.086 | $/gal | 0.086 | $/gal | | |
| | **WHOLESALE** | **Monthly Charge** | | **Flow Charge** | | **Limit Fees** | |
| 9 | SSJISD | 40,490 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 10 | National Beef Leathers | 13,410 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 11 | Triumph Foods | 26,680 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 12 | Pump Station | | | 0.410 | $/ccf | | |
| 13 | BOD | | | 0.287 | $/lb | 0.431 | $/lb |
| 14 | SS | | | 0.119 | $/lb | 0.179 | $/lb |
| 15 | Ammonia | | | 0.109 | $/lb | 0.164 | $/lb |
| 16 | FOG | | | 0.298 | $/lb | | |

As shown in Table 2-3, historical sewer user charge revenues ranged from $30.3 million to $31.1 million across the last four years. Historical revenues are provided by the City based on billed quantities and rates in existence for each historical year. No rate increases were implemented in FY2021 through 2023. During 2024, the City approved a 4.25 percent increase in rates to be effective in October of FY 2025. Projected 2025 revenue in Table 2-3 is calculated using forecasted accounts and demand by class and the adopted partial year 2025 schedule of rates. Using the projected 2025 customer accounts, demand, and factored 2025 rates implemented in October, the 2025 revenue is projected to be $31.8 million. In 2026 revenue under existing rates increases to $32.1 million based on the impact of the 2025 rate increase being in effect a full year. As shown on Line 10 of Table 2-3, projected revenue is expected to decrease slightly reflecting the forecasted decline in residential use.

**Table 2-3: Historical and Projected Sewer User Revenues**

| Line No. | | Historical | | | | Projected | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| | **User Charge Revenues under Existing Rates** | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| 1 | Residential - Inside | 16,906,702 | 16,894,924 | 17,129,348 | 17,140,387 | 17,667,521 | 17,903,400 | 17,852,900 | 17,802,400 | 17,751,800 | 17,702,500 |
| 2 | Commercial | 6,989,682 | 6,582,711 | 6,875,175 | 7,086,963 | 7,390,884 | 7,543,100 | 7,543,100 | 7,543,100 | 7,543,100 | 7,543,100 |
| 3 | Industrial/ Surcharge | 2,913,750 | 2,701,381 | 2,756,558 | 2,654,070 | 2,662,500 | 2,716,600 | 2,716,600 | 2,716,600 | 2,716,600 | 2,716,600 |
| 4 | Residential - Outside | 279,702 | 270,154 | 267,546 | 281,539 | 199,277 | 158,200 | 158,200 | 158,200 | 158,200 | 158,200 |
| 5 | Commercial/ Industrial - Outside | 88,832 | 100,628 | 91,795 | 102,941 | 64,186 | 52,000 | 52,000 | 52,000 | 52,000 | 52,000 |
| 6 | SSJISD | 1,784,985 | 1,961,600 | 1,883,800 | 2,180,900 | 2,140,400 | 2,120,200 | 2,120,200 | 2,120,200 | 2,120,200 | 2,120,200 |
| 7 | National Beef Leathers | 385,380 | 331,000 | 291,600 | 314,600 | 314,600 | 314,600 | 314,600 | 314,600 | 314,600 | 314,600 |
| 8 | Triumph Foods | 977,675 | 1,238,900 | 932,600 | 1,217,600 | 1,182,300 | 1,164,600 | 1,164,600 | 1,164,600 | 1,164,600 | 1,164,600 |
| 9 | Septage Revenue | 184,326 | 173,840 | 184,326 | 155,469 | 174,490 | 174,490 | 174,490 | 174,490 | 174,490 | 174,490 |
| 10 | Total User Charge Revenue | 30,511,033 | 30,255,138 | 30,412,748 | 31,134,469 | 31,796,158 | 32,147,190 | 32,096,690 | 32,046,190 | 31,995,590 | 31,946,290 |

## 2.4 Other Revenue

Historical and projected other revenues are shown in Table 2-4. Other revenues include Sewer Service Penalties, Sewer System Development Fees, Reimbursements, Admin Code Penalties, and Other Revenue. Overall, these revenues are projected to remain consistent with 2025 budgetary estimates, totaling approximately $1.3 million per year throughout the forecast period.

**Table 2-4: Historical and Projected Other Revenues**

| Line No. | | Historical | | | | Budgeted | Projected | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| | | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| 1 | Sewer Service Penalties | 590,700 | 620,000 | 590,700 | 645,400 | 615,800 | 615,800 | 615,800 | 615,800 | 615,800 | 615,800 |
| 2 | Sewer System Development Fees | 39,200 | 30,000 | 39,200 | 22,500 | 48,600 | 48,600 | 48,600 | 48,600 | 48,600 | 48,600 |
| 3 | Refund Prior Year Expenditures | - | 7,600 | - | - | - | - | - | - | - | - |
| 4 | BUILD Credit Revenue | 371,200 | - | - | - | - | - | - | - | - | - |
| 5 | Recovery/Reimbursements | 66,500 | 137,700 | 125,000 | 237,100 | 415,000 | 415,000 | 415,000 | 415,000 | 415,000 | 415,000 |
| 6 | Admin Code Penalties | - | 195,700 | - | 403,400 | - | - | - | - | - | - |
| 7 | Other Revenue | 517,000 | 3,187,200 | 311,500 | 376,100 | 213,000 | 213,000 | 213,000 | 213,000 | 213,000 | 213,000 |
| 8 | Total Other Revenues | 1,584,600 | 4,178,200 | 1,066,400 | 1,684,500 | 1,292,400 | 1,292,400 | 1,292,400 | 1,292,400 | 1,292,400 | 1,292,400 |

## 2.5 Sewer Utility Expenditures

Typically, municipal sewer utility primary cash expenditures include the following direct operating and capital costs:

- Operation and Maintenance (O&M) Expenses
- Capital Improvement Program Expenditures
- Debt Service Principal and Interest Payments

### 2.5.1 O&M Expenses

Table 2-5 presents the recent sewer O&M expense history and the projection of sewer system O&M expenses throughout the 2030 planning period.

From 2021 to 2024, total sewer O&M expenses ranged from approximately $13.6 million to $15.0 million based largely on changes in electricity costs, maintenance expenses, and general fund transfers.

## Table 2-5: Historical and Projected Operation and Maintenance Expenses

| Line No. | | Historical | | | | Estimated | Preliminary Budget | Projected | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| | | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| 1 | Base Salaries/Wages | 3,216,600 | 3,348,200 | 3,372,800 | 3,656,700 | 4,082,300 | 4,204,700 | 4,330,900 | 4,460,800 | 4,594,600 | 4,732,400 |
| 2 | Salary Increases | - | - | - | - | - | - | - | - | - | - |
| 3 | Overtime | 187,200 | 193,600 | 235,200 | 267,700 | 327,000 | 330,300 | 333,600 | 336,900 | 340,300 | 343,700 |
| 4 | Temp.-Part Time Wages | 27,800 | 13,400 | - | - | - | - | - | - | - | - |
| 5 | Out-of-Title Pay | 126,000 | 109,700 | 117,700 | 134,400 | 50,000 | 50,500 | 51,000 | 51,500 | 52,000 | 52,500 |
| 6 | Sick Leave Buy Back | - | - | - | - | - | - | - | - | - | - |
| 7 | Pensions | 417,400 | 447,200 | 421,700 | 440,100 | 515,200 | 550,000 | 557,400 | 564,900 | 572,500 | 580,200 |
| 8 | FICA | 220,500 | 227,500 | 230,100 | 248,900 | 279,900 | 288,300 | 297,000 | 306,000 | 315,200 | 324,600 |
| 9 | FICA-Medicare | 51,600 | 53,200 | 53,800 | 58,200 | 65,500 | 67,300 | 69,400 | 71,500 | 73,700 | 75,900 |
| 10 | 457 Plan Match | 16,000 | 16,500 | 13,100 | 11,800 | 28,600 | 29,400 | 30,200 | 31,000 | 31,800 | 32,600 |
| 11 | Health Insurance | 686,400 | 717,800 | 564,600 | 644,000 | 792,100 | 877,200 | 941,200 | 1,009,900 | 1,083,700 | 1,162,700 |
| 12 | Dental Insurance | 25,300 | 22,100 | 20,000 | 19,400 | 23,700 | 25,400 | 27,200 | 29,200 | 31,300 | 33,600 |
| 13 | Life Insurance | 10,600 | 10,200 | 10,800 | 12,100 | 12,700 | 12,900 | 13,200 | 13,600 | 14,000 | 14,400 |
| 14 | Unemployment Insurance | 3,100 | 2,600 | 4,800 | 10,300 | 8,200 | - | - | - | - | - |
| 15 | Long Term Disability | 8,300 | 7,200 | 4,400 | 6,800 | 10,200 | 10,300 | 10,600 | 10,900 | 11,200 | 11,500 |
| 16 | Workers Compensation | 299,900 | 244,100 | 338,800 | 347,900 | 235,700 | 256,300 | 269,100 | 282,400 | 296,500 | 311,400 |
| 17 | Confer/Train/Travel | 13,700 | 33,600 | 38,100 | 26,200 | 40,700 | 41,700 | 42,100 | 42,600 | 43,100 | 43,600 |
| 18 | Office Supplies | 9,100 | 10,500 | 10,200 | 8,300 | 11,600 | 10,300 | 10,400 | 10,500 | 10,600 | 10,700 |
| 19 | Janitorial Supplies | 12,800 | 17,100 | 12,900 | 14,000 | 14,300 | 14,300 | 14,400 | 14,500 | 14,600 | 14,700 |
| 20 | Safety Equip/Clothing | 94,000 | 66,000 | 79,400 | 121,300 | 92,400 | 103,300 | 104,300 | 105,400 | 106,500 | 107,600 |
| 21 | Chem/Drugs/Med Supplies | - | - | - | - | - | - | - | - | - | - |
| 22 | Wastewater Treatment Chem | 195,800 | 245,700 | 174,000 | 228,100 | 277,900 | 288,200 | 296,800 | 305,700 | 314,900 | 324,300 |
| 23 | Motor Fuel and Lubricants | 148,300 | 159,900 | 189,500 | 158,300 | 145,600 | 178,600 | 184,000 | 189,500 | 195,200 | 201,100 |
| 24 | Street Maint Supplies | 23,400 | 17,100 | 53,200 | 57,600 | 5,000 | 75,000 | 77,300 | 79,600 | 82,000 | 84,500 |
| 25 | Other Mats/Supplies | 7,600 | 10,200 | 7,400 | 8,700 | 13,000 | 8,200 | 8,400 | 8,700 | 9,000 | 9,300 |
| 26 | Legal Services | 25,500 | 37,000 | 34,500 | 77,800 | 75,000 | 70,000 | 70,700 | 71,400 | 72,100 | 72,800 |
| 27 | Professional Services | 505,600 | 283,500 | 289,100 | 447,900 | 377,900 | 408,800 | 414,800 | 420,900 | 427,100 | 433,500 |
| 28 | Fleet Management Costs | - | - | - | - | 18,400 | 18,400 | 19,000 | 19,600 | 20,200 | 20,800 |
| 29 | Banking / Transaction Fees | 204,100 | 32,600 | 40,600 | 89,400 | 80,000 | 80,000 | 82,400 | 84,900 | 87,400 | 90,000 |
| 30 | Other Professinal Sevices | - | - | - | - | - | - | - | - | - | - |
| 31 | Memberships | 20,300 | 20,600 | 27,800 | 23,500 | 22,900 | 22,900 | 23,100 | 23,300 | 23,500 | 23,700 |
| 32 | Periodicals & Books | 200 | 900 | 300 | 200 | 500 | 500 | 500 | 500 | 500 | 500 |
| 33 | Communication Services | 34,600 | 33,800 | 38,000 | 44,100 | 47,600 | 47,600 | 48,100 | 48,600 | 49,100 | 49,600 |
| 34 | Postage | 138,500 | 137,300 | 153,900 | 166,800 | 175,300 | 211,300 | 213,400 | 215,500 | 217,600 | 219,800 |
| 35 | Freight | 1,000 | 1,200 | 900 | 900 | 1,800 | 1,300 | 1,300 | 1,300 | 1,300 | 1,300 |
| 36 | Advertising | 6,900 | 2,200 | 200 | 200 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| 37 | Permits/Recording Fees | 7,100 | 4,400 | 300 | 2,700 | 2,700 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 |
| 38 | Printing and Binding | 29,700 | 500 | 18,400 | 16,100 | 29,300 | 34,700 | 35,800 | 36,900 | 38,000 | 39,100 |
| 39 | Gas Service | 82,400 | 327,700 | 312,600 | 283,500 | 322,100 | 331,600 | 341,600 | 351,800 | 362,300 | 373,200 |
| 40 | Electric Service | 1,579,300 | 1,692,100 | 1,840,600 | 1,807,000 | 1,732,900 | 1,640,000 | 1,198,000 | 1,233,900 | 1,270,900 | 1,309,000 |
| 41 | Water Service | 117,200 | 126,600 | 105,200 | 121,900 | 159,600 | 164,400 | 169,300 | 174,400 | 179,700 | 185,100 |
| 42 | Vehicle/Equipment Rental | 68,000 | 35,500 | 26,500 | 25,300 | 89,800 | 54,800 | 55,400 | 55,900 | 56,400 | 56,900 |
| 43 | Lease | 5,200 | - | 3,100 | 4,000 | 5,500 | 5,500 | 5,600 | 5,700 | 5,800 | 5,900 |
| 44 | Towing Services | 900 | 800 | 100 | - | 500 | 500 | 500 | 500 | 500 | 500 |
| 45 | Laundry Services | 27,000 | 55,900 | 50,500 | 21,300 | 22,900 | 22,900 | 23,500 | 24,200 | 24,900 | 25,700 |
| 46 | Sewer Connection Discount Fee | 92,500 | 128,300 | 101,700 | 255,700 | 460,000 | 468,300 | 482,400 | 496,900 | 511,800 | 527,200 |
| 47 | Solid Waste Disposal Service | 2,400 | 4,000 | 3,800 | 2,800 | 4,400 | 4,000 | 4,100 | 4,200 | 4,300 | 4,400 |
| 48 | MO DNR Fees | 495,500 | 516,200 | 333,700 | 438,800 | 294,500 | 185,600 | 191,200 | 196,900 | 202,800 | 208,900 |
| 49 | Other Services | 4,100 | 5,300 | 5,700 | 4,700 | 4,600 | 4,600 | 4,700 | 4,800 | 4,900 | 5,000 |
| 50 | Bad Debt Expense | 591,300 | 253,000 | 221,700 | 282,400 | 350,000 | 331,100 | 339,700 | 346,200 | 352,600 | 359,100 |
| 51 | Insurance | 237,000 | 274,600 | 307,100 | 344,200 | 450,300 | 412,500 | 431,900 | 452,200 | 473,400 | 495,600 |
| 52 | Judgement and Claims | 7,800 | 5,300 | - | 14,600 | 10,000 | 10,000 | 10,400 | 10,800 | 11,200 | 11,600 |
| 53 | Subtotal Direct O&M | 10,085,500 | 9,952,700 | 9,868,800 | 10,956,600 | 11,773,100 | 11,960,000 | 11,842,400 | 12,212,900 | 12,597,500 | 12,997,000 |
| 54 | Minor Equipment | 270,600 | 232,600 | 178,900 | 202,700 | 207,700 | 227,700 | 229,900 | 232,100 | 234,400 | 236,700 |
| 55 | M&R Office Equipment | 217,100 | 174,100 | 198,100 | 223,700 | 242,900 | 266,700 | 272,300 | 278,100 | 284,000 | 290,100 |
| 56 | M&R Building/Facilities | 1,321,700 | 1,248,900 | 899,100 | 1,156,600 | 1,140,500 | 1,141,400 | 1,152,800 | 1,164,300 | 1,176,000 | 1,187,800 |
| 57 | M&R Machinery/Equipment | 76,400 | 44,300 | 74,400 | 47,300 | 40,000 | 40,000 | 41,200 | 42,400 | 43,700 | 45,000 |
| 58 | M&R Motor Vehicles | 193,300 | 183,100 | 208,900 | 208,300 | 230,000 | 230,000 | 236,900 | 244,000 | 251,300 | 258,800 |
| 59 | M&R Communications Equip | 46,900 | 16,000 | 15,200 | 14,600 | 50,700 | 50,700 | 52,200 | 53,800 | 55,500 | 57,200 |
| 60 | Major Repairs & Replacements | 843,300 | 200,300 | 627,600 | 608,000 | 762,600 | 792,600 | 816,300 | 840,800 | 866,000 | 892,000 |
| 61 | Office Equip/Furniture | - | - | - | - | - | - | - | - | - | - |
| 62 | Motor Vehicles | 22,300 | - | - | - | - | - | - | - | - | - |
| 63 | Machinery & Equipment | - | 39,300 | 95,500 | 7,800 | - | - | - | - | - | - |
| 64 | Subtotal Routine Capital | 2,991,600 | 2,138,600 | 2,297,700 | 2,469,000 | 2,674,400 | 2,749,100 | 2,801,600 | 2,855,500 | 2,910,900 | 2,967,600 |
| 65 | Trf. to General Fund | 1,519,527 | 1,480,530 | 1,450,797 | 1,509,600 | 1,610,200 | 1,678,700 | 1,750,000 | 1,785,000 | 1,820,700 | 1,857,100 |
| 66 | Trf. To CIP Fund | 6,664 | 6,664 | 6,664 | 6,700 | 6,700 | 6,700 | 6,900 | 7,100 | 7,300 | 7,500 |
| 67 | Trf. to Aviation | - | - | - | - | - | - | - | - | - | - |
| 68 | Trf. to Capital Projects | - | - | - | - | - | - | - | - | - | - |
| 69 | Trf. to Computer Network | 57,399 | 57,375 | 57,375 | 99,500 | 120,700 | 121,900 | 123,100 | 124,400 | 125,600 | 126,900 |
| 70 | Subtotal Transfers | 1,583,590 | 1,544,569 | 1,514,836 | 1,615,800 | 1,737,600 | 1,807,300 | 1,880,000 | 1,916,500 | 1,953,600 | 1,991,500 |
| 71 | Total O&M | 14,660,690 | 13,635,869 | 13,681,336 | 15,041,400 | 16,185,100 | 16,516,400 | 16,524,000 | 16,984,900 | 17,462,000 | 17,956,100 |

The first year of the cost forecast is based on estimated 2025 operating expenses as of February 2025. Anticipated O&M costs for 2026 were developed in coordination with City staff and reflect either the preliminary City budgeted amounts for 2026 or 2025 estimated costs plus inflation. Costs forecasted beyond 2026 are based on the projected 2026 costs with an allowance for annual inflation based on cost center.

Starting in 2026 the Utility is expecting operational savings in the form of lower power costs enabled by operational efficiency from the Schneider Electric Bio-Gas project. The City and Schneider Electric entered into a performance contract providing electric cost savings to the City from the Bio-Gas project. The Bio-Gas project is anticipated to be completed in 2026 resulting in operations for a quarter of the year with a full year's savings starting in 2027. The project is expected to create nearly $600,000 in annual savings when it is fully operational in 2027. The savings from this project can be seen on Line 40 in Table 2-5.

Total O&M increases approximately 2.0 percent from 2025 to 2026, then remains relatively flat from 2026 to 2027 due to the full year of power cost savings. Annual inflation is projected to average about 2.8 percent per year from 2028 to 2030.

### 2.5.2 Projected Capital Improvement Expenditures

Table 2-6 shows the projected capital improvement projects (CIP) for the 2025 to 2030 planning period totaling $32.5 million over the Study period. Projects are aggregated into several categories in Table 2-6, including CSO Long Term Control, System Expansion, Facilities and Equipment, and Capacity Management Operation and Maintenance (CMOM), and Integrated Planning Study projects.

Project costs shown in Table 2-6 are understood to include contingency allowance sufficient to cover inflation during the Study period.

A large part of the capital planning improvements are required for compliance with the City's National Pollutant Discharge Elimination System (NPDES) permit to mitigate the risk of system overflows through ongoing improvements in the collection system.

# Table 2-6: Capital Improvement Program

| Line No. | Description | | Projected 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2025 - 2030 Totals |
|---|---|---|---|---|---|---|---|---|---|
| | | | $ | $ | $ | $ | $ | $ | $ |
| | **CSO Long Term Control WP (421)** | | | | | | | | |
| 1 | Water Quality Education FY25 | Cash - Capitalized | 25,000 | - | - | - | - | - | 25,000 |
| 2 | Water Quality Education FY26 | Cash - Capitalized | - | 25,000 | - | - | - | - | 25,000 |
| 3 | Water Quality Education FY27 | Cash - Capitalized | - | - | 25,000 | - | - | - | 25,000 |
| 4 | Water Quality Education FY28 | Cash - Capitalized | - | - | - | 25,000 | - | - | 25,000 |
| 5 | Total | | 25,000 | 25,000 | 25,000 | 25,000 | - | - | 100,000 |
| | **System Expansion Projects WP (422)** | | | | | | | | |
| 6 | System Expansion Projects FY 25 | Cash - Capitalized | 150,000 | - | - | - | - | - | 150,000 |
| 7 | System Expansion Projects FY 26 | Cash - Capitalized | - | 150,000 | - | - | - | - | 150,000 |
| 8 | System Expansion Projects FY 27 | Cash - Capitalized | - | - | 150,000 | - | - | - | 150,000 |
| 9 | System Expansion Projects FY 28 | Cash - Capitalized | - | - | - | 150,000 | - | - | 150,000 |
| 10 | Total | | 150,000 | 150,000 | 150,000 | 150,000 | - | - | 600,000 |
| | **Facility & Equipment - WP (424)** | | | | | | | | |
| 11 | Pump Motor Replace-High Effic | Cash - Capitalized | 443,000 | - | - | - | - | - | 443,000 |
| 12 | Lab Equipment - WP FY 25 | Cash - Capitalized | 150,000 | - | - | - | - | - | 150,000 |
| 13 | Total | | 593,000 | - | - | - | - | - | 593,000 |
| | **CMOM Projects (425) & Rolling Stock** | | | | | | | | |
| 14 | 5 Ton Dump Truck FY26 | Cash - Non-Capitalized | - | 183,872 | - | - | - | - | 183,872 |
| 15 | 5 Ton Dump Truck FY26 | Cash - Non-Capitalized | - | 183,872 | - | - | - | - | 183,872 |
| 16 | 5 Ton Dump Truck FY33 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 17 | 1/2 Ton Pickup FY26 | Cash - Non-Capitalized | - | 48,672 | - | - | - | - | 48,672 |
| 18 | 1/2 Ton Pickup FY30 | Cash - Non-Capitalized | - | - | - | - | - | 56,939 | 56,939 |
| 19 | 1/2 Ton Pickup FY30 | Cash - Non-Capitalized | - | - | - | - | - | 56,939 | 56,939 |
| 20 | 1/2 Ton Pickup FY33 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 21 | 3/4 Ton Pickup FY26 | Cash - Non-Capitalized | - | 54,080 | - | - | - | - | 54,080 |
| 22 | 3/4 Ton Pickup FY29 | Cash - Non-Capitalized | - | - | - | - | 60,833 | - | 60,833 |
| 23 | 3/4 Ton Pickup FY29 | Cash - Non-Capitalized | - | - | - | - | 60,833 | - | 60,833 |
| 24 | 3/4 Ton Pickup FY33 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 25 | Ton Utility FY26 | Cash - Non-Capitalized | - | 97,344 | - | - | - | - | 97,344 |
| 26 | Ton Utility FY26 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 27 | 1/2 Sweeper FY26 | Cash - Non-Capitalized | - | 173,056 | - | - | - | - | 173,056 |
| 28 | 1/2 Sweeper FY28 | Cash - Non-Capitalized | - | - | - | 187,177 | - | - | 187,177 |
| 29 | 1/2 Sweeper FY30 | Cash - Non-Capitalized | - | - | - | - | - | 202,451 | 202,451 |
| 30 | Air Compressor FY26 | Cash - Non-Capitalized | - | 27,040 | - | - | - | - | 27,040 |
| 31 | Air Compressor FY26 | Cash - Non-Capitalized | - | 27,040 | - | - | - | - | 27,040 |
| 32 | 6" Trash Pump FY26 | Cash - Non-Capitalized | - | 27,040 | - | - | - | - | 27,040 |
| 33 | Jetrod FY27 | Cash - Non-Capitalized | - | - | 393,702 | - | - | - | 393,702 |
| 34 | TV Van FY27 | Cash - Non-Capitalized | - | - | 281,216 | - | - | - | 281,216 |
| 35 | TV Van FY32 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 36 | Backhoe FY28 | Cash - Non-Capitalized | - | - | - | 181,328 | - | - | 181,328 |
| 37 | 8 Ton Excavator FY28 | Cash - Non-Capitalized | - | - | - | 131,024 | - | - | 131,024 |
| 38 | 6 Ton Excavator FY29 | Cash - Non-Capitalized | - | - | - | - | 91,249 | - | 91,249 |
| 39 | 4 Ton Excavator FY32 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 40 | Easement Machine FY29 | Cash - Non-Capitalized | - | - | - | - | 79,082 | - | 79,082 |
| 41 | 10 Yard Vac Cleaner FY29 | Cash - Non-Capitalized | - | - | - | - | 681,326 | - | 681,326 |
| 42 | 6 Yard Vac Cleaner FY30 | Cash - Non-Capitalized | - | - | - | - | - | 442,862 | 442,862 |
| 43 | 9 Yard Vac Cleaner FY31 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 44 | 2 Ton Dump FY32 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 45 | 2 Ton Dump FY32 | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 46 | GPS Equipment | Cash - Non-Capitalized | - | 25,000 | 25,000 | 25,000 | 25,000 | 30,000 | 130,000 |
| 47 | 1/2 Aerial Photography | Cash - Non-Capitalized | - | 30,696 | - | 33,201 | - | 35,910 | 99,807 |
| 48 | CMOM Consolidated FY25 Repairs | Bond/Loan | 2,500,000 | - | - | - | - | - | 2,500,000 |
| 49 | CMOM Consolidated FY26 Repairs | Bond/Loan | - | 2,500,000 | - | - | - | - | 2,500,000 |
| 50 | CMOM Consolidated FY27 Repairs | Bond/Loan | - | - | 2,500,000 | - | - | - | 2,500,000 |
| 51 | CMOM Consolidated FY28 Repairs | Bond/Loan | - | - | - | 3,000,000 | - | - | 3,000,000 |
| 52 | GPS Equipment FY 25 CMOM | Cash - Non-Capitalized | 25,000 | - | - | - | - | - | 25,000 |
| 53 | LiDAR Testing (Blacksnake & Whitehead) | Cash - Non-Capitalized | - | - | 116,000 | - | - | - | 116,000 |
| 54 | Blowers | Bond/Loan | 5,000,000 | - | - | - | - | - | 5,000,000 |
| 55 | Total | | 7,525,000 | 3,377,712 | 3,315,918 | 3,557,730 | 998,323 | 825,101 | 19,599,784 |
| | **Integrated Planning Study Projects** | | | | | | | | |
| 56 | Nutrient Optimization Study | Cash - Non-Capitalized | - | - | 250,000 | - | - | - | 250,000 |
| 57 | Chemical Phosphorus Removal | Bond/Loan | - | - | - | 2,020,000 | - | - | 2,020,000 |
| 58 | Establish Level of Service and Hydraulic Modeling Scenarios | Cash - Capitalized | - | - | 900,000 | - | - | - | 900,000 |
| 59 | Hydraulic Model Platform Consolidation | Cash - Capitalized | - | - | 100,000 | - | - | - | 100,000 |
| 60 | Hydraulic Model Flow Monitoring and Data Compilation | Cash - Capitalized | - | - | 750,000 | - | - | - | 750,000 |
| 61 | Hydraulic Model Expansion and Calibration | Cash - Capitalized | - | - | - | 600,000 | - | - | 600,000 |
| 62 | Collection System Inspection & Management Creation | Cash - Non-Capitalized | - | 75,000 | - | - | - | - | 75,000 |
| 63 | Collection System Asset Inventory Management Plan | Cash - Capitalized | - | 100,000 | - | - | - | - | 100,000 |
| 64 | Updated Stormwater Master Plan | Cash - Capitalized | - | - | - | - | 375,000 | - | 375,000 |
| 65 | Green Infrastructure Feasibility Study | Cash - Non-Capitalized | - | - | - | - | 500,000 | - | 500,000 |
| 66 | NE Parkway Wetland Green Infrastructure Dredging | Bond/Loan | - | - | - | - | 500,000 | - | 500,000 |
| 67 | DAF Facility Pre-Design Study | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 68 | Enhanced Collection System Maintenance Cleaning | Cash - Non-Capitalized | - | - | - | - | - | - | - |
| 69 | Enhanced Collection System Inspections | Cash - Non-Capitalized | - | - | - | - | - | 174,672 | 174,672 |
| 70 | Enhanced Collection System Estimated Rehab & Replacement | Bond/Loan | - | - | - | - | - | 4,850,000 | 4,850,000 |
| 71 | Invest in Stormwater Asset Management Systems | Bond/Loan | - | - | - | - | - | 200,000 | 200,000 |
| 72 | Staffing Additions to Advance Stormwater Management Plan | Cash - Non-Capitalized | - | - | - | - | - | 220,000 | 220,000 |
| 73 | NPW Facility Pre-Design Study | Cash - Capitalized | - | - | - | - | - | - | - |
| 74 | NPW Facility Replacement | Bond/Loan | - | - | - | - | - | - | - |
| 75 | Total | | - | 175,000 | 2,000,000 | 2,620,000 | 1,375,000 | 5,444,672 | 11,614,672 |
| 76 | Grand Total Capital Costs | | 8,293,000 | 3,727,712 | 5,490,918 | 6,352,730 | 2,373,323 | 6,269,773 | 32,507,456 |

### 2.5.3 Existing Debt Service Requirements and Proposed Debt

Table 2-7 presents the existing and proposed debt service requirements for the sewer utility. The sewer utility currently has approximately $15.2 million of annual debt service payment obligations in 2025 which increases to approximately $18.0 million in 2027. This increase in annual debt service is due to the increasing nature of the debt amortization structure for Series 2015B IDA Bonds, which is increasing before it fully retires at the end of 2027. Existing debt includes payments for the $9.6 million SRF loan, shown on Line 9 of Table 2-7, which helps fund the Bio-Gas project. The financial plan anticipates no new debt issuance through FY 2030.

