City of

# Auburndale

## 2021 Utility Rate and Impact Fee Study

July 23, 2021

RAFTELIS

RAFTELIS

July 23, 2021

Mr. Chris Reeder
Deputy Finance Director
City of Auburndale
4 Bobby Green Plaza
Auburndale, FL 33823

**Subject: 2021 Utility Rate and Impact Fee Study**

Dear Mr. Reeder,

Pursuant to our agreement with the City of Auburndale (City), Raftelis conducted a comprehensive water and wastewater rate study including a review of the existing rate structure to determine the appropriateness and adequacy of the user rates, fees, and charges. Raftelis also conducted an update to the water and wastewater impact fees to ensure they are based on recent and local data, as well as put the City in a position to collect adequate fees from growth that reflect the current cost of providing utility service. This report provides the analysis, findings, conclusions, and recommendations. Professional care was used in identifying and utilizing data, assumptions and estimates such that the rate structure and rates reasonably recovers the costs of providing services to customers within the City's service area.

Thanks and appreciation is extended to the City for this opportunity and to the fine staff members that provided data and assisted in the study process.

Sincerely,

**Joe Williams**
*Manager*

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Maitland, FL 32751

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# Executive Summary

## Background of the Study

The City of Auburndale (City) provides water and sewer service to properties located within and outside of the City limits. The City accounts for the water and sewer funds and financial reporting as a combined enterprise fund (System). As an enterprise fund the costs of providing service are recovered primarily through user fees. Specifically, the City recovers its water and sewer utility costs through user rates and ancillary charges.

The City has engaged Raftelis Financial Consultants, Inc. (Raftelis) to conduct a rate study, including provisions for a revenue sufficiency projection and alternative rate design options. Raftelis has prepared this report to document our findings and conclusions. Raftelis created an Excel-based financial model with the primary purpose to provide the City with a management tool to anticipate future needs, enhance operation and capital planning, and diminish the probability of sudden rate adjustments or other adverse financial conditions. This model can be updated periodically to estimate impacts of certain events such as new customer growth, large capital projects, etc. and overall revenue sufficiency over a multi-year period. This executive summary provides an overview of the study and includes findings and recommendations for a rate design adjustment, future rate adjustments, and financial policies.

## System Overview

The City last completed a revenue sufficiency review in 2016 pursuant to the issuance of the 2016 bonds. Since that time, the City's customer base has continued to grow and several large projects have been identified to support increased capacity on both the water and wastewater services. The continued customer growth has prompted the City to participate in the Polk Regional Water Cooperative (PRWC), which is a collection of Polk County utilities that are working together to obtain future alternative water supply, as directed in part by the Southwest Florida Water Management Districts (SWFWMD). On the wastewater side, the City has identified the need for significant land acquisition and improvements to increase the discharge capacity to accommodate future growth. Each of these projects is having impacts on the System over the next several years and have been factored into the analysis to the extent information is available. Based on the forecast certain rate adjustments have been identified, as shown on the table below:

| Description | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Water Rates | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Wastewater Rates | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% |
| Typical 6,000 Gallon Residential Bill % change [1] | 1.4% | 1.5% | 1.5% | 1.5% | 1.6% |

[1] Certain rate structure changes have been identified, as discussed below and in further detail throughout this report that will result in different outcomes than the overall rate adjustments identified.

## Rate Design

The current rate structure has been in place for many years. When City staff identified that certain objectives, such as promoting water conservation, were very important it was apparent that certain rate structure adjustments were warranted to achieve these objectives. Upon review, the primary adjustments to the rate structure are as follows:

1. Addition of a fourth tiered water rate;
2. Reduction of the gallons included in each water tier, and
3. Re-alignment of the base charges by meter size to align with industry standards.

## WATER VOLUMETRIC RATES

Water consumption is billed based on an established rate per 1,000 gallons with tiers that increase the rate as consumption increases each month. This is a typical water volumetric rate structure in the utility industry. However, based on the desire to encourage water conservation certain adjustments to this tiered structure are being recommended. First, with the elimination of the minimum gallons in the base charge a new first block is being established to capture the first 4,000 gallons. Above 4,000 gallons, the amount of gallons included in each tier are being reduced and the rates applied to tiers 3 and 4 are being increased, all in an effort to promote water conservation as shown on the table below.

| Rate Component | FY 2021 | Rate Design |
|---|---|---|
| Usage Charges | | |
| Minimum | $0.00 | N/A |
| Block 1 | $2.08 | $1.03 |
| Block 2 | $3.13 | $2.06 |
| Block 3 | $4.17 | $3.43 |
| Block 4 | N/A | $4.80 |
| Consumption Blocks (in 1,000s) | | |
| Minimum | 0 – 4 | N/A |
| Block 1 | 4 – 12 | 0 – 4 |
| Block 2 | 12 – 35 | 4 – 10 |
| Block 3 | Above 35 | 10 – 20 |
| Block 4 | N/A | Above 20 |

## BASE CHARGES

The City currently charges a single water base charge for all customer classes regardless of meter size and includes a minimum of 4,000 gallons monthly per account. Based on industry trends and the Utility's current objectives around water conservation, the minimum gallons in the water base charge are being eliminated. This will transition customers more to a pay for what you use methodology, which will influence the water conservation efforts. The base charges for commercial customers will be increased as the meter size increases, similar to how wastewater is currently applied. The factors used to determine the charge for each meter size, for both water and wastewater base charges, will be related to the American Water Works Association (AWWA) meter size flow factors from the M6 manual. The factors applied to the base charges, as based on the AWWA factors, are as follows:

| Meter Size | AWWA Factor |
|---|---|
| ¾" Meter | 1.00 |
| 1" Meter | 2.50 |
| 1 ½" Meter | 5.00 |
| 2" Meter | 8.00 |
| 3" Meter | 16.00 |
| 4" Meter | 25.00 |
| 6" Meter | 50.00 |
| 8" Meter | 80.00 |
| 10" Meter | 115.00 |

## CUSTOMER BILL IMPACTS

Below is a table illustrating impacts at various usage levels for a majority of the System's customers, single family inside city using less than 25,000 gallons per month of combined water and sewer services. The cumulative

percentage of single family water bills has been included to provide context for how these proposed rates will impact the customer base. For example, at the 4,000-gallon level 50.6% of the single family customers have been billed.

| Usage | Existing Rates | Proposed Rates | Difference | Cumulative % Single Family Bills |
|---|---|---|---|---|
| 0 | $52.37 | $49.12 | ($3.25) | 10.5% |
| 3,000 | $52.37 | $52.20 | ($0.17) | 40.1% |
| 4,000 | $52.37 | $53.23 | $0.86 | 50.6% |
| 5,000 | $54.45 | $55.29 | $0.83 | 59.1% |
| 10,000 | $64.85 | $65.56 | $0.71 | 80.7% |
| 25,000 | $109.70 | $123.79 | $14.09 | 92.1% |

## Utility Impact Fees

As previously discussed, the City is currently planning for several large projects that will provide additional capacity to serve growth and as such desired to review the impact fee levels to put the System in a position to charge growth its fair share of these costs. Additionally, the City has not updated the impact fees in many years and wanted to bring the fees up to a level that reflects recent and local cost data. The results of the impact fee update are provided on the table below:

| Description | Existing | Calculated | Variance |
|---|---|---|---|
| Water | $1,264.99 | $2,217.00 | $952.01 |
| Wastewater | 3,939.14 | 4,258.00 | 319.86 |
| Total | $5,203.13 | $6,475.00 | $1,271.87 |

## Recommendations

Based on the information, analysis and discussions included in this report, it is recommended that:

1. The City proceed to establish the following inside City water rates, that will achieve rate objectives including conservation and include the rate adjustments identified each year of the forecast for inside City customers. Outside City customers will pay an additional 35% as shown on Exhibit 18, per City's existing policy.

| Residential Inside Rates | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Base Charge | | | | | |
| All Meters | $7.99 | $8.31 | $8.64 | $8.99 | $9.35 |
| Usage Charges | | | | | |
| Minimum | N/A | $1.07 | $1.11 | $1.15 | $1.20 |
| Block 1 | $1.03 | $2.14 | $2.23 | $2.32 | $2.41 |
| Block 2 | $2.06 | $3.56 | $3.70 | $3.85 | $4.00 |
| Block 3 | $3.43 | $4.99 | $5.19 | $5.40 | $5.62 |
| Block 4 | $4.80 | $1.07 | $1.11 | $1.15 | $1.20 |

| Commercial Inside Rates | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Base Charge | | | | | |
| ¾" Meter | $7.99 | $8.31 | $8.64 | $8.99 | $9.35 |
| 1" Meter | $19.98 | $20.77 | $21.60 | $22.46 | $23.36 |
| 1 ½" Meter | $39.95 | $41.55 | $43.21 | $44.94 | $46.74 |
| 2" Meter | $63.92 | $66.48 | $69.14 | $71.91 | $74.79 |
| 3" Meter | $127.84 | $132.95 | $138.27 | $143.80 | $149.55 |

| Commercial Inside Rates | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| 4" Meter | $199.75 | $207.74 | $216.05 | $224.69 | $233.68 |
| 6" Meter | $399.50 | $415.48 | $432.10 | $449.38 | $467.36 |
| 10" Meter | $918.82 | $955.60 | $993.82 | $1,033.57 | $1,074.91 |
| Usage Charges | | | | | |
| Minimum | N/A | N/A | N/A | N/A | N/A |
| Block 1 | $2.87 | $2.98 | $3.10 | $3.22 | $3.35 |

2. The City adopt the following block increments for residential water customers.

| Consumption Blocks | Range |
|---|---|
| **Residential** | |
| Minimum | N/A |
| Block 1 | 0 – 4,000 |
| Block 2 | 4,001 – 10,000 |
| Block 3 | 10,001 – 20,000 |
| Block 4 | Above 20,000 |
| **Commercial** | |
| Minimum | N/A |
| Block 1 | All Usage |

3. The City proceed to establish the following wastewater rates for inside City customers. Outside City customers will pay an additional 35% as shown on Exhibit 18, per City's existing policy.

| Description | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Residential Base Charge | $41.13 | $41.34 | $41.55 | $41.76 | $41.97 |
| Commercial Base Charge: | | | | | |
| ¾" Meter | $41.13 | $41.34 | $41.55 | $41.76 | $41.97 |
| 1" Meter | $102.83 | $103.34 | $103.86 | $104.38 | $104.90 |
| 1 ½" Meter | $205.65 | $206.68 | $207.71 | $208.75 | $209.79 |
| 2" Meter | $329.04 | $330.69 | $332.34 | $334.00 | $335.67 |
| 3" Meter | $658.08 | $661.37 | $664.68 | $668.00 | $671.34 |
| 4" Meter | $1,028.25 | $1,033.39 | $1,038.56 | $1,043.75 | $1,048.97 |
| 6" Meter | $2,056.50 | $2,066.78 | $2,077.11 | $2,087.50 | $2,097.94 |
| 10" Meter | $3,290.40 | $3,306.85 | $3,323.38 | $3,340.00 | $3,356.70 |
| Commercial Usage Charges | | | | | |
| Minimum | N/A | N/A | N/A | N/A | N/A |
| Block 1 | $7.01 | $7.05 | $7.09 | $7.13 | $7.17 |

4. The City adopt the update water and wastewater impact fees as calculated for inside City connections. Outside City connections will pay an additional 25% as shown on Exhibits 16-17, per City's existing policy.

| Description | Existing | Calculated | Variance |
|---|---|---|---|
| Water | $1,264.99 | $2,217.00 | $952.01 |
| Wastewater | 3,938.14 | 4,258.00 | 319.86 |
| Total | $5,203.13 | $6,475.00 | $1,271.87 |

5. The City establish and fund an alternative water supply reserve as presented herein to set aside funds to offset future requirements associated PRWC or other alternative water initiatives.