**Table 2-7: Existing and Proposed Debt Service**

| Line No. | | | Projected | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| | **Existing Debt Issues** | | $ | $ | $ | $ | $ | $ |
| 1 | 2012C Revenue Bond | Non-Parity | 838,400 | - | - | - | - | - |
| 2 | 2015A Special Obligation Rev Bond | Non-Parity | 722,900 | 721,200 | 720,900 | 720,000 | 723,000 | 719,700 |
| 3 | 2015B Special Obligation Rev Bond | Non-Parity | 2,154,800 | 3,049,500 | 4,835,300 | - | - | - |
| 4 | 2020 Special Obligation Refunding Bond | Non-Parity | 1,454,600 | 1,914,400 | 1,916,400 | 2,936,400 | 2,923,100 | 2,898,400 |
| 5 | 2013 SRF | Parity | 871,100 | 874,100 | 877,700 | 881,000 | 883,900 | 888,500 |
| 6 | 2014 SRF | Parity | 3,500,400 | 3,515,200 | 3,529,500 | 3,545,300 | 3,560,400 | 3,575,800 |
| 7 | 2014A SRF | Parity | 1,749,200 | 1,758,500 | 1,769,000 | 1,778,900 | 1,789,000 | 1,799,400 |
| 8 | 2017 SRF | Parity | 2,830,000 | 2,833,600 | 2,837,600 | 2,841,000 | 2,843,900 | 2,848,100 |
| 9 | 2023 SRF | Parity | 153,000 | 590,000 | 588,600 | 589,000 | 589,300 | 587,500 |
| 10 | 2014B Revenue Bond | Parity | 404,400 | 406,400 | 413,200 | 408,000 | 406,200 | 404,000 |
| 11 | 2018 Revenue Bond | Parity | 1,115,900 | 1,115,900 | 1,116,500 | 1,118,500 | 1,119,800 | 1,115,400 |
| 12 | Total Existing Debt | | 15,794,700 | 16,778,800 | 18,604,700 | 14,818,100 | 14,838,600 | 14,836,800 |
| 13 | Less Admin Fees | | (593,900) | (606,200) | (567,900) | (528,600) | (488,500) | (447,400) |
| 14 | Total Existing Debt less Admin Fees | | 15,200,800 | 16,172,600 | 18,036,800 | 14,289,500 | 14,350,100 | 14,389,400 |
| | **Proposed Debt** | | | | | | | |
| 15 | Revenue Bonds | | - | - | - | - | - | - |
| 16 | SRF | | - | - | - | - | - | - |
| 17 | Total Proposed Debt | | - | - | - | - | - | - |
| 18 | Total Debt Service | | 15,794,700 | 16,778,800 | 18,604,700 | 14,818,100 | 14,838,600 | 14,836,800 |

## 2.6 Sewer Utility Financial Plan

A financial plan for the sewer utility has been assembled based on the revenue and expenditure projections described herein. The financial plan aggregates the forecasted revenues and expenses to assess the adequacy of revenues under existing rates to meet future operating and capital requirements. This cash flow analysis helps identify the overall increase in revenues needed to meet the revenue requirements as well as reserve targets and Debt Service Coverage (DSC) covenants.

### 2.6.1 Sewer Utility Flow of Funds

Table 2-8 presents the sewer utility cash flow. Line 1 of Table 2-8 shows user revenues under existing rates, identified previously in Table 2-3. Lines 2 through 7 identify proposed revenue increases.

## Table 2-8: Sewer Utility Financial Plan

| Line No. | | Year | Month | Increase | Projected 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $ | $ | $ | $ | $ | $ |
| | **Wastewater Utility Operating Flow of Funds** | | | | | | | | | |
| 1 | Revenue Under Existing Rates | | | | 31,796,200 | 32,147,200 | 32,096,700 | 32,046,200 | 31,995,600 | 31,946,300 |
| | Proposed Revenue Adjustments | | | | | | | | | |
| 2 | | 2026 | 1 | 3.00% | | 964,400 | 962,900 | 961,400 | 959,900 | 958,400 |
| 3 | | 2027 | 2 | 3.00% | | | 909,100 | 990,200 | 988,700 | 987,100 |
| 4 | | 2028 | 2 | 2.00% | | | | 623,300 | 678,900 | 677,800 |
| 5 | | 2029 | 2 | 2.00% | | | | | 634,800 | 691,400 |
| 6 | | 2030 | 2 | 2.00% | | | | | | 646,500 |
| 7 | Total Proposed Additional Revenue | | | | - | 964,400 | 1,872,000 | 2,574,900 | 3,262,300 | 3,961,200 |
| 8 | Total Wastewater User Charge Revenue | | | | 31,796,200 | 33,111,600 | 33,968,700 | 34,621,100 | 35,257,900 | 35,907,500 |
| 9 | Other Revenue | | | | 1,292,400 | 1,292,400 | 1,292,400 | 1,292,400 | 1,292,400 | 1,292,400 |
| 10 | Interest Income - Operating & Capital Fund | | | | 542,900 | 435,800 | 558,000 | 510,400 | 473,400 | 483,700 |
| 11 | **Grand Total Sewer Revenue** | | | | **33,631,500** | **34,839,800** | **35,819,100** | **36,423,900** | **37,023,700** | **37,683,600** |
| | Revenue Requirements | | | | | | | | | |
| 12 | Operation and Maintenance Expense | | | | 13,691,700 | 13,923,400 | 13,834,500 | 14,234,700 | 14,649,700 | 15,080,100 |
| 13 | Routine Capital Outlay | | | | 762,600 | 792,600 | 816,300 | 840,800 | 866,000 | 892,000 |
| 14 | External Transfers | | | | 1,737,600 | 1,807,300 | 1,880,000 | 1,916,500 | 1,953,600 | 1,991,500 |
| | Debt Service | | | | | | | | | |
| 15 | Existing Debt | | | | 16,778,800 | 18,604,700 | 14,818,100 | 14,838,600 | 14,836,800 | 14,891,400 |
| 16 | Proposed Debt | | | | - | - | - | - | - | - |
| 17 | Debt Service Reserve Release | | | | - | (1,795,800) | - | - | - | - |
| 18 | Total Debt Service | | | | 16,778,800 | 16,808,900 | 14,818,100 | 14,838,600 | 14,836,800 | 14,891,400 |
| 19 | **Total Revenue Requirements** | | | | **32,970,700** | **33,332,200** | **31,348,900** | **31,830,600** | **32,306,100** | **32,855,000** |
| 20 | **Annual Operating Balance** | | | | 660,800 | 1,507,600 | 4,470,200 | 4,593,300 | 4,717,600 | 4,828,600 |
| 21 | Beginning Balance Operating Funds | | | | 18,038,600 | 5,072,600 | 5,171,700 | 5,166,400 | 5,310,000 | 5,458,600 |
| 22 | Annual Operating Balance | | | | 660,800 | 1,507,600 | 4,470,200 | 4,593,300 | 4,717,600 | 4,828,600 |
| 23 | Transfers to Capital | | | | (13,626,800) | (1,408,500) | (4,475,500) | (4,449,700) | (4,569,000) | (4,674,600) |
| 24 | Ending Operating Balance | | | | 5,072,600 | 5,171,700 | 5,166,400 | 5,310,000 | 5,458,600 | 5,612,600 |
| 25 | Target Annual Operating Balance [1] | | | | 5,072,600 | 5,171,700 | 5,166,400 | 5,310,000 | 5,458,600 | 5,612,600 |
| | **Wastewater Utility Capital Flow of Funds** | | | | | | | | | |
| | Sources | | | | | | | | | |
| 26 | Beginning Capital Balance | | | | 5,199,100 | 12,632,900 | 10,313,700 | 9,298,300 | 7,395,200 | 9,590,900 |
| 27 | Grants | | | | 2,100,000 | - | - | - | - | - |
| 28 | Transfer from Operating Fund | | | | 13,626,800 | 1,408,500 | 4,475,500 | 4,449,700 | 4,569,000 | 4,674,600 |
| 29 | Revenue Bond Debt Issuance | | | | - | - | - | - | - | - |
| 30 | SRF Loan | | | | - | - | - | - | - | - |
| 31 | **Total Capital Sources** | | | | 20,925,900 | 14,041,400 | 14,789,200 | 13,748,000 | 11,964,200 | 14,265,500 |
| | Uses | | | | | | | | | |
| 32 | Cash Funded CIP | | | | 793,000 | 1,227,700 | 2,990,900 | 1,332,700 | 1,873,300 | 1,219,800 |
| 33 | CIP Eligible for Debt Funding | | | | 7,500,000 | 2,500,000 | 2,500,000 | 5,020,000 | 500,000 | 5,050,000 |
| 34 | Bond Issuance Expense | | | | - | - | - | - | - | - |
| 35 | **Total Capital Uses** | | | | 8,293,000 | 3,727,700 | 5,490,900 | 6,352,700 | 2,373,300 | 6,269,800 |
| 36 | **Ending Capital Balance** | | | | 12,632,900 | 10,313,700 | 9,298,300 | 7,395,300 | 9,590,900 | 7,995,700 |

[1] Operating balance maintains 120 days of operating expenses

Systemwide increases of 3.0 percent are proposed for FY 2026 and FY 2027 to provide adequate DSC. Subsequent increases of 2.0 percent per year are projected to sustain DSC and cash reserves.

Line 9 presents other sewer fund revenue, as shown previously in Table 2-4, and interest income on Line 10. Interest income projections for FY 2026 through 2030 assume an annual interest rate of 3.0 percent based on the Utility's recent interest earnings. Total sewer revenue is shown on Line 11, increasing from approximately $33.6 million in 2025 to $37.7 million in 2030.

Lines 12 through 18 show the revenue requirements of the sewer utility. O&M expenses, routine capital outlay, and external transfers were shown previously in Table 2-5. Debt service payments shown previously in Table 2-6 are found on Lines 15 and 16 of Table 2-8. However, debt payments shown in Table 2-8 are one year sooner than depicted in Table 2-6, as the City deposits cash into restricted debt payment funds one year before payments are due. Finally, Line 17 in Table 2-6 shows a credit of nearly $1.8 million in 2026 associated with the release of the debt service reserve as the last payment is made for the Series 2015B Special Obligation revenue bonds.

Line 20 shows the annual operating balance forecasted over the study period, representing the difference between total revenues from Line 11 and total revenue requirements on Line 19. Assuming implementation of the proposed rate increases on July 1 in each fiscal year, the annual operating balance increases which generates cash to fund capital improvements.

Lines 21 through 25 project future operating reserves for the sewer utility. For 2025, a beginning balance of approximately $18.0 million was available for the utility. The annual operating balance from each Fiscal Year shown on Line 20 is added to this amount to reflect cash produced by ongoing operations. The utility targets a minimum operating balance of 120 days of O&M. The transfer to capital shown on Line 23 assumes balances in excess of the operating minimum are available to fund capital projects, resulting in an ending operating balance on Line 24 that matches the targeted reserve on Line 25.

The sewer capital flow of funds is shown in Table 2-8 on Lines 26 through 36. Sources of funds for the capital plan include the beginning capital fund balance, grants, transfer of available cash from operations, and the issuance of debt in the forms of revenue bonds and/or SRF loans. In 2025, the beginning capital balance is approximately $5.2 million which consists of proceeds from the prior issuances of the 2018 and 2020 bonds. A grant of $2.1 million is expected to assist in the funding of the blower project. Transfers from operating funds in excess of the reserve target are shown on Line 28. No new debt issuance is projected through 2030. Sewer capital improvement projects shown on Lines 32 through 35 are consistent

in total with the CIP shown previously in Table 2-6. Line 36 shows funding sources are sufficient for the capital plan in each year, leaving a positive ending capital balance.

### 2.6.2 Rate Covenant

In accordance with existing debt covenants, the City has committed to a minimum annual DSC ratio of 1.1, or 110 percent of the annual principal and interest payments.

The City must also comply with debt covenants to issue additional debt. A summary of the additional bonds test is as follows:

1. The City shall not be in default in the payment of principal of or interest on any Bonds or the Parity bonds or in making any payment at the time required to be made into the respective funds and accounts created by and referred to in this Ordinance or any Parity Ordinance; and
2. The City shall obtain a certificate showing either of the following:
    a. The average annual Net Revenues Available for Debt Service as set forth in the last available annual audits for the two Fiscal Years immediately preceding the issuance of additional bonds, are at least 110 percent of the average annual debt service on the System Revenue Bonds, including the additional bonds proposed to be issued, to be paid out of the Net Revenues Available for Debt Service in succeeding Fiscal Years. Interest to be paid on any SRF Program Bonds may be reduced by the SRF Subsidy, if any. If the City has made any increase in rates for the use and services of the System and the increase has not been in effect during all of the two Fiscal Years for which annual audits are available, the City may add the additional Net Revenues Available for Debt Service which would have resulted if the rate increase been in effect for the entire period to the audited Net Revenues Available for Debt Service; or
    b. The estimated average annual Net Revenues Available for Debt Service for the two Fiscal Years immediately following the Fiscal Year in which the improvements to the System being financed by the additional bonds are to be in commercial operation, as certified by the Consultant, is at least 110 percent of the average annual debt service on the System Revenue Bonds, including the additional bonds to be issued, to be paid out of the Net Revenues Available for Debt Service in succeeding Fiscal Years following the commencement of commercial operation of the improvements. Interest to be paid on any SRF Program Bonds may be reduced by the SRF Subsidy, if any. In determining the amount of estimated Net Revenues Available for Debt Service for the purpose of this subsection, the Consultant may adjust the estimated net income and revenues by adding the estimated increase in Net

> Revenues Available for Debt Service resulting from any increase in rates for the use and services of the System approved by the City.

DSC for existing bonds is shown in Table 2-9 and must meet or exceed 1.10 times or 110 percent of the underlying debt payment. The annual DSC must be met each year, while additional bond coverage test must be performed prior to the issuance of new debt. Although the minimum requirement for DSC is 1.10 times, as stated by covenant, the City targets a minimum of 1.20 as a matter of internal policy. As shown on Line 19, annual DSC is projected to reach a low of 1.19, just below the 1.20 internal target, and with assistance from the retirement of the 2015 IDA bonds and proposed revenue increases, subsequently rebounds above the target in each year of the forecast. Consistent with the City's practice, DSC should continue to be evaluated annually as part of the budget process to confirm revenues are sufficient to sustain required debt coverage as conditions change. Should revenues or expenses trend unfavorably over time, future rate increases may need to be adjusted beyond what has been proposed in this study to comply with bond covenants.

### 2.6.3 Revenue Increase Drivers

As a condition of the City's debt service covenants, the utility must maintain a minimum debt service coverage level of 1.10 on its senior debt. In addition, the utility strives to maintain a minimum level of operating reserves equal to 120 days (or about 33 percent) of budgeted operation and maintenance expense, including transfers but excluding routine capital.

Existing debt service payments increase from $15.8 million per year to a peak of $18.6 million in 2027, as shown previously on Line 18 on Table 2-7. After the 2015 IDA bonds retire, payments on existing debt decline to $14.8 million beginning in FY 2028. For FY 2025 and 2026, the increasing debt payment, plus anticipated inflation on operation and maintenance expenses, makes sustaining debt service coverage over 1.10 through 2027 not feasible without implementing rate increases. For FY 2027 and beyond, rate increases are needed to sustain DSC and provide adequate targeted cash reserves.

Burns & McDonnell typically recommends developing plans that provide a margin or buffer above minimum debt service coverage requirements. Such a buffer provides a degree of financial resiliency needed in the event revenues are lower or expenses are higher than planned. With a minimum required coverage level of 1.10, Burns & McDonnell would generally recommend a minimum target for planning purposes of 1.20. The plan presented in this Report indicates minimum projected debt service coverage is 1.19 in 2026 and improves above the minimum planning target after the 2015B IDA bonds are retired, assuming all revenue increases are implemented as proposed.

## Table 2-9: Sewer Utility Debt Service Coverage

| Line No. | | | | Projected 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|
| | **Wastewater Utility Debt Service Coverage Calculations** | | | | | | | | |
| 1 | Revenue Under Existing Rates | | | 31,796,200 | 32,147,200 | 32,096,700 | 32,046,200 | 31,995,600 | 31,946,300 |
| | Proposed Revenue Adjustments | | | | | | | | |
| | Year | Month | Increase | | | | | | |
| 2 | 2026 | 1 | 3.00% | | 964,400 | 962,900 | 961,400 | 959,900 | 958,400 |
| 3 | 2027 | 2 | 3.00% | | | 909,100 | 990,200 | 988,700 | 987,100 |
| 4 | 2028 | 2 | 2.00% | | | | 623,300 | 678,900 | 677,800 |
| 5 | 2029 | 2 | 2.00% | | | | | 634,800 | 691,400 |
| 6 | 2030 | 2 | 2.00% | | | | | | 646,500 |
| 7 | Total Proposed Additional Revenue | | | - | 964,400 | 1,872,000 | 2,574,900 | 3,262,300 | 3,961,200 |
| 8 | Total Wastewater User Charge Revenue | | | 31,796,200 | 33,111,600 | 33,968,700 | 34,621,100 | 35,257,900 | 35,907,500 |
| 9 | Other Revenue [1] | | | 1,835,400 | 1,728,300 | 1,850,900 | 1,803,500 | 1,766,600 | 1,777,200 |
| 10 | **Total Operating Fund Revenues Available** | | | **33,631,600** | **34,839,900** | **35,819,600** | **36,424,600** | **37,024,500** | **37,684,700** |
| | Revenue Requirements | | | | | | | | |
| 11 | Operation and Maintenance Expense | | | 13,685,100 | 13,916,700 | 13,827,600 | 14,227,600 | 14,642,400 | 15,072,600 |
| 12 | External Transfers | | | 1,737,600 | 1,807,300 | 1,880,000 | 1,916,500 | 1,953,600 | 1,991,500 |
| 13 | Cash CMOM | | | 25,000 | 952,712 | 1,065,918 | 557,730 | 1,498,323 | 1,219,773 |
| 14 | Annual Appropriation Debt Service | | | 5,170,700 | 5,685,100 | 7,472,600 | 3,656,400 | 3,646,200 | 3,618,100 |
| 15 | Debt Service Reserve Release | | | - | - | (1,795,833) | - | - | - |
| 16 | **Total Revenue Requirements** | | | **20,618,400** | **22,361,812** | **22,450,285** | **20,358,230** | **21,740,523** | **21,901,973** |
| 17 | Adjusted Net Revenues | | | 13,013,200 | 12,478,088 | 13,369,315 | 16,066,370 | 15,283,977 | 15,782,727 |
| 18 | Parity Debt Service | | | 10,030,100 | 10,487,500 | 10,564,200 | 10,633,100 | 10,704,000 | 10,771,300 |
| 19 | **Annual Debt Service Coverage = Line 18 / Line 19** | | | **1.30** | **1.19** | **1.27** | **1.51** | **1.43** | **1.47** |

[1] Includes non-rate revenues captured in Table 2 and interest income (calculated on cashflow)

# 3.0 COST OF SERVICE ANALYSIS

## 3.1 Introduction

The cost of service analysis is focused on determining revenue responsibility. Once the overall need for revenue increases is identified through financial planning, the results of the cost of service analysis help answer the following question:

- "Which customer class or classes are responsible for the costs incurred to provide service?"

To determine each customer class' equitable share of the cost of providing utility service, the cost of service analysis compares the revenues received from each customer class under the existing schedule of rates with the allocated cost responsibility for that class.

The cost of service analysis was developed in the following steps:

1. Determine the net revenue requirements to be recovered from user charges.
2. Allocate test period operating and capital costs to functional cost components.
3. Assign functionalized costs to customer classes in accordance with their use of the system.

To equitably develop rates for sewer service, the sewer utility's customer classes are allocated their respective share of the total cost of service according to their use of the system, as indicated by wastewater flow, level of pollutant loadings, customer counts, and responsibility for infiltration/inflow into the system.

## 3.2 Sewer Cost of Service

### 3.2.1 Net Revenue Requirements

As described in Section 2.0 of this report, the cash needs of the sewer utility were projected over a six-year study period. The test period for the cost of service analysis is 2026, which corresponds to the first year for which revenue adjustments are proposed. The revenue adjustment amounts to a 3.0 percent increase in 2026.

Table 3-1 summarizes the development of the net revenue requirements to be recovered from sewer rates in the 2026 test year. The net revenue requirements represent the level of costs that must be recovered from sewer rates and are equal to total operating and capital cost expenditures less all sources of other revenue. Operating costs include costs directly related to the collection and treatment of wastewater, including administrative functions and maintenance of system facilities. Capital costs include projected

debt service payments on existing and proposed bonds and major capital improvements financed from revenues. As presented in Table 3-1, the test year net operating costs are equal to $14,967,700 and the net capital costs are equal to $18,143,900 for a total net revenue requirement of $33,111,600. As shown on Line 14, revenue requirements funded from user charges are 3.0 percent higher than revenues under existing sewer rates, consistent with the 2026 revenue increase identified in the proposed sewer utility financial plan.

**Table 3-1: Test Year 2026 Sewer Cost of Service**

| Line No. | Description | Operating Expense $ | Capital Cost $ | Total $ |
|---|---|---|---|---|
| | **Revenue Requirements** | | | |
| 1 | Operating Expense | 13,916,700 | - | 13,916,700 |
| 2 | Routine Capital Outlay | 792,600 | - | 792,600 |
| 3 | External Transfers | 1,807,300 | - | 1,807,300 |
| 4 | Debt Service Deposit | - | 16,808,867 | 16,808,867 |
| 5 | Revenue Capital Financing | - | 1,415,433 | 1,415,433 |
| 6 | Total | 16,516,600 | 18,224,300 | 34,740,900 |
| | **Revenue Requirements Met from Other Sources** | | | |
| 7 | Other Operating Revenue | 1,243,800 | 48,600 | 1,292,400 |
| 8 | Interest Income - Operating & Capital Fund | 305,100 | 130,800 | 435,900 |
| 9 | Annualized Increase | - | - | - |
| 10 | Use of / (Deposit to) Reserves | - | (99,000) | (99,000) |
| 11 | Total | 1,548,900 | 80,400 | 1,629,300 |
| 12 | System Revenue Requirements | 14,967,700 | 18,143,900 | 33,111,600 |
| 13 | Revenue under Existing Rates | | | 32,147,200 |
| 14 | System Revenue Adjustment | | | 3.00% |

### 3.2.2 Cost of Service Methodology

Costs are allocated to the customer classifications according to respective service requirements. The allocations take into account the quantity of wastewater discharged, peak demand, the number of customers, pollutant loadings, and relative responsibility for infiltration/inflow (I/I) into the wastewater system.

As a matter of practice, the City updates its cost of service methodology about every five years, aligning with general industry recommendations to perform a comprehensive cost of service analysis once every

five years. This Study's cost of service inputs were updated to reflect current costs of labor and power. However, the methodology used to functionalize costs and assign them to customer classes in this Study has not changed and follows the City's historical approach to cost functionalization.

### 3.2.3 Functional Cost Assignment

The sewer utility system includes a variety of facilities that work in concert with one another to meet necessary service requirements. Costs of service are separated into functional cost components. Cost components that are both common to retail customers and common to all customers include volume, capacity, biochemical oxygen demand (BOD), suspended solids (SS), ammonia and fats oil and grease (FOG). Additional functional cost components include SSJISD pump station, septage and billing.

Volume costs are related to facilities with a design basis influenced by the system's average daily flow, such as primary and secondary clarifiers and disinfection.

Capacity costs include facilities that are designed to handle peak wastewater flows. The capacity factor is the ratio of peak flow to average daily flow and represents the average peak flow a class of customers may have on any given day. Peak units of service are developed by applying respective peaking factors by class to each class' contributed flow and infiltration/inflow, divided by the days in the year. Below are the capacity factors for each customer class:

- Retail: Contributed flow - 1.5; Infiltration/Inflow - 3.0
- SSJISD: Contributed flow - 1.5
- National Beef Leathers: Contributed flow - 1.5
- Triumph Foods: Contributed flow - 1.5

BOD strength costs include those that vary in accordance with the BOD loading in the influent flow. Such costs include the operating and capital costs related to roughing filters, aeration facilities, and the portion of sludge disposal facilities required for handling and disposal of BOD related sludge.

Suspended solids strength costs include those that vary in accordance with the SS loading in the influent flow. Such costs include sludge pumping and disposal of SS related sludge.

FOG strength costs include those that vary in accordance with the FOG loading in the influent flow. Similar to BOD, such costs include the operating and capital costs related to filters, aeration facilities, and the portion of sludge disposal facilities required for handling and disposal of FOG-related sludge.

Ammonia strength costs include those that vary in accordance with the level of ammonia in the influent flow. Costs included in the ammonia component are mainly operating costs, as a majority of the capital costs are recovered from the ammonia fixed charge. The operating costs related to ammonia are secondary treatment, sludge, vehicles, gas, chemical, power, general treatment, and treatment repair and replacement. The portion allocated to ammonia is based on the ammonia-related sludge.

Septage costs are related to operating and capital costs incurred to accept, treat and dispose of septage at the City's receiving station from septage hauler trucks and other hauled wastewater.

SSJISD pump station costs are associated with the SSJISD pump station and related facilities.

Billing costs are associated with billing and collection, including bad debt expense.

#### 3.2.3.1 Operating Expenses

Test year 2026 operating expenses, forecasted previously in Table 2-5, are allocated to various categories of cost based on their design purpose in Table 3-2. In doing so, the $16,516,600 in total O&M costs shown in the first column of Table 3-1 are distributed to the cost categories in the remaining columns, as shown on Line 12.

**Table 3-2: O&M Functional Cost Components**

| Line No. | Description | Total | Primary | Secondary | Sludge | Pumping | Vehicles | Gas | Power | Chemicals | Laboratory | General Treatment | Treatment Repair & Replace | Sewer Maintenance | General WW | Billing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wastewater Treatment Plant | $ | | | | | | | | | | | | | | |
| 1 | Personnel | 3,398,400 | 28.0% | 29.2% | 18.4% | 21.5% | 3.0% | - | - | - | - | - | - | - | - | - |
| 2 | Chemicals | 229,100 | - | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - |
| 3 | Motor Fuel & Lubricants | 118,900 | - | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - |
| 4 | Other Materials and Supplies | 717,200 | - | - | - | - | - | - | - | - | - | 100.0% | - | - | - | - |
| 5 | Gas Service | 325,100 | - | - | - | - | - | 100.0% | - | - | - | - | - | - | - | - |
| 6 | Electric Service | 1,625,000 | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - | - |
| 7 | Routine Repair and Replacement | 2,098,500 | - | - | - | - | - | - | - | - | - | - | 100.0% | - | - | - |
| 8 | Laboratory | 1,323,500 | - | - | - | - | - | - | - | - | 100.0% | - | - | - | - | - |
| 9 | Admin. & General | 2,215,700 | - | - | - | - | - | - | - | - | - | 30.0% | - | - | - | 70.0% |
| 10 | Sewer Maintenance | 2,786,500 | - | - | - | - | - | - | - | - | - | - | - | 100.0% | - | - |
| 11 | Transfer to General Fund | 1,678,700 | - | - | - | - | - | - | - | - | - | - | - | - | 100.0% | - |
| 12 | Total ($) | 16,516,600 | 951,189 | 991,292 | 624,431 | 730,427 | 101,029 | 325,100 | 1,625,000 | 347,964 | 1,323,500 | 1,382,943 | 2,098,528 | 2,786,500 | 1,678,700 | 1,549,998 |

Table 3-3 shows the allocation factors used to assign O&M costs from Table 3-2 to functions recognizing the primary cost drivers associated with the costs.

### Table 3-3: O&M Cost Allocation Factors

| Line | | | Common to Retail | | | | | | Common to All | | | | | | | | | Basis of |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Description | Total | Volume | Capacity | BOD | SS | Ammonia | FOG | Volume | Capacity | BOD | SS | Ammonia | FOG | SSJISD | Septage | Billing | Allocation |
| 1 | Primary Treatment | 100.0% | 90.0% | - | 2.1% | 7.3% | - | 0.6% | - | - | - | - | - | - | - | - | - | a |
| 2 | Secondary Treatment | 100.0% | - | - | - | - | - | - | 19.1% | - | 58.8% | 20.2% | 1.9% | - | - | - | - | b |
| 3 | Sludge | 100.0% | - | - | 8.2% | 29.0% | - | 2.3% | - | - | 30.5% | 24.0% | 6.0% | - | - | - | - | a |
| 4 | Pumping | 100.0% | - | 81.6% | - | - | - | - | - | - | - | - | - | - | 18.4% | - | - | c |
| 5 | Vehicles | 100.0% | 5.0% | 3.9% | 6.9% | 24.9% | - | 1.9% | 1.5% | 1.1% | 27.9% | 21.0% | 5.1% | - | 0.6% | - | - | d |
| 6 | Gas | 100.0% | 43.6% | - | - | - | - | - | 56.4% | - | - | - | - | - | - | - | - | e |
| 7 | Electric Service | 100.0% | 38.5% | - | 1.5% | 5.3% | - | 0.4% | 28.4% | - | 19.3% | 4.4% | 1.1% | - | 1.1% | - | - | f |
| 8 | Chemicals | 100.0% | - | - | 8.2% | 29.0% | - | 2.3% | - | - | 30.5% | 24.0% | 6.0% | - | - | - | - | a |
| 9 | Laboratory | 100.0% | 12.5% | - | 12.5% | 12.5% | - | 12.5% | 16.6% | - | 16.7% | 16.7% | - | - | - | - | - | g |
| 10 | General Treatment | 100.0% | 20.3% | 11.8% | 5.4% | 10.7% | - | 3.9% | 8.1% | 0.0% | 22.3% | 13.3% | 1.6% | - | 2.7% | - | - | h |
| 11 | Treatment Repair & Replacement | 100.0% | 0.9% | 3.3% | 2.6% | 20.3% | - | 0.7% | 5.8% | 42.5% | 13.1% | 7.6% | 2.3% | - | - | 0.9% | - | i |
| 12 | Sewer Maintenance | 100.0% | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | j |
| 13 | Transfer to General Fund | 100.0% | 13.7% | 45.0% | 3.3% | 5.9% | - | 2.5% | 5.5% | 0.0% | 13.7% | 7.9% | 0.8% | - | 1.8% | - | - | k |
| 14 | Billing | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0% | l |

Basis of Allocation:

a Appendix A-1
b Appendix A-2
c Based on Fixed Assets
d Appendix A-3
e Average Day Primary & Secondary
f Appendix A-5
g Appendix A-6
h Allocate on Basis of Treatment O&M , Less Power, Chem.
i Treatment Plant Allocation
j Primary Capacity
k Allocate on Basis of Treatment O&M and Sewer Maint., Less Power, & Chem.
l Billing

Using the costs from Line 12 of Table 3-2, and the allocation factors from Table 3-3, test year 2026 O&M costs are assigned to functional cost components in Table 3-4.

### Table 3-4: O&M Allocated Costs

| Line | | | Common to Retail | | | | | | Common to All | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Description | Total | Volume | Capacity | BOD | SS | Ammonia | FOG | Volume | Capacity | BOD | SS | Ammonia | FOG | SSJISD | Septage | Billing |
| | | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| 1 | Primary Treatment | 951,200 | 856,080 | - | 19,975 | 69,438 | - | 5,707 | - | - | - | - | - | - | - | - | - |
| 2 | Secondary Treatment | 991,300 | - | - | - | - | - | - | 189,338 | - | 582,884 | 200,243 | 18,835 | - | - | - | - |
| 3 | Sludge | 624,400 | - | - | 51,001 | 181,076 | - | 14,361 | - | - | 190,641 | 149,856 | 37,464 | - | - | - | - |
| 4 | Pumping | 730,400 | - | 596,006 | - | - | - | - | - | - | - | - | - | - | 134,394 | - | - |
| 5 | Vehicles | 101,000 | 5,090 | 3,942 | 7,003 | 25,111 | - | 1,942 | 1,561 | 1,103 | 28,193 | 21,233 | 5,199 | - | 625 | - | - |
| 6 | Gas | 325,100 | 141,805 | - | - | - | - | - | 183,295 | - | - | - | - | - | - | - | - |
| 7 | Electric Service | 1,625,000 | 625,369 | - | 24,396 | 86,615 | - | 6,869 | 462,057 | - | 312,904 | 71,682 | 17,920 | - | 17,187 | - | - |
| 8 | Chemicals | 348,000 | - | - | 28,425 | 100,920 | - | 8,004 | - | - | 106,251 | 83,520 | 20,880 | - | - | - | - |
| 9 | Laboratory | 1,323,500 | 165,438 | - | 165,438 | 165,438 | - | 165,438 | 219,701 | - | 221,025 | 221,025 | - | - | - | - | - |
| 10 | General Treatment | 1,382,900 | 280,030 | 163,649 | 74,151 | 147,838 | - | 53,314 | 112,000 | 301 | 307,958 | 184,360 | 22,470 | - | 36,829 | - | - |
| 11 | Treatment Repair & Replacement | 2,098,500 | 18,874 | 70,140 | 54,681 | 425,773 | - | 15,373 | 121,040 | 892,482 | 274,936 | 158,806 | 48,267 | - | - | 18,129 | - |
| 12 | Sewer Maintenance | 2,786,500 | - | 2,786,500 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13 | Transfer to General Fund | 1,678,700 | 229,528 | 757,139 | 54,423 | 98,612 | - | 41,909 | 91,802 | 247 | 228,664 | 132,439 | 13,750 | - | 30,187 | - | - |
| 14 | Billing | 1,550,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,550,000 |
| 15 | Total O&M | 16,516,500 | 2,322,213 | 4,377,376 | 479,492 | 1,300,820 | - | 312,918 | 1,380,794 | 894,132 | 2,253,457 | 1,223,162 | 184,785 | - | 219,222 | 18,129 | 1,550,000 |
| | | 100% | 14.1% | 26.5% | 2.9% | 7.9% | 0.0% | 1.9% | 8.4% | 5.4% | 13.6% | 7.4% | 1.1% | 0.0% | 1.3% | 0.1% | 9.4% |
| 16 | Less: O&M Adjustments | (1,548,900) | | | | | | | | | | | | | | | |
| 17 | Net O&M From Rates | 14,967,600 | 2,104,400 | 3,966,900 | 434,500 | 1,178,800 | - | 283,600 | 1,251,300 | 810,300 | 2,042,100 | 1,108,500 | 167,500 | - | 198,700 | 16,400 | 1,404,600 |

Total O&M on Line 15 of Table 3-4, adjusted for revenue requirements met by other sources, equals the net O&M to be recovered from rates on Line 17.

### 3.2.3.2 Capital Costs

Table 3-5 shows the allocation factors used in assigning fixed assets to the same key cost components utilized for O&M allocations.

**Table 3-5: Plant Allocation Factors**

| Line No. | Description | Total | Common to Retail | | | | | | Common to All | | | | | | | | | Basis of Allocation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | Ammonia | FOG | Volume | Capacity | BOD | SS | Ammonia | FOG | SSJISD | Septage | Billing | |
| | **Collection & Conveyance** | | | | | | | | | | | | | | | | | |
| 1 | Collection and Conveyance Mains | 100.0% | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | a |
| 2 | Pumping & Lift Stations | 100.0% | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | a |
| 3 | SSJISD Pump Stations | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | 100.0% | - | - | b |
| | **Treatment** | | | | | | | | | | | | | | | | | |
| 4 | Grit Basins | 100.0% | - | - | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | c |
| 5 | Primary Clarifiers | 100.0% | 80.0% | - | 4.1% | 14.7% | - | 1.2% | - | - | - | - | - | - | - | - | - | d |
| 6 | Other Primary | 100.0% | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | a |
| 7 | Pumping | 100.0% | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | a |
| 8 | Septage | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0% | - | e |
| 9 | Trickling Filters | 100.0% | - | - | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - | f |
| 10 | Blowers | 100.0% | - | - | - | - | - | - | - | - | 84.4% | - | 15.6% | - | - | - | - | g |
| 11 | Aeration | 100.0% | - | - | - | - | - | - | - | - | 84.4% | - | 15.6% | - | - | - | - | g |
| 12 | Secondary Clarifiers | 100.0% | - | - | - | - | - | - | 90.0% | - | 8.4% | - | 1.6% | - | - | - | - | h |
| 13 | Other Secondary | 100.0% | - | - | - | - | - | - | 30.8% | 10.6% | 42.4% | 10.2% | 6.0% | - | - | - | - | i |
| 14 | Sludge Pumping | 100.0% | - | - | 8.2% | 29.0% | - | 2.3% | - | - | 30.5% | 24.0% | 6.0% | - | - | - | - | j |
| 15 | Aerobic Digesters | 100.0% | - | - | 8.2% | 29.0% | - | 2.3% | - | - | 30.5% | 24.0% | 6.0% | - | - | - | - | j |
| 16 | Dissolved Air Flotation (DAF) | 100.0% | - | - | 8.2% | 29.0% | - | 2.3% | - | - | 30.5% | 24.0% | 6.0% | - | - | - | - | j |
| 17 | Sludge Handling | 100.0% | - | - | 8.2% | 29.0% | - | 2.3% | - | - | 30.5% | 24.0% | 6.0% | - | - | - | - | j |
| 18 | Outfall | 100.0% | - | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - | - | f |
| 19 | Meters | 100.0% | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - | - | - | k |
| 20 | Laboratory | 100.0% | - | - | - | - | - | - | 100.0% | - | - | - | - | - | - | - | - | k |
| 21 | General | 100.0% | 4.6% | 11.8% | 2.2% | 13.6% | - | 0.6% | 18.9% | 6.5% | 26.0% | 6.2% | 3.7% | - | - | 5.9% | - | l |
| 22 | Total Treatment Allocation | 100.0% | 0.9% | 3.3% | 2.6% | 20.3% | 0.0% | 0.7% | 5.8% | 42.5% | 13.1% | 7.6% | 2.3% | 0.0% | 0.0% | 0.9% | 0.0% | m |
| | **Secondary Expansion** | | | | | | | | | | | | | | | | | |
| 23 | Secondary Expansion - Secondary Clarifiers | 100.0% | - | - | - | - | - | - | 90.0% | - | 8.4% | - | 1.6% | - | - | - | - | h |
| | **Administrative** | | | | | | | | | | | | | | | | | |
| 24 | Admin. & General | 100.0% | 4.0% | 18.7% | 1.8% | 11.1% | 0.0% | 0.5% | 19.5% | 5.3% | 21.6% | 5.1% | 3.1% | 0.0% | 0.0% | 4.8% | 4.5% | n |
| 25 | Billing Software | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0% | o |
| | **Contributions** | | | | | | | | | | | | | | | | | |
| 26 | Secondary Expansion - Secondary Clarifiers | 100.0% | - | - | - | - | - | - | 90.0% | - | 8.4% | - | 1.6% | - | - | - | - | h |
| 27 | Collection and Conveyance Mains | 100.0% | - | 100.0% | - | - | - | - | - | - | - | - | - | - | - | - | - | a |
| | **Ammonia Project** | | | | | | | | | | | | | | | | | |
| 28 | Secondary Expansion - Ammonia Project | 100.0% | - | - | - | - | - | - | 16.0% | 2.8% | 60.9% | 3.1% | 17.3% | - | - | - | - | p |

Basis of Allocation:

| | |
|---|---|
| a | Primary Capacity |
| b | SSJISD |
| c | Suspended Solids |
| d | 80% Primary Volume and 20% Sludge Based on Appendix A-1 (Primary Only) |
| e | Septage |
| f | Secondary Capacity |
| g | BOD & Ammonia on Appendix A-1 |
| h | 90% Secondary Volume 10% Secondary BOD & SS |
| i | Secondary Treatment Plant |
| j | Sludge Handling Allocation Appendix A-1 |
| k | Secondary Volume |
| l | Treatment Plant |
| m | Sum of Total Treatment Plan |
| n | Total Treatment Plant |
| o | Billing |
| p | Ammonia Project Allocation Factors Appendix A-8 |

The net book value of existing sewer system infrastructure through 12/31/2023 was reviewed and functionalized using the description column categories in Table 3-5. The categorized sewer system fixed asset net book values, recorded as original costs less depreciation, were then adjusted to 2023 values using Handy Whitman inflation indices for treatment plant buildings and improvements, and machinery and equipment. The resulting Trended Cost Less Depreciation is then allocated to key cost components using the allocation factors shown in Table 3-5.

The Trended Cost Less Depreciation value of the system through 12/31/2023 is estimated to be about $305 million, as shown on Line 34 of Table 3-6. This value, functionalized to different parts of the system on Lines 1 through 33, is allocated to key cost components in a manner similar to the allocation of O&M.

As shown on Lines 36 through 39, the distribution of asset values across the functions provides a basis for allocating debt service, routine capital, and test year revenue requirement adjustments shown previously on Line 11 of Table 3-1. Allocated debt service for the Ammonia Project is shown on Line 40 and deducted from total capital costs to be recovered from rates as shown on Line 41.

**Table 3-6: Capital Allocated Costs**

| Line No. | Description | Total | Common to Retail | | | | | | Common to All | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | Ammonia | FOG | Volume | Capacity | BOD | SS | Ammonia | FOG | SSJISD | Septage | Billing |
| | **Collection & Conveyance** | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| 1 | Collection and Conveyance Mains | 183,193,329 | - | 183,193,329 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2 | Pumping & Lift Stations | 7,373,460 | - | 7,373,460 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3 | SSJISD Pump Stations | 1,943,464 | - | - | - | - | - | - | - | - | - | - | - | - | 1,943,464 | - | - |
| 4 | Subtotal | 192,510,254 | - | 190,566,790 | - | - | - | - | - | - | - | - | - | - | 1,943,464 | - | - |
| | **Treatment** | | | | | | | | | | | | | | | | |
| 5 | Grit Basins | 7,232,881 | - | - | - | 7,232,881 | - | - | - | - | - | - | - | - | - | - | - |
| 6 | Primary Clarifiers | 468,719 | 374,975 | - | 19,217 | 68,902 | - | 5,625 | - | - | - | - | - | - | - | - | - |
| 7 | Other Primary | 353,329 | - | 353,329 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8 | Pumping | 1,315,152 | - | 1,315,152 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9 | Septage | 283,226 | - | - | - | - | - | - | - | - | - | - | - | - | - | 283,226 | - |
| 10 | Trickling Filters | 517,357 | - | - | - | - | - | - | - | - | 517,357 | - | - | - | - | - | - |
| 11 | Blowers | 297,896 | - | - | - | - | - | - | - | - | 251,425 | - | 46,472 | - | - | - | - |
| 12 | Aeration | 468,135 | - | - | - | - | - | - | - | - | 395,106 | - | 73,029 | - | - | - | - |
| 13 | Secondary Clarifiers | 2,830,557 | - | - | - | - | - | - | 2,547,501 | - | 238,899 | - | 44,157 | - | - | - | - |
| 14 | Other Secondary | 94,786 | - | - | - | - | - | - | 29,194 | 10,047 | 40,189 | 9,668 | 5,687 | - | - | - | - |
| 15 | Sludge Pumping | 66,439 | - | - | 5,427 | 19,267 | - | 1,528 | - | - | 20,285 | 15,945 | 3,986 | - | - | - | - |
| 16 | Aerobic Digesters | 7,433,351 | - | - | 607,162 | 2,155,672 | - | 170,967 | - | - | 2,269,545 | 1,784,004 | 446,001 | - | - | - | - |
| 17 | Dissolved Air Flotation (DAF) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18 | Sludge Handling | 12,640,602 | - | - | 1,032,494 | 3,665,775 | - | 290,734 | - | - | 3,859,419 | 3,033,744 | 758,436 | - | - | - | - |
| 19 | Outfall | 28,681,635 | - | - | - | - | - | - | - | 28,681,635 | - | - | - | - | - | - | - |
| 20 | Meters | 7,823 | - | - | - | - | - | - | 7,823 | - | - | - | - | - | - | - | - |
| 21 | Laboratory | 370,800 | - | - | - | - | - | - | 370,800 | - | - | - | - | - | - | - | - |
| 22 | General | 5,194,162 | 238,931 | 612,911 | 114,272 | 706,406 | - | 31,165 | 981,697 | 337,621 | 1,350,482 | 322,038 | 192,184 | - | - | 306,456 | - |
| 23 | Subtotal | 68,256,850 | 613,906 | 2,281,392 | 1,778,572 | 13,848,902 | - | 500,019 | 3,937,015 | 29,029,303 | 8,942,707 | 5,165,400 | 1,569,952 | - | - | 589,681 | - |
| | **Secondary Expansion** | | | | | | | | | | | | | | | | |
| 24 | Secondary Expansion - Secondary Clarifiers | 12,004,681 | - | - | - | - | - | - | 10,804,213 | - | 1,013,195 | - | 187,273 | - | - | - | - |
| 25 | Subtotal | 12,004,681 | - | - | - | - | - | - | 10,804,213 | - | 1,013,195 | - | 187,273 | - | - | - | - |
| | **Administrative** | | | | | | | | | | | | | | | | |
| 26 | Admin. & General | 726,486 | 29,059 | 135,853 | 13,077 | 80,640 | - | 3,632 | 141,665 | 38,504 | 156,921 | 37,051 | 22,521 | - | - | 34,871 | 32,692 |
| 27 | Billing Software | 307,058 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 307,058 |
| 28 | Subtotal | 1,033,545 | 29,059 | 135,853 | 13,077 | 80,640 | - | 3,632 | 141,665 | 38,504 | 156,921 | 37,051 | 22,521 | - | - | 34,871 | 339,750 |
| | **Contributions** | | | | | | | | | | | | | | | | |
| 29 | Secondary Expansion - Secondary Clarifiers | (12,004,681) | - | - | - | - | - | - | (10,804,213) | - | (1,013,195) | - | (187,273) | - | - | - | - |
| 30 | Collection and Conveyance Mains | (3,883,047) | - | (3,883,047) | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31 | Subtotal | (15,887,728) | - | (3,883,047) | - | - | - | - | (10,804,213) | - | (1,013,195) | - | (187,273) | - | - | - | - |
| | **Ammonia Project** | | | | | | | | | | | | | | | | |
| 32 | Secondary Expansion - Ammonia Project | 47,557,629 | - | - | - | - | - | - | 7,586,389 | 1,352,756 | 28,948,747 | 1,453,276 | 8,216,462 | - | - | - | - |
| 33 | Subtotal | 47,557,629 | - | - | - | - | - | - | 7,586,389 | 1,352,756 | 28,948,747 | 1,453,276 | 8,216,462 | - | - | - | - |
| 34 | **Total** | **305,475,231** | **642,966** | **189,100,988** | **1,791,649** | **13,929,542** | **-** | **503,651** | **11,665,069** | **30,420,562** | **38,048,374** | **6,655,727** | **9,808,935** | **-** | **1,943,464** | **624,553** | **339,750** |
| 35 | Existing Plant | 100.0% | 0.2% | 73.3% | 0.7% | 5.4% | 0.0% | 0.2% | 1.6% | 11.3% | 3.5% | 2.0% | 0.6% | 0.0% | 0.8% | 0.2% | 0.1% |
| 36 | Debt Service (a) | 16,808,867 | 41,903 | 12,323,988 | 116,764 | 907,809 | - | 32,824 | 265,814 | 1,894,391 | 593,036 | 339,051 | 103,784 | - | 126,658 | 40,703 | 22,142 |
| 37 | Routine Capital (a) | 1,415,433 | 3,529 | 1,037,772 | 9,832 | 76,444 | - | 2,764 | 22,383 | 159,522 | 49,938 | 28,551 | 8,739 | - | 10,666 | 3,427 | 1,865 |
| 38 | Test Year Capital Cost Adjustments | (80,400) | (200) | (58,948) | (559) | (4,342) | - | (157) | (1,271) | (9,061) | (2,837) | (1,622) | (496) | - | (606) | (195) | (106) |
| 39 | Net Capital for Rates | 18,143,900 | 45,231 | 13,302,812 | 126,038 | 979,911 | - | 35,431 | 286,926 | 2,044,852 | 640,138 | 365,980 | 112,027 | - | 136,718 | 43,936 | 23,901 |
| 40 | Less: Debt Service for Ammonia Project | (2,616,900) | - | - | - | - | - | - | (217,644) | (1,551,100) | (485,569) | (277,610) | (84,977) | - | - | - | - |
| 41 | Net Capital for Rates Less: Ammonia Project | 15,527,000 | 45,231 | 13,302,812 | 126,038 | 979,911 | - | 35,431 | 69,281 | 493,752 | 154,568 | 88,370 | 27,050 | - | 136,718 | 43,936 | 23,901 |

(a) Based on Line 35

## 3.2.4 Distribution of Costs to Customer Classes

The distribution of the costs of service for each cost component to customer classes is based on their respective use of the system, determined through the development of customer class units of service.

### 3.2.4.1 Customer Classification

The sewer customers classifications used by the City aggregate customers with similar service requirements. These customer classifications include residential, commercial, SSJISD, National Beef

Leathers and Triumph Foods. Costs are also allocated to BOD, SS, ammonia and FOG surcharges for high strength customers with wastewater strength that exceeds 300 mg/l for BOD, 350 mg/l for SS, 30 mg/l for ammonia and 100 mg/l for FOG.

#### 3.2.4.2 Units of Service

The FY 2026 units of service for each customer class are shown in Table 3-7. Contributed volumes reflect the test year 2026 billed volume projected previously in Table 2-1.

Infiltration/Inflow is generally quantified as the difference between billable flow and the flow treated at the primary treatment plant. Infiltration is groundwater entering the system through cracks or deterioration in the collection system infrastructure, which can include service connections, mains, and manholes. Inflow is stormwater entering the system through direct connections such as downspouts, drains, or sump pumps connected to the sewer system, or through the combined wastewater system. Based on historical 3-year average flows at the primary treatment plant, I/I represents about 65 percent of the primary treatment plant flow. The retail customer classes are allocated its proportionate share of the costs associated with I/I. Consistent with prior studies, 60 percent of I/I has been allocated to retail customer classes based on number of customers and 40 percent based on contributed flow. I/I is not allocated to the secondary wholesale customers whose flows are measured at the treatment plant.

Capacity units are determined by applying peaking factors to contributed flow and I/I and then dividing by the number of days in the year. Capacity factors of 1.5 are applied to all customer class billable flow, while a capacity factor of 3.0 is applied to allocated I/I for each class.

All retail customer classes are assumed to discharge comparable BOD, SS, ammonia and FOG strength loadings. Consistent with prior studies, the average strength for contributed wastewater flow is estimated to be 415 mg/l for BOD, 450 mg/l for suspended solids, 28 mg/l for ammonia, and 45 mg/l for FOG. Infiltration/inflow is estimated to have a BOD strength of 75 mg/l, suspended solids strength of 300 mg/l, ammonia strength of 5 mg/l, and FOG strength of 8 mg/l. Estimates of BOD, SS and ammonia strengths in excess of normal limits are included in the surcharge customer classification. The estimates are based on sampling data maintained by the sewer utility for each significant industrial and wholesale user. This data also serves as the basis for current billings.

Estimates of the strength related loadings on the secondary treatment plant (common to all) are based on the strength of the effluent from the primary treatment plant and the strength of the flows from the secondary wholesale customers.

Septage units are based on the gallons of waste received at the septage upload station. Billing costs are related to the number of bills for each customer class.

**Table 3-7: Retail and Wholesale Units of Service**

| | | Assignable Volume | | | Capacity | | | Common to Retail | | | Common to All | | | Common to Retail | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Contributed Volume | Infiltration/ Inflow | Total | Contributed | Infiltration/ Inflow | Total | BOD | SS | FOG | BOD | SS | Ammonia | Retail Customers | Retail Bills |
| Line No. | | ccf | ccf | ccf | ccf/day | ccf/day | ccf/day | lbs | lbs | lbs | lbs | lbs | lbs | | |
| | **Retail** | | | | | | | | | | | | | | |
| 1 | Residential | 1,092,400 | 3,497,100 | 4,589,500 | 4,500 | 28,700 | 33,200 | 4,465,500 | 9,614,100 | 481,300 | 3,125,900 | 3,845,600 | 300,000 | 23,676 | 284,112 |
| 2 | Commercial/Industrial | 1,489,200 | 1,401,300 | 2,890,500 | 6,100 | 11,500 | 17,600 | 4,512,200 | 6,804,900 | 488,200 | 3,158,500 | 2,722,000 | 303,900 | 2,405 | 28,860 |
| 3 | Surcharge | - | - | - | - | - | - | 290,900 | 5,600 | - | 203,600 | 2,200 | 2,400 | - | - |
| 4 | Septic | - | - | - | - | - | - | 115,300 | 230,700 | 1,300 | 80,700 | 92,300 | 4,000 | - | - |
| 5 | Subtotal | 2,581,600 | 4,898,400 | 7,480,000 | 10,600 | 40,200 | 50,800 | 9,383,900 | 16,655,300 | 970,800 | 6,568,700 | 6,662,100 | 610,300 | 26,081 | 312,972 |
| | **Wholesale** | | | | | | | | | | | | | | |
| 6 | SSJISD | 810,100 | - | 810,100 | 3,300 | - | 3,300 | - | - | - | 3,099,400 | 787,900 | 288,500 | | |
| 7 | National Beef Leathers | 347,600 | - | 347,600 | 1,400 | - | 1,400 | - | - | - | 53,400 | 144,500 | 385,900 | | |
| 8 | Triumph Foods | 1,030,700 | - | 1,030,700 | 4,200 | - | 4,200 | - | - | - | 1,459,000 | 1,203,500 | 877,100 | | |
| 9 | Subtotal | 2,188,400 | - | 2,188,400 | 8,900 | - | 8,900 | - | - | - | 4,611,800 | 2,135,900 | 1,551,500 | | |
| 10 | **Total** | **4,770,000** | **4,898,400** | **9,668,400** | **19,500** | **40,200** | **59,700** | **9,383,900** | **16,655,300** | **970,800** | **11,180,500** | **8,798,000** | **2,161,800** | **26,081** | **312,972** |

### 3.2.4.3 Unit Cost Development

Based on the allocated operation and maintenance expenses and capital costs shown in Tables 3-4 and 3-6, respectively, and the units of service developed in Table 3-7, unit costs of service for each functional cost component may be determined. Table 3-8 indicates the unit of measure and applicable unit cost for each functional component.