# Section 1. Introduction

## Background

The City of Auburndale (City) provides water and wastewater services to approximately 12,882 water customers and 8,134 wastewater customers located within and outside of the City's municipal limits. The City has engaged Raftelis Financial Consultants, Inc. (Raftelis) to conduct a rate study to review the sufficiency of the water and wastewater systems' (System) ability to meet financial requirements including operating costs, capital improvements, and reserve fund requirements over the fiscal years 2021 through 2026 (Forecast Period). The City has also worked with Raftelis to review various rate design options to help promote conservation. Lastly, this report addresses updates to the City's water and wastewater impact fees, which are charged to new development or redevelopment for additional utility capacity required.

## Summary of Report

In addition to Section 1, this report is subdivided into seven (7) other sections. The following is a brief discussion of the remaining sections included in this report.

**Section 2. Customers and Existing Rates** – This section summarizes the existing rate structures along with illustrating the historical and projected customers and sales. Projections are primarily based off recent historical trends and expected future growth with a conservative outlook.

**Section 3. Revenue Requirements** – This section summarizes the forecast of revenue requirements, which serves as the basis for the revenue sufficiency analysis. Included in this section is a discussion of the assumptions utilized in the forecast of operating and maintenance expenditures, debt service requirements, and capital improvement needs.

**Section 4. Revenue Sufficiency** – This section provides the future revenue forecast from existing rates based on the projected customers and sales identified in Section 2. The forecasted revenues are compared to the revenue requirements identified in Section 3 to determine the level of rate adjustments needed. Once the necessary rate adjustments are identified, there is a projection of fund balances and debt service coverage. Additionally, the water and wastewater rates for FY 2021 are compared to customer bills with other nearby communities.

**Section 5. Rate Design** – This section provides a review and discussion on the various rate components and structure modifications that were reviewed along with recommendations for changes.

**Section 6. Water Impact Fee –** This section details the analysis and assumptions used to calculate the water impact fee that will be charged to development requiring utility capacity and is based on current and local data.

**Section 7. Wastewater Impact Fee** – This section details the analysis and assumptions used to calculate the wastewater impact fee that will be charged to development requiring utility capacity and is based on current and local data.

**Section 8. Findings, Conclusions and Recommendations** – This section summarizes the findings, conclusions and recommendations developed during the course of this study, resulting from various data review and analysis performed.

# Section 2. Customers and Existing Rates

## General

A major component in the determination of sustained revenue sufficiency for water and wastewater service is the development of a forecast of customers and sales, to which existing rates are applied to calculate revenues. The customer and sales forecasts are essential components of this study that help to align the timing of future rate adjustments with capital projects and anticipated increases to ongoing operations. This section provides a discussion of the recent historical trends and the forecast of customers through FY 2026.

The revenue generation systems are comprised of user fees, ancillary charges for specifically requested services, penalties, and related interest earnings. Additionally, the utility system recovers costs through impact fees. The primary source of revenues for the water and wastewater system is from the monthly user fees designed on a modified cost-of-service basis and applied equitably pursuant to customer class, meter size and usage. Pursuant to Section 23-47 of the City Code of Ordinances, the existing water and wastewater rates were last adjusted with the passage of Ordinance No. 1516, effective in October 2016, and each October 1st thereafter through 2020.

## Existing Rate Structure and Rates

The existing water and wastewater structure utilizes two components for the generation of monthly revenues: base and usage charges. The current water base charge is a fixed monthly amount charged to all customers receiving water service. Included in the water base charge is the first 4,000 gallons of usage per month per account. For residential customers, the water usage charges above 4,000 gallons are on an inclining block basis to encourage conservation, with a three-block structure. Block 1 ranges from 4,001 gallons to 12,000 gallons, Block 2 ranges from 12,001 to 35,000 gallons and Block 3 is applied to all usage above 35,000 gallons. Commercial customers are charge a uniform rate for all consumption above 4,000 gallons. The current wastewater base charge is a fixed monthly amount applied to each customer pursuant to certain characteristics. For residential customers, the wastewater base charge serves as a flat charge for wastewater service and is uniform for all connection sizes. For non-residential connections, the wastewater base charge increases pursuant to the water meter size used for service and includes a certain number of gallons per month, which are identified on Table 3. For consumption above the minimum gallons, the non-residential customers pay a uniform consumption rate per 1,000 gallons. The City charges 35% more to water and wastewater customers outside of the City limits.

### Table 1: Existing FY 2021 Water Rates

| Description | Inside City | Outside City |
|---|---|---|
| **Base Charge** | | |
| All Customer Classes | $11.55 | $15.59 |
| **Usage Charges per 1,000 Gallons** | | |
| Residential | | |
| Block 1 (4,001 - 12,000) | $2.08 | $2.81 |
| Block 2 (12,001 - 35,000) | $3.13 | $4.23 |
| Block 3 (Above 35,000) | $4.17 | $5.63 |
| Commercial All Usage | $2.87 | $3.87 |

### Table 2: Existing FY 2021 Wastewater Rates

| Description | Inside City | Outside City |
|---|---|---|
| **Base Charge** | | |
| All Customer Types | | |
| 3/4" | $40.82 | $55.11 |
| 1" | $68.87 | $92.96 |
| 1 1/2" | $138.98 | $187.63 |
| 2" | $279.23 | $376.95 |
| 3" | $559.72 | $755.62 |
| 4" | $1,120.68 | $1,512.92 |
| 6" | $2,242.63 | $3,027.55 |
| 8" | $4,486.51 | $6,056.79 |
| 10" | $8,974.28 | $12,115.28 |
| **Usage Charges per 1,000 Gallons** | | |
| Residential [1] | $0.00 | $0.00 |
| Non-Residential | $7.01 | $9.47 |

[1] Residential users are not charged a usage charge.

### Table 3: Existing FY 2021 Wastewater Minimum Gallons

| Meter Size | Minimum Gallons |
|---|---|
| 3/4" | 6,000 |
| 1" | 10,000 |
| 1 1/2" | 20,000 |
| 2" | 40,000 |
| 3" | 80,000 |
| 4" | 160,000 |
| 6" | 320,000 |
| 8" | 640,000 |
| 10" | 1,280,000 |

# Current and Projected Customers

The City provided two fiscal years of historical billing statistics in Microsoft-Excel format which included data on every bill issued during the FY 2019 and FY 2020 period. The statistics included account numbers, customer type, water meter size, metered monthly usage, and the annual bill amounts. The historical customers served and the trends in growth and water use/billed wastewater flow per equivalent residential unit (ERU) provided the basis for the forecast of customers through FY 2026.

The table below summarizes the historical FY 2020 customer statistics for the water system which served as the basis for the forecast of the billing determinates for the water system and the corresponding rate revenues.

**Table 4: Historical FY 2020 Water Customer Statistics**

| Description | FY 2020 |
|---|---|
| Residential Inside City | |
| Accounts | 6,577 |
| ERUs | 6,577 |
| Annual Consumption (1,000s of gallons) | 682,684 |
| Average Monthly Use per ERU | 8.7 |
| Residential Outside City | |
| Accounts | 5,228 |
| ERUs | 5,228 |
| Annual Consumption (1,000s of gallons) | 341,414 |
| Average Monthly Use per ERU | 5.4 |
| Commercial Inside City | |
| Accounts | 656 |
| ERUs | 656 |
| Annual Consumption (1,000s of gallons) | 536,489 |
| Average Monthly Use per ERU | 68.2 |
| Commercial Outside City | |
| Accounts | 282 |
| ERUs | 282 |
| Annual Consumption (1,000s of gallons) | 65,373 |
| Average Monthly Use per ERU | 19.3 |
| City Inside City | |
| Accounts | 139 |
| ERUs | 139 |
| Annual Consumption (1,000s of gallons) | 100,038 |
| Average Monthly Use per ERU | 60.0 |
| Total | |
| Accounts | 12,882 |
| ERUs | 12,882 |
| Annual Consumption (1,000s of gallons) | 1,725,998 |
| Average Monthly Use per ERU | 11.2 |

As shown above, there were approximately 12,900 water customers in FY 2020. The average monthly use per ERU is about 11,000 gallons per month.

### Table 5: Historical FY 2020 Wastewater Customer Statistics

| Description | FY 2020 |
|---|---|
| Residential Inside City | |
| Accounts | 5,361 |
| ERUs | 5,361 |
| Annual Consumption (1,000s of gallons) | 623,393 |
| Average Monthly Use per ERU | 9.7 |
| Residential Outside City | |
| Accounts | 2,274 |
| ERUs | 2,274 |
| Annual Consumption (1,000s of gallons) | 158,528 |
| Average Monthly Use per ERU | 5.8 |
| Commercial Inside City | |
| Accounts | 420 |
| ERUs | 948 |
| Annual Consumption (1,000s of gallons) | 80,244.0 |
| Average Monthly Use per ERU | 7 |
| Commercial Outside City | |
| Accounts | 55 |
| ERUs | 399 |
| Annual Consumption (1,000s of gallons) | 29,080 |
| Average Monthly Use per ERU | 6.1 |
| City Inside City | |
| Accounts | 23 |
| ERUs | 84 |
| Annual Consumption (1,000s of gallons) | 87,636 |
| Average Monthly Use per ERU | 86.9 |
| City Outside City | |
| Accounts | 1 |
| ERUs | 7 |
| Annual Consumption (1,000s of gallons) | 14,104 |
| Average Monthly Use per ERU | 167.9 |
| Total | |
| Accounts | 8,134 |
| ERUs | 9,073 |
| Annual Consumption (1,000s of gallons) | 992,985 |
| Average Monthly Use per ERU | 9.1 |

There are approximately 8,100 wastewater customers in FY 2020. The average monthly use per ERU is about 9,000 gallons per month.

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### Table 6: Historical FY 2020 Industrial Wastewater Customer Statistics

| Description | Consumption (1,000s of gallons) |
|---|---|
| Inside City | |
| Coca-Cola - 1" Domestic Meter | 1,214 |
| Bynum Transport - 1.5" | 2,675 |
| Florida Brewery - 3" | 984 |
| KIK Florida/Sewell Products - 4" | 5,954 |
| Coca-Cola - 6" | 180,579 |
| Subtotal Inside City | 191,406 |
| Outside City | |
| All Temp Storage - 3/4" | 832 |
| Board of County Commission - 3/4" | 23,840 |
| Givaudan - 2" | 5,686 |
| Packaging Corp of America - 3" | 2,939 |
| Subtotal Outside City | 33,297 |

The billing frequency analysis provides historical actual data associated with the number of accounts and ERUs together with the average monthly billable consumption per rate block per ERU by customer class. These billable flows per block are considered reliable indicators for ratemaking and projection purposes, as average usage trends are not anticipated to vary materially from year to year except for periods experiencing unusual weather conditions. Conversations with City staff together with an understanding of recent trends and maintaining a conservative approach to forecasting customer growth, an annual average water customer growth rate of 4.5% is assumed in FY 2021 and 2022, 2.9% in FY 2023 and 2024, and an annual average of 2.0% in FY 2025 and 2026. The wastewater customer growth is based on the water customer forecast, and assumes that all new development has both water and wastewater services.

A summary of the forecasted growth in water customer accounts, ERUs and billable consumption are provided in the table below with more detailed information by customer class provided in Exhibit 3 at the end of this report.