**Table 3-8: Unit Costs of Service**

| | | Common to Retail | | | | | Common to All | | | | | | | | Ammonia | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line No. | | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia | SSJISD | Septage | Billing | Debt Service | Total |
| | **Units of Service** | | | | | | | | | | | | | | | |
| 1 | Units | Ccf | Ccf/Day | lbs | lbs | lbs | Ccf | Ccf/Day | lbs | lbs | lbs | Ccf | Mgal. | Bills | | |
| | Retail | | | | | | | | | | | | | | | |
| 2 | Residential | 4,589,500 | 33,200 | 4,465,500 | 9,614,100 | 481,300 | 4,589,500 | 33,200 | 3,125,900 | 3,845,600 | 300,000 | - | - | 284,112 | | |
| 3 | Commercial/Industrial | 2,890,500 | 17,600 | 4,512,200 | 6,804,900 | 488,200 | 2,890,500 | 17,600 | 3,158,500 | 2,722,000 | 303,900 | - | - | 28,860 | | |
| 4 | Surcharge | - | - | 290,900 | 5,600 | - | - | - | 203,600 | 2,200 | 2,400 | - | - | - | | |
| 5 | Septage | - | - | 115,300 | 230,700 | 1,300 | - | - | 80,700 | 92,300 | 4,000 | - | 2,127 | - | | |
| | Wholesale | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 6 | SSJISD | - | - | - | - | - | 810,100 | 3,300 | 3,099,400 | 787,900 | 288,500 | 810,100 | - | - | | |
| 7 | National Beef Leathers | - | - | - | - | - | 347,600 | 1,400 | 53,400 | 144,500 | 385,900 | - | - | - | | |
| 8 | Triumph Foods | - | - | - | - | - | 1,030,700 | 4,200 | 1,459,000 | 1,203,500 | 877,100 | - | - | - | | |
| 9 | Total Units | 7,480,000 | 50,800 | 9,383,900 | 16,655,300 | 970,800 | 9,668,400 | 59,700 | 11,180,500 | 8,798,000 | 2,161,800 | 810,100 | 2,127 | 312,972 | | |
| | **Functional Cost Allocations** | | | | | | | | | | | | | | | |
| 10 | Net Operation, Maint. & Replacement - $ | 2,104,400 | 3,966,900 | 434,500 | 1,178,800 | 283,600 | 1,251,300 | 810,300 | 2,042,100 | 1,108,500 | 167,500 | 198,700 | 16,400 | 1,404,600 | - | 14,967,600 |
| 11 | Net Capital- $ | 45,200 | 13,302,800 | 126,000 | 979,900 | 35,400 | 69,300 | 493,800 | 154,600 | 88,400 | 27,100 | 136,700 | 43,900 | 23,900 | 2,616,900 | 18,143,900 |
| 12 | Total Cost of Service - $ | 2,149,600 | 17,269,700 | 560,500 | 2,158,700 | 319,000 | 1,320,600 | 1,304,100 | 2,196,700 | 1,196,900 | 194,600 | 335,400 | 60,300 | 1,428,500 | 2,616,900 | 33,111,500 |
| 13 | Op, Maint & Replace. Unit Cost (a)- $/Unit | 0.2813 | 78.0886 | 0.0463 | 0.0708 | 0.2921 | 0.1294 | 13.5729 | 0.1826 | 0.1260 | 0.0775 | 0.2453 | 7.7096 | 4.4879 | | |
| 14 | Capital Unit Cost (b) - $/Unit | 0.0060 | 261.8661 | 0.0134 | 0.0588 | 0.0365 | 0.0072 | 8.2714 | 0.0138 | 0.0100 | 0.0125 | 0.1687 | 20.6373 | 0.0764 | | |
| 15 | Total Unit Cost (c) - $/Unit | 0.2874 | 339.9547 | 0.0597 | 0.1296 | 0.3286 | 0.1366 | 21.8442 | 0.1965 | 0.1360 | 0.0900 | 0.4140 | 28.3469 | 4.5643 | | |

(a) Line 10 / Line 9
(b) Line 11 / Line 9
(c) Line 12 / Line 9

### 3.2.4.4 Allocation of Costs to Customer Classes

Applying the unit costs by function to the units of service for each customer class allows for the distribution of costs to customer classes, as shown in Table 3-9. Units of service for each class are as

developed previously in Table 3-7. By applying the unit cost for each function against the level of service provided to each customer class, the total cost of service by customer class is determined.

Responsibility for the ammonia debt service project by class is determined based on the design basis for the volume and capacity of the project as well as pounds of BOD, SS, and Ammonia.

**Table 3-9: Customer Class Allocated Cost of Service**

| Line | | Common to Retail | | | | | Common to All | | | | | | | | Ammonia | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Allocated Cost of Service | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia | SSJISD | Septage | Billing | Debt Service | Total |
| | Residential | | | | | | | | | | | | | | | |
| 1 | Operation, Maint. & Replacement - $ | 1,291,196 | 2,592,541 | 206,765 | 680,450 | 140,602 | 593,981 | 450,619 | 570,941 | 484,525 | 23,245 | - | - | 1,275,078 | - | 8,309,943 |
| 2 | Capital - $ | 27,733 | 8,693,956 | 59,959 | 565,637 | 17,550 | 32,896 | 274,609 | 43,224 | 38,640 | 3,761 | - | - | 21,696 | 966,372 | 10,746,033 |
| 3 | Residential Subtotal - $ | 1,318,929 | 11,286,497 | 266,724 | 1,246,087 | 158,152 | 626,877 | 725,228 | 614,165 | 523,165 | 27,006 | - | - | 1,296,774 | 966,372 | 19,055,976 |
| | Commercial/Industrial | | | | | | | | | | | | | | | |
| 4 | Operation, Maint. & Replacement - $ | 813,204 | 1,374,359 | 208,927 | 481,625 | 142,618 | 374,093 | 238,882 | 576,895 | 342,957 | 23,547 | - | - | 129,522 | - | 4,706,629 |
| 5 | Capital - $ | 17,467 | 4,608,844 | 60,586 | 400,360 | 17,802 | 20,718 | 145,576 | 43,675 | 27,350 | 3,810 | - | - | 2,204 | 608,628 | 5,957,020 |
| 6 | Commercial Monthly Subtotal - $ | 830,671 | 5,983,203 | 269,513 | 881,985 | 160,420 | 394,811 | 384,458 | 620,570 | 370,307 | 27,357 | - | - | 131,726 | 608,628 | 10,663,649 |
| | Surcharge | | | | | | | | | | | | | | | |
| 7 | Operation, Maint. & Replacement - $ | - | - | 13,469 | 396 | - | - | - | 37,187 | 277 | 186 | - | - | - | - | 51,515 |
| 8 | Capital - $ | - | - | 3,906 | 329 | - | - | - | 2,815 | 22 | 30 | - | - | - | - | 7,102 |
| 9 | Surcharge Subtotal - $ | - | - | 17,375 | 725 | - | - | - | 40,002 | 299 | 216 | - | - | - | - | 58,617 |
| | Septage | | | | | | | | | | | | | | | |
| 10 | Operation, Maint. & Replacement - $ | - | - | 5,339 | 16,328 | 380 | - | - | 14,740 | 11,629 | 310 | - | 16,400 | - | - | 65,126 |
| 11 | Capital - $ | - | - | 1,548 | 13,573 | 47 | - | - | 1,116 | 927 | 50 | - | 43,900 | - | - | 61,161 |
| 12 | Septage Subtotal - $ | - | - | 6,887 | 29,901 | 427 | - | - | 15,856 | 12,556 | 360 | - | 60,300 | - | - | 126,287 |
| 13 | Subtotal Retail - $ | 2,149,600 | 17,269,700 | 560,499 | 2,158,698 | 318,999 | 1,021,688 | 1,109,686 | 1,290,593 | 906,327 | 54,939 | - | 60,300 | 1,428,500 | 1,575,000 | 29,904,529 |
| | South St. Joseph Industrial Sewer District | | | | | | | | | | | | | | | |
| 14 | Operation, Maint. & Replacement - $ | - | - | - | - | - | 104,844 | 44,790 | 566,100 | 99,271 | 22,353 | 198,700 | - | - | - | 1,036,058 |
| 15 | Capital - $ | - | - | - | - | - | 5,807 | 27,295 | 42,857 | 7,917 | 3,617 | 136,700 | - | - | 523,600 | 747,793 |
| 16 | SSJISD Subtotal - $ | - | - | - | - | - | 110,651 | 72,085 | 608,957 | 107,188 | 25,970 | 335,400 | - | - | 523,600 | 1,783,851 |
| | National Beef Leathers | | | | | | | | | | | | | | | |
| 17 | Operation, Maint. & Replacement - $ | - | - | - | - | - | 44,987 | 19,002 | 9,753 | 18,206 | 29,900 | - | - | - | - | 121,848 |
| 18 | Capital - $ | - | - | - | - | - | 2,491 | 11,580 | 738 | 1,452 | 4,838 | - | - | - | 173,400 | 194,499 |
| 19 | National Beef Leathers Subtotal | - | - | - | - | - | 47,478 | 30,582 | 10,491 | 19,658 | 34,738 | - | - | - | 173,400 | 316,347 |
| | Triumph Foods | | | | | | | | | | | | | | | |
| 20 | Operation, Maint. & Replacement - $ | - | - | - | - | - | 133,395 | 57,006 | 266,484 | 151,634 | 67,959 | - | - | - | - | 676,478 |
| 21 | Capital - $ | - | - | - | - | - | 7,388 | 34,740 | 20,175 | 12,092 | 10,995 | - | - | - | 344,800 | 430,190 |
| 22 | Triumph Foods Subtotal | - | - | - | - | - | 140,783 | 91,746 | 286,659 | 163,726 | 78,954 | - | - | - | 344,800 | 1,106,668 |
| 23 | Total | 2,149,600 | 17,269,700 | 560,499 | 2,158,698 | 318,999 | 1,320,600 | 1,304,099 | 2,196,700 | 1,196,899 | 194,601 | 335,400 | 60,300 | 1,428,500 | 2,616,800 | 33,111,395 |

After Test Year 2026 costs are assigned to customer classes, they may be compared against revenue under existing rates, which provides an indication of equity in the recovery of costs through revenues under existing 2025 rates. As shown in Table 3-10, the total system adjustment is indicated to be 3.0 percent overall, consistent with the recommended financial plan. Overall, the retail class is indicated to increase 4.8 percent while the wholesale class is indicated to decrease 10.9 percent. This comparison provides context for the development of proposed rates.

Cost of service analyses reflect industry practice, historical system and customer data, estimates, and professional judgement and experience. For these and other reasons, cost of service results provide context for rate design but are generally not considered an exact prescription for rate change. As noted in prior studies, judgement and City policy must enter into the final choice of rates, and consideration must be given to factors such as previous rate levels, existing contractual requirements and past local practice. Section 4.0 will discuss proposed rates for the sewer utility.

**Table 3-10: Comparison of Revenue Under Existing Rates to Allocated Cost of Service**

| Line No. | | Revenue Under Existing Rates | Allocated Cost of Service | Indicated Change in Dollars | Indicated Percentage Change |
|---|---|---|---|---|---|
| | **Retail** | $ | $ | | |
| 1 | Residential | 18,061,600 | 19,055,600 | 994,000 | 5.5% |
| 2 | Commercial/Industrial | 10,234,800 | 10,663,600 | 428,800 | 4.2% |
| 3 | Surcharge | 76,900 | 58,600 | (18,300) | -23.8% |
| 4 | Septic | 174,490 | 126,300 | (48,190) | -27.6% |
| 5 | Total Retail | 28,547,790 | 29,904,100 | 1,356,310 | 4.8% |
| | **Wholesale** | | | | |
| 6 | SSJISD | 2,120,200 | 1,784,100 | (336,100) | -15.9% |
| 7 | National Beef Leather | 314,600 | 316,300 | 1,700 | 0.5% |
| 8 | Triumph Foods | 1,164,600 | 1,106,700 | (57,900) | -5.0% |
| 9 | Total Wholesale | 3,599,400 | 3,207,100 | (392,300) | -10.9% |
| 10 | **Total** | **32,147,190** | **33,111,200** | **964,010** | **3.00%** |

Two significant factors are contributing to the cost recovery shifting toward retail and away from wholesale.

1. The completion of CSO improvements including the Blacksnake project shifts capital costs toward retail as this collection system project is allocated on a Common to Retail basis.
2. System I/I remains elevated due to the aging collection system infrastructure, which is allocated to the retail class.

# 4.0 PROPOSED RATE DESIGN

## 4.1 Introduction

The primary focus of Step 3, Rate Design, is the examination of revenue recovery. The objective is to design rates for the utility to progress toward the following goals:

- Generate adequate revenues to meet the projected operating and capital costs, while maintaining sound financial performance.
- Provide revenue stability.
- Provide cost recovery that is reasonably commensurate with the cost of providing a given level of service.

As noted at the end of Section 3.0, Cost of service results provide context for rate design but are generally not considered an exact prescription for rate change.

## 4.2 Existing Sewer Rates

The existing sewer rate schedule is shown in Table 4-1. The current rate structure includes a monthly service charge and volumetric charge for retail customers. Surcharge customers are subject to the same service and volume charges plus additional high strength charges and limit fees. Additionally, the City has three Wholesale customers that are subject to their own service, volume, and high strength charges and limit fees.

Outside City rates have been established using a multiplier of 1.3 times Inside City rates.

**Table 4-1: Existing Sewer Rates**

| Line No. | RETAIL | Inside City | | Outside City | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 1 | Service Charge | 40.86 | $/month | 53.12 | $/month | | |
| 2 | Volume Charge | 6.21 | $/ccf | 8.07 | $/ccf | | |
| | Overage Charges | | | | | | |
| 3 | BOD in excess of 300 mg/l | 0.265 | $/lb | 0.345 | $/lb | 0.398 | $/lb |
| 4 | Suspended solids in excess of 350 mg/l | 0.204 | $/lb | 0.265 | $/lb | 0.306 | $/lb |
| 5 | Ammonia | 0.109 | $/lb | 0.142 | $/lb | 0.164 | $/lb |
| 6 | Fats, Oils, & Grease in Excess of 100 mg/l | 0.298 | $/lb | 0.387 | $/lb | | |
| 7 | Sulfides | 0.349 | $/lb | 0.454 | $/lb | | |
| 8 | Septage | 0.086 | $/gal | 0.086 | $/gal | | |
| | **WHOLESALE** | **Monthly Charge** | | **Flow Charge** | | **Limit Fees** | |
| 9 | SSJISD | 40,490 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 10 | National Beef Leathers | 13,410 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 11 | Triumph Foods | 26,680 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 12 | Pump Station | | | 0.410 | $/ccf | | |
| 13 | BOD | | | 0.287 | $/lb | 0.431 | $/lb |
| 14 | SS | | | 0.119 | $/lb | 0.179 | $/lb |
| 15 | Ammonia | | | 0.109 | $/lb | 0.164 | $/lb |
| 16 | FOG | | | 0.298 | $/lb | | |

## 4.3 Proposed Sewer Rates

Table 4-2 and Table 4-3 show proposed FY 2026 and FY 2027 sewer rates, respectively, which are proposed to become effective July 1, 2025 and July 1, 2026. Proposed rates maintain the same structure as existing rates.

Proposed retail rate adjustments include an increase in the service charge of 1.5 percent and an increase in the volumetric rate of 5.0 percent. Retail surcharge rates are proposed to remain unchanged. The septage rate is proposed to increase at the system average increase of 3.5 percent.

The multiplier for Outside City rates of 1.3 times Inside City rates has been maintained in the rate design shown in Table 4-2 and Table 4-3.

For 2026, we recommend leaving retail surcharge rates and all wholesale rates at current 2025 levels and monitoring for changes in units and costs in subsequent studies.

## Table 4-2: Proposed FY2026 Sewer Rates

| Line No. | RETAIL | Inside City | | Outside City | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 1 | Service Charge | 41.47 | $/month | 53.91 | $/month | | |
| 2 | Volume Charge | 6.52 | $/ccf | 8.48 | $/ccf | | |
| | Overage Charges | | | | | | |
| 3 | BOD in excess of 300 mg/l | 0.265 | $/lb | 0.345 | $/lb | 0.398 | $/lb |
| 4 | Suspended solids in excess of 350 mg/l | 0.204 | $/lb | 0.265 | $/lb | 0.306 | $/lb |
| 5 | Ammonia | 0.109 | $/lb | 0.142 | $/lb | 0.164 | $/lb |
| 6 | Fats, Oils, & Grease in Excess of 100 mg/l | 0.298 | $/lb | 0.387 | $/lb | | |
| 7 | Sulphides in excess of 15 mg/l | 0.349 | $/lb | 0.454 | $/lb | | |
| 8 | Septage (hauled wastewater) | 0.089 | $/gal | 0.089 | $/gal | | |

| | WHOLESALE | Monthly Charge | | Flow Charge | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 9 | SSJISD | 40,490 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 10 | National Beef Leathers | 13,410 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 11 | Triumph Foods | 26,680 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 12 | Pump Station | | | 0.410 | $/ccf | | |
| 13 | BOD | | | 0.287 | $/lb | 0.431 | $/lb |
| 14 | SS | | | 0.119 | $/lb | 0.179 | $/lb |
| 15 | Ammonia | | | 0.109 | $/lb | 0.164 | $/lb |
| 16 | FOG | | | 0.298 | $/lb | | |

**Table 4-3: Proposed FY2027 Sewer Rates**

| Line No. | RETAIL | Inside City | | Outside City | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 1 | Service Charge | 42.09 | $/month | 54.72 | $/month | | |
| 2 | Volume Charge | 6.85 | $/ccf | 8.91 | $/ccf | | |
| | Overage Charges | | | | | | |
| 3 | BOD in excess of 300 mg/l | 0.265 | $/lb | 0.345 | $/lb | 0.398 | $/lb |
| 4 | Suspended solids in excess of 350 mg/l | 0.204 | $/lb | 0.265 | $/lb | 0.306 | $/lb |
| 5 | Ammonia | 0.109 | $/lb | 0.142 | $/lb | 0.164 | $/lb |
| 6 | Fats, Oils, & Grease in Excess of 100 mg/l | 0.298 | $/lb | 0.387 | $/lb | | |
| 7 | Sulphides in excess of 15 mg/l | 0.349 | $/lb | 0.454 | $/lb | | |
| 8 | Septage (hauled wastewater) | 0.092 | $/gal | 0.092 | $/gal | | |

| | WHOLESALE | Monthly Charge | | Flow Charge | | Limit Fees | |
|---|---|---|---|---|---|---|---|
| 9 | SSJISD | 40,490 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 10 | National Beef Leathers | 13,410 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 11 | Triumph Foods | 26,680 | $/month | 0.216 | $/ccf | 0.324 | $/ccf |
| 12 | Pump Station | | | 0.410 | $/ccf | | |
| 13 | BOD | | | 0.287 | $/lb | 0.431 | $/lb |
| 14 | SS | | | 0.119 | $/lb | 0.179 | $/lb |
| 15 | Ammonia | | | 0.109 | $/lb | 0.164 | $/lb |
| 16 | FOG | | | 0.298 | $/lb | | |

Limit fees are applicable to retail and wholesale Significant Industrial Users (SIUs) when maximum daily limits as established in their permits are exceeded for volume, BOD, TSS, and ammonia. The limit fees are established as 1.50 times the underlying flow or surcharge rate, which is reflected in the proposed rates.

A comparison of cost of service and revenue under proposed rates is shown in Table 4-4.

**Table 4-4: Comparison of Cost of Service and Revenue Under Proposed Rates**

| Line No. | | Allocated Cost of Service | Revenue Under Existing Rates | Revenue Under Proposed Rates | Revenue as a Percent of Cost of Service | Revenue Inc/ (Dec) Compared to Existing Rates |
|---|---|---|---|---|---|---|
| | **Retail** | $ | $ | $ | | |
| 1 | Residential | 19,055,600 | 18,061,600 | 18,564,500 | 97.4% | 2.8% |
| 2 | Commercial/Industrial | 10,663,600 | 10,234,800 | 10,684,500 | 100.2% | 4.4% |
| 3 | Surcharge | 58,600 | 76,900 | 77,300 | 131.9% | 0.5% |
| 4 | Septic | 126,300 | 174,490 | 189,300 | 149.9% | 8.5% |
| 5 | Total Retail | 29,904,100 | 28,547,790 | 29,515,600 | 98.7% | 3.4% |
| | **Wholesale** | | | | | |
| 6 | SSJISD | 1,784,100 | 2,120,200 | 2,120,100 | 118.8% | 0.0% |
| 7 | National Beef Leathers | 316,300 | 314,600 | 314,600 | 99.5% | 0.0% |
| 8 | Triumph Foods | 1,106,700 | 1,164,600 | 1,164,700 | 105.2% | 0.0% |
| 9 | Total Wholesale | 3,207,100 | 3,599,400 | 3,599,400 | 112.2% | 0.0% |
| 10 | **Total** | **33,111,200** | **32,147,190** | **33,115,000** | **100.0%** | **3.0%** |

## 4.4 Comparison of Typical Retail Customer Bills

A comparison of typical retail sewer bills under existing and proposed rates is shown in Table 4-5 and Table 4-6. The resulting percentage increase for each quantity of billable volume is also indicated. The typical residential user contributes approximately 4 ccf per month. At this consumption level, a typical residential customer's average bill in 2026 would increase approximately 2.8 percent, increasing $1.85 per month from $65.70 to $67.55. In 2027, the typical residential customer's bill would increase approximately 2.9 percent, increasing $1.94 per month from $67.55 to $69.49.

**Table 4-5: Inside City Retail Sewer Bills Under Existing FY 2025 Rates and Proposed FY 2026 Rates**

| Line No. | Monthly Billed Sewer Volume | Inside City 2025 Rates | Inside City 2026 Rates | Increase | Increase |
|---|---|---|---|---|---|
| | ccf | $ | $ | $ | % |
| 1 | **0** | 40.86 | 41.47 | 0.61 | 1.49% |
| 2 | **2** | 53.28 | 54.51 | 1.23 | 2.31% |
| 3 | **3** | 59.49 | 61.03 | 1.54 | 2.59% |
| 4 | **4** | 65.70 | 67.55 | 1.85 | 2.82% |
| 5 | **6** | 78.12 | 80.59 | 2.47 | 3.16% |
| 6 | **10** | 102.96 | 106.67 | 3.71 | 3.60% |
| 7 | **30** | 227.16 | 237.07 | 9.91 | 4.36% |
| 8 | **50** | 351.36 | 367.47 | 16.11 | 4.59% |
| 9 | **75** | 506.61 | 530.47 | 23.86 | 4.71% |
| 10 | **100** | 661.86 | 693.47 | 31.61 | 4.78% |
| 11 | **150** | 972.36 | 1,019.47 | 47.11 | 4.84% |
| 12 | **200** | 1,282.86 | 1,345.47 | 62.61 | 4.88% |
| 13 | **500** | 3,145.86 | 3,301.47 | 155.61 | 4.95% |
| 14 | **1000** | 6,250.86 | 6,561.47 | 310.61 | 4.97% |

**Table 4-6: Inside City Retail Sewer Bills Under Proposed FY 2026 Rates and Proposed FY 2027 Rates**

| Line No. | Monthly Billed Sewer Volume | Inside City 2026 Rates | Inside City 2027 Rates | Increase | Increase |
|---|---|---|---|---|---|
| | ccf | $ | $ | $ | % |
| 1 | **0** | 41.47 | 42.09 | 0.62 | 1.50% |
| 2 | **2** | 54.51 | 55.79 | 1.28 | 2.35% |
| 3 | **3** | 61.03 | 62.64 | 1.61 | 2.64% |
| 4 | **4** | 67.55 | 69.49 | 1.94 | 2.87% |
| 5 | **6** | 80.59 | 83.19 | 2.60 | 3.23% |
| 6 | **10** | 106.67 | 110.59 | 3.92 | 3.67% |
| 7 | **30** | 237.07 | 247.59 | 10.52 | 4.44% |
| 8 | **50** | 367.47 | 384.59 | 17.12 | 4.66% |
| 9 | **75** | 530.47 | 555.84 | 25.37 | 4.78% |
| 10 | **100** | 693.47 | 727.09 | 33.62 | 4.85% |
| 11 | **150** | 1,019.47 | 1,069.59 | 50.12 | 4.92% |
| 12 | **200** | 1,345.47 | 1,412.09 | 66.62 | 4.95% |
| 13 | **500** | 3,301.47 | 3,467.09 | 165.62 | 5.02% |
| 14 | **1000** | 6,561.47 | 6,892.09 | 330.62 | 5.04% |

# STATEMENT OF LIMITATIONS

In preparation of the Wastewater Financial Planning, Cost of Service and Rate Design Study (the Study), Burns & McDonnell has relied upon information provided by the City of St. Joseph, Missouri (City) and the Public Works Department (Department). The information included various analyses, computer-generated information and reports, billing system records, fixed asset reports, audited financial reports, and other financial and statistical information, as well as other documents such as operating budgets and current retail sewer rate schedules. In addition, input to key assumptions regarding expected future levels of revenue, sales, and expenditures was provided by City and Department staff to Burns & McDonnell. While Burns & McDonnell has no reason to believe that the information provided, and upon which Burns & McDonnell has relied, is inaccurate or incomplete in any material respect, Burns & McDonnell has not independently verified such information and cannot guarantee its accuracy or completeness.

Estimates and projections prepared by Burns & McDonnell relating to performance and costs are based on Burns & McDonnell's experience, qualifications, and judgment as a professional consultant. Since Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, contractors' procedures and methods, unavoidable delays, economic conditions, government regulations and laws (including interpretation thereof), competitive bidding, and market conditions or other factors affecting such estimates or projections, Burns & McDonnell does not guarantee the accuracy of its estimates or predictions.

**APPENDIX A**

O&M and Plant Allocations

## Appendix A-1
## City of St. Joseph, MO - Water Protection Fund
## Sludge Handling Cost Allocation Factors

| Line No. | Description | Pounds | % of Total |
|---|---|---|---|
| 1 | Primary Sludge | 14,893,193 | 39% |
| 2 | Secondary Sludge | 22,841,588 | 61% |
| 3 | Total | 37,734,781 | 100% |

| | | Common to Retail | | | Common to All | | |
|---|---|---|---|---|---|---|---|
| | | BOD | SS | FOG | BOD | SS | Ammonia |
| 4 | Sludge Handling (a) | 8% | 29% | 2% | 31% | 24% | 6% |

(a) Assume Primary Treatment related sludge is 39% of the total sludge processed and allocate 8% to Primary Treatment related BOD and 29% to Primary Treatment related Suspended Solids. Allocate remaining 61% 31% to Secondary Treatment related BOD and 24% to Secondary Treatment Suspended Solids.

## Appendix A-2
## City of St. Joseph, MO - Water Protection Fund
## Secondary Operations Allocation Factors

| Line No. | Description | EPA Manual Estimated Hours (a) | Common to Retail | | | | | Common to All | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia |
| | Secondary Cost Components | | | | | | | | | | | |
| 1 | Aeration | 2,700 | - | - | - | - | - | - | - | 2,700 | - | - |
| 2 | Secondary Clarifiers | 3,000 | - | - | - | - | - | 3,000 | - | - | - | - |
| 3 | Trickling Filters | 5,000 | - | - | - | - | - | - | - | 5,000 | - | - |
| 4 | Sludge Digestion | 5,000 | - | - | - | - | - | - | - | 1,527 | 3,173 | 300 |
| 5 | Total | 15,700 | - | - | - | - | - | 3,000 | - | 9,227 | 3,173 | 300 |
| 6 | Percent Distribution | 100% | 0% | 0% | 0% | 0% | 0% | 19% | 0% | 59% | 20% | 2% |

(a) "Estimating Cost and Manpower Requirements for Conventional Wastewater Treatment Facilities", Office of Research and Monitoring-Environmental Protection Agency, 1971.

## Appendix A-3
## City of St. Joseph, MO - Water Protection Fund
## Wastewater Treatment Plant Vehicle Allocation Factors

| Line No. | Description | Total Allocation | Common to Retail | | | | | Common to All | | | | | SSJISD Pump Station |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia | |
| 1 | Sludge Related (a) | 80.0% | - | - | 6.6% | 23.2% | 1.8% | - | - | 24.4% | 19.2% | 4.8% | - |
| 2 | Other (b) | 20.0% | 5.0% | 3.9% | 0.3% | 1.7% | 0.1% | 1.5% | 1.1% | 3.5% | 1.8% | 0.3% | 0.6% |
| 3 | Total | 100.0% | 5.0% | 3.9% | 6.9% | 24.9% | 1.9% | 1.5% | 1.1% | 27.9% | 21.0% | 5.1% | 0.6% |

(a) Allocation based on Sludge Handling Cost allocation Factors, Appendix A-1.
(b) Allocation based on Wastewater Treatment Plant and Lift Station Personnel Expense Allocation Factors, excluding Vehicles, Appendix A-4.