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## Table 7: Water Customer Forecast

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Residential Inside City | | | | | | |
| Accounts | 6,970 | 7,350 | 7,570 | 7,800 | 7,960 | 8,120 |
| ERUs | 6,970 | 7,350 | 7,570 | 7,800 | 7,960 | 8,120 |
| Annual Consumption (1,000s of gallons) | 723,500 | 762,900 | 785,800 | 809,600 | 826,200 | 842,900 |
| Average Monthly Use per ERU | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 |
| Residential Outside City | | | | | | |
| Accounts | 5,440 | 5,660 | 5,830 | 6,000 | 6,120 | 6,240 |
| ERUs | 5,440 | 5,660 | 5,830 | 6,000 | 6,120 | 6,240 |
| Annual Consumption (1,000s of gallons) | 355,100 | 369,500 | 380,600 | 391,700 | 399,500 | 407,300 |
| Average Monthly Use per ERU | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 |
| Commercial Inside City | | | | | | |
| Accounts | 660 | 670 | 680 | 690 | 700 | 710 |
| ERUs | 660 | 670 | 680 | 690 | 700 | 710 |
| Annual Consumption (1,000s of gallons) | 539,700 | 547,900 | 556,100 | 564,300 | 572,500 | 580,600 |
| Average Monthly Use per ERU | 68.2 | 68.2 | 68.2 | 68.2 | 68.2 | 68.2 |
| Commercial Outside City | | | | | | |
| Accounts | 285 | 288 | 291 | 294 | 297 | 300 |
| ERUs | 285 | 288 | 291 | 294 | 297 | 300 |
| Annual Consumption (1,000s of gallons) | 66,100 | 66,800 | 67,500 | 68,200 | 68,900 | 69,600 |
| Average Monthly Use per ERU | 19.3 | 19.3 | 19.3 | 19.3 | 19.3 | 19.3 |
| City Inside City | | | | | | |
| Accounts | 139 | 139 | 139 | 139 | 139 | 139 |
| ERUs | 139 | 139 | 139 | 139 | 139 | 139 |
| Annual Consumption (1,000s of gallons) | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| Average Monthly Use per ERU | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total | | | | | | |
| Accounts | 13,494 | 14,107 | 14,510 | 14,923 | 15,216 | 15,509 |
| ERUs | 13,494 | 14,107 | 14,510 | 14,923 | 15,216 | 15,509 |
| Annual Consumption (1,000s of gallons) | 1,784,400 | 1,847,100 | 1,890,000 | 1,933,800 | 1,967,100 | 2,000,400 |
| Average Monthly Use per ERU | 11.0 | 10.9 | 10.9 | 10.8 | 10.8 | 10.7 |

A summary of the forecasted growth in wastewater customers is provided in the table below with more detail provided in Exhibit 4. As shown in the table, the wastewater customer base is projected to grow by an average of 430 new customers per year through FY 2026.

**Table 8: Wastewater Customer Forecast**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Residential Inside City | | | | | | |
| Accounts | 5,750 | 6,130 | 6,350 | 6,580 | 6,740 | 6,900 |
| ERUs | 5,750 | 6,130 | 6,350 | 6,580 | 6,740 | 6,900 |
| Annual Consumption (1,000s of gallons) | 668,600 | 712,800 | 738,400 | 765,100 | 783,700 | 802,300 |
| Average Monthly Use per ERU | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 |
| Residential Outside City | | | | | | |
| Accounts | 2,490 | 2,710 | 2,880 | 3,050 | 3,170 | 3,290 |
| ERUs | 2,490 | 2,710 | 2,880 | 3,050 | 3,170 | 3,290 |
| Annual Consumption (1,000s of gallons) | 173,600 | 188,900 | 200,800 | 212,600 | 221,000 | 229,400 |
| Average Monthly Use per ERU | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Commercial Inside City | | | | | | |
| Accounts | 420 | 420 | 420 | 420 | 420 | 420 |
| ERUs | 960 | 970 | 980 | 990 | 1,000 | 1,010 |
| Annual Consumption (1,000s of gallons) | 81,200 | 82,100 | 82,900 | 83,800 | 84,600 | 85,400 |
| Average Monthly Use per ERU | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |
| Commercial Outside City | | | | | | |
| Accounts | 56 | 57 | 58 | 59 | 60 | 61 |
| ERUs | 403 | 407 | 411 | 415 | 419 | 423 |
| Annual Consumption (1,000s of gallons) | 29,400 | 29,600 | 29,900 | 30,200 | 30,500 | 30,800 |
| Average Monthly Use per ERU | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| City Inside City | | | | | | |
| Accounts | 23 | 23 | 23 | 23 | 23 | 23 |
| ERUs | 84 | 84 | 84 | 84 | 84 | 84 |
| Annual Consumption (1,000s of gallons) | 87,600 | 87,600 | 87,600 | 87,600 | 87,600 | 87,600 |
| Average Monthly Use per ERU | 86.9 | 86.9 | 86.9 | 86.9 | 86.9 | 86.9 |
| Total | | | | | | |
| Accounts | 8,739 | 9,340 | 9,731 | 10,132 | 10,413 | 10,694 |
| ERUs | 9,687 | 10,301 | 10,705 | 11,119 | 11,413 | 11,707 |
| Annual Consumption (1,000s of gallons) | 1,040,400 | 1,101,000 | 1,139,600 | 1,179,300 | 1,207,400 | 1,235,500 |
| Average Monthly Use per ERU | 9.0 | 8.9 | 8.9 | 8.8 | 8.8 | 8.8 |
| | 621 | 601 | 391 | 401 | 281 | 281 |

Industrial customer consumption is assumed to remain constant throughout the forecast period as shown on table 9 below with more detail provided on Exhibit 7:

**Table 9: Industrial Wastewater Consumption Forecast (1,000 Gallons)**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Inside City | | | | | | |
| Coca-Cola - 1" Domestic Meter | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Bynum Transport - 1.5" | 2,600 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 |
| Florida Brewery - 3" | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| KIK Florida/Sewell Products - 4" | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 |
| Coca-Cola - 6" | 180,600 | 180,600 | 180,600 | 180,600 | 180,600 | 180,600 |
| Subtotal Inside City | 191,400 | 191,500 | 191,500 | 191,500 | 191,500 | 191,500 |
| Outside City | | | | | | |
| All Temp Storage - 3/4" | 800 | 800 | 800 | 800 | 800 | 800 |
| Board of County Commission - 3/4" | 23,800 | 23,800 | 23,800 | 23,800 | 23,800 | 23,800 |
| Givaudan - 2" | 5,700 | 5,700 | 5,700 | 5,700 | 5,700 | 5,700 |
| Packaging Corp of America - 3" | 2,900 | 2,900 | 2,900 | 2,900 | 2,900 | 2,900 |
| Subtotal Outside City | 33,200 | 33,200 | 33,200 | 33,200 | 33,200 | 33,200 |

# Section 3. Revenue Requirements

## General

The City recovers the cost of providing water and wastewater services through the monthly user rates, fees, and impact fees. Operating cash revenue requirements is the term that defines the various components of cost associated with operating and maintaining the City's utility service. The sum of these cost components, less other income, represents the net revenue requirements that are funded from the monthly user rates and/or fees. The projected revenue requirements over the Forecast Period include the various generalized cost components described below:

- Operating and Maintenance (O&M) Expenses: These expenses include the cost of labor, insurance, utilities, contractual services, maintenance, materials, supplies, administration and other items necessary for the operation and maintenance related to providing services.
- Debt Service: Debt service includes the principal and interest on outstanding debt obligations payable from the net operating revenues. The projected revenue requirements also include the assumption that there will be additional debt during the Forecast Period to fund certain larger capital improvements.
- Other Revenue Requirements: This component of cost includes, in general, any ongoing capital improvements to be financed from revenues, transfers to reserves for future infrastructure rehabilitation or construction, transfers to the general fund, and funding of certain capital projects on a pay-as-you-go basis.

## Projected Net Rate Requirements

The projected net rate requirements to be recovered through the monthly user rates, fees and charges were identified using the City's budgets for FY 2021 and FY 2022. Projections for fiscal years 2023 through 2026, reflect the anticipated impacts of inflation, labor and benefit adjustments, growth, and other increases affecting utilities. These impacts are addressed on a budget line-item basis using specific escalation factors. This process results in fiscal and net rate requirements that reasonably reflect future economic operating conditions of the Utility.

The primary assumptions utilized in the projection of net rate requirements for the years subsequent to FY 2022 are:

- Expenditures anticipated to be impacted by general inflation increase at 2.2 percent annually.
- Personnel salaries, merit and associated benefits increase 3.5 percent annually.
- Five additional personnel are assumed to be added during the Forecast Period.
- The general fund transfer and the contribution to the general fund are kept constant.
- Miscellaneous revenues, such as meter installations and late charges, are projected to increase by general inflation.
- In order to keep rate adjustments to a minimum, a new debt issue is anticipated during the Forecast Period and is assumed to be a state revolving fund (SRF) loan.

Based on the primary assumptions mentioned above, a summary of the projected amounts, for water and wastewater by major category are provided on Tables 10 and 11 as summarized from Exhibits 10 and 11. It should be noted that projections are based on anticipated events and assumptions that are subject to change; therefore, no assurance can be given with respect to the accuracy of such projections.

### Table 10: Water Projected Net Rate Requirements

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Water Operating Expenses | $2,519,840 | $2,879,600 | $2,985,900 | $3,062,000 | $3,140,100 | $3,220,200 |
| PRWC Operating Expenses | 0 | 0 | 0 | 0 | 1,300,000 | 1,820,000 |
| Total Operating Expenses | $2,519,840 | $2,879,600 | $2,985,900 | $3,062,000 | $4,440,100 | $5,040,200 |
| Existing Debt Service | 649,600 | 650,000 | 649,800 | 648,700 | 612,700 | 603,100 |
| Proposed Debt Service | 0 | 0 | 0 | 0 | 0 | 0 |
| Capital Funded by Rates | 93,000 | 213,700 | 26,500 | 21,900 | 0 | 0 |
| General Fund Transfer | 1,771,850 | 1,781,350 | 1,781,400 | 1,781,400 | 1,781,400 | 1,781,400 |
| Contribution to the General Fund | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| Total Rate Revenue Requirements | $5,284,290 | $5,774,650 | $5,693,600 | $5,764,000 | $7,084,200 | $7,674,700 |
| Less Revenue from Other Sources [1] | 525,980 | 542,520 | 564,700 | 581,110 | 600,160 | 606,870 |
| Net Revenue Requirements | 4,758,310 | 5,232,130 | 5,128,900 | 5,182,890 | 6,484,040 | 7,067,830 |

[1] Amount excludes water impact fees that will be used to pay annual debt service requirements.

The water net rate requirements are projected to increase from $4.8 million in FY 2021 to $7.1 million by FY 2026. This increase can be primarily attributable to increases in operating and maintenance expenses due to additional personnel and inflationary pressures and the PRWC costs associated with the alternative water supply needs.

The projected net rate requirements for the wastewater system, net of income other than monthly rate revenue sources, estimated to be needed from the user rates and charges are summarized below:

### Table 11: Wastewater Projected Net Rate Requirements

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Wastewater Operating Expenses | $3,438,970 | $3,454,170 | $3,574,800 | $3,699,000 | $3,827,800 | $3,925,300 |
| Existing Debt Service | 1,948,900 | 1,949,900 | 1,949,300 | 1,946,300 | 1,838,300 | 1,809,500 |
| Proposed Debt Service | 0 | 0 | 0 | 453,800 | 453,800 | 453,800 |
| Capital Funded by Rates | 99,900 | 0 | 26,500 | 32,800 | 0 | 0 |
| General Fund Transfer | 1,771,850 | 1,781,350 | 1,781,400 | 1,781,400 | 1,781,400 | 1,781,400 |
| Contribution to the General Fund | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| Total Rate Revenue Requirements | $7,509,620 | $7,435,420 | $7,582,000 | $8,163,300 | $8,151,300 | $8,220,000 |
| Less Revenue from Other Sources [1] | 336,230 | 347,140 | 363,560 | 373,880 | 387,110 | 387,670 |
| Net Revenue Requirements | $7,173,390 | $7,088,280 | $7,218,440 | $7,789,420 | $7,764,190 | $7,832,330 |

[1] Amount excludes wastewater impact fees that will be used to pay annual debt service requirements.