**Appendix A-4**
**City of St. Joseph, MO - Water Protection Fund**
**Wastewater Treatment Plant and Personnel Expense**

| Line No. | Description | Percentage Distribution (a) | Common to Retail | | | | | Common to All | | | | | SSJISD Pump Station |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia | |
| 1 | Primary Operations (b) | 14.9% | 14.9% | - | - | - | - | - | - | - | - | - | - |
| 2 | Secondary Operations (c) | 16.7% | - | - | - | - | - | 3.2% | - | 9.8% | 3.4% | 0.3% | - |
| 3 | Sludge - Belt Press (d) | 16.1% | - | - | 1.2% | 4.7% | 0.4% | - | - | 4.9% | 3.9% | 1.0% | - |
| 4 | Sludge - Haul & Spread (d) | 2.3% | - | - | 0.1% | 0.7% | 0.1% | - | - | 0.7% | 0.6% | 0.1% | - |
| 5 | Equipment Maintenance (e) | | | | | | | | | | | | |
| 6 | Primary Operations | 13.1% | 9.6% | 0.4% | 0.3% | 2.7% | 0.1% | - | - | - | - | - | - |
| 7 | Secondary Operations | 12.5% | - | - | - | - | - | 4.3% | 5.3% | 1.6% | 0.9% | 0.3% | - |
| 8 | Pump Station (f) | 21.5% | - | 18.5% | | | | | | | | - | 3.0% |
| 9 | Vehicle Maintenance (g) | 3.0% | 0.3% | 0.1% | 0.2% | 0.7% | 0.1% | 0.0% | 0.0% | 0.8% | 0.6% | 0.2% | 0.0% |
| 10 | Total | 100.0% | 24.7% | 19.0% | 1.8% | 8.8% | 0.7% | 7.5% | 5.3% | 17.8% | 9.4% | 1.9% | 3.0% |
| | Percent Distribution | | | | | | | | | | | | |
| 11 | Wastewater Treatment Plant & L.S. | 100.0% | 24.7% | 19.0% | 1.8% | 8.8% | 0.7% | 7.5% | 5.3% | 17.8% | 9.4% | 1.9% | 3.0% |
| 12 | Wastewater Treatment Plant Only | 100.0% | 32.4% | 0.6% | 2.1% | 10.7% | 0.8% | 9.9% | 7.0% | 22.6% | 11.7% | 2.2% | - |
| 13 | Vehicles | 100.0% | 12.1% | 3.9% | 6.9% | 24.9% | - | 1.5% | 1.1% | 27.9% | 21.0% | - | 0.6% |

(a) Percentage distribution based on analysis of functional duties and salary budget.
(b) Allocated to volume.
(c) Allocation based on Secondary Operation Allocation Factors, Appendix A-2.
(d) Allocation based on Sludge Handling Cost Allocation Factors, Appendix A-1.
(e) Allocation based on Wastewater Treatment Plant Allocations, Table 3-5.
(f) Allocation based on SSJISD pump station fixed assets as a percent of total pump station fixed assets.
(g) Allocation based on Vehicle Allocation Factors, Appendix A-3.

**Appendix A-5**
**City of St. Joseph, MO - Water Protection Fund**
**Power Cost Allocation Factors**

| Line No. | Description Location | Power Costs (a) | Common to Retail | | | | | Common to All | | | | | SSJISD Pump Station |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia | |
| 1 | Substation 1- Intermed. P.S. | 177,684 | 88,842 | - | - | - | - | 88,842 | - | - | - | - | - |
| 2 | Substation 2- Blower Bldg. | 223,759 | - | - | - | - | - | - | - | 223,759 | - | - | - |
| 3 | Substation 3- Util. Water P.S. | 59,536 | 59,536 | - | - | - | - | - | - | - | - | - | - |
| 4 | Substation 4- Control Bldg. | 301,429 | - | - | 24,621 | 87,415 | 6,933 | - | - | 92,032 | 72,343 | 18,086 | - |
| 5 | Subtotal | 762,408 | 148,377 | - | 24,621 | 87,415 | 6,933 | 88,842 | - | 315,791 | 72,343 | 18,086 | - |
| 6 | Lift Stations | 877,585 | 482,762 | - | - | - | - | 377,478 | - | - | - | - | 17,346 |
| 7 | Total | 1,639,993 | 631,139 | - | 24,621 | 87,415 | 6,933 | 466,320 | - | 315,791 | 72,343 | 18,086 | 17,346 |
| 8 | Percent Distribution | 100% | 38% | 0% | 2% | 5% | 0% | 28% | 0% | 19% | 4% | 1% | 1% |

(a) Wastewater Treatment electricity cost for FY 2026

**Appendix A-6**
**City of St. Joseph, MO - Water Protection Fund**
**Laboratory Allocation Factors**

| Line | | | Common to Retail | | | | | Common to All | | | | | SSJISD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | Description | Total | Volume | Capacity | BOD | SS | FOG | Volume | Capacity | BOD | SS | Ammonia | Pump Station |
| 1 | Secondary Treatment Plant (a) | 50.0% | - | - | - | - | - | 16.6% | - | 16.7% | 16.7% | - | - |
| 2 | Other Laboratory Expense (b) | 50.0% | 12.5% | 0.0% | 12.5% | 12.5% | 12.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 3 | Total | 100.0% | 12.5% | 0.0% | 12.5% | 12.5% | 12.5% | 16.6% | 0.0% | 16.7% | 16.7% | 0.0% | 0.0% |
| 4 | Percent Distribution | 100% | 12.5% | 0.0% | 12.5% | 12.5% | 12.5% | 16.6% | 0.0% | 16.7% | 16.7% | 0.0% | 0.0% |

(a) Allocate equally to each Secondary cost component.
(b) Allocate equally to each Primary cost component.

**Appendix A-7**
**City of St. Joseph, MO - Water Protection Fund**
**Fixed Assets**

| Department | FA ID | Asset Description | Code | Original Cost | Accumulated Depreciation | | Year in Service | Trend Factor | Trended Cost | Trended Cost Less Depr | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAND | | | | | | | | | | | |
| LAND | 870879 | BLACKSNAKE PUMP STATION LAND | LD | 2,048 | 0 | 1/1/1967 | 1967 | 1.000 | 2,048 | 2,048 | Pumping |
| LAND | 870883 | WHITEHEAD PUMP STATION LAND | LD | 12,565 | 0 | 1/1/1967 | 1967 | 1.000 | 12,565 | 12,565 | Pumping |
| LAND | 870892 | BROWN'S BRANCH PUMP STATION | LD | 8,339 | 0 | 1/1/1967 | 1967 | 1.000 | 8,339 | 8,339 | Pumping |
| LAND | 870893 | ROY'S BRANCH PUMP STATION LAND | LD | 3,008 | 0 | 1/1/1967 | 1967 | 1.000 | 3,008 | 3,008 | Pumping |
| LAND | A870884 | G7-1 6TH STREET | LD | 1,421 | 0 | 1/1/1967 | 1967 | 1.000 | 1,421 | 1,421 | Collection & Conveyance |
| LAND | A870885 | G7-2 KING HILL EXTENSION | LD | 1,029 | 0 | 1/1/1967 | 1967 | 1.000 | 1,029 | 1,029 | Collection & Conveyance |
| LAND | A870889 | R2-1 WHITEHEAD PUMP STATION | LD | 57,836 | 0 | 1/1/1967 | 1967 | 1.000 | 57,836 | 57,836 | Pumping |
| LAND | A870890 | R2-2 WHITEHEAD FORCE MAIN | LD | 1,295 | 0 | 1/1/1967 | 1967 | 1.000 | 1,295 | 1,295 | Collection & Conveyance |
| LAND | A870891 | R-3 INTERCEPTOR MISC EXP | LD | 16,174 | 0 | 1/1/1967 | 1967 | 1.000 | 16,174 | 16,174 | Collection & Conveyance |
| LAND | A870895 | SECONDARY PLANT | LD | 91,344 | 0 | 1/1/1967 | 1967 | 1.000 | 91,344 | 91,344 | Treatment - Other Secondary |
| LAND | A870896 | LAND EASEMENTS | LD | 2,521 | 0 | 1/1/1967 | 1967 | 1.000 | 2,521 | 2,521 | Collection & Conveyance |
| LAND | A870932 | D#217 GF LAND PARCEL | LD | 2,550 | 0 | 1/1/1967 | 1967 | 1.000 | 2,550 | 2,550 | Collection & Conveyance |
| LAND | A870936 | G1-1 PICKETT-MITCHELL | LD | 1,667 | 0 | 1/1/1967 | 1967 | 1.000 | 1,667 | 1,667 | Collection & Conveyance |
| LAND | A900287 | TREATMENT PLANT LAND | LD | 126,553 | 0 | 1/1/1967 | 1967 | 1.000 | 126,553 | 126,553 | Treatment - Other Primary |
| LAND | 870881 | FARAON PUMP STATION LAND | LD | 90,594 | 0 | 1/1/1969 | 1969 | 1.000 | 90,594 | 90,594 | Pumping |
| LAND | A870897 | 102 INTERCEPTOR | LD | 26,262 | 0 | 1/1/1976 | 1976 | 1.000 | 26,262 | 26,262 | Collection & Conveyance |
| LAND | A870898 | CARNATION EASEMENT | LD | 2,928 | 0 | 1/1/1976 | 1976 | 1.000 | 2,928 | 2,928 | Collection & Conveyance |
| LAND | A870899 | OUTFALL LINE | LD | 18,300 | 0 | 1/1/1976 | 1976 | 1.000 | 18,300 | 18,300 | Treatment - Outfall |
| SSJ | A900288 | SOUTH ST JOSEPH PUMP STATION | LD | 3,500 | 0 | 1/1/1978 | 1978 | 1.000 | 3,500 | 3,500 | SSJISD Pump Stations |
| LAND | 870901 | EASTON RD LIFT STATION LAND | LD | 1,000 | 0 | 1/1/1984 | 1984 | 1.000 | 1,000 | 1,000 | Pumping |
| LAND | A870900 | COUNTRY SQUIRE | LD | 2,100 | 0 | 1/1/1984 | 1984 | 1.000 | 2,100 | 2,100 | Collection & Conveyance |
| LAND | A870933 | SD#262 GF LAND PARCEL | LD | 1,000 | 0 | 1/1/1986 | 1986 | 1.000 | 1,000 | 1,000 | Collection & Conveyance |
| LAND | A880450 | LAND EASEMENTS | LD | 9,390 | 0 | 7/1/1987 | 1987 | 1.000 | 9,390 | 9,390 | Collection & Conveyance |
| LAND | A880041 | LAND EASEMENT SEWER NORTHRIDGE | LD | 1,650 | 0 | 9/23/1987 | 1987 | 1.000 | 1,650 | 1,650 | Collection & Conveyance |
| LAND | A880042 | LAND EASEMENT SEWER DIST #317 | LD | 2,000 | 0 | 9/30/1987 | 1987 | 1.000 | 2,000 | 2,000 | Collection & Conveyance |
| WPC | 70049 | 4316 STOCKYARDS EXPRESSWAY | LD | 151,220 | 0 | 7/1/2006 | 2006 | 1.000 | 151,220 | 151,220 | Collection & Conveyance |
| LAND | 90060 | UP Railroad Land Purch-Blcksnk | LD | 175,638 | 0 | 6/30/2009 | 2009 | 1.000 | 175,638 | 175,638 | Pumping |
| LAND | 100136 | Word of Life Land Purchase | LD | 15,000 | 0 | 6/30/2010 | 2010 | 1.000 | 15,000 | 15,000 | Collection & Conveyance |
| LAND | 100137 | Hausman Trstee Land Purchase | LD | 29,000 | 0 | 6/30/2010 | 2010 | 1.000 | 29,000 | 29,000 | Collection & Conveyance |
| LAND | 100138 | Kennedy Land Purchase | LD | 5,900 | 0 | 6/30/2010 | 2010 | 1.000 | 5,900 | 5,900 | Collection & Conveyance |
| LAND | 110204 | FY11 Sewer Easements | LD | 18,563 | 0 | 6/30/2011 | 2011 | 1.000 | 18,563 | 18,563 | Collection & Conveyance |
| CTYLN/YORK | 120065 | Jessen Perm Easemt CTYL/Yrk St | LD | 10,500 | 0 | 6/20/2012 | 2012 | 1.000 | 10,500 | 10,500 | Collection & Conveyance |
| WPC | 120067 | Disinf Pump Stat-land (Pallet) | LD | 200,000 | 0 | 6/30/2012 | 2012 | 1.000 | 200,000 | 200,000 | Treatment - Outfall |
| WPC | 120068 | Disinf Pump Sta-land(Bartlett) | LD | 17,900 | 0 | 6/30/2012 | 2012 | 1.000 | 17,900 | 17,900 | Treatment - Outfall |
| WHITEHEAD | 120069 | 2012 Land purch for Whthd Pump | LD | 551,862 | 0 | 6/30/2012 | 2012 | 1.000 | 551,862 | 551,862 | Pumping |
| INFRAS | 130204 | 2013 Sewer Easements | LD | 47,810 | 0 | 6/30/2013 | 2013 | 1.000 | 47,810 | 47,810 | Collection & Conveyance |
| SWMTN | 130205 | Whitehead-BNSF Easements | LD | 16,775 | 0 | 6/30/2013 | 2013 | 1.000 | 16,775 | 16,775 | Collection & Conveyance |
| WPC | 140076 | Atha/Janice East Side Imp Land | LD | 381,179 | 0 | 6/10/2014 | 2014 | 1.000 | 381,179 | 381,179 | Collection & Conveyance |
| INFRAS | 140202 | 2014 Sewer Easements | LD | 349,379 | 0 | 6/30/2014 | 2014 | 1.000 | 349,379 | 349,379 | Collection & Conveyance |
| LAND | 160066 | Blacksnake Permanent Land Acquistions | LD | 604,241 | 0 | 6/30/2016 | 2016 | 1.000 | 604,241 | 604,241 | Collection & Conveyance |
| INFRAS | 180202 | 2018 SEWER EASEMENTS | LD | 24,550 | 0 | 6/30/2018 | 2018 | 1.000 | 24,550 | 24,550 | Collection & Conveyance |
| | | TOTAL LAND | | 3,086,591 | | | | | 3,086,591 | 3,086,591 | |
| BUILDINGS AND IMPROVEMENTS | | | | | | | | | | | |
| WHITEHEAD | 850076 | WHITEHEAD PUMPING STATION | BD | 172,854 | 172,854 | 1/1/1965 | 1965 | 15.804 | 2,731,711 | 0 | Pumping |
| PPS | 850156 | PLANT SEWAGE PUMP STATION | BD | 100,337 | 100,337 | 1/1/1965 | 1965 | 15.804 | 1,585,680 | 0 | Treatment - Pumping |
| STATIONS | 850128 | ZIMMERMAN LIFT STATION | BD | 12,280 | 12,280 | 1/1/1967 | 1967 | 14.508 | 178,161 | 0 | Pumping |
| BROWN | 850072 | BROWNS BRANCH PUMPING STATION | BD | 76,080 | 76,080 | 1/1/1968 | 1968 | 13.828 | 1,052,044 | 0 | Pumping |
| STATIONS | 850127 | ROYS BRANCH LIFT STATION | BD | 16,120 | 16,120 | 1/1/1972 | 1972 | 9.620 | 155,067 | 0 | Pumping |
| STATIONS | 850122 | PHILLIPS & SHERMAN LIFT STATIO | BD | 19,520 | 19,323 | 1/1/1974 | 1974 | 7.564 | 147,651 | 1,488 | Pumping |
| STATIONS | 850130 | SHERWOOD LIFT STATION | BD | 20,880 | 20,254 | 1/1/1975 | 1975 | 6.860 | 143,247 | 4,297 | Pumping |
| STATIONS | 850126 | CAMBRIDGE LIFT STATION | BD | 23,200 | 21,577 | 1/1/1977 | 1977 | 6.277 | 145,617 | 10,184 | Pumping |
| SSJ | 850075 | SOUTH ST JOE INDUSTRIAL PUMP | BD | 118,472 | 118,472 | 1/1/1978 | 1978 | 5.710 | 676,438 | 0 | SSJISD Pump Stations |
| FARAON | 850073 | FARAON STREET PUMP STATION | BD | 485,293 | 485,293 | 1/1/1979 | 1979 | 5.237 | 2,541,326 | 0 | Pumping |
| FARAON | 850074 | STORAGE SHED | BD | 4,660 | 4,660 | 1/1/1979 | 1979 | 5.237 | 24,405 | 0 | Pumping |
| OLDCONTROL | 850137 | FILTER/CTRL BLDG W/ DIGESTERS | BD | 4,179,844 | 3,720,063 | 1/1/1979 | 1979 | 5.237 | 21,888,532 | 2,407,731 | Treatment - Digester |
| RAWPUMP | 850139 | RAW SLUDGE PUMP HOUSE #1 | BD | 57,682 | 51,338 | 1/1/1979 | 1979 | 5.237 | 302,063 | 33,220 | Treatment - Sludge Pumping |
| RAWPUMP | 850140 | RAW SLUDGE PUMP HOUSE #2 | BD | 57,682 | 51,338 | 1/1/1979 | 1979 | 5.237 | 302,063 | 33,220 | Treatment - Sludge Pumping |
| CLARIFIERS | 850141 | PRIMARY CLARIFIER #2 | BD | 271,220 | 241,384 | 1/1/1979 | 1979 | 5.237 | 1,420,294 | 156,240 | Treatment - Primary Clarifier |
| CLARIFIERS | 850142 | PRIMARY CLARIFIER #3 | BD | 271,220 | 241,384 | 1/1/1979 | 1979 | 5.237 | 1,420,294 | 156,240 | Treatment - Primary Clarifier |
| CLARIFIERS | 850143 | PRIMARY CLARIFIER #4 | BD | 271,220 | 241,384 | 1/1/1979 | 1979 | 5.237 | 1,420,294 | 156,240 | Treatment - Primary Clarifier |
| INTERMED | 850144 | INTERMEDIATE PUMP STATION | BD | 1,554,740 | 1,383,717 | 1/1/1979 | 1979 | 5.237 | 8,141,686 | 895,593 | Treatment - Pumping |
| WPC | 850148 | AERATION TANK RETURN | BD | 812,667 | 723,272 | 1/1/1979 | 1979 | 5.237 | 4,255,681 | 468,135 | Treatment - Aeration |
| CLARIFIERS | 850149 | SECONDARY CLARIFIER #2 | BD | 675,758 | 601,423 | 1/1/1979 | 1979 | 5.237 | 3,538,733 | 389,268 | Treatment - Secondary Clarifier |
| CLARIFIERS | 850150 | SECONDARY CLARIFIER #4 | BD | 675,758 | 601,423 | 1/1/1979 | 1979 | 5.237 | 3,538,733 | 389,268 | Treatment - Secondary Clarifier |
| CLARIFIERS | 850151 | SECONDARY CLARIFIER #3 | BD | 675,758 | 601,423 | 1/1/1979 | 1979 | 5.237 | 3,538,733 | 389,268 | Treatment - Secondary Clarifier |
| TRANSFER | 850152 | TRANSFER PUMP/UTILITY WATER | BD | 233,249 | 207,592 | 1/1/1979 | 1979 | 5.237 | 1,221,453 | 134,357 | Treatment - Pumping |
| BLOWER | 850153 | BLOWER BUILDING | BD | 517,152 | 460,265 | 1/1/1979 | 1979 | 5.237 | 2,708,161 | 297,896 | Treatment - Blower Bldg. |
| FLOTATION | 850155 | DISSOLVED AIR FLOTATION | BD | 524,028 | 524,028 | 1/1/1979 | 1979 | 5.237 | 2,744,168 | 0 | Treatment - DAF |
| CHEMICAL | 850157 | C P CLARIFIER WITH CONTROL | BD | 393,689 | 350,384 | 1/1/1979 | 1979 | 5.237 | 2,061,627 | 226,776 | Treatment - Other Primary |
| SWMTN | 850158 | MAINTENANCE BUILDING | BD | 277,867 | 247,301 | 1/1/1979 | 1979 | 5.237 | 1,455,101 | 160,064 | Collection & Conveyance |
| STATIONS | 880323 | LIFT STATION 16 AIRPRT 15-1578 | BD | 22,000 | 22,000 | 7/1/1987 | 1987 | 3.688 | 81,125 | 0 | Pumping |
| BLUESIDE | 900216 | AEROBIC ACTIVATED SLUDGE SYSTE | BD | 1,723,974 | 1,723,974 | 6/30/1990 | 1990 | 3.417 | 5,890,800 | 0 | Treatment - Digester |
| OLDCONTROL | 910298 | FILTER BLDG ROOF REPLACEMENT | BD | 27,321 | 27,321 | 4/19/1991 | 1991 | 3.352 | 91,587 | 0 | Treatment - Digester |
| BLOWER | 920424 | ELECTRICAL IMPROVEMENTS | BD | 65,497 | 65,497 | 12/20/1991 | 1991 | 3.352 | 219,563 | 0 | Treatment - Blower Bldg. |
| WHITEHEAD | 920262 | INSULATED ROLL UP OVRHEAD DOOR | BD | 4,165 | 4,165 | 5/8/1992 | 1992 | 3.365 | 14,015 | 0 | Admin. & General |
| BROWN | 920263 | INSULATED ROLL UP OVRHEAD DOOR | BD | 2,980 | 2,980 | 5/8/1992 | 1992 | 3.365 | 10,028 | 0 | Admin. & General |
| BLOWER | 920418 | WPC ROOF REPAIR/REPLACEMENT | BD | 27,761 | 27,761 | 5/22/1992 | 1992 | 3.365 | 93,416 | 0 | Treatment - Blower Bldg. |
| STATIONS | 930382 | WPF STORMWATER LIFT STATION | BD | 13,000 | 7,931 | 1/22/1993 | 1993 | 3.218 | 41,836 | 16,314 | Pumping |
| STATIONS | 930383 | LIFT STATION WHEATRIDGE | BD | 13,000 | 7,931 | 1/22/1993 | 1993 | 3.218 | 41,836 | 16,314 | Pumping |
| STATIONS | 940744 | GENERATOR FLOOD REPLACEMENT | BD | 26,452 | 26,012 | 12/10/1993 | 1993 | 3.218 | 85,127 | 1,417 | Pumping |
| AIRPORT | 940742 | DRAINAGE PUMP STATION FLOOD RP | BD | 18,008 | 17,707 | 6/30/1994 | 1994 | 3.084 | 55,530 | 927 | Pumping |
| AIRPORT | 940743 | AIRPORT LIFT STATION FLOOD REP | BD | 26,561 | 26,118 | 6/30/1994 | 1994 | 3.084 | 81,904 | 1,365 | Pumping |
| FLOTATION | 950695 | OVERHEAD HOISTING RAIL | BD | 23,500 | 22,325 | 6/2/1995 | 1995 | 2.930 | 68,866 | 3,442 | Treatment - Other Secondary |
| INTERMED | 940694 | TRICKLING FILTER #3 | BD | 968,100 | 919,696 | 6/30/1995 | 1995 | 2.930 | 2,836,982 | 141,847 | Treatment - Trickling Filter |
| WPC | 950660 | MAIN OFFICE ROOF REPLACEMENT | BD | 16,306 | 16,306 | 6/30/1995 | 1995 | 2.930 | 47,784 | 0 | Admin. & General |
| PPS | 950697 | MAG METER & PLC INSTALLATION | BD | 26,708 | 25,373 | 6/30/1995 | 1995 | 2.930 | 78,265 | 3,912 | Treatment - Meters |
| RAWPUMP | 950698 | MAG METER 7 PLC INSTALLATIONS | BD | 26,708 | 25,373 | 6/30/1995 | 1995 | 2.930 | 78,265 | 3,912 | Treatment - Meters |
| INTERMED | 940695 | TRICKLING FILTER #2 | BD | 786,658 | 721,103 | 6/30/1996 | 1996 | 2.864 | 2,253,050 | 187,755 | Treatment - Trickling Filter |
| INTERMED | 940696 | TRICKLING FILTER #4 | BD | 786,658 | 721,103 | 6/30/1996 | 1996 | 2.864 | 2,253,050 | 187,755 | Treatment - Trickling Filter |
| INTERMED | 940697 | INTERMEDIATE PUMPING ST IMPROV | BD | 457,163 | 419,067 | 6/30/1996 | 1996 | 2.864 | 1,309,351 | 109,111 | Treatment - Pumping |