The wastewater system is also anticipated to experience cost escalations due to being in a growing environment, inflationary pressures, and the additional personnel assumptions. Additionally, there is the Regional treatment plant Sprayfield expansion, which will require SRF debt funding.

## Capital Improvement Requirements and Funding

The capital expenditures planned through FY 2026 are based on the City's capital improvement program (CIP) provided by staff. The combined water and wastewater six-year CIP demonstrates the need for approximately $34.1 million of projects. Funding for these improvements is projected to be from a variety of mechanisms including, but not limited to, unrestricted reserve funds, impact fees, utility rates, the American Rescue Act Funds (ARA Funds), and new debt. The table below illustrates the anticipated funding sources for the five-year CIP.

**Table 12: Combined Six-Year Capital Improvement Program Funding**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | Total |
|---|---|---|---|---|---|---|---|
| User Rates and Reserves | $3,614,500 | $2,851,800 | $3,295,000 | $2,399,700 | $3,466,500 | $1,124,500 | $16,752,000 |
| Impact Fees | 0 | 0 | 0 | 3,000,000 | 0 | 0 | 3,000,000 |
| ARA Funds | 0 | 2,832,500 | 4,455,800 | 0 | 0 | 0 | 7,288,300 |
| New Debt | 0 | 0 | 1,273,100 | 3,556,400 | 2,251,000 | 0 | 7,080,500 |
| Total Funding Sources | $3,614,500 | $5,684,300 | $9,023,900 | $8,956,100 | $5,717,500 | $1,124,500 | $34,120,800 |

The timing and funding sources for each project within the CIP are provided on Exhibit 9.

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# Section 4. Revenue Sufficiency

## General

Sufficient revenues are necessary to pay for the continuing operations of the utility system providing for the health, safety and welfare of the community. The measure of revenue sufficiency is demonstrated not only by the ability to meet the annual operating requirements, but also to provide for ongoing capital asset renewals, upgrades and expansions. The initial task in determining revenue sufficiency is to identity the relative sufficiency of the revenues generated from existing rates, charges and fees to provide for: 1) projected O&M expenses; 2) debt service plus coverage and other covenant requirements for both the revenue bonds; 3) transfers to maintain reserve funds at adequate levels; and 4) capital improvement expenditures.

## Revenue Sufficiency Projections at Existing Rates

Operating revenues are projected based on: 1) the existing rates, charges and fees; 2) forecasted customers, ERUs, and sales; and 3) other revenue from miscellaneous charges, penalties, and interest earnings. The first revenue test performed and shown on the following tables are projected sufficiency from revenues at existing rate levels.

The revenues from existing water and wastewater rates are forecasted to meet the projected net rate requirements through FY 2021, as shown in Table 13 and detailed on Exhibits 10 and 11, which will be accumulated in the utility reserve fund that can be used for projects, emergencies and adequate cash reserves for creditworthiness.

**Table 13: Utility Revenue Sufficiency Forecast at Existing Rates**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Revenue from Existing Rates | $13,316,100 | $13,880,700 | $14,259,800 | $14,647,300 | $14,930,200 | $15,212,800 |
| Net Rate Requirements | 9,333,200 | 9,720,510 | 9,987,440 | 10,574,210 | 12,409,830 | 13,071,360 |
| Surplus/(Deficit) | $3,982,900 | $4,160,190 | $4,272,360 | $4,073,090 | $2,520,370 | $2,141,440 |

## Sufficiency of Projected Utility Rate Revenues

As previously discussed, the existing rates can support the net rate requirements forecast, which includes additional debt service associated with CIP funding and the first couple years of PRWC operating expenses. However, the City has a need to develop an alternative water supply reserve to help build up funds to pay for PRWC and/or other alternative water supply projects sometime in the 2025 to 2028 timeframe. Additionally, the City is not relying heavily on debt funding for it's CIP with over $34 million of projects, which means that utility rates will need to generate sufficient funds for these projects as well as to maintain and improve fund balance levels. Below are the rate adjustments identified to meet the City's needs for the next several years, based on currently available information from PRWC and the current CIP. Each of these items has the potential to change dramatically in a short period of time and should be monitored closely by the City to see if the recommendations contained herein need to be updated.

Table 14 provides the rate adjustments to address operating requirements, debt service coverage requirements, capital requirements and the minimum targets for the reserve funds through FY 2026.

**Table 14: Proposed Annual Rate Adjustments**

| Description | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Water | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Wastewater | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% |

With the implementation of the proposed rate adjustments, surpluses, as shown in Table 15, are increased to levels that provide additional funding required for the Utility's CIP and allow for development of a reserve fund for alternative water supply projects.

**Table 15: Utility Revenue Sufficiency Forecast with Rate Adjustments**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Revenue from Proposed Rates | $13,316,100 | $14,166,673 | $14,856,153 | $15,580,058 | $16,218,795 | $16,881,400 |
| Net Rate Requirements | 9,333,200 | 9,720,510 | 9,987,440 | 10,574,210 | 12,409,830 | 13,071,360 |
| Surplus/(Deficit) | $3,982,900 | $4,446,163 | $4,868,713 | $5,005,848 | $3,808,965 | $3,810,040 |

# Debt Service Coverage

An important financial metric is debt service coverage, which is one of the most talked about and utilized financial indicators in the utility industry because of the nature of funding capital assets. The required coverage ratios established within the rate covenant provisions of the Bond Resolution or SRF Debt Purchase Agreement are intended to provide a buffer in the event of sudden downturns resulting in reduced revenues. The coverage ratios are generally only a minimum required coverage level. However, prudent utility rate setting provides for coverage ratios significantly greater than the minimum requirement as evidence by the medians reported in the Fitch 2020 Report.

The Bond Resolution has coverage requirements of: 1) Net Revenue at 120 percent of Annual Debt Service; and 2) 100 percent of any amounts required to the Reserve Subaccount. It is prudent that the Utility Enterprise strive to maintain coverage at or above 150 percent on a combined senior and subordinate debt service coverage, Table 16 provides the debt service calculation for the combined utility:

**Table 16: Debt Service Coverage Forecast – Utility**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Net Operating Revenues | $8,219,500 | $8,722,563 | $9,223,713 | $9,773,848 | $8,938,165 | $8,910,440 |
| Other Expenses/Transfers | 4,236,600 | 4,276,400 | 4,115,800 | 4,117,500 | 4,062,800 | 4,062,800 |
| Impact Fees Applied to Debt Service | 2,598,500 | 2,599,900 | 2,359,900 | 2,398,300 | 1,838,400 | 1,828,800 |
| Total Debt Service | 2,598,500 | 2,599,900 | 2,599,100 | 3,048,800 | 2,904,800 | 2,866,400 |
| **Debt Service Coverage Excluding Transfers** | | | | | | |
| Calculated | 3.16 | 3.35 | 3.55 | 3.21 | 3.08 | 3.11 |
| Required | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| **Debt Service Coverage Including Transfers** | | | | | | |
| Calculated | 1.53 | 1.71 | 1.97 | 1.86 | 1.68 | 1.69 |
| Targeted | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 |
| **Debt Service Coverage Transfers and Impact Fees** | | | | | | |
| Calculated | 2.53 | 2.71 | 2.87 | 2.64 | 2.31 | 2.33 |

# Projected Reserve Fund Balances

The primary reserve funds for the objectives in this study consist of the Utility Reserve Fund, Renewal and Replacement Fund (R&R Fund), Water Impact Fee Fund, and Sewer Impact Fee Fund. Additionally, it is recommended that the Utility begin setting aside funds each year in an alternative water supply reserve, which will allow for tracking funds that are intended for use for alternative water projects, including the potential future PRWC projects. The primary benefit of setting up this alternative water supply reserve is the ability to buy down future debt obligations that the PRWC will take out on the City's behalf, which reduces future amounts due to PRWC.

The Utility Reserve Fund provides for the accumulation and expenditure of unrestricted earnings of the utility. The Water and Sewer Impact Fee reserve funds are limited to expenditures for improvements and debt service directly associated with capacity expansion of the systems. The R&R Fund is required to maintain a balance of $250,000 in accordance with the Series 2006 Revenue Loan. A key financial measure of the financial stability, health and creditworthiness of a utility and enterprise fund is the ability to maintain adequate levels of unrestricted funds. It is recommended that the City keeps at least 90 days of O&M expenses for the Utility Reserve Fund.

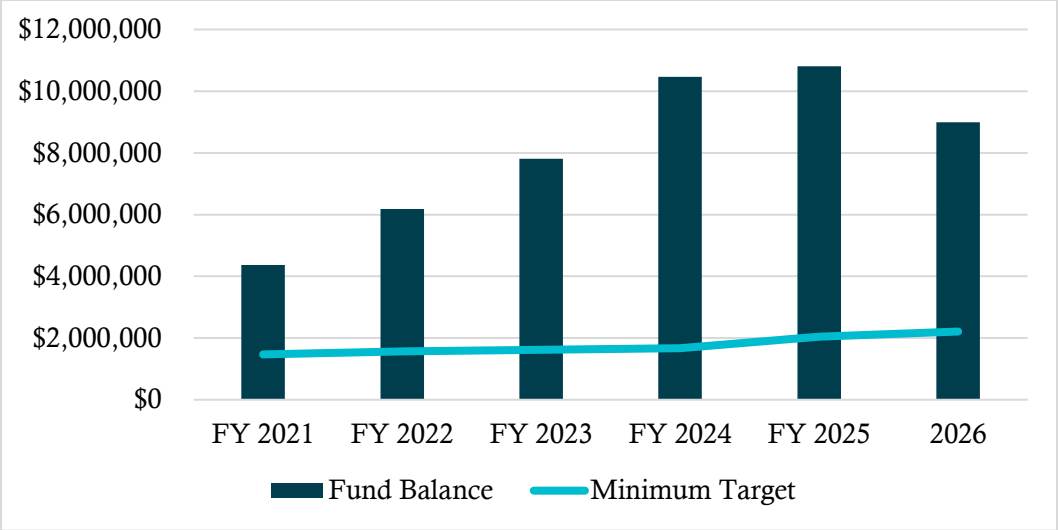
The projected reserve fund balances resulting from inflows based on the rate adjustments and projected outflows in support of the O&M expenses, debt service, and capital improvements are illustrated first on Table 17 and then in Figures 1, 2, and 3 below as summarized from Exhibit 13. These projections illustrate the relative activities in each reserve fund and demonstrate the levels of funds available for discretionary (amounts above minimum fund balances) capital expenditures, which should be reviewed each fiscal year and adjusted pursuant to the then current financial conditions.

**Table 17: Project Reserve Fund Balances**

| Description | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|---|
| Utility Reserve Funds [1] | | | | | | |
| Beginning Balance | $3,809,404 | $4,370,704 | $6,178,767 | $7,805,480 | $10,466,327 | $10,808,792 |
| Transfers In | 3,982,900 | 4,446,163 | 4,868,713 | 5,005,848 | 3,808,965 | 3,810,040 |
| Transfers Out | (3,421,600) | (2,638,100) | (3,242,000) | (2,345,000) | (3,466,500) | (5,624,500) |
| Ending Balance | $4,370,704 | $6,178,767 | $7,805,480 | $10,466,327 | $10,808,792 | $8,994,332 |
| Renewal & Replacement Fund | | | | | | |
| Beginning Balance | $250,000 | $250,000 | $250,000 | $250,000 | $250,000 | $250,000 |
| Transfers In | 0 | 0 | 0 | 0 | 0 | 0 |
| Transfers Out | 0 | 0 | 0 | 0 | 0 | 0 |
| Ending Balance | $250,000 | $250,000 | $250,000 | $250,000 | $250,000 | $250,000 |
| Water Impact Fee Fund | | | | | | |
| Beginning Balance | $777,628 | $960,328 | $1,746,128 | $2,044,328 | $2,365,628 | $2,432,428 |
| Transfers In | 832,300 | 1,435,800 | 948,000 | 970,000 | 679,500 | 679,500 |
| Transfers Out | (649,600) | (650,000) | (649,800) | (648,700) | (612,700) | (603,100) |
| Ending Balance | $960,328 | $1,746,128 | $2,044,328 | $2,365,628 | $2,432,428 | $2,508,828 |
| Sewer Impact Fee Fund | | | | | | |
| Beginning Balance | $2,016,785 | $2,663,085 | $3,303,085 | $3,303,085 | $303,085 | $303,085 |
| Transfers In | 2,595,200 | 2,589,900 | 1,710,100 | 1,749,600 | 1,225,700 | 1,225,700 |
| Transfers Out | (1,948,900) | (1,949,900) | (1,710,100) | (1,749,600) | (1,225,700) | (1,225,700) |
| Ending Balance | $2,663,085 | $3,303,085 | $3,303,085 | $3,303,085 | $303,085 | $303,085 |

[1] Includes the Utility Reserve Fund, Utility Emergency Fund, and Alternative Water Fund as further detailed on Exhibit 13.

**Figure 1: Unrestricted Reserves Fund Forecast**




Note: amounts include the alternative water supply reserve.

**Figure 2: Water and Sewer Impact Fee Fund Forecast**

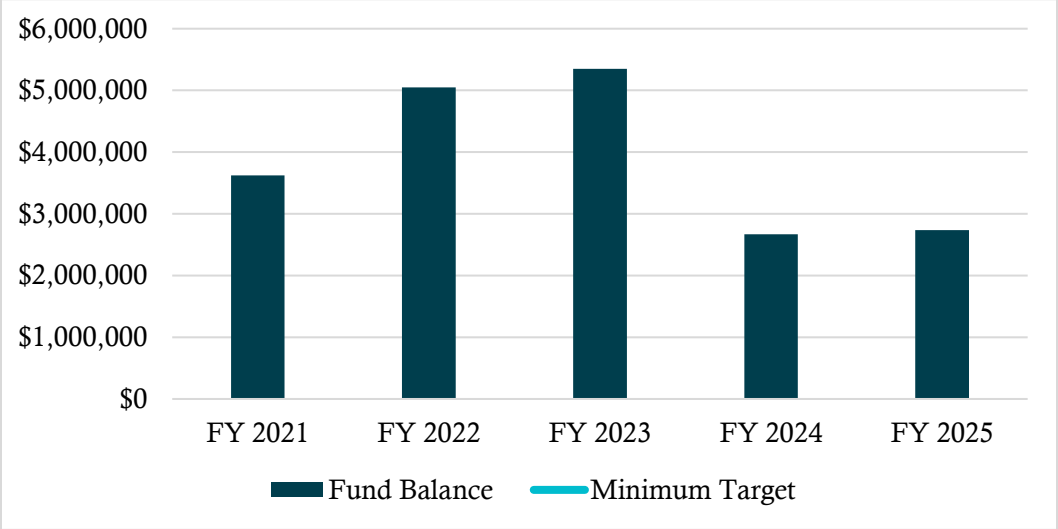
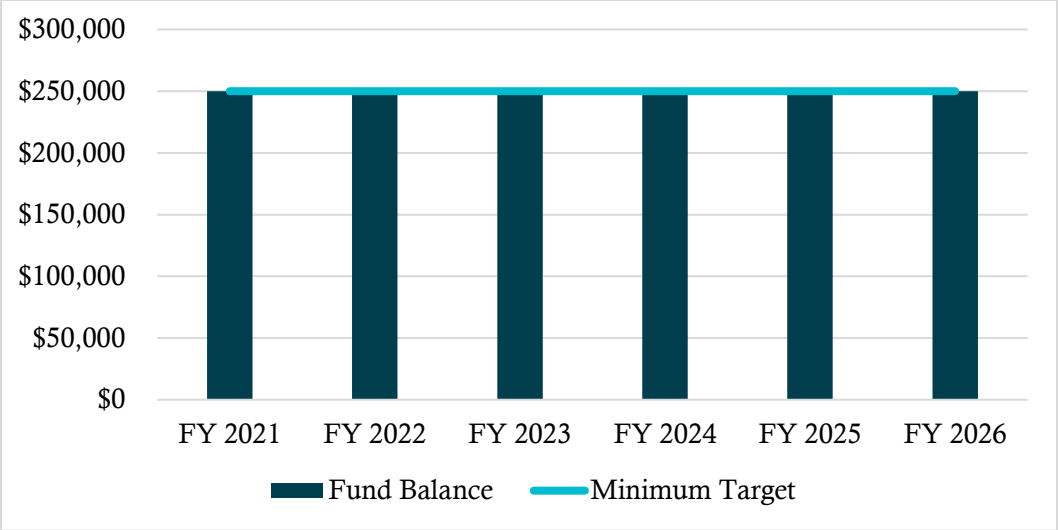


**Figure 3: R&R Fund Forecast**




Note: R&R Fund is maintained at the minimum requirement pursuant to the debt service covenants.

# Section 5. Rate Design

## General

The Utility maintains a just and equitable rate structure and rates; however, certain modifications and adjustments have been identified based on results of a detailed billing frequency analysis and to better align with City objectives. The primary objective being addressed by the recommended rate structure changes is water conservation. The City is currently in a position where in the near future alternative water supplies will be necessary to supplement demands from growth. This alternative water will be much more costly both in capital and operating than the City's existing groundwater supply. Therefore, any actions taken by the Utility and customers to reduce consumption and thereby reduce the need for future alternative water, will have significant financial advantages for all Utility customers.

### WATER BASE CHARGES

The City currently charges a single base charge for all customer classes regardless of meter size and includes a minimum of 4,000 gallons monthly per account. Based on industry trends and the Utility's current objectives around water conservation, the minimum gallons in the water base charge are being eliminated. This will transition customers more to a pay for what you use methodology, which will influence the water conservation efforts. Additionally, larger meter sizes currently pay the same monthly base charge as a typical single family connection even though the potential for demands on the system is much greater. The base charges for commercial customers will be increased as the meter size increases, similar to how wastewater is currently applied. The factors used to determine the charge for each meter size will be related to the American Water Works Association (AWWA) meter size flow factors from the M6 manual.

### WASTEWATER BASE CHARGES

As previously mentioned, the wastewater base charges are currently designed to increase as the meter size used for service increases to reflect the potential demand on the system. To maintain equitability and have a uniform application, the factors applied to larger meter sizes will be adjusted to match the AWWA meter size flow factors that are being applied to the water base charges.

### WATER VOLUMETRIC RATES

Water consumption is billed based on an established rate per 1,000 gallons with tiers that increase the rate as consumption increases each month. This is a typical water volumetric rate structure in the utility industry. However, based on the desire to encourage water conservation certain adjustments to this tiered structure are being recommended. First, with the elimination of the minimum gallons in the base charge a new first block is being established to capture the first 4,000 gallons. Above 4,000 gallons, the amount of gallons included in each tier are being reduced and the rates applied to tiers 3 and 4 are being increased, all in an effort to promote water conservation.

## Rate Design Results

Based on the objectives identified above, and using the costs and number of customers presented in prior sections of this report the following tables present the proposed inside City water and wastewater rates for implementation in FY 2022 (beginning October 1, 2021). Outside City customers will pay an additional 25%, per existing City policy.

### Table 18: Proposed Residential Inside Water Rates

| Rate Component | FY 2021 | Rate Design |
|---|---|---|
| Base Charge | | |
| All Meters | $11.55 | $7.99 |
| Usage Charges | | |
| Minimum | $0.00 | N/A |
| Block 1 | $2.08 | $1.03 |
| Block 2 | $3.13 | $2.06 |
| Block 3 | $4.17 | $3.43 |
| Block 4 | N/A | $4.80 |
| Consumption Blocks (in 1,000s) | | |
| Minimum | 0 – 4 | N/A |
| Block 1 | 4 – 12 | 0 – 4 |
| Block 2 | 12 – 35 | 4 – 10 |
| Block 3 | Above 35 | 10 – 20 |
| Block 4 | N/A | Above 20 |

### Table 19: Proposed Commercial Inside Water Rates

| Rate Component | FY 2021 | Rate Design |
|---|---|---|
| Base Charge | | |
| ¾" Meter | $11.55 | $7.99 |
| 1" Meter | $11.55 | $19.98 |
| 1 ½" Meter | $11.55 | $39.95 |
| 2" Meter | $11.55 | $63.92 |
| 3" Meter | $11.55 | $127.84 |
| 4" Meter | $11.55 | $199.75 |
| 6" Meter | $11.55 | $399.50 |
| 8" Meter | $11.55 | $639.20 |
| 10" Meter | $11.55 | $918.82 |
| Usage Charges | | |
| Minimum | $0.00 | N/A |
| Block 1 | $2.87 | $2.87 |
| Consumption Blocks (in 1,000s) | | |
| Minimum | 0 – 4 | N/A |
| Block 1 | Above 4 | All Usage |

### Table 20: Proposed Residential Inside Wastewater Rates

| Rate Component | FY 2021 | Rate Design |
|---|---|---|
| Base Charge | | |
| All Meters | $40.82 | $41.13 |
| Usage Charges | N/A | N/A |

### Table 21: Proposed Commercial Inside Wastewater Rates

| Rate Component | FY 2021 | Rate Design |
|---|---|---|
| Base Charge | | |
| ¾" Meter | $40.82 | $41.13 |
| 1" Meter | $68.87 | $102.83 |
| 1 ½" Meter | $138.98 | $205.65 |
| 2" Meter | $279.23 | $329.04 |
| 3" Meter | $559.72 | $658.08 |
| 4" Meter | $1,120.68 | $1,028.25 |
| 6" Meter | $2,242.63 | $750.00 |
| 8" Meter | $4,486.51 | $3,290.40 |
| 10" Meter | $8,974.28 | $4,729.95 |
| Usage Charges | | |
| Minimum (0-6,000) [1] | $0.00 | $0.00 |
| Above Minimum | $7.01 | $7.01 |

[1] Minimum gallons increase as the meter size increases as shown on Table 22.

### Table 22: Wastewater Minimum Gallons by Meter Size

| Meter Size | Gallons Included |
|---|---|
| ¾" Meter | 6,000 |
| 1" Meter | 15,000 |
| 1 ½" Meter | 30,000 |
| 2" Meter | 48,000 |
| 3" Meter | 96,000 |
| 4" Meter | 150,000 |
| 6" Meter | 300,000 |
| 8" Meter | 480,000 |
| 10" Meter | 690,000 |

## Rate Design Customer Bill Impacts

The tables and discussion below have been included for information purposes. Any change of rate structure has the potential for larger impacts to certain customers or customer classes.