**Appendix A-7 (continued)**
**City of St. Joseph, MO - Water Protection Fund**
**Fixed Assets**

| Department | FA ID | Asset Description | Code | Original Cost | Accumulated Depreciation | | Year in Service | Trend Factor | Trended Cost | Trended Cost Less Depr | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BROWN | 940706 | BROWNS BRANCH PUMP ST IMPROVEM | BD | 138,961 | 127,380 | 6/30/1996 | 1996 | 2.864 | 397,995 | 33,168 | Pumping |
| WPC | 950659 | DIGESTER REHABS 1,2,3,4 | BD | 36,719 | 33,660 | 6/30/1996 | 1996 | 2.864 | 105,166 | 8,762 | Treatment - Digester |
| PPS | 940692 | PLANT SEWAGE PUMP STATION IMPR | BD | 421,822 | 372,610 | 11/1/1996 | 1996 | 2.864 | 1,208,132 | 140,948 | Treatment - Pumping |
| WPC | 940693 | AEROBIC DIGESTER IMPROVEMENTS | BD | 906,506 | 800,747 | 11/1/1996 | 1996 | 2.864 | 2,596,304 | 302,904 | Treatment - Digester |
| OLDCONTROL | 970364 | STAIRS AND 2 RAILINGS | BD | 17,662 | 15,601 | 11/8/1996 | 1996 | 2.864 | 50,585 | 5,902 | Treatment - Digester |
| WPC | 940691 | FILTER CTRL BLDG IMPROVEMENTS | BD | 1,165,280 | 1,029,331 | 5/2/1997 | 1997 | 2.801 | 3,263,522 | 380,743 | Treatment - Sludge |
| NEWCONTROL | 960895 | ADMIN BLDG CIP 420-060 | BD | 1,615,268 | 1,426,821 | 6/30/1997 | 1997 | 2.801 | 4,523,772 | 527,771 | Treatment - General |
| WPC | 960905 | MISC TRTMNT PLANT IMPRV 420026 | BD | 3,828,936 | 3,382,226 | 6/30/1997 | 1997 | 2.801 | 10,723,443 | 1,251,069 | Treatment - General |
| BROWN | 990127 | ROOF REPLACEMENT BROWN'S BRNCH | BD | 14,077 | 11,496 | 4/16/1999 | 1999 | 2.682 | 37,752 | 6,923 | Pumping |
| SSJ | 990128 | ROOF REPLACEMENT STJOE PLANT | BD | 14,774 | 12,066 | 4/16/1999 | 1999 | 2.682 | 39,621 | 7,263 | SSJISD Pump Stations |
| OLDCONTROL | 990129 | ROOF REPLACEMNT WASTEWTR PLANT | BD | 37,160 | 30,347 | 4/16/1999 | 1999 | 2.682 | 99,656 | 18,271 | Treatment - Digester |
| WHITEHEAD | 32 | ROOF REPLACE-WHITEHEAD | BD | 42,350 | 42,350 | 1/14/2000 | 2000 | 2.611 | 110,560 | 0 | Pumping |
| FARAON | 33 | ROOF REPLACE - FARAON PUMP STA | BD | 39,420 | 39,420 | 1/14/2000 | 2000 | 2.611 | 102,911 | 0 | Pumping |
| WPC | 40040 | ROOF REPLACEMENT | BD | 23,941 | 23,941 | 11/21/2003 | 2003 | 2.269 | 54,328 | 0 | Treatment - General |
| SWMTN | 70026 | SEWER MAINT GARAGE | BD | 31,271 | 17,199 | 5/15/2007 | 2007 | 1.867 | 58,385 | 26,274 | Collection & Conveyance |
| SWMTN | 100120 | Sewer Mtce/Recyc Ctr Facility | BD | 889,012 | 370,422 | 6/30/2011 | 2011 | 1.627 | 1,446,278 | 843,662 | Collection & Conveyance |
| WPC | 100112 | Septage Receivng Sys Building | BD | 290,488 | 101,671 | 6/30/2013 | 2013 | 1.500 | 435,732 | 283,226 | Treatment - Septage |
| WPC | 110106 | Disinf/Effluent Pump Station | BD | 26,931,480 | 8,528,302 | 6/30/2014 | 2014 | 1.497 | 40,328,865 | 27,558,058 | Treatment - Outfall |
| WPC | 130112 | WP Maintenance Building | BD | 2,328,532 | 1,979,252 | 6/30/2015 | 2015 | 1.446 | 3,367,240 | 505,086 | Treatment - General |
| WPC | 110104 | Ammonia Removal Facility | BD | 43,766,093 | 9,481,610 | 6/30/2017 | 2017 | 1.387 | 60,710,019 | 47,557,629 | Treatment - Ammonia Project |
| SWMTN | 190108 | SEWER MAINTENANCE FACILITY | BD | 1,576,418 | 78,407 | 6/30/2022 | 2022 | 1.013 | 1,596,258 | 1,516,864 | Collection & Conveyance |
| WHITEHEAD | 853750 | C/O ASPHALT PAVING AND FENCING | IM | 6,282 | 6,282 | 1/1/1965 | 1965 | 15.804 | 99,281 | 0 | Pumping |
| WPC | 853305 | LOT OF LAND IMPROVEMENTS | IM | 195,000 | 195,000 | 1/1/1979 | 1979 | 5.237 | 1,021,154 | 0 | Treatment - Other Primary |
| WPC | 950696 | WPC FACILITY FENCES | IM | 10,940 | 10,029 | 6/30/1996 | 1996 | 2.864 | 31,333 | 2,610 | Treatment - General |
| WPC | 960896 | INTERCEPTOR CLEANING & REHAB | IM | 616,327 | 564,967 | 6/30/1996 | 1996 | 2.864 | 1,765,209 | 147,101 | Collection & Conveyance |
| WPC | 970389 | DIGESTER #1&2 REHAB (R-28) | IM | 1,765,081 | 1,559,155 | 6/30/1997 | 1997 | 2.801 | 4,943,345 | 576,726 | Treatment - Digester |
| AIRPORT | 980180 | PUMP STATION WIRING 420-137 | IM | 263,340 | 263,340 | 6/30/1998 | 1998 | 2.774 | 730,584 | 0 | Pumping |
| WHITEHEAD | 990219 | INSTALL 3 FREQUENCY DRIVES | IM | 61,854 | 50,515 | 6/30/1999 | 1999 | 2.682 | 165,881 | 30,410 | Pumping |
| WPC | 36 | MANHOLE REHAB PROJECT | IM | 148,900 | 148,900 | 5/5/2000 | 2000 | 2.611 | 388,720 | 0 | Collection & Conveyance |
| CLARIFIERS | 30108 | REPAIRS TO SEC CLARIFIER #3 | IM | 144,523 | 59,254 | 12/13/2002 | 2002 | 2.379 | 343,825 | 202,857 | Treatment - Secondary Clarifier |
| WHITEHEAD | 40003 | Magnetic Flow Meter | IM | 19,745 | 12,835 | 8/5/2003 | 2003 | 2.269 | 44,807 | 15,682 | Pumping |
| PPS | 40052 | FLOWSERVE CENTRIFICAL PUMP | IM | 45,270 | 29,425 | 6/30/2004 | 2004 | 2.218 | 100,410 | 35,143 | Treatment - Pumping |
| WPC | 40054 | REPLACE STAINLESS AIR FILTER | IM | 45,200 | 45,200 | 6/30/2004 | 2004 | 2.218 | 100,256 | 0 | Treatment - Blower Bldg. |
| WPC | 60045 | SECURITY GATE SYSTEM | IM | 41,703 | 24,327 | 1/13/2006 | 2006 | 1.967 | 82,016 | 34,174 | Treatment - General |
| SSJ | 70047 | INVERTER REPLACEMENT | IM | 583,629 | 320,996 | 10/31/2006 | 2006 | 1.967 | 1,147,804 | 516,512 | SSJISD Pump Stations |
| WPC | 40128 | DIGESTER REHAB | IM | 1,075,810 | 555,835 | 6/30/2008 | 2008 | 1.774 | 1,908,000 | 922,200 | Treatment - Digester |
| WPC | 40129 | WWTP EXPAN FOR TRIUMPH FOODS | IM | 14,004,292 | 7,235,551 | 6/30/2008 | 2008 | 1.774 | 24,837,271 | 12,004,681 | Treatment - Industrial Secondary Clarifier |
| INFRAS | 80115 | Block St. Drainage Improvments | IM | 144,009 | 69,604 | 6/30/2009 | 2009 | 1.670 | 240,467 | 124,242 | Collection & Conveyance |
| INFRAS | 90101 | Llama Ln Storm Drainage Projt | IM | 113,896 | 55,050 | 6/30/2009 | 2009 | 1.670 | 190,185 | 98,262 | Collection & Conveyance |
| CLARIFIERS | 100114 | Rehab Primary Clarifier #2 | IM | 334,006 | 150,303 | 6/30/2010 | 2010 | 1.686 | 563,039 | 309,672 | Treatment - Secondary Clarifier |
| AIRPORT | 90120 | Rosecrans Sewage Lagoon Efflue | IM | 431,670 | 165,474 | 6/30/2012 | 2012 | 1.555 | 671,403 | 414,032 | Treatment - Sludge |
| SSJ | 90121 | SSJ Pump Stat Wet Well Rehab | IM | 1,217,525 | 466,718 | 6/30/2012 | 2012 | 1.555 | 1,893,689 | 1,167,775 | SSJISD Pump Stations |
| CLARIFIERS | 100113 | Rehab Secondary Clar #2 & #4 | IM | 1,199,227 | 459,704 | 6/30/2012 | 2012 | 1.555 | 1,865,229 | 1,150,225 | Treatment - Secondary Clarifier |
| WPC | 100116 | Overhaul 4 Elevators | IM | 469,178 | 179,852 | 6/30/2012 | 2012 | 1.555 | 729,741 | 450,007 | Treatment - General |
| STATIONS | 120106 | County Line/York Pump Station | IM | 652,107 | 228,237 | 6/30/2013 | 2013 | 1.500 | 978,161 | 635,804 | Pumping |
| WHITEHEAD | 100115 | Whitehead Creek Strmwtr Separation | IM | 16,285,515 | 2,767,269 | 6/30/2015 | 2015 | 1.446 | 23,550,132 | 19,548,444 | Collection & Conveyance |
| WPC | 130109 | WP Lab Rehab & Improvements | IM | 873,110 | 742,144 | 6/30/2015 | 2015 | 1.446 | 1,262,586 | 189,388 | Laboratory |
| WPC | 130111 | Greens Demonstration Project | IM | 325,288 | 276,495 | 6/30/2015 | 2015 | 1.446 | 470,392 | 70,559 | Collection & Conveyance |
| WPC | 150049 | WPC Lab Light Replacement | IM | 305,577 | 259,740 | 6/30/2015 | 2015 | 1.446 | 441,888 | 66,283 | Laboratory |
| WPC | 110105 | Eastside Wstwtr Improv Project | IM | 30,098,472 | 6,521,336 | 6/30/2017 | 2017 | 1.387 | 41,751,016 | 32,704,962 | Collection & Conveyance |
| GRITBASIN | 120105 | Replace Grit Removal System | IM | 6,656,441 | 1,442,229 | 6/30/2017 | 2017 | 1.387 | 9,233,465 | 7,232,881 | Treatment - Grit Basin |
| BIOSOLIDS | 120108 | Bio Solid Process Dryer | IM | 8,547,100 | 1,845,964 | 6/30/2017 | 2017 | 1.387 | 11,856,087 | 9,295,463 | Treatment - Sludge |
| WPC | 160108 | Hydraulic Model | IM | 363,304 | 78,716 | 6/30/2017 | 2017 | 1.387 | 503,956 | 394,766 | Admin. & General |
| BROWN | 160107 | Brown's Branch Replacement Pump Station | IM | 19,350 | 17,415 | 6/30/2019 | 2019 | 1.303 | 25,220 | 2,522 | Pumping |
| WPC | 180112 | ODOR CONTROL - PARKWAY A | IM | 833,261 | 97,214 | 6/30/2020 | 2020 | 1.275 | 1,062,588 | 938,619 | Treatment - General |
| WPC | 180113 | WPF LEVEE STORM WATER PUMP STATION | IM | 4,923,990 | 568,604 | 6/30/2020 | 2020 | 1.275 | 6,279,152 | 5,554,058 | Pumping |
| WPC | 200101 | EVERGY WPF POWER UPGRADES | IM | 139,613 | 11,634 | 6/30/2021 | 2021 | 1.133 | 158,204 | 145,020 | Admin. & General |
| WPC | 200103 | DIGESTER HEAT EXCHANGER | IM | 393,766 | 32,814 | 6/30/2021 | 2021 | 1.133 | 446,201 | 409,018 | Treatment - Digester |
| CORBY | 190107 | CORBY POND RENOVATION | IM | 1,142,863 | 57,143 | 6/30/2022 | 2022 | 1.013 | 1,157,247 | 1,099,384 | Collection & Conveyance |
| INFRAS | 210133 | RIVERSIDE ROAD SSES | IM | 4,288,105 | 214,405 | 6/30/2022 | 2022 | 1.013 | 4,342,074 | 4,124,970 | Collection & Conveyance |
| WHITEHEAD | 210134 | WHITEHEAD RAKES REPLACEMENT | IM | 1,092,564 | 49,516 | 6/30/2022 | 2022 | 1.013 | 1,106,315 | 1,056,175 | Treatment - General |
| INFRAS | 210135 | ODOR CONTROL PHASE 2 | IM | 41,154 | 2,058 | 6/30/2022 | 2022 | 1.013 | 41,672 | 39,589 | Treatment - General |
| SSJ | 210137 | SSJSD PUMP STN FORCE MAIN | IM | 288,619 | 43,293 | 6/30/2022 | 2022 | 1.013 | 292,251 | 248,414 | SSJISD Pump Stations |
| INFRAS | 210144 | FY21 CMOM CONSOLIDATED IMPROVEMENTS | IM | 1,136,765 | 56,838 | 6/30/2022 | 2022 | 1.013 | 1,151,073 | 1,093,519 | Collection & Conveyance |
| INFRAS | 210145 | SPRAY ON LINER IMPROVEMENTS | IM | 93,944 | 4,697 | 6/30/2022 | 2022 | 1.013 | 95,126 | 90,370 | Collection & Conveyance |
| INFRAS | 220133 | FREDERICK AVENUE LARGE DIAMETER IMPROVEMENT | IM | 2,845,150 | 142,257 | 6/30/2022 | 2022 | 1.013 | 2,880,958 | 2,736,910 | Collection & Conveyance |
| AIRPORT | 150111 | ROSECRANS LAGOON LINER | IM | 2,513,477 | 0 | 6/30/2023 | 2023 | 1.000 | 2,513,477 | 2,513,477 | Treatment - Sludge |
| INFRAS | 220134 | FY22 CMOM CONSOLIDATED SEWER IMPROVEMENTS | IM | 1,431,707 | 0 | 6/30/2023 | 2023 | 1.000 | 1,431,707 | 1,431,707 | Collection & Conveyance |
| WPC | 220135 | GREEN SOLUTIONS CSO PHASE 2 | IM | 174,769 | 0 | 6/30/2023 | 2023 | 1.000 | 174,769 | 174,769 | Collection & Conveyance |
| | | SUBTOTAL BUILDINGS AND IMPROVEMENTS | | 210,081,335 | 72,117,901 | | | | 373,297,233 | 197,957,461 | |
| | | Less Contributed Property | | (14,004,292) | (7,235,551) | | | | (24,837,271) | (12,004,681) | Contribution - Treatment |
| | | TOTAL BUILDINGS AND IMPROVEMENTS | | 196,077,044 | 64,882,351 | | | | 348,459,962 | 185,952,780 | |
| MACHINERY AND EQUIPMENT | | | | | | | | | | | |
| PURCHASE | 210026 | QUADIENT FOLDER INSERTER LEASE | LS | 14,899 | 12,416 | 11/23/2020 | 2020 | 1.275 | 18,999 | 3,167 | Customer |
| BROWN | 650341 | MOTOR CONTROL CENTER | ME | 7,450 | 7,450 | 1/1/1965 | 1965 | 17.365 | 129,370 | 0 | |
| BROWN | 650342 | CHART RECORDER CABINET | ME | 7,450 | 7,450 | 1/1/1965 | 1965 | 17.365 | 129,370 | 0 | |
| OLDCONTROL | 853208 | PROCESSING PIPING C/O PIPE | ME | 39,425 | 39,425 | 1/1/1965 | 1965 | 17.365 | 684,625 | 0 | |
| OLDCONTROL | 853209 | PROCESSING PIPING C/O PIPE | ME | 19,370 | 19,370 | 1/1/1965 | 1965 | 17.365 | 336,362 | 0 | |
| RAWPUMP | 853251 | PROCESSING PIPING C/O PIPE | ME | 41,400 | 41,400 | 1/1/1965 | 1965 | 17.365 | 718,914 | 0 | |
| BROWN | 853740 | PROCESS PIPING C/O PIPE | ME | 23,840 | 23,840 | 1/1/1965 | 1965 | 17.365 | 413,983 | 0 | |
| WHITEHEAD | 853748 | PROCESS PIPING C/O PIPE | ME | 105,790 | 105,790 | 1/1/1965 | 1965 | 17.365 | 1,837,052 | 0 | |
| WHITEHEAD | 853749 | PROCESS PIPING C/O PIPE | ME | 77,480 | 77,480 | 1/1/1965 | 1965 | 17.365 | 1,345,446 | 0 | |
| GARAGE | 734222 | LATHE-METAL | ME | 8,540 | 8,540 | 1/1/1973 | 1973 | 10.940 | 93,428 | 0 | |
| WHITEHEAD | 650320 | SEWAGE PUMP CENTRIFUAL #2 | ME | 23,840 | 23,840 | 1/1/1977 | 1977 | 7.197 | 171,585 | 0 | |
| WHITEHEAD | 650321 | SEWAGE PUMP CENTRIFUAL #1 | ME | 23,840 | 23,840 | 1/1/1977 | 1977 | 7.197 | 171,585 | 0 | |
| WHITEHEAD | 770316 | MOTOR CONTROL CENTER | ME | 35,580 | 35,580 | 1/1/1977 | 1977 | 7.197 | 256,082 | 0 | |
| WHITEHEAD | 770317 | SEWAGE PUMP CENTRIFUAL #3 | ME | 47,440 | 47,440 | 1/1/1977 | 1977 | 7.197 | 341,443 | 0 | |
| WHITEHEAD | 770318 | SEWAGE PUMP CENTRIFUAL #4 | ME | 47,440 | 47,440 | 1/1/1977 | 1977 | 7.197 | 341,443 | 0 | |
| WHITEHEAD | 770319 | SEWAGE PUMP CENTRIFUAL #5 | ME | 47,440 | 47,440 | 1/1/1977 | 1977 | 7.197 | 341,443 | 0 | |
| WHITEHEAD | 853746 | SHAW BOX CRANE 5 TON | ME | 14,825 | 14,825 | 1/1/1977 | 1977 | 7.197 | 106,701 | 0 | |
| SSJ | 780335 | HOIST ELECTRIC 3 TON | ME | 6,420 | 6,420 | 1/1/1978 | 1978 | 6.671 | 42,826 | 0 | |
| SSJ | 780336 | SEWAGE PUMP CENTRIFUGAL | ME | 51,360 | 51,360 | 1/1/1978 | 1978 | 6.671 | 342,609 | 0 | |
| SSJ | 780337 | SEWAGE PUMP CENTRIFUGAL | ME | 51,360 | 51,360 | 1/1/1978 | 1978 | 6.671 | 342,609 | 0 | |
| SSJ | 780338 | SEWAGE PUMP CENTRIFUGAL | ME | 51,360 | 51,360 | 1/1/1978 | 1978 | 6.671 | 342,609 | 0 | |
| SSJ | 853744 | PROCESS PIPING C/O PIPE | ME | 144,450 | 144,450 | 1/1/1978 | 1978 | 6.671 | 963,587 | 0 | |
| OLDCONTROL | A90026 | 3 TON ELECTRIC HOIST | ME | 6,420 | 6,420 | 1/1/1978 | 1978 | 6.671 | 42,826 | 0 | |
| FARAON | 790286 | SHOW BOX CRANE | ME | 10,350 | 10,350 | 1/1/1979 | 1979 | 6.112 | 63,256 | 0 | |
| FARAON | 790292 | EMERGENCY GENERATOR SET | ME | 86,250 | 86,250 | 1/1/1979 | 1979 | 6.112 | 527,137 | 0 | |
| FARAON | 790297 | HOIST CAHIN 2 TON WITH 100LF | ME | 5,520 | 5,520 | 1/1/1979 | 1979 | 6.112 | 33,737 | 0 | |

**Appendix A-7 (continued)**
**City of St. Joseph, MO - Water Protection Fund**
**Fixed Assets**

| Department | FA ID | Asset Description | Code | Original Cost | Accumulated Depreciation | | Year in Service | Trend Factor | Trended Cost | Trended Cost Less Depr | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FARAON | 790312 | SHAW BOX CRANE 2TON WITH 50LF | ME | 6,900 | 6,900 | 1/1/1979 | 1979 | 6.112 | 42,171 | 0 | |
| BROWN | 790329 | EMERGENCY GENERATOR SET | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| OLDCONTROL | 790620 | STORAGE TANK POLYMER | ME | 6,210 | 6,210 | 1/1/1979 | 1979 | 6.112 | 37,954 | 0 | |
| OLDCONTROL | 790621 | STORAGE TANK POLYMER | ME | 6,210 | 6,210 | 1/1/1979 | 1979 | 6.112 | 37,954 | 0 | |
| OLDCONTROL | 790632 | HEAT EXCHANGER | ME | 51,750 | 51,750 | 1/1/1979 | 1979 | 6.112 | 316,282 | 0 | |
| OLDCONTROL | 790633 | HEAT EXCHANGER | ME | 51,750 | 51,750 | 1/1/1979 | 1979 | 6.112 | 316,282 | 0 | |
| OLDCONTROL | 790634 | HEAT EXCHANGER | ME | 51,750 | 51,750 | 1/1/1979 | 1979 | 6.112 | 316,282 | 0 | |
| OLDCONTROL | 790640 | SLUDGE PUMP CENTRIFUGAL #1 | ME | 5,520 | 5,520 | 1/1/1979 | 1979 | 6.112 | 33,737 | 0 | |
| OLDCONTROL | 790641 | SLUDGE PUMP CENTRIFUGAL #2 | ME | 5,520 | 5,520 | 1/1/1979 | 1979 | 6.112 | 33,737 | 0 | |
| OLDCONTROL | 790642 | SLUDGE PUMP CENTRIFUGAL #3 | ME | 5,520 | 5,520 | 1/1/1979 | 1979 | 6.112 | 33,737 | 0 | |
| OLDCONTROL | 790643 | SLUDGE PUMP CENTRIFUGAL #4 | ME | 5,520 | 5,520 | 1/1/1979 | 1979 | 6.112 | 33,737 | 0 | |
| RAWPUMP | 790713 | EMERGENCY GENERATOR SET 20KVA | ME | 6,900 | 6,900 | 1/1/1979 | 1979 | 6.112 | 42,171 | 0 | |
| INTERMED | 790716 | RAW SEWAGE PUMP CENTRIFUGAL | ME | 62,100 | 62,100 | 1/1/1979 | 1979 | 6.112 | 379,539 | 0 | |
| INTERMED | 790717 | RAW SEWAGE PUMP CENTRIFUGAL | ME | 62,100 | 62,100 | 1/1/1979 | 1979 | 6.112 | 379,539 | 0 | |
| INTERMED | 790718 | RAW SEWAGE PUMP CENTRIFUGAL | ME | 62,100 | 62,100 | 1/1/1979 | 1979 | 6.112 | 379,539 | 0 | |
| INTERMED | 790719 | CRANE ELECTRIC 5 TON W/50LF | ME | 10,350 | 10,350 | 1/1/1979 | 1979 | 6.112 | 63,256 | 0 | |
| INTERMED | 790727 | HOIST/CRANE ELECTRIC 5TON | ME | 10,350 | 10,350 | 1/1/1979 | 1979 | 6.112 | 63,256 | 0 | |
| TRANSFER | 790770 | MECHANICAL BAR SCREEN #1 | ME | 55,200 | 55,200 | 1/1/1979 | 1979 | 6.112 | 337,368 | 0 | |
| TRANSFER | 790771 | MECHANICAL BAR SCREEN #2 | ME | 55,200 | 55,200 | 1/1/1979 | 1979 | 6.112 | 337,368 | 0 | |
| TRANSFER | 790775 | MOTOR CONTROL CENTER | ME | 31,050 | 31,050 | 1/1/1979 | 1979 | 6.112 | 189,769 | 0 | |
| BLOWER | 790783 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790784 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790785 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790786 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790787 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790788 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790789 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790790 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790791 | ROTARY LOBE BLOWER 200HP | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| BLOWER | 790792 | MOTOR CONTROL CENTER | ME | 58,650 | 58,650 | 1/1/1979 | 1979 | 6.112 | 358,453 | 0 | |
| TRANSFER | 790826 | MOTOR CONTROL CENTER | ME | 20,700 | 20,700 | 1/1/1979 | 1979 | 6.112 | 126,513 | 0 | |
| TRANSFER | 790827 | SEWAGE PUMP-C/O SCREW PUMP #3 | ME | 41,400 | 41,400 | 1/1/1979 | 1979 | 6.112 | 253,026 | 0 | |
| TRANSFER | 790828 | SEWAGE PUMP-C/O SCREW PUMP #2 | ME | 41,400 | 41,400 | 1/1/1979 | 1979 | 6.112 | 253,026 | 0 | |
| TRANSFER | 790829 | SEWAGE PUMP-C/O SCREW PUMP #1 | ME | 41,400 | 41,400 | 1/1/1979 | 1979 | 6.112 | 253,026 | 0 | |
| PPS | 794398 | MECHANICAL BAR SCREEN | ME | 69,000 | 69,000 | 1/1/1979 | 1979 | 6.112 | 421,709 | 0 | |
| PPS | 794399 | FLOW CABINET, TWO INDICATORS | ME | 17,250 | 17,250 | 1/1/1979 | 1979 | 6.112 | 105,427 | 0 | |
| PPS | 794403 | LOAD LIFTER CRANE, ELECTRIC | ME | 6,900 | 6,900 | 1/1/1979 | 1979 | 6.112 | 42,171 | 0 | |
| PPS | 794404 | FAIRBANKS SEWAGE PUMP #1 | ME | 10,350 | 10,350 | 1/1/1979 | 1979 | 6.112 | 63,256 | 0 | |
| PPS | 794405 | FAIRBANKS SEWAGE PUMP #2 | ME | 10,350 | 10,350 | 1/1/1979 | 1979 | 6.112 | 63,256 | 0 | |
| FLOTATION | 794411 | G E MOTOR CONTROL CENTER | ME | 48,300 | 48,300 | 1/1/1979 | 1979 | 6.112 | 295,197 | 0 | |
| FLOTATION | 794412 | G E 7700 LINE CONTROL CENTER | ME | 13,800 | 13,800 | 1/1/1979 | 1979 | 6.112 | 84,342 | 0 | |
| FLOTATION | 794424 | SLUDGE PUMP | ME | 6,900 | 6,900 | 1/1/1979 | 1979 | 6.112 | 42,171 | 0 | |
| CHEMICAL | 794430 | GE MOTOR CENTRAL CENTER | ME | 20,700 | 20,700 | 1/1/1979 | 1979 | 6.112 | 126,513 | 0 | |
| CHEMICAL | 794434 | SLUDGE PUMP C/T 15H P | ME | 5,520 | 5,520 | 1/1/1979 | 1979 | 6.112 | 33,737 | 0 | |
| OLDCONTROL | 853247 | PROCESSING PIPING C/O PIPE | ME | 18,768 | 18,768 | 1/1/1979 | 1979 | 6.112 | 114,705 | 0 | |
| OLDCONTROL | 853250 | PROCESSING PIPING C/O PIPE | ME | 207,000 | 207,000 | 1/1/1979 | 1979 | 6.112 | 1,265,128 | 0 | |
| RAWPUMP | 853252 | PROCESSING PIPING C/O PIPE | ME | 51,750 | 51,750 | 1/1/1979 | 1979 | 6.112 | 316,282 | 0 | |
| INTERMED | 853254 | PROCESSING PIPING C/O PIPE | ME | 120,750 | 120,750 | 1/1/1979 | 1979 | 6.112 | 737,992 | 0 | |
| INTERMED | 853256 | PROCESSING PIPING C/O PIPE | ME | 103,500 | 103,500 | 1/1/1979 | 1979 | 6.112 | 632,564 | 0 | |
| WPC | 853258 | SWINGFUSER INCLUD PIPING RETUR | ME | 132,480 | 132,480 | 1/1/1979 | 1979 | 6.112 | 809,682 | 0 | |
| TRANSFER | 853261 | TRAVELING HOIST-25LF ELECTRIC | ME | 6,900 | 6,900 | 1/1/1979 | 1979 | 6.112 | 42,171 | 0 | |
| TRANSFER | 853262 | PROCESS PIPING | ME | 24,150 | 24,150 | 1/1/1979 | 1979 | 6.112 | 147,598 | 0 | |
| FLOTATION | 853264 | PROCESS PIPING C/O PIPE | ME | 103,500 | 103,500 | 1/1/1979 | 1979 | 6.112 | 632,564 | 0 | |
| PPS | 853265 | PROCESS PIPING C/O PIPER | ME | 69,000 | 69,000 | 1/1/1979 | 1979 | 6.112 | 421,709 | 0 | |
| CHEMICAL | 853266 | PROCESS PIPING C/O PIPE | ME | 20,700 | 20,700 | 1/1/1979 | 1979 | 6.112 | 126,513 | 0 | |
| FARAON | 853742 | PROCESS PIPING C/O PIPE | ME | 172,500 | 172,500 | 1/1/1979 | 1979 | 6.112 | 1,054,274 | 0 | |
| BLOWER | A90018 | ROTARY LOBE BLOWER #5 | ME | 34,500 | 34,500 | 1/1/1979 | 1979 | 6.112 | 210,855 | 0 | |
| WPC | 871049 | Ford 4610 Tractor | ME | 15,669 | 15,669 | 1/1/1986 | 1986 | 4.128 | 64,686 | 0 | |
| WPC | 871050 | ROTARY MOWER | ME | 1,508 | 1,508 | 1/1/1986 | 1986 | 4.128 | 6,225 | 0 | |
| OLDCONTROL | 870800 | BLOWER/BURNER | ME | 20,845 | 20,845 | 1/1/1987 | 1987 | 4.007 | 83,533 | 0 | |
| OLDCONTROL | 900048 | KOCH STATIC MIXING UNIT | ME | 3,245 | 3,245 | 2/2/1990 | 1990 | 3.708 | 12,034 | 0 | |
| OLDCONTROL | 900097 | KOCH STATIC MIXING UNIT | ME | 3,245 | 3,245 | 2/2/1990 | 1990 | 3.708 | 12,034 | 0 | |
| WPC | 910049 | PRESSURE WASHER W/TRAILER | ME | 8,550 | 8,550 | 9/21/1990 | 1990 | 3.708 | 31,707 | 0 | |
| GARAGE | 910051 | FLOOR CRANE #2200 | ME | 1,771 | 1,771 | 10/12/1990 | 1990 | 3.708 | 6,568 | 0 | |
| WPC | 910047 | PORTABLE AIR COMPRESSOR | ME | 14,233 | 14,233 | 1/25/1991 | 1991 | 3.647 | 51,903 | 0 | |
| GRITBASIN | A920294 | MAGNETIC FLOW METER | ME | 83,925 | 83,925 | 10/4/1991 | 1991 | 3.647 | 306,047 | 0 | |
| OLDCONTROL | 920121 | ADJUSTABLE LIFTING GANTRY | ME | 3,141 | 3,141 | 2/14/1992 | 1992 | 3.575 | 11,229 | 0 | |
| OLDCONTROL | 920122 | ADJUSTABLE LIFTING GANTRY | ME | 3,141 | 3,141 | 2/14/1992 | 1992 | 3.575 | 11,229 | 0 | |
| GARAGE | 920210 | 15HP 1750 CHOPPER SUBMERSIBLE | ME | 9,620 | 9,620 | 3/27/1992 | 1992 | 3.575 | 34,393 | 0 | |
| GARAGE | 920220 | TEKTRONIC OSCILLOSCOPE | ME | 2,475 | 2,475 | 4/10/1992 | 1992 | 3.575 | 8,849 | 0 | |
| GARAGE | 920222 | EAST GARAGE DOOR 12' W X 12' H | ME | 2,490 | 2,490 | 4/10/1992 | 1992 | 3.575 | 8,902 | 0 | |
| GRITBASIN | 920234 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920235 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920236 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920237 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920238 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920239 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920240 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| GRITBASIN | 920241 | SLUICE GATE FOR SPLITTER BOX | ME | 2,492 | 2,492 | 4/10/1992 | 1992 | 3.575 | 8,909 | 0 | |
| OLDCONTROL | 920290 | MOTOR CONTROL CENTER | ME | 29,000 | 29,000 | 5/29/1992 | 1992 | 3.575 | 103,680 | 0 | |
| PPS | 920413 | MECH BAR SCREEN REPLACEMENT BU | ME | 160,260 | 160,260 | 7/2/1992 | 1992 | 3.575 | 572,956 | 0 | |
| OLDCONTROL | 920387 | EAST HEAT EXCHANGE ROOM | ME | 29,000 | 29,000 | 7/10/1992 | 1992 | 3.575 | 103,680 | 0 | |
| GARAGE | 930166 | GENIE AERIAL WORK PLATFORM | ME | 5,587 | 5,587 | 1/15/1993 | 1993 | 3.473 | 19,404 | 0 | |
| FARAON | 930189 | 550GALLON TANK W/ CONTAINMENT | ME | 1,089 | 1,089 | 2/19/1993 | 1993 | 3.473 | 3,782 | 0 | |
| RAWPUMP | 930367 | MOYNA PROGRESSIVE CAV PUMP #4 | ME | 6,653 | 6,653 | 3/12/1993 | 1993 | 3.473 | 23,106 | 0 | |
| RAWPUMP | 930368 | MOYNA PROGRESSIVE CAV PUMP #5 | ME | 6,653 | 6,653 | 3/12/1993 | 1993 | 3.473 | 23,106 | 0 | |
| RAWPUMP | 930369 | MOYNA PROGRESSIVE CAV PUMP #6 | ME | 6,653 | 6,653 | 3/12/1993 | 1993 | 3.473 | 23,106 | 0 | |
| TRANSFER | A94037 | CENTRIFUGAL PROCESS TYPE PUMP | ME | 5,660 | 5,660 | 6/25/1993 | 1993 | 3.473 | 19,657 | 0 | |
| TRANSFER | A94038 | CENTRIFUGAL PROCESS TYPE PUMP | ME | 5,660 | 5,660 | 6/25/1993 | 1993 | 3.473 | 19,657 | 0 | |
| TRANSFER | A94039 | CENTRIFUGAL PROCESS TYPE PUMP | ME | 5,660 | 5,660 | 6/25/1993 | 1993 | 3.473 | 19,657 | 0 | |
| GARAGE | A97025 | STANLEY HYDE VALVE OPERATOR | ME | 7,875 | 7,875 | 7/27/1993 | 1993 | 3.473 | 27,350 | 0 | |
| GARAGE | A97026 | STANLEY HYDE VALVE OPERATOR | ME | 7,875 | 7,875 | 7/27/1993 | 1993 | 3.473 | 27,350 | 0 | |
| WPC | 940052 | SLUDGE TANKER TRAILER | ME | 30,558 | 30,558 | 1/21/1994 | 1994 | 3.387 | 103,500 | 0 | |
| OLDCONTROL | 940029 | VENTILATION FAN | ME | 3,960 | 3,960 | 2/11/1994 | 1994 | 3.387 | 13,413 | 0 | |
| OLDCONTROL | 940030 | VENTILATION FAN | ME | 3,960 | 3,960 | 2/11/1994 | 1994 | 3.387 | 13,413 | 0 | |
| WPC | 940053 | SLUDGE TRANKER TRAILER | ME | 33,434 | 33,434 | 3/11/1994 | 1994 | 3.387 | 113,241 | 0 | |
| FLOTATION | 940575 | ROTARY SCREW COMPRESSOR | ME | 5,420 | 5,420 | 3/11/1994 | 1994 | 3.387 | 18,358 | 0 | |
| FLOTATION | 940576 | ROTARY SCREW COMPRESSOR | ME | 5,420 | 5,420 | 3/11/1994 | 1994 | 3.387 | 18,358 | 0 | |
| TRANSFER | 940577 | GLDS PUMP 3X4-8GS | ME | 4,480 | 4,480 | 6/25/1994 | 1994 | 3.387 | 15,174 | 0 | |
| TRANSFER | 940578 | GLDS PUMP 3X4-8GS | ME | 4,480 | 4,480 | 6/25/1994 | 1994 | 3.387 | 15,174 | 0 | |