Below is a table illustrating impacts at various usage levels for a majority of the System's customers, single family inside city using less than 25,000 gallons per month of combined water and sewer services. The cumulative percentage of single family water bills has been included to provide context for how these proposed rates will impact the customer base. For example, at the 4,000-gallon level 50.6% of the single family customers have been billed.

### Table 23: Single Family Sample Bill Impacts (Water and Wastewater)

| Usage | Existing Rates | Proposed Rates | Difference | Cumulative % Single Family Bills |
|---|---|---|---|---|
| 0 | $52.37 | $49.12 | ($3.25) | 10.5% |
| 3,000 | $52.37 | $52.20 | ($0.17) | 40.1% |
| 4,000 | $52.37 | $53.23 | $0.86 | 50.6% |
| 5,000 | $54.45 | $55.29 | $0.83 | 59.1% |
| 10,000 | $64.85 | $65.56 | $0.71 | 80.7% |
| 25,000 | $109.70 | $123.79 | $14.09 | 92.1% |

# Section 6 – Water Impact Fee

## Introduction

Water impact fees are one-time charges assessed against new water customers or developers to recover a proportional share of the capital costs incurred by the City to provide water capacity for new customers. This capacity may be already constructed, funded, and available in existing facilities, or the service capacity may be planned and included as future capital projects in a CIP. Impact fees are an important funding mechanism to ensure justifiable cost recovery and to limit the burden of water ratepayers funding growth-related projects.

This section of the report includes a review of the City's existing water impact fee and discusses the updated calculation of the proposed impact fees. Additionally, this section includes a comparison of the existing and calculated fees with other nearby utilities.

## Existing Water Impact Fees

The City's existing water impact fees were last updated in 2006, pursuant to Ordinance No. 1230, and are charged to new customers for connection to the City's water system. Single family residential customers are charged $1,264.99 for each new inside City connection and commercial, industrial, and all non-residential connections are assessed the impact fee based on certain attributes for each type of development, as provided in Ordinance No. 1230. The City charges 25% more to connections outside the City limits.

## Impact Fee Methodologies

There are numerous approaches to determining impact fees that have been adopted by water utilities across the state of Florida and the country. However, two approaches are most often used and are recognized in the industry as cost-justified by the American Water Works Association (AWWA) and Water Environmental Federation (WEF)[1]. These two approaches are the System Buy-In method and the Incremental Cost method.

Under the System Buy-In method, impact fees are based upon the "buy-in" concept that existing users, through service charges and other up-front charges, have developed a valuable public capital facility. This method is appropriate for utility systems, or components of utility systems, with additional capacity already in place, and provides an estimate of the cost of providing a unit of capacity based upon the net equity of the existing assets. This method calculates a fee based upon the proportional cost of each user's share of the existing system capacity available for new customers. The costs of the facilities are based on a review of fixed asset records and can be based on original asset costs, or may include escalation of the original asset costs to current dollars. Excluded from the calculation are local service lines that are dedicated to serving only existing customers, vehicle and minor equipment costs, and assets contributed by or paid for by developers.

The Incremental Cost method focuses on the cost of adding additional facilities to serve new customers. It is most appropriate in situations where additional capacity and/or trunk line extensions/expansions to provide service to new customers and the costs of the capacity can be tied to an approved CIP or master plan, such as the PRWC project. Under this method, it is important that any proposed capital projects required to address deficiencies in the

[1] AWWA Manual M26 – Water Rates and Related Charges, Ch. 3: System Development Charges, pp. 19-33.

existing facilities be excluded from the determination of the impact fee. This includes projects required to meet new or existing regulatory requirements and/or renewals and replacements of existing facilities.

The impact fee proposed in this report is based on a hybrid method as there is consideration that the City has a significant investment in existing assets and has identified certain required improvements over the next several years to serve new growth. The PRWC projects reflect a significantly higher cost per gallon than the existing City water capacity. The costs of PRWC have been blended with the City's existing capacity to begin capturing some of this cost from new development that is causing the need to participate in PRWC, but does not reflect the full cost of the PRWC projects. The City should consider updating the impact fees by 2024 to ensure the appropriate alternative water projects are included in the impact fee calculation and that growth is paying an equitable share of the costs.

# Design of Water Impact Fee

Two significant components need to be addressed in the design of the water impact fees: 1) the level of service to be apportioned to the applicants that request system capacity; and 2) the amount of capital costs to be recovered from a new customer requesting service. Both of these issues are related to the level of the impact fee expressed on an equivalent residential connection (ERC) basis which represents the average capacity required to service a typical individually metered single family residential account.

## LEVEL OF SERVICE REQUIREMENTS

Level of service (LOS) is an indicator of the amount of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. LOS indicates the capacity per unit of demand for each public facility. The LOS commonly used for water service is the amount of flow (usually gallons) allocable to each ERC expressed on a daily basis. The LOS generally represents the amount of capacity allocable to an ERC, whether such capacity is actually used or not (commonly referred to as "readiness to serve"). An ERC is representative of the average capacity required to service a typical individually metered single family residential account. This class of users typically utilizes a 5/8" or 3/4" meter and represents the largest customer class served by a public utility and generally the lowest level of usage requirements for a specifically metered account.

The following table summarizes the level of service standards that were incorporated into this water impact fee analysis:

**Table 24: Level of Service per ERC**

| Service | Gallons per Day |
|---|---|
| Water | 275 |

The LOS per ERC shown above is 275 gallons per day. This LOS is based on the City's existing single family residential impact fee amount of $1,264.99.

## CAPITAL COSTS RECOVERED

Buy-In Value

Water impact fees typically include the growth-related infrastructure costs associated with water supply, treatment, and transmission. The City has made a substantial investment in these types of facilities with capacity available for new users. The water treatment plant has a permitted average daily use of 7.00 million gallons per day (MGD) and has an average daily use of 5.50 MGD to serve existing customers. Since existing capacity is available to serve a

portion of the anticipated near-term growth in the City's water service area, it is appropriate to include the value of existing facilities in the water impact fee calculation.

The value of existing assets was determined based on a combination of the City's current fixed asset records as of October 1, 2020 and the last impact fee study, which valued certain transmission assets that were placed in service prior to 2005. The fixed asset records included a complete listing of water assets with its asset number, cost basis (Original Cost), year-to-date depreciation, and date acquired for all assets except certain transmission lines placed in service prior to 2005. The total original cost of all the water fixed assets is approximately $30.8 million.

The fixed assets were also classified by functional categories such as treatment and transmission to identify which of the assets are part of the major system backbone infrastructure and thus should be part of the water impact fee calculation. Local service lines that are dedicated to serving only existing customers, vehicle and minor equipment costs, and assets contributed by or paid for by developers are not included in the water impact fee calculation. Table 25 summarizes the value of existing water assets with capacity available to serve new customers:

**Table 25: Water Fixed Asset Valuation**

| Description | Original Cost |
|---|---|
| Treatment | $15,836,423 |
| Transmission | 15,011,502 |
| Total | $30,847,925 |

Incremental Cost

The City is one of sixteen member governments in the Polk Regional Water Cooperative (PRWC), which consists of fifteen cities and Polk County. The PRWC was formed to identify alternative future water resources and projects to ensure sustainability of the regional water supply. The City joined the PRWC to assure sufficient water supply as a result of potential water supply limitations in the future. The role of PRWC specifically includes identifying sustainable groundwater sources, developing strategies that meet future water demands, determining the required infrastructure, and establishing consistent rules. This venture is unprecedented in Polk County. For the first time many participants, including the City, will be obtaining water from outside their service area boundaries, which requires extensive transmission lines. Additionally, the cost of the alternative water projects is significantly more expensive than the City's current groundwater supply, resulting in higher capital and operating expenses. The PRWC identified 205 non-traditional or alternative water supply source projects in Polk County, of which 3 have been selected as priority projects by the member governments. The 3 projects selected were the West Polk County LFA Wellfield, Southeast Wellfield, and the Peace Creek Integrated Water Supply projects. Several iterations of the projects and costs have been circulated recently, leaving some level of uncertainty on the exact path that will be taken. In light of this, a conservative approach has been used for the impact fee calculation when accounting for the cost of additional capacity related to alternative water. The most recent estimates provide that for the Southeast project area a buildout capacity of 12.5 MGD is being considered. The total cost of providing the 12.5 MGD is shown on the table below, which is then broken down to a cost per gallon and ultimately to the amount of capacity and cost that is assigned to the City.

*(Remainder of Page Intentionally Left Blank)*

### Table 26: PRWC Alternative Water Costs

| Description | Water Production | Water Transmission | Total |
|---|---|---|---|
| **Total Southeast Project** | | | |
| Capacity (MGD) | 12.500 | 12.500 | 12.500 |
| Capital Cost | $110,585,000 | $96,863,000 | $207,448,000 |
| Cost per Gal of Capacity | $8.85 | $7.75 | $16.60 |
| | | | |
| **City of Auburndale** | | | |
| Capacity (MGD) | 1.650 | 1.650 | 1.650 |
| Capital Cost | $14,597,220 | $12,785,916 | $27,383,136 |
| Cost per Gal of Capacity | $8.85 | $7.75 | $16.60 |

Debt Service

The City has two outstanding debt issues on the utility system: a Water and Sewer Revenue Bonds Series 2006 (Series 2006) and a Water and Sewer Revenue Bonds Series 2016 (Series 2016). These debt issues have been utilized by the utility to align the funding of capital assets with the anticipated service life of such assets. This enables debt service to be shared by existing and future users over time. The repayment of debt service is generally funded by the user rates and charges since these are collected on a monthly basis and are fairly consistent from year to year. Reliance on impact fees to pay large portions of annual debt service does not lead to financially prudent planning since the revenue generated can fluctuate drastically from year to year. That being said, the City currently uses as much impact fee revenue collected in a given year to pay debt service requirements first, and then sets the rest aside for future expansion projects. While this is the approach implemented by the City, the user rates are set so that if impact fees are not available to pay debt service, then the user rates will generate a sufficient level of net revenue to pay all annual debt service requirements and meet the debt covenants.

Additionally, an important step in calculating the impact fee is to add the financing costs associated with the outstanding debt mentioned above. The addition of the interest costs is important since it represents the carrying costs of the assets. Using a discount rate of 5.375%, on the Series 2006 Note and a 2.50% discount rate on the Series 2016, the total principal and interest NPV is $5,132,100 and $22,325,200, respectively. The NPV calculated is then allocated between the water and wastewater system according to the percentages used in in Section 2 of this report. Of the calculated NPV amounts, the water portion of the financing costs is equal to $13.7 million. The NPV calculated is then allocated equally between the water and wastewater system pursuant to how the City has historically approach debt funding.

### Table 27: NPV on Outstanding Debt

| Description | Principal NPV | Interest NPV | Total NPV | Water Allocation | Wastewater Allocation |
|---|---|---|---|---|---|
| Series 2006 | $4,374,175 | $757,966 | $5,132,141 | 50% | 50% |
| Series 2016 | 13,837,760 | 8,487,443 | 22,325,203 | 50% | 50% |
| Total | $18,211,935 | $9,245,409 | $27,457,344 | | |

While the NPV was calculated on the principal and interest components of the outstanding debt payment, only the interest amount is added to the impact fee calculation. The principal amount is already reflected through the asset values that have been accumulated. The table below demonstrates the allocation of the interest amounts between the water and wastewater systems:

**Table 28: Allocation of Interest NPV on Outstanding Debt**

| Description | Interest NPV | Water Allocation | Wastewater Allocation | Water NPV | Wastewater NPV |
|---|---|---|---|---|---|
| Series 2006 | $757,966 | 50% | 50% | $379,000 | $379,000 |
| Series 2016 | 8,487,443 | 50% | 50% | 4,243,700 | 4,243,700 |
| Total | $9,245,409 | | | $4,622,700 | $4,622,700 |

After allocating the interest of financing costs between water and wastewater based on the assets funded from each outstanding loan, the amounts are then functionalized between treatment and transmission improvements.

**Table 29: Water Financing Costs Functional Allocation**

| Description | Amount | Treatment Allocation | Transmission Allocation | Treatment NPV | Transmission NPV |
|---|---|---|---|---|---|
| Water Interest NPV | $4,622,700 | 50% | 50% | $2,311,400 | $2,311,400 |

## USER FEE CREDITS

The amount of user fee credits that are applied towards the impact fee are determined by the net present value (NPV) of both the principal and interest costs on outstanding debt.

As shown on Table 30, the water system is allocated $13.7 million of the NPV costs. Finally, these amounts are allocated to existing and future users. As shown in Section 2, an estimated 3,810 accounts are added to the system between FY 2022 and FY 2031 for a total ten-year growth of 28.2%. The 28.2% is applied against the water NPV costs to calculate the user fee credit portion of the water impact fee calculation.

**Table 30: Water User Fee Credit Calculation**

| Description | Amount |
|---|---|
| Water NPV | $13,728,676 |
| % Allocated to 10-Year Growth | 28.2% |
| User Fee Credit | $3,876,258 |

# Water Impact Fee Calculation

To determine the unit cost of capacity, the sum of the original cost of the City's water system assets, the incremental costs identified with PRWC, and the NPV of financing costs and user fee credits are divided by the total average day capacity of 8.65 MGD. This calculation produces a unit cost expressed in gallons per day for inside City connections. The City will continue to apply an additional 25% to connections outside City limits. Table 31 illustrates the calculation of the water impact fee under the hybrid approach:

*(Remainder of Page Intentionally Left Blank)*

### Table 31: Water Impact Fee Calculation

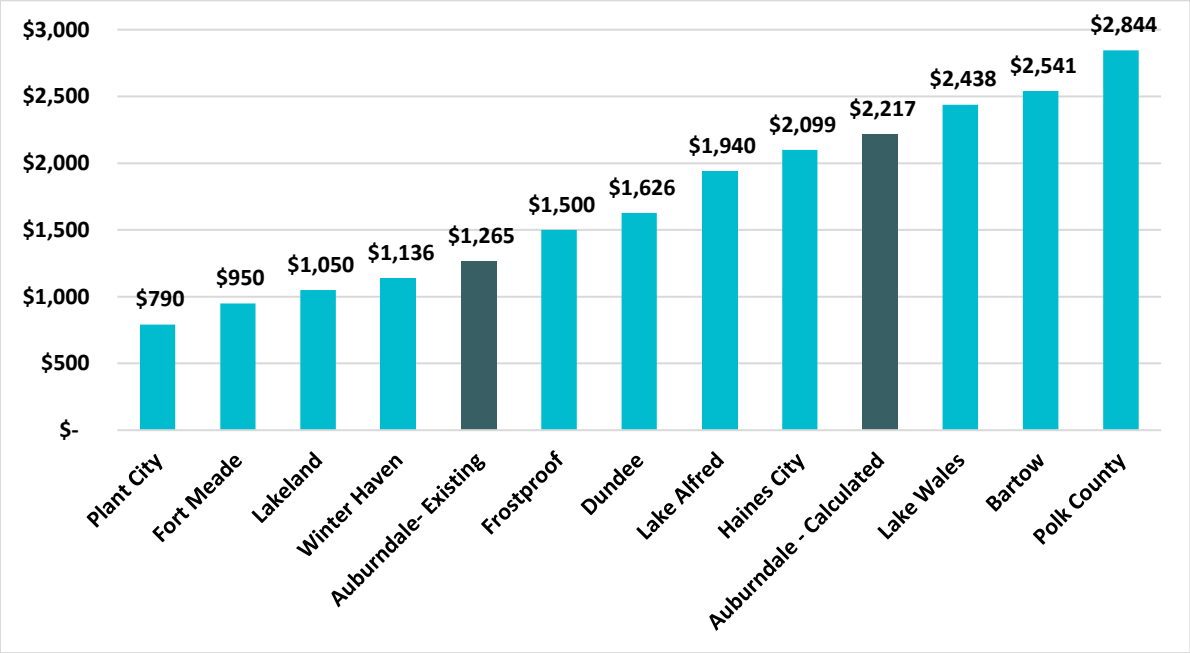
| Description | Treatment | Transmission | Total |
|---|---|---|---|
| Existing Facilities [1] | $15,836,400 | $1,828,700 | $17,665,100 |
| General Plant Improvements | 0 | 13,182,828 | 13,182,828 |
| Other Planned Improvements | 8,290,800 | 2,472,000 | 10,762,800 |
| PRWC Improvements | 14,597,220 | 12,785,916 | 27,383,136 |
| NPV of Financing Costs | 2,311,400 | 2,311,400 | 4,622,800 |
| Less: User Fee Credits | 1,938,200 | 1,938,200 | 3,876,400 |
| Total Costs Recovered | $39,097,620 | $30,642,644 | $69,740,264 |
| | | | |
| Existing Capacity (MGD) | 8.65 | 8.65 | 8.65 |
| Unit Cost per Gallon | $4.52 | $3.54 | $7.97 |
| | | | |
| Level of Service | 275 | 275 | 275 |
| | | | |
| Calculated Fee per ERC | $1,242.99 | $974.19 | $2,217.18 |
| Calculated Fee per ERC (rounded) | | | $2,217.00 |

The fee levels of other customer types are provided on Exhibit 16.

## Water Impact Fee Comparison

Figure 5 provides a comparison of the City's existing and proposed water impact fees to similar fees charged by other surrounding communities.

### Figure 4: Water Impact Fee Comparison – Single Family



# Section 7 – Wastewater Impact Fee

## Introduction

Wastewater impact fees are one-time charges assessed against new customers or developers to recover a proportional share of the capital costs incurred by the City to provide capacity for new customers. This capacity may be already constructed, funded, and available in existing facilities, or the service capacity may be planned and included as future capital projects in a CIP. Impact fees are an important funding mechanism to ensure justifiable cost recovery and to limit the burden of ratepayers funding growth-related projects.

This section of the report summarizes the basis for the update of the City's calculated wastewater impact fees. Included is a review of the City's existing wastewater impact fees, a discussion of the derivation of the proposed impact fees, and a comparison of the existing and proposed fees with other nearby utilities.

## Existing Wastewater Impact Fees

The City's existing wastewater impact fees were last updated in 2006, pursuant to Ordinance No. 1230, and are charged to new customers for connection to the City's sewer system. Single family residential customers are charged $3,938.14 for each new inside City connection and commercial, industrial, and all non-residential connections are assessed the impact fee based on certain attributes for each type of development, as provided in Ordinance No. 1230. The City charges 25% more to connections outside the City limits.

## Impact Fee Methodologies

As mentioned in Section 6. Water Impact Fee, there are numerous approaches to determining impact fees that have been adopted by utilities across the state of Florida and the country. However, two approaches are most often used and are recognized in the industry as cost-justified by the American Water Works Association (AWWA) and Water Environmental Federation (WEF)[2]. These two approaches are the System Buy-In method and the Incremental Cost method. A brief description of these two approaches may be found in Section 8. The proposed wastewater impact fees discussed in this report are based on a hybrid method as there is consideration that the City has a significant investment in existing assets and has identified certain required improvements over the next several years to serve new growth.

## Design of Wastewater Impact Fee

With respect to designing wastewater impact fees, generally there are two significant components that need to be addressed: 1) the level of service to be apportioned to the applicants that request system capacity; and 2) the amount of capital costs to be recovered from a new customer requesting service. Both of these issues are related to the level of the impact fee expressed on an equivalent residential connection (ERC) basis which represents the average capacity required to service a typical individually metered single family residential account.

[2] AWWA Manual M26 – Water Rates and Related Charges, Ch. 3: System Development Charges, pp. 19-33.

## LEVEL OF SERVICE REQUIREMENTS

The previous Water Impact Fee section discusses LOS standards for water. A similar approach applies for wastewater impact fees. Table 32 summarizes the level of service standards incorporated into this wastewater impact fee analysis:

**Table 32: Level of Service per ERC**

| Service | Gallons per Day |
|---|---|
| Wastewater | 250 |

The LOS per ERC shown above is 250 gallons per day.

## CAPITAL COSTS RECOVERED

Buy-In Value

According to staff, the City's wastewater treatment facility has been rated to provide 4.18 MGD of capacity, and the average daily sewage treated at the facility is currently 2.3 MGD. Since there is capacity available to serve the anticipated near-term growth in the City's wastewater service area, it is appropriate to include the value of existing facilities in the wastewater impact fee calculation. This value was determined based on the City's current fixed asset records as of October 1, 2020 and the last impact fee study, which valued certain collection assets that were placed in service prior to 2005. The records included a complete listing of wastewater assets with its asset number, cost basis (Original Cost), year-to-date depreciation, and date acquired for all assets except certain collection lines placed in service prior to 2005. The total original cost of all the wastewater fixed assets is approximately $77.1 million.

The fixed assets were also classified by functional categories such as treatment and collection to identify which of the assets are part of the major system backbone infrastructure and thus should be part of the wastewater impact fee calculation. Local service lines that are dedicated to serving only existing customers, vehicle and minor equipment costs, and assets donated by or paid for by developers are not included in the wastewater impact fee calculation. Table 33 summarizes the value of existing wastewater assets with capacity available to serve new customers:

**Table 33: Wastewater Fixed Asset Valuation**

| Description | Original Cost |
|---|---|
| Treatment | $59,269,495 |
| Collection | 17,829,692 |
| Total | $77,099,187 |

Incremental Costs

The City provided a CIP, summarized in Section 3, that identifies several wastewater upgrade and expansion projects that will provide benefits to new development. The primary project associated with new capacity is the acquisition and development of property to serve as a new sprayfield and increase the City's wastewater effluent capacity, which is planned to provide for a 1.217 MGD expansion of their Regional Treatment Plant. Since this expansion is to help serve new connections to the wastewater system it is appropriate to also include the value of the expansion in the wastewater impact fee calculation. The projects that are improvements to or expansions of the existing collection and treatment facilities have been included in the wastewater impact fee calculation. The table below provides the incremental costs based on the functional category of service.

**Table 34: Incremental Wastewater Asset Investments**

| Description | Amount |
|---|---|
| Treatment | $8,741,800 |
| Collection | 0 |
| Total | $8,741,800 |

Debt Service

As mentioned in Section 6, the City has two outstanding debt issues on the utility system: a Water and Sewer Revenue Bonds Series 2006 (Series 2006) and a Water and Sewer Revenue Bonds Series 2016 (Series 2016). These debt issues have been utilized by the utility to align the funding of capital assets with the anticipated service life of such assets. This enables debt service to be shared by existing and future users over time.

Additionally, an important step in calculating the impact fee is to add the financing costs associated with the outstanding debt mentioned above. The addition of the interest costs is important since it represents the carrying costs of the assets. Using a discount rate of 5.375%, on the Series 2006 Note and a 2.50% discount rate on the Series 2016, the total principal and interest NPV is $5,132,100 and $22,325,200, respectively. The NPV calculated is then allocated equally between the water and wastewater system pursuant to how the City has historically approach debt funding. The following table provides the amount allocated to the wastewater system.