**Appendix A-7 (continued)**
**City of St. Joseph, MO - Water Protection Fund**
**Fixed Assets**

| Department | FA ID | Asset Description | Code | Original Cost | Accumulated Depreciation | | Year in Service | Trend Factor | Trended Cost | Trended Cost Less Depr | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GARAGE | 950470 | 3 WAY RETRIVAL TRIPOD | ME | 3,119 | 3,119 | 6/30/1995 | 1995 | 3.285 | 10,247 | 0 | |
| OLDCONTROL | 960436 | HYDRORANGER I W/ 120' CABLE | ME | 1,797 | 1,797 | 9/1/1995 | 1995 | 3.285 | 5,904 | 0 | |
| GARAGE | A97027 | PERSONNEL WINCH RETRIEVEL SYST | ME | 3,320 | 3,320 | 10/20/1995 | 1995 | 3.285 | 10,908 | 0 | |
| WPC | 960505 | NISSAN NOMAD FORKLIFT TRUCK | ME | 19,468 | 19,468 | 1/12/1996 | 1996 | 3.199 | 62,275 | 0 | |
| WPC | 960503 | 1996 INT DUMPSTER TRUCK | ME | 30,812 | 30,812 | 2/2/1996 | 1996 | 3.199 | 98,561 | 0 | |
| GARAGE | 970365 | SUTORBUILT BLOWER | ME | 4,999 | 4,999 | 8/30/1996 | 1996 | 3.199 | 15,991 | 0 | |
| SWMTN | 960487 | TRASH PUMP SELF-PRIMING 6X6 GR | ME | 16,029 | 16,029 | 9/8/1996 | 1996 | 3.199 | 51,274 | 0 | |
| FLOTATION | 970395 | DAF SLUDGE PUMP & DRIVE | ME | 13,554 | 13,554 | 10/25/1996 | 1996 | 3.199 | 43,357 | 0 | |
| CLARIFIERS | 970396 | SEC CLARIFIER SCUM PIT PUMP #2 | ME | 10,451 | 10,451 | 10/25/1996 | 1996 | 3.199 | 33,431 | 0 | |
| CLARIFIERS | 970397 | SEC CLARIFIER SCUM PIT PUMP #3 | ME | 10,451 | 10,451 | 10/25/1996 | 1996 | 3.199 | 33,431 | 0 | |
| CLARIFIERS | 970398 | SEC CLARIFIER SCUM PIT PUMP #4 | ME | 10,451 | 10,451 | 10/25/1996 | 1996 | 3.199 | 33,431 | 0 | |
| WPC | 970278 | 1997 8200 6X4 3AXLE TRACTOR | ME | 61,801 | 61,801 | 12/10/1996 | 1996 | 3.199 | 197,691 | 0 | |
| GARAGE | 970296 | XK PACEMASTER PLASMA CUTTER | ME | 2,908 | 2,908 | 3/14/1997 | 1997 | 3.108 | 9,038 | 0 | |
| SWMTN | 970291 | STETCO 12 ROUND CRANE BUCKETT" | ME | 4,160 | 4,160 | 4/25/1997 | 1997 | 3.108 | 12,929 | 0 | |
| SWMTN | 970292 | STETCO 15ORANGE CRANE BUCKET" | ME | 2,995 | 2,995 | 4/25/1997 | 1997 | 3.108 | 9,308 | 0 | |
| OLDCONTROL | A98057 | MOYNO SLUDGE PUMP #1A | ME | 13,541 | 13,541 | 6/30/1997 | 1997 | 3.108 | 42,085 | 0 | |
| OLDCONTROL | A98058 | MOYNO SLUDGE PUMP #2A | ME | 13,541 | 13,541 | 6/30/1997 | 1997 | 3.108 | 42,085 | 0 | |
| OLDCONTROL | A98059 | MOYNO SLUDGE PUMP #1B | ME | 13,541 | 13,541 | 6/30/1997 | 1997 | 3.108 | 42,085 | 0 | |
| OLDCONTROL | A98060 | MOYNO SLUDGE PUMP #2B | ME | 13,541 | 13,541 | 6/30/1997 | 1997 | 3.108 | 42,085 | 0 | |
| PPS | A98061 | ALLEN BRADLEY CONTROLLER | ME | 2,747 | 2,747 | 7/21/1997 | 1997 | 3.108 | 8,539 | 0 | |
| BROWN | A98062 | ALLEN BRADLEY CONTROLLER | ME | 2,747 | 2,747 | 7/21/1997 | 1997 | 3.108 | 8,539 | 0 | |
| SWMTN | 980032 | 8HP HONDA STONE MORTAR MIXER | ME | 2,505 | 2,505 | 9/12/1997 | 1997 | 3.108 | 7,785 | 0 | |
| WPC | 980028 | 3HP TORNADO AERATOR | ME | 16,370 | 16,370 | 10/31/1997 | 1997 | 3.108 | 50,877 | 0 | |
| WPC | 980044 | TRAILER MOUNTED VACUUM SYSTEM | ME | 35,400 | 35,400 | 2/27/1998 | 1998 | 2.997 | 106,103 | 0 | |
| GARAGE | 990026 | 300 GALLON 3 POINT SPRAYER | ME | 1,353 | 1,353 | 10/9/1998 | 1998 | 2.997 | 4,055 | 0 | |
| FARAON | 990033 | 3250 GALLON CHEMICAL TANK | ME | 5,887 | 5,887 | 11/6/1998 | 1998 | 2.997 | 17,645 | 0 | |
| FARAON | 990034 | 3250 GALLON STORAGE TANK | ME | 5,887 | 5,887 | 11/6/1998 | 1998 | 2.997 | 17,645 | 0 | |
| YARD | 990077 | 6000 GALLON ABOVE GROUND FUEL | ME | 21,300 | 21,300 | 12/11/1998 | 1998 | 2.997 | 63,842 | 0 | |
| FLOTATION | A03009 | SLUDGE PUMP | ME | 5,040 | 5,040 | 1/5/1999 | 1999 | 2.887 | 14,548 | 0 | |
| SWMTN | 990093 | TRENCH BOX | ME | 2,744 | 2,744 | 1/29/1999 | 1999 | 2.887 | 7,921 | 0 | |
| WHITEHEAD | 990114 | ADJUSTABLE FREQUENCY DRIVE | ME | 17,584 | 17,584 | 2/12/1999 | 1999 | 2.887 | 50,757 | 0 | |
| WHITEHEAD | 990115 | ADJUSTABLE FREQUENCY DRIVE | ME | 17,584 | 17,584 | 2/12/1999 | 1999 | 2.887 | 50,757 | 0 | |
| WHITEHEAD | 990116 | ADJUSTABLE FREQUENCY DRIVE | ME | 17,584 | 17,584 | 2/12/1999 | 1999 | 2.887 | 50,757 | 0 | |
| GARAGE | 990113 | FURNACE | ME | 23,665 | 23,665 | 3/12/1999 | 1999 | 2.887 | 68,310 | 0 | |
| YARD | 990126 | 3000 GALLON ABOVE FUEL TANK | ME | 14,900 | 14,900 | 4/16/1999 | 1999 | 2.887 | 43,009 | 0 | |
| YARD | 29 | FLYGT CS3152-432 PUMP 20HP | ME | 8,203 | 8,203 | 8/27/1999 | 1999 | 2.887 | 23,678 | 0 | |
| YARD | 30 | FLYGT CS3152-432 PUMP 20HP | ME | 8,203 | 8,203 | 8/27/1999 | 1999 | 2.887 | 23,678 | 0 | |
| RAWPUMP | 21 | R&M 1G065G1-CDQ-AAA PUMP #2 | ME | 9,748 | 9,748 | 9/24/1999 | 1999 | 2.887 | 28,138 | 0 | |
| WPC | 28 | 2000 INTL 9200I 6X4 TRUCK/TRCT | ME | 69,244 | 69,244 | 3/10/2000 | 2000 | 2.812 | 194,736 | 0 | |
| RAWPUMP | 22 | R&M 1GO65G1 CDQ AAA PUMP #3 | ME | 12,321 | 12,321 | 5/19/2000 | 2000 | 2.812 | 34,652 | 0 | |
| RAWPUMP | 23 | R&M 1GO65G1 CDQ AAA PUMP #1 | ME | 12,321 | 12,321 | 5/19/2000 | 2000 | 2.812 | 34,652 | 0 | |
| WPC | 10024 | 36 AMERICAN R/D 50 LINE DI" | ME | 24,500 | 24,500 | 7/28/2000 | 2000 | 2.812 | 68,902 | 0 | |
| WPC | 10001 | Emergency Generator for Roy's | ME | 8,669 | 8,669 | 1/31/2001 | 2001 | 2.742 | 23,769 | 0 | |
| SWMTN | 10026 | TRENCH SHIELD | ME | 5,835 | 5,835 | 2/5/2001 | 2001 | 2.742 | 15,999 | 0 | |
| WPC | 10022 | 2001 VOLVO TRUCK | ME | 90,818 | 90,818 | 2/22/2001 | 2001 | 2.742 | 249,010 | 0 | |
| FARAON | 10055 | HEATING AND VENTILATION UNITS | ME | 155,838 | 155,838 | 6/21/2001 | 2001 | 2.742 | 427,285 | 0 | |
| INTERMED | 20004 | Lower Bearing Type Rotary Arm | ME | 92,760 | 92,760 | 8/3/2001 | 2001 | 2.742 | 254,334 | 0 | |
| YARD | 20021 | Air Compressor, 260 CFM | ME | 14,904 | 14,904 | 11/28/2001 | 2001 | 2.742 | 40,864 | 0 | |
| WPC | 20027 | 2001 VOLVO DUMP TRUCK | ME | 89,510 | 89,510 | 2/12/2002 | 2002 | 2.643 | 236,531 | 0 | |
| WPC | T12010 | 2002 Ford F150 Truck | ME | 0 | 0 | 4/5/2002 | 2002 | 2.643 | 0 | 0 | |
| WPC | 30002 | 2003 INERNATIONAL 4200 | ME | 34,564 | 34,564 | 8/1/2002 | 2002 | 2.643 | 91,336 | 0 | |
| WPC | 30003 | WARREN DUMP BODY U4S1-10 | ME | 6,111 | 6,111 | 8/19/2002 | 2002 | 2.643 | 16,148 | 0 | |
| SWMTN | 30046 | 2003 INTERN'L 7400 & CATCH BAS | ME | 98,454 | 98,454 | 1/23/2003 | 2003 | 2.544 | 250,486 | 0 | |
| WPC | 30042 | 2003 Chevrolet Silverado 2500 | ME | 24,683 | 24,683 | 1/31/2003 | 2003 | 2.544 | 62,798 | 0 | |
| INTERMED | 30059 | LOWER BEARING ROTARY ARM | ME | 93,500 | 93,500 | 3/18/2003 | 2003 | 2.544 | 237,881 | 0 | |
| SWMTN | 40015 | INGERSOL RAND AIR COMPRESSOR | ME | 12,110 | 12,110 | 1/30/2004 | 2004 | 2.470 | 29,906 | 0 | |
| WPC | 40039 | 2004 CHEVY Silverado 2500 | ME | 24,963 | 24,963 | 5/14/2004 | 2004 | 2.470 | 61,647 | 0 | |
| INTERMED | 40055 | LOWER BEARING ROTARY DISTRIBUT | ME | 93,500 | 93,500 | 6/30/2004 | 2004 | 2.470 | 230,901 | 0 | |
| WPC | 40124 | TORO WORKMAN UTILITY VEHICLE | ME | 23,517 | 23,517 | 6/30/2004 | 2004 | 2.470 | 58,076 | 0 | |
| FLOTATION | 50051 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 8/27/2004 | 2004 | 2.470 | 20,596 | 0 | |
| FLOTATION | 50052 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 8/27/2004 | 2004 | 2.470 | 20,596 | 0 | |
| FLOTATION | 50053 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 8/27/2004 | 2004 | 2.470 | 20,596 | 0 | |
| WPC | 50011 | 2005 CHEVY SILVERADO | ME | 17,793 | 17,793 | 10/14/2004 | 2004 | 2.470 | 43,940 | 0 | |
| SWMTN | 50013 | 2005 CHEVY SILVERADO | ME | 22,550 | 22,550 | 10/14/2004 | 2004 | 2.470 | 55,688 | 0 | |
| FLOTATION | 50045 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 3/25/2005 | 2005 | 2.368 | 19,749 | 0 | |
| FLOTATION | 50046 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 3/25/2005 | 2005 | 2.368 | 19,749 | 0 | |
| FLOTATION | 50047 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 3/25/2005 | 2005 | 2.368 | 19,749 | 0 | |
| FLOTATION | 50048 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 3/25/2005 | 2005 | 2.368 | 19,749 | 0 | |
| FLOTATION | 50049 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 3/25/2005 | 2005 | 2.368 | 19,749 | 0 | |
| FLOTATION | 50050 | ASPIRATING PUMP | ME | 8,340 | 8,340 | 3/25/2005 | 2005 | 2.368 | 19,749 | 0 | |
| WPC | 60008 | GENIE GS2032 SCISSOR LIFT | ME | 10,076 | 10,076 | 9/16/2005 | 2005 | 2.368 | 23,861 | 0 | |
| SWMTN | 60033 | MANHOLE REHABILIATION MACHINE - STRONG CO | ME | 52,353 | 52,353 | 3/31/2006 | 2006 | 2.270 | 118,826 | 0 | |
| SWMTN | 60046 | 2006 INTERNATIONAL 7300 | ME | 62,256 | 62,256 | 6/30/2006 | 2006 | 2.270 | 141,303 | 0 | |
| WPC | 70003 | 2007 CHEVY SILVERADO | ME | 18,582 | 18,582 | 9/1/2006 | 2006 | 2.270 | 42,176 | 0 | |
| NEWLAB | 70028 | ICP PLASMA UNIT | ME | 87,508 | 87,508 | 2/22/2007 | 2007 | 2.201 | 192,623 | 0 | |
| NEWLAB | 70033 | Thermo BOD Incubator | ME | 6,088 | 6,088 | 5/17/2007 | 2007 | 2.201 | 13,401 | 0 | |
| WPC | 70042 | CSO FLOW MONITORING EQUIPMENT | ME | 28,345 | 28,345 | 6/1/2007 | 2007 | 2.201 | 62,393 | 0 | |
| NEWLAB | 80020 | UVAS Hach Probe | ME | 15,525 | 15,525 | 4/11/2008 | 2008 | 2.018 | 31,337 | 0 | |
| CLARIFIERS | 80036 | Mechanism for Prim Clarif #3 | ME | 263,500 | 263,500 | 6/6/2008 | 2008 | 2.018 | 531,862 | 0 | |
| CLARIFIERS | 80037 | Mechanism for Prim Clarif #4 | ME | 263,500 | 263,500 | 6/6/2008 | 2008 | 2.018 | 531,862 | 0 | |
| WPC | 90018 | 2006 Snorkel Boom Lift | ME | 45,000 | 45,000 | 1/30/2009 | 2009 | 1.886 | 84,879 | 0 | |
| WPC | 90027 | 2009 Ford Ranger | ME | 12,236 | 12,236 | 3/27/2009 | 2009 | 1.886 | 23,080 | 0 | |
| YARD | 90049 | Cummins 80KW Generator | ME | 33,869 | 33,869 | 5/15/2009 | 2009 | 1.886 | 63,884 | 0 | |
| YARD | 90050 | Cummins 80KW Generator | ME | 33,869 | 33,869 | 5/15/2009 | 2009 | 1.886 | 63,884 | 0 | |
| SWMTN | 90033 | Easement Machine - SEWER EQUIP OF AMERICA | ME | 48,750 | 48,750 | 6/25/2009 | 2009 | 1.886 | 91,953 | 0 | |
| WPC | 90048 | 2009 Ford F250 | ME | 26,000 | 26,000 | 6/30/2009 | 2009 | 1.886 | 49,041 | 0 | |
| WPC | 100006 | 12 Mob Emer Centrifugal Pump" | ME | 112,186 | 112,186 | 8/21/2009 | 2009 | 1.886 | 211,607 | 0 | |
| WPC | 100010 | 2010 Alumweld Talon Boat | ME | 21,947 | 21,947 | 11/13/2009 | 2009 | 1.886 | 41,397 | 0 | |
| SWMTN | 100015 | 2010 International 7400 | ME | 57,622 | 57,622 | 11/20/2009 | 2009 | 1.886 | 108,687 | 0 | |
| WPC | 100027 | 19 Digitl Video Recorder" | ME | 6,675 | 6,675 | 2/26/2010 | 2010 | 1.814 | 12,110 | 0 | |
| SWMTN | 100022 | Dump Body | ME | 12,798 | 12,798 | 3/31/2010 | 2010 | 1.814 | 23,219 | 0 | |
| SWMTN | 100033 | Sullair Compressor w/trailer | ME | 12,877 | 12,877 | 5/7/2010 | 2010 | 1.814 | 23,362 | 0 | |
| WPC | 90119 | Septage Receiving Sys - JWC | ME | 104,459 | 104,459 | 6/30/2010 | 2010 | 1.814 | 189,516 | 0 | |
| INTERMED | 100117 | DSI Dynamatic Freq Mag Drive | ME | 217,193 | 217,193 | 6/30/2010 | 2010 | 1.814 | 394,046 | 0 | |
| INTERMED | 100118 | DSI Dynamatic Freq Mag Drive | ME | 217,193 | 217,193 | 6/30/2010 | 2010 | 1.814 | 394,046 | 0 | |
| INTERMED | 100119 | DSI Dynamatic Freq Mag Drive | ME | 217,193 | 217,193 | 6/30/2010 | 2010 | 1.814 | 394,046 | 0 | |
| BROWN | 110077 | Grinder #1 | ME | 70,036 | 70,036 | 9/3/2010 | 2010 | 1.814 | 127,063 | 0 | |
| BROWN | 110078 | Grinder #2 | ME | 70,036 | 70,036 | 9/3/2010 | 2010 | 1.814 | 127,063 | 0 | |
| WPC | 110005 | 2011 Ford Ranger | ME | 17,814 | 17,814 | 10/1/2010 | 2010 | 1.814 | 32,319 | 0 | |
| WPC | 110006 | 2011 Ford F250 | ME | 26,367 | 26,367 | 10/8/2010 | 2010 | 1.814 | 47,837 | 0 | |