**Table 35: Allocation of NPV on Outstanding Debt**

| Description | Interest NPV [1] | Treatment Allocation | Transmission Allocation | Treatment NPV | Transmission NPV |
|---|---|---|---|---|---|
| Total | $4,622,700 | 50% | 50% | $2,311,400 | $2,311,400 |

[1] Amount from Table 27.

## USER FEE CREDITS

The amount of user fee credits that are applied towards the impact fee are determined by the net present value (NPV) of both the principal and interest costs on outstanding debt.

As shown on Table 36, the wastewater system is allocated $13.7 million of the NPV costs. Finally, these amounts are allocated to existing and future users. As shown in Section 2, an estimated 3,440 accounts are added to the system between FY 2022 and FY 2031 for a total ten-year growth of 39.4%. The 39.4% is applied against the water NPV costs to calculate the user fee credit portion of the water impact fee calculation.

**Table 36: Wastewater User Fee Credit Calculation**

| Description | Amount [1] |
|---|---|
| Wastewater NPV | $13,728,700 |
| % Allocated to 10-Year Growth | 39.4% |
| User Fee Credit | $5,409,700 |

[1] Amounts may be different due to rounding.

# Wastewater Impact Fee Calculation

To determine the unit cost of capacity, the sum of the original cost of the City's wastewater system assets, the incremental wastewater asset investments, the NPV of financing costs, and the user fee credits are divided by the

5.40 MGD of capacity at the wastewater treatment plant. This calculation produces a unit cost expressed in gallons per day for all inside City connections. The City will continue to apply an additional 25% to connections outside City limits. Table 37 illustrates the calculation of the wastewater impact fee under the System Buy-In approach:

**Table 37: Wastewater Impact Fee Calculation**

| Description | Treatment | Collection | Total |
|---|---|---|---|
| Existing Facilities [1] | $59,269,500 | $3,424,700 | $62,694,200 |
| General Plant Improvements | 0 | 14,405,000 | 14,405,000 |
| Other Planned Improvements | 8,741,800 | 0 | 8,741,800 |
| NPV of Financing Costs | 2,311,400 | 9,245,600 | 11,557,000 |
| Less: User Fee Credits | 2,704,900 | 2,704,900 | 5,409,800 |
| Total Costs Recovered | $67,617,800 | $24,370,400 | $91,988,200 |
| | | | |
| Existing Capacity (MGD) | 5.40 | 5.40 | 5.40 |
| Unit Cost per Gallon | $12.52 | $4.51 | $17.03 |
| | | | |
| Level of Service | 250 | 250 | 250 |
| | | | |
| Calculated Fee per ERC | $3,130.45 | $1,128.26 | $4,258.71 |
| Calculated Fee per ERC (rounded) | | | $4,258.00 |

[1] Amount represents the original cost of the assets.

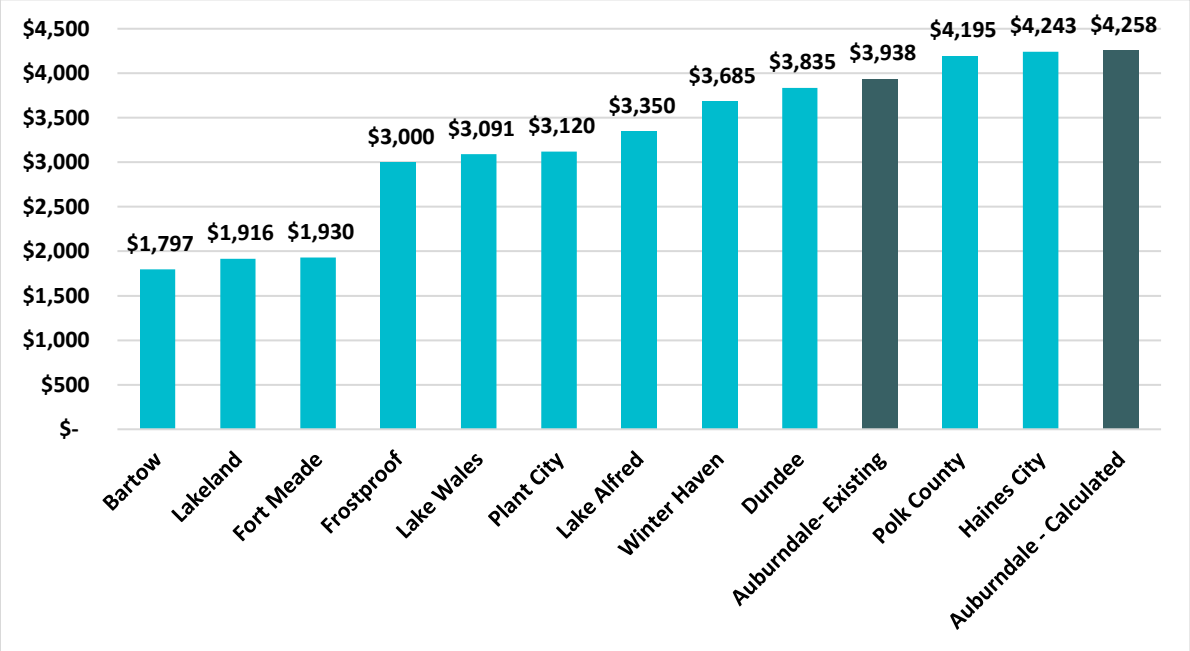
As shown on the table above, the proposed wastewater impact fee is $4,258 per ERC compared to the existing fee of $3,938.14, which represents an increase of $319.86 or approximately 8.1%.

The fee levels of other customer types are provided on Exhibit 17.

# Wastewater Impact Fee Comparison

Figure 6 provides a comparison of the City's existing and proposed wastewater impact fees to similar fees charged by other surrounding communities.

**Figure 5: Wastewater Impact Fee Comparison – Single Family**



# Section 8. Findings and Recommendations

## Findings

This study undertook a comprehensive review of critical components required to adequately fund the operating requirements, remain in compliance with bond covenants, address future capital improvements, and importantly maintain just and equitable cost recovery from all customer classifications. The study has determined that the existing rate structure, with minor modifications, continues to provide just and equitable recovery of operating costs as required by Florida Statutes along with encouraging water conservation. The study findings are clear that rate adjustments are necessary not only to address the inflationary impact on O&M, but to also provide for alternative water costs, significant CIP and maintaining adequate reserve fund balances. Additionally, the study identified that: 1) the high levels of new connections during the last several years are anticipated to continue in the near term; 2) annual debt service is relatively stable and can accommodate modest increases; 3) Utility staff has also identified CIP requirements to address expansion capacity, upgrades and major facility R&R; and 4) existing reserve fund balances together with surpluses from anticipated rate adjustments and issuance of new debt should be adequate to allow for strategic CIP funding options.

## Recommendations

Based on the information, analysis and discussions included in this report, it is recommended that:

1. The City proceed to establish the following water rates, that will achieve rate objectives including conservation and include the rate adjustments identified each year of the forecast for inside City customers. Outside City customers will pay an additional 35% as shown on Exhibit 18, per City's existing policy.

| Residential Inside Rates | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Base Charge | | | | | |
| All Meters | $7.99 | $8.31 | $8.64 | $8.99 | $9.35 |
| Usage Charges | | | | | |
| Minimum | N/A | $1.07 | $1.11 | $1.15 | $1.20 |
| Block 1 | $1.03 | $2.14 | $2.23 | $2.32 | $2.41 |
| Block 2 | $2.06 | $3.56 | $3.70 | $3.85 | $4.00 |
| Block 3 | $3.43 | $4.99 | $5.19 | $5.40 | $5.62 |
| Block 4 | $4.80 | $1.07 | $1.11 | $1.15 | $1.20 |

| Commercial Inside Rates | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Base Charge | | | | | |
| ¾" Meter | $7.99 | $8.31 | $8.64 | $8.99 | $9.35 |
| 1" Meter | $19.98 | $20.77 | $21.60 | $22.46 | $23.36 |
| 1 ½" Meter | $39.95 | $41.55 | $43.21 | $44.94 | $46.74 |
| 2" Meter | $63.92 | $66.48 | $69.14 | $71.91 | $74.79 |
| 3" Meter | $127.84 | $132.95 | $138.27 | $143.80 | $149.55 |
| 4" Meter | $199.75 | $207.74 | $216.05 | $224.69 | $233.68 |
| 6" Meter | $399.50 | $415.48 | $432.10 | $449.38 | $467.36 |
| 10" Meter | $918.82 | $955.60 | $993.82 | $1,033.57 | $1,074.91 |
| Usage Charges | | | | | |
| Minimum | N/A | N/A | N/A | N/A | N/A |
| Block 1 | $2.87 | $2.98 | $3.10 | $3.22 | $3.35 |

2. The City adopt the following block increments for residential water customers.

| Consumption Blocks | Range |
|---|---|
| **Residential** | |
| Minimum | N/A |
| Block 1 | 0 – 4,000 |
| Block 2 | 4,001 – 10,000 |
| Block 3 | 10,001 – 20,000 |
| Block 4 | Above 20,000 |
| **Commercial** | |
| Minimum | N/A |
| Block 1 | All Usage |

3. The City proceed to establish the following wastewater rates for inside City customers. Outside City customers will pay an additional 35% as shown on Exhibit 18, per City's existing policy.

| Description | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 |
|---|---|---|---|---|---|
| Residential Base Charge | $41.13 | $41.34 | $41.55 | $41.76 | $41.97 |
| Commercial Base Charge: | | | | | |
| ¾" Meter | $41.13 | $41.34 | $41.55 | $41.76 | $41.97 |
| 1" Meter | $102.83 | $103.34 | $103.86 | $104.38 | $104.90 |
| 1 ½" Meter | $205.65 | $206.68 | $207.71 | $208.75 | $209.79 |
| 2" Meter | $329.04 | $330.69 | $332.34 | $334.00 | $335.67 |
| 3" Meter | $658.08 | $661.37 | $664.68 | $668.00 | $671.34 |
| 4" Meter | $1,028.25 | $1,033.39 | $1,038.56 | $1,043.75 | $1,048.97 |
| 6" Meter | $2,056.50 | $2,066.78 | $2,077.11 | $2,087.50 | $2,097.94 |
| 10" Meter | $3,290.40 | $3,306.85 | $3,323.38 | $3,340.00 | $3,356.70 |
| Commercial Usage Charges | | | | | |
| Minimum | N/A | N/A | N/A | N/A | N/A |
| Block 1 | $7.01 | $7.05 | $7.09 | $7.13 | $7.17 |

4. The City adopt the update water and wastewater impact fees as calculated for inside City connections. Outside City connections will pay an additional 25% as shown on Exhibits 16-17, per City's existing policy.

| Description | Existing | Calculated | Variance |
|---|---|---|---|
| Water | $1,264.99 | $2,217.00 | $952.01 |
| Wastewater | 3,938.14 | 4,258.00 | 319.86 |
| Total | $5,203.13 | $6,475.00 | $1,271.87 |

5. The City establish and fund an alternative water supply reserve as presented herein to set aside funds to offset future requirements associated PRWC or other alternative water initiatives.

It should be noted that assumptions used in this study reflect conservative positions such that actual results are anticipated to exceed the forecasted results; (as an example: this study assumes lower customer growth in the outer years of the forecast while the Utility does not currently have indications that growth will actually slow down). The expenses, costs, and criteria associated with ratemaking are representative of averages that are developed primarily from historic data along with projections based on opinions and assumptions. Significant amounts of historical review and analysis, together with the development of assumptions based on prudent engineering, financial, and ratemaking relationships were utilized in the development of the customers, operating activity, costs and proposed rates and charges. Some of the assumptions will inevitably change or not materialize, and unanticipated events may occur which could significantly change the results presented herein.