**Appendix A-7 (continued)**
**City of St. Joseph, MO - Water Protection Fund**
**Fixed Assets**

| Department | FA ID | Asset Description | Code | Original Cost | Accumulated Depreciation | | Year in Service | Trend Factor | Trended Cost | Trended Cost Less Depr | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WPC | 110010 | 2011 Ford Ranger | ME | 13,010 | 13,010 | 10/15/2010 | 2010 | 1.814 | 23,604 | 0 | |
| WPC | 120005 | 2011 Kawasaki Mule | ME | 12,289 | 12,289 | 7/29/2011 | 2011 | 1.791 | 22,004 | 0 | |
| SWMTN | 120011 | 2012 Chevrolet Silverado | ME | 21,512 | 21,512 | 10/7/2011 | 2011 | 1.791 | 38,517 | 0 | |
| SWMTN | 120012 | 2012 Chevrolet Silverado | ME | 21,512 | 21,512 | 10/7/2011 | 2011 | 1.791 | 38,517 | 0 | |
| OLDCONTROL | 120046 | ENPRO Polymer Blending Unit | ME | 21,625 | 21,625 | 10/21/2011 | 2011 | 1.791 | 38,720 | 0 | |
| OLDCONTROL | 120047 | ENPRO Polymer Blending Unit | ME | 21,625 | 21,625 | 10/21/2011 | 2011 | 1.791 | 38,720 | 0 | |
| OLDCONTROL | 120048 | ENPRO Polymer Blending Unit | ME | 21,625 | 21,625 | 10/21/2011 | 2011 | 1.791 | 38,720 | 0 | |
| SWMTN | 120023 | 2012 Chevrolet Silverado | ME | 20,986 | 20,986 | 10/28/2011 | 2011 | 1.791 | 37,576 | 0 | |
| WPC | 120024 | 2011 Ford Ranger | ME | 19,629 | 19,629 | 11/4/2011 | 2011 | 1.791 | 35,146 | 0 | |
| SWMTN | 120025 | 2012 Intern'l Vactor Ramjet | ME | 199,277 | 199,277 | 11/4/2011 | 2011 | 1.791 | 356,807 | 0 | |
| WPC | 120040 | 2012 Chevrolet Silverado | ME | 21,940 | 21,940 | 2/13/2012 | 2012 | 1.715 | 37,621 | 0 | |
| WPC | 120041 | 2012 Chevrolet Silverado | ME | 21,940 | 21,940 | 2/13/2012 | 2012 | 1.715 | 37,621 | 0 | |
| WPC | 120054 | 2012 Transit Connect XLT Wagon | ME | 21,703 | 21,703 | 6/1/2012 | 2012 | 1.715 | 37,215 | 0 | |
| NEWLAB | 120066 | ELGA Rev Osmosis Water System | ME | 6,523 | 6,523 | 6/30/2012 | 2012 | 1.715 | 11,185 | 0 | |
| WPC | 130019 | 2012 Ford F450 SD | ME | 30,122 | 30,122 | 9/28/2012 | 2012 | 1.715 | 51,651 | 0 | |
| WPC | 130017 | Reading 8' Aluminum truck body | ME | 12,282 | 12,282 | 10/12/2012 | 2012 | 1.715 | 21,060 | 0 | |
| WPC | 130018 | Reading 8'Aluminum Truck body | ME | 12,282 | 12,282 | 10/12/2012 | 2012 | 1.715 | 21,060 | 0 | |
| SWMTN | 130050 | OZII Camera w/CPR Transporter | ME | 24,827 | 24,827 | 10/12/2012 | 2012 | 1.715 | 42,572 | 0 | |
| SWMTN | 130051 | OZII Camera w/CPR Transporter | ME | 24,827 | 24,827 | 10/12/2012 | 2012 | 1.715 | 42,572 | 0 | |
| SWMTN | 130027 | 2012 Dodge Ram 3500 | ME | 22,464 | 22,464 | 11/28/2012 | 2012 | 1.715 | 38,520 | 0 | |
| WPC | 130022 | 2012 Ford F250 SD | ME | 29,111 | 29,111 | 11/30/2012 | 2012 | 1.715 | 49,918 | 0 | |
| STREETS | 130030 | 2013 Dodge Durango SXT | ME | 27,667 | 27,667 | 11/30/2012 | 2012 | 1.715 | 47,442 | 0 | |
| SWMTN | 130040 | 25' Doolittle Trailer | ME | 12,970 | 12,970 | 3/8/2013 | 2013 | 1.653 | 21,434 | 0 | |
| RAWPUMP | 130069 | Annihilator Grinder w/cont pan | ME | 23,222 | 23,222 | 4/12/2013 | 2013 | 1.653 | 38,376 | 0 | |
| RAWPUMP | 130070 | Annihilator Grinder w/cont pan | ME | 23,222 | 23,222 | 4/12/2013 | 2013 | 1.653 | 38,376 | 0 | |
| WPC | 130071 | Annihilator Grinder w/cont pan | ME | 23,222 | 23,222 | 4/12/2013 | 2013 | 1.653 | 38,376 | 0 | |
| WPC | 130072 | Annihilator Grinder w/cont pan | ME | 23,222 | 23,222 | 4/12/2013 | 2013 | 1.653 | 38,376 | 0 | |
| WPC | 130073 | Annihilator Grinder w/cont pan | ME | 23,222 | 23,222 | 4/12/2013 | 2013 | 1.653 | 38,376 | 0 | |
| SWMTN | 130054 | Bobcat S650 Skid Steer Loader | ME | 30,406 | 30,406 | 5/17/2013 | 2013 | 1.653 | 50,247 | 0 | |
| WPC | 130079 | Cummins Generator - So 22nd St | ME | 18,300 | 18,300 | 5/22/2013 | 2013 | 1.653 | 30,242 | 0 | |
| STATIONS | 130080 | So 22nd St FX Pump Station | ME | 43,000 | 43,000 | 5/22/2013 | 2013 | 1.653 | 71,060 | 0 | |
| SWMTN | 130061 | Knapheide utility Service Body | ME | 8,768 | 8,768 | 5/24/2013 | 2013 | 1.653 | 14,490 | 0 | |
| SWMTN | 130062 | Knapheide 1-Ton Dump Body | ME | 7,795 | 7,795 | 5/24/2013 | 2013 | 1.653 | 12,882 | 0 | |
| SWMTN | 130063 | Knapheide 1-Ton Dump Body | ME | 7,795 | 7,795 | 5/24/2013 | 2013 | 1.653 | 12,882 | 0 | |
| SWMTN | 130077 | 2012 Cat Portable Generator | ME | 57,700 | 57,700 | 6/28/2013 | 2013 | 1.653 | 95,353 | 0 | |
| SWMTN | 140014 | 2013 JD 410K Backhoe Loader | ME | 95,775 | 95,775 | 8/16/2013 | 2013 | 1.653 | 158,275 | 0 | |
| WPC | 140042 | 2014 Ford F250 SD | ME | 22,155 | 22,155 | 2/27/2014 | 2014 | 1.592 | 35,280 | 0 | |
| WPC | 160003 | 2015 Nissan Frontier 4WD | ME | 26,610 | 26,610 | 8/7/2015 | 2015 | 1.565 | 41,646 | 0 | |
| WPC | 160004 | 2015 Nissan Frontier 4WD | ME | 26,610 | 26,610 | 8/7/2015 | 2015 | 1.565 | 41,646 | 0 | |
| WPC | 160009 | 2015 Ford F150 | ME | 27,179 | 27,179 | 9/18/2015 | 2015 | 1.565 | 42,538 | 0 | |
| WPC | 160026 | 2016 Mack Truck | ME | 163,750 | 163,750 | 1/15/2016 | 2016 | 1.519 | 248,809 | 0 | |
| SWMTN | 160040 | 2016 Chevrolet Silverado | ME | 21,688 | 21,688 | 3/25/2016 | 2016 | 1.519 | 32,954 | 0 | |
| WPC | 160042 | Hyundai HL730-9A | ME | 113,900 | 113,900 | 4/29/2016 | 2016 | 1.519 | 173,065 | 0 | |
| SWMTN | 160059 | 2017 Freightliner Vactor Truck | ME | 366,549 | 366,549 | 6/10/2016 | 2016 | 1.519 | 556,951 | 0 | |
| SWMTN | 170014 | 2016 RAM 2500 | ME | 24,772 | 24,772 | 7/29/2016 | 2016 | 1.519 | 37,640 | 0 | |
| NEWLAB | 170061 | AUTOMATED OIL & GREASE EXTRACTOR | ME | 28,364 | 28,364 | 10/14/2016 | 2016 | 1.519 | 43,098 | 0 | |
| SWMTN | 170102 | CLOSED CIRCUIT TV VAN | ME | 229,203 | 229,203 | 6/2/2017 | 2017 | 1.457 | 333,886 | 0 | |
| NEWLAB | A16009 | KJELTEC AMMONIA ANALYZER | ME | 40,760 | 40,760 | 6/30/2017 | 2017 | 1.457 | 59,376 | 0 | |
| WPC | T17005 | PRO SCOUT INSPECTION SYSTEM | ME | 0 | 0 | 6/30/2017 | 2017 | 1.457 | 0 | 0 | |
| SWMTN | 180006 | 2018 INTERNATIONAL | ME | 71,475 | 71,475 | 8/8/2017 | 2017 | 1.457 | 104,119 | 0 | |
| NEWLAB | 180024 | 2018 FORD F-150 | ME | 24,003 | 24,003 | 11/3/2017 | 2017 | 1.457 | 34,966 | 0 | |
| WPC | 180023 | TAKEUCHI COMPACT TRACK LOADER | ME | 52,337 | 52,337 | 11/17/2017 | 2017 | 1.457 | 76,241 | 0 | |
| WPC | 180039 | 12 GODWIN PUMP" | ME | 153,809 | 153,809 | 1/5/2018 | 2018 | 1.413 | 217,399 | 0 | |
| SWMTN | 180040 | TAKEUCHI TB290 MIDI EXCAVATOR | ME | 92,789 | 92,789 | 1/23/2018 | 2018 | 1.413 | 131,151 | 0 | |
| SWMTN | 180050 | 2019 INTERNATIONAL | ME | 71,475 | 71,475 | 2/9/2018 | 2018 | 1.413 | 101,025 | 0 | |
| WPC | 180049 | TAKEUCHI TB260 MIDI EXCAVATOR | ME | 65,891 | 65,891 | 3/2/2018 | 2018 | 1.413 | 93,132 | 0 | |
| SWMTN | 180052 | TIRE CHANGER | ME | 11,435 | 11,435 | 3/16/2018 | 2018 | 1.413 | 16,163 | 0 | |
| SWMTN | 180079 | 2018 INTERNATIONAL CHASSIS | ME | 11,101 | 11,101 | 6/8/2018 | 2018 | 1.413 | 15,691 | 0 | |
| NEWLAB | 180118 | INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER | ME | 113,224 | 62,273 | 6/30/2018 | 2018 | 1.413 | 160,036 | 72,016 | Laboratory |
| SWMTN | 190109 | CCTV CAMERA LIFT & CRADLE CRAWLER EXTENSION | ME | 22,500 | 20,250 | 9/14/2018 | 2018 | 1.413 | 31,802 | 3,180 | Collection & Conveyance |
| SWMTN | 190112 | CATERPILLAR BACKHOE | ME | 115,686 | 104,117 | 11/30/2018 | 2018 | 1.413 | 163,514 | 16,351 | Collection & Conveyance |
| WPC | 190111 | BELSHE EXCAVATOR TRAILER | ME | 15,800 | 14,220 | 12/7/2018 | 2018 | 1.413 | 22,332 | 2,233 | Collection & Conveyance |
| WPC | 190041 | 2019 CHEVY SILVERADO | ME | 26,891 | 24,202 | 3/29/2019 | 2019 | 1.361 | 36,590 | 3,659 | Treatment - General |
| WPC | 190042 | 2019 CHEVY SILVERADO | ME | 26,891 | 24,202 | 3/29/2019 | 2019 | 1.361 | 36,590 | 3,659 | Treatment - General |
| WPC | 190043 | 2019 CHEVY SILVERADO | ME | 26,891 | 24,202 | 4/19/2019 | 2019 | 1.361 | 36,590 | 3,659 | Treatment - General |
| WPC | 190044 | 2019 CHEVY SILVERADO | ME | 26,891 | 24,202 | 4/19/2019 | 2019 | 1.361 | 36,590 | 3,659 | Treatment - General |
| SWMTN | 190051 | 6 TRASH PUMP" | ME | 25,700 | 23,130 | 6/18/2019 | 2019 | 1.361 | 34,970 | 3,497 | Treatment - General |
| WPC | 190050 | JLG 1644 TELEHANDLER | ME | 194,594 | 175,135 | 6/30/2019 | 2019 | 1.361 | 264,783 | 26,478 | Treatment - General |
| SWMTN | T20001 | JOHN DEERE 955 UTILITY TRACTOR | ME | 0 | 0 | 3/5/2020 | 2020 | 1.283 | 0 | 0 | |
| WPC | 210004 | CATERPILLAR STANDBY GENERATOR | ME | 24,393 | 6,098 | 8/28/2020 | 2020 | 1.283 | 31,285 | 23,464 | Pumping |
| SWMTN | 210102 | 2001 INTERNATIONAL CAB & CHASSIS | ME | 86,718 | 43,359 | 9/11/2020 | 2020 | 1.283 | 111,219 | 55,609 | Collection & Conveyance |
| SWMTN | 210103 | VACTOR RAMJET 850 SEWER MACHINE | ME | 154,250 | 77,125 | 10/16/2020 | 2020 | 1.283 | 197,831 | 98,915 | Collection & Conveyance |
| SWMTN | 210104 | INLET CLEANING MACHINE | ME | 190,820 | 95,410 | 12/23/2020 | 2020 | 1.283 | 244,733 | 122,366 | Collection & Conveyance |
| WPC | 210019 | EVERLAST PUMP STATION | ME | 65,000 | 10,833 | 3/17/2021 | 2021 | 1.202 | 78,143 | 65,119 | Pumping |
| SWMTN | 210125 | TYMCO REGENERATIVE AIR SWEEPER (1/2) | ME | 128,090 | 64,045 | 6/23/2021 | 2021 | 1.202 | 153,989 | 76,994 | Admin. & General |
| WPC | 220003 | 2021 RAM TRUCK | ME | 22,288 | 6,686 | 8/4/2021 | 2021 | 1.202 | 26,795 | 18,756 | Treatment - General |
| SWMTN | 220100 | BAD BOY 60INCH ZERO TURN MOWER | ME | 5,305 | 1,592 | 8/6/2021 | 2021 | 1.202 | 6,378 | 4,465 | Admin. & General |
| SWMTN | 220101 | 2022 FORD SUPER DUTY F-250 | ME | 31,101 | 9,330 | 9/10/2021 | 2021 | 1.202 | 37,389 | 26,172 | Treatment - General |
| SWMTN | 220102 | 2022 FORD F-250 | ME | 31,101 | 9,330 | 9/28/2021 | 2021 | 1.202 | 37,389 | 26,172 | Treatment - General |
| WPC | 220132 | SLUICE GATE | ME | 18,808 | 2,821 | 10/28/2021 | 2021 | 1.202 | 22,611 | 19,219 | Treatment - Sludge |
| NEWLAB | 220035 | UNDER COUNTER WASHER | ME | 12,802 | 3,841 | 4/8/2022 | 2022 | 1.063 | 13,611 | 9,527 | Admin. & General |
| NEWLAB | 220036 | MOLDATHERM BOX FURNACE | ME | 5,134 | 1,540 | 4/8/2022 | 2022 | 1.063 | 5,458 | 3,821 | Laboratory |
| SWMTN | 220103 | 2022 INTERNATIONAL | ME | 55,480 | 16,644 | 5/13/2022 | 2022 | 1.063 | 58,985 | 41,289 | Treatment - General |
| SWMTN | 220104 | 2022 INTERNATIONAL | ME | 55,480 | 16,644 | 5/13/2022 | 2022 | 1.063 | 58,985 | 41,289 | Treatment - General |
| NEWLAB | 220040 | HACH REFRIGERATED SAMPLER | ME | 7,015 | 1,052 | 5/27/2022 | 2022 | 1.063 | 7,458 | 6,339 | Laboratory |
| SWMTN | 220110 | 2022 FREIGHTLINER VACTOR TRUCK | ME | 440,788 | 132,236 | 6/10/2022 | 2022 | 1.063 | 468,632 | 328,042 | Collection & Conveyance |
| SWMTN | 220109 | WARREN DUMP BODY | ME | 23,739 | 7,122 | 6/17/2022 | 2022 | 1.063 | 25,239 | 17,667 | Treatment - Sludge |
| OLDCONTROL | 210136 | CONTROL BLDG PROGRESSIVE PUMPS | ME | 68,682 | 20,605 | 6/30/2022 | 2022 | 1.063 | 73,021 | 51,114 | Pumping |
| SWMTN | A23004 | 2014 Vactor 2110 Sewer Cleaner | ME | 0 | 0 | 6/30/2022 | 2022 | 1.063 | 0 | 0 | |
| WPC | 230051 | Undercounter Washer | ME | 19,980 | 1,998 | 7/26/2022 | 2022 | 1.063 | 21,242 | 19,118 | Admin. & General |
| SWMTN | 230070 | 2023 FORD TRANSIT R3X | ME | 187,533 | 18,753 | 8/31/2022 | 2022 | 1.063 | 199,379 | 179,441 | Collection & Conveyance |
| WPC | 230016 | 31' Travalong Flatbed Trailer | ME | 21,900 | 2,190 | 10/6/2022 | 2022 | 1.063 | 23,283 | 20,955 | Admin. & General |
| WPC | 230009 | 2022 Ford F-150 White R/C 4X4 | ME | 25,450 | 2,545 | 11/10/2022 | 2022 | 1.063 | 27,058 | 24,352 | Treatment - General |
| WPC | 230010 | 2022 Ford F-150 White R/C 4X4 | ME | 25,450 | 2,545 | 11/10/2022 | 2022 | 1.063 | 27,058 | 24,352 | Treatment - General |
| SWMTN | 230071 | 2022 INTERNATIONAL CV515 SFA 4X2 | ME | 63,377 | 6,338 | 1/12/2023 | 2023 | 1.000 | 63,377 | 57,039 | Treatment - General |
| WPC | 230008 | 2022 Ford F-150 White XL Pick-up | ME | 25,450 | 2,545 | 1/20/2023 | 2023 | 1.000 | 25,450 | 22,905 | Treatment - General |
| SWMTN | 230110 | Mini Excavator Case CX37C | ME | 44,190 | 4,419 | 4/21/2023 | 2023 | 1.000 | 44,190 | 39,771 | Treatment - General |
| SWMTN | 230072 | 2023 INTERNATIONAL MV106 CHASSIS 4X2 | ME | 250,521 | 25,052 | 4/26/2023 | 2023 | 1.000 | 250,521 | 225,469 | Collection & Conveyance |
| SWMTN | 230069 | 2022 International w/ Reading U132a DW Classic II | ME | 20,932 | 2,093 | 5/10/2023 | 2023 | 1.000 | 20,932 | 18,839 | Collection & Conveyance |
| SWMTN | 230073 | JOHN DEERE Z740R 54 CUT MOWER" | ME | 9,433 | 943 | 5/15/2023 | 2023 | 1.000 | 9,433 | 8,490 | Admin. & General |

| Department | FA ID | Asset Description | Code | Original Cost | Accumulated Depreciation | | Year in Service | Trend Factor | Trended Cost | Trended Cost Less Depr | Function |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WPC | T23009 | VACUUM SEWER CLEANING TRUCK | ME | 0 | 0 | 6/29/2023 | 2023 | 1.000 | 0 | 0 | |
| SWMTN | A23005 | 2015 International 7500O | ME | 0 | 0 | 6/30/2023 | 2023 | 1.000 | 0 | 0 | |
| | | TOTAL MACHINERY & EQUIPMENT | | 13,072,629 | 11,445,535 | | | | 42,605,206 | 1,818,634 | |
| OTHER | | | | | | | | | | | |
| INFRAS | 230100 | Cmom Consolidated Fy23 Repairs | CP | 537,974 | 0 | 6/30/2023 | 2023 | 1.000 | 537,974 | 537,974 | Collection & Conveyance |
| INFRAS | 230101 | Biogas Optmztn Phase 1 | CP | 2,781,836 | 0 | 6/30/2023 | 2023 | 1.000 | 2,781,836 | 2,781,836 | Treatment - Digester |
| INFRAS | 60200 | SEWER LINES EXISTING | IN | 55,569,360 | 36,369,908 | 6/30/2006 | 2006 | 1.967 | 109,286,408 | 37,758,923 | Collection & Conveyance |
| INFRAS | 70102 | SEWER LINES FY07 ACCEPTED SUBD | IN | 1,324,937 | 546,537 | 6/30/2007 | 2007 | 1.867 | 2,473,775 | 1,453,342 | Collection & Conveyance |
| INFRAS | 80128 | FY08 Donated Sewers | IN | 688,019 | 266,607 | 6/30/2008 | 2008 | 1.774 | 1,220,234 | 747,394 | Collection & Conveyance |
| INFRAS | 90124 | FY09 Donated Sewers | IN | 262,400 | 95,120 | 6/30/2009 | 2009 | 1.670 | 438,158 | 279,326 | Collection & Conveyance |
| INFRAS | 80122 | Woodbine Rd Sewer Extension | IN | 96,966 | 32,726 | 6/30/2010 | 2010 | 1.686 | 163,457 | 108,290 | Collection & Conveyance |
| INFRAS | 80123 | Riverside Rd Sewer Extension | IN | 1,203,908 | 406,319 | 6/30/2010 | 2010 | 1.686 | 2,029,445 | 1,344,507 | Collection & Conveyance |
| INFRAS | 90122 | Greystone Sewers | IN | 3,174,610 | 1,071,431 | 6/30/2010 | 2010 | 1.686 | 5,351,485 | 3,545,359 | Collection & Conveyance |
| INFRAS | 100202 | FY10 Donated Sewers | IN | 1,460,200 | 492,817 | 6/30/2010 | 2010 | 1.686 | 2,461,480 | 1,630,731 | Collection & Conveyance |
| STATIONS | 80121 | Roy's Branch Sewer Separation | IN | 1,921,450 | 480,363 | 6/30/2011 | 2011 | 1.627 | 3,125,888 | 2,344,416 | Collection & Conveyance |
| INFRAS | 110203 | FY11 Donated Sewers | IN | 127,300 | 39,781 | 6/30/2011 | 2011 | 1.627 | 207,097 | 142,379 | Collection & Conveyance |
| INFRAS | 120202 | 2012 Donated Sewers | IN | 878,440 | 252,551 | 6/30/2012 | 2012 | 1.555 | 1,366,291 | 973,482 | Collection & Conveyance |
| INFRAS | 130203 | 2013 Donated Sewers | IN | 11,120 | 2,919 | 6/30/2013 | 2013 | 1.500 | 16,680 | 12,301 | Collection & Conveyance |
| INFRAS | 140201 | 2014 Donated Sewers | IN | 15,800 | 3,753 | 6/30/2014 | 2014 | 1.497 | 23,660 | 18,041 | Collection & Conveyance |
| WHITEHEAD | 160069 | Whitehead Separation Conduit Design | IN | 416,297 | 78,056 | 6/30/2016 | 2016 | 1.430 | 595,190 | 483,592 | Collection & Conveyance |
| INFRAS | 180203 | 2018 DONATED SEWER | IN | 70,000 | 9,625 | 6/30/2018 | 2018 | 1.315 | 92,051 | 79,394 | Collection & Conveyance |
| WPC | 170103 | SEWER SYSTEM EXPANSION SYSTEM | IN | 68,191 | 5,967 | 6/30/2020 | 2020 | 1.275 | 86,958 | 79,349 | Collection & Conveyance |
| WPC | 170104 | CSO OUTFALL - 9TH & CHARLES | IN | 66,143 | 4,134 | 6/30/2021 | 2021 | 1.133 | 74,951 | 70,267 | Collection & Conveyance |
| INFRAS | 200102 | MO AVENUE SEWER REHAB | IN | 1,484,541 | 92,784 | 6/30/2021 | 2021 | 1.133 | 1,682,226 | 1,577,087 | Collection & Conveyance |
| INFRAS | 200112 | CHARLES STREET OUTFALL REHAB | IN | 835,304 | 52,207 | 6/30/2021 | 2021 | 1.133 | 946,535 | 887,377 | Treatment - Outfall |
| WPC | 130103 | Blacksnake Crk Strmwtr Sep | IN | 62,654,361 | 2,349,539 | 6/30/2022 | 2022 | 1.013 | 63,442,917 | 61,063,807 | Collection & Conveyance |
| GARAGE | 960810 | MOUNTED TRASH PUMP | OF | 15,194 | 15,194 | 6/7/1996 | 1996 | 2.864 | 43,517 | 0 | Admin. & General |
| NEWLAB | 110076 | LabCal Water Info Mgmt System | OF | 9,010 | 9,010 | 2/4/2011 | 2011 | 1.627 | 14,658 | 0 | Laboratory |
| NETWORK | 140049 | Integrity HTML5 Mob GIS Webste | OF | 7,500 | 7,500 | 12/20/2013 | 2013 | 1.500 | 11,250 | 0 | Admin. & General |
| WPC | 140071 | Replace Radio & Comm Equipment | OF | 145,285 | 138,021 | 1/21/2014 | 2014 | 1.497 | 217,559 | 10,878 | Treatment - General |
| SRVRROOM | 120103 | Accela Management Software | OF | 435,022 | 435,022 | 6/30/2014 | 2014 | 1.497 | 651,429 | 0 | Admin. & General |
| SRVRROOM | 120109 | Springbook Swr Billing Softwre | OF | 237,882 | 237,882 | 6/30/2014 | 2014 | 1.497 | 356,219 | 0 | Customer |
| SWMTN | 150002 | GEO 7X Handheld GPS | OF | 10,420 | 10,420 | 9/1/2014 | 2014 | 1.497 | 15,604 | 0 | Admin. & General |
| WPC | 150054 | Mayline 20' Conference Table | OF | 5,529 | 5,529 | 6/30/2015 | 2015 | 1.446 | 7,995 | 0 | Admin. & General |
| WPC | 160065 | Trimble GPS Equipment | OF | 11,256 | 8,442 | 4/21/2016 | 2016 | 1.430 | 16,093 | 4,023 | Admin. & General |
| SWMTN | 180041 | MOTOROLA RADIOS WITH ACCESSORIES | OF | 72,881 | 40,084 | 2/2/2018 | 2018 | 1.315 | 95,839 | 43,127 | Admin. & General |
| WPC | 190110 | GRANITENET SOFTWARE | OF | 47,059 | 21,177 | 12/14/2018 | 2018 | 1.315 | 61,883 | 34,036 | Collection & Conveyance |
| WPC | 180117 | GPS EQUIPMENT | OF | 6,600 | 3,630 | 6/30/2019 | 2019 | 1.303 | 8,602 | 3,871 | Collection & Conveyance |
| SWMTN | 200104 | MANHOLE SCANNER CAMERA | OF | 132,668 | 46,434 | 6/12/2020 | 2020 | 1.275 | 169,181 | 109,967 | Collection & Conveyance |
| WPC | 220034 | SMART MACHINE CHECKER | OF | 13,329 | 1,999 | 4/22/2022 | 2022 | 1.013 | 13,497 | 11,472 | Treatment - General |
| NEWLAB | 230042 | Kjeltec 9 Analyser | OF | 34,256 | 1,713 | 11/8/2022 | 2022 | 1.013 | 34,687 | 32,953 | Laboratory |
| SWMTN | 230111 | CCTV Van hardware and software | OF | 26,545 | 0 | 12/22/2022 | 2022 | 1.013 | 26,879 | 26,879 | Collection & Conveyance |
| ADMIN | 230086 | Springbrook Software #V7 | SB | 300,115 | 0 | 7/1/2022 | 2022 | 1.013 | 303,892 | 303,892 | Customer |
| | | SUBTOTAL OTHER | | 137,159,707 | 43,635,198 | | | | 200,453,478 | 118,500,273 | |
| | | Less Contributed Assets | | (3,513,279) | (1,163,174) | | | | (5,825,650) | (3,883,047) | |
| | | TOTAL OTHER | | 133,646,428 | 42,472,024 | | | | 194,627,828 | 114,617,226 | |
| | | TOTAL ASSETS BEFORE CONTRIBUTIONS | | 363,400,262 | 127,198,634 | | | | 619,442,508 | 321,362,958 | |
| | | TOTAL ASSETS EXCLUDING CONTRIBUTIONS | | 345,882,691 | 118,799,909 | | | | 588,779,587 | 305,475,231 | |

**Appendix A-8**
**City of St. Joseph, MO - Water Protection Fund**
**Ammonia Project Allocations**

| Line No. | Description | Total | Common to Retail | | | | | | Common to All | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Volume | Capacity | BOD | SS | Ammonia | FOG | Volume | Capacity | BOD | SS | Ammonia | FOG | SSJISD | Septage | Billing | Allocation Basis |
| 1 | Site Planning | 5,742,871 | - | - | - | - | - | - | 916,102 | 163,353 | 3,495,736 | 175,492 | 992,187 | - | - | - | - | Ammonia Asset Allocation |
| 2 | Construction Administration | 2,281,372 | - | - | - | - | - | - | 363,924 | 64,893 | 1,388,691 | 69,715 | 394,149 | - | - | - | - | Ammonia Asset Allocation |
| 3 | Operations Building Modifications | 246,846 | - | - | - | - | - | - | 39,377 | 7,021 | 150,257 | 7,543 | 42,647 | - | - | - | - | Ammonia Asset Allocation |
| 4 | Roughing Filter Modifications | 154,279 | - | - | - | - | - | - | - | - | 154,279 | - | - | - | - | - | - | BOD |
| 5 | Intermediate Pump Station | 399,890 | - | - | - | - | - | - | - | 399,890 | - | - | - | - | - | - | - | Common to All Capacity |
| 6 | PE Diversion Splitter Box and Meter Va | 241,909 | - | - | - | - | - | - | - | 241,909 | - | - | - | - | - | - | - | Common to All Capacity |
| 7 | Domestic Aeration Basin Modification | 3,092,980 | - | - | - | - | - | - | - | - | 2,404,573 | - | 688,407 | - | - | - | - | CTA BOD 78% Ammonia 22% |
| 8 | Final Clarifier Splitter Box | 190,071 | - | - | - | - | - | - | - | - | 103,134 | 57,411 | 29,526 | - | - | - | - | CTA BOD 54% SS 30% Ammonia 16% |
| 9 | Pump Station No. 2 | 1,212,014 | - | - | - | - | - | - | - | - | 657,645 | 366,091 | 188,278 | - | - | - | - | CTA BOD 54% SS 30% Ammonia 16% |
| 10 | Industrial Splitter Box 1 | 55,540 | - | - | - | - | - | - | - | - | 30,136 | 16,776 | 8,628 | - | - | - | - | CTA BOD 54% SS 30% Ammonia 16% |
| 11 | Industrial Aeration Basin | 12,402,775 | - | - | - | - | - | - | - | - | 9,642,280 | - | 2,760,495 | - | - | - | - | Design BOD 78% Ammonia 22% |
| 12 | Blower Building | 4,771,532 | - | - | - | - | - | - | - | - | 3,709,528 | - | 1,062,004 | - | - | - | - | Design BOD 78% Ammonia 22% |
| 13 | Industrial Final Clarifier Splitter Box | 118,486 | - | - | - | - | - | - | 106,637 | - | 9,212 | - | 2,637 | - | - | - | - | CTA Volume 90% BOD 8% Ammonia 2% |
| 14 | Industrial Final Clarifier | 5,103,540 | - | - | - | - | - | - | 4,593,186 | - | 396,764 | - | 113,590 | - | - | - | - | CTA Volume 90% BOD 8% Ammonia 2% |
| 15 | RAS Pump Station No. 1 | 1,108,338 | - | - | - | - | - | - | - | - | 601,390 | 334,776 | 172,172 | - | - | - | - | CTA BOD 54% SS 30% Ammonia 16% |
| 16 | DAFT Feed Pump Wet Well | 133,297 | - | - | - | - | - | - | - | - | 72,328 | 40,263 | 20,707 | - | - | - | - | CTA BOD 54% SS 30% Ammonia 16% |
| 17 | Filtrate Equalization Basin | 196,243 | - | - | - | - | - | - | - | 196,243 | - | - | - | - | - | - | - | Common to All Capacity |
| 18 | Belt Filter Press Building | 281,404 | - | - | - | - | - | - | - | - | 152,691 | 84,999 | 43,714 | - | - | - | - | CTA BOD 54% SS 30% Ammonia 16% |
| 19 | Total O&M | 37,733,390 | - | - | - | - | - | - | 6,019,227 | 1,073,310 | 22,968,646 | 1,153,065 | 6,519,142 | - | - | - | - | |
| 20 | Percent Distribution | 100% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 16.0% | 2.8% | 60.9% | 3.1% | 17.3% | 0.0% | 0.0% | 0.0% | 0.0% | |

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