



**Water, Sewer & Reclaimed Water  
Rate Study**

Draft Report

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Prepared for:

Pinellas County Utilities

Prepared by:

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## WATER, SEWER & RECLAIMED WATER RATE STUDY

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Prepared by \_\_\_\_\_  
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# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Executive Summary

### 1.0 EXECUTIVE SUMMARY

Stantec Consulting Services Inc. (Stantec) has conducted a Water, Sewer, and Reclaimed Water Rate Study (Rate Study or Study) for the water, sewer, and reclaimed water utility systems of the Pinellas County (County) Utilities Department (PCU or Utility). This report outlines the assumptions, detailed analysis, and results of the Rate Study, including final conclusions and recommendations.

#### 1.1 BACKGROUND

Pinellas County owns and operates a potable water treatment, storage, and distribution system serving approximately 120,000 retail connections in unincorporated Pinellas County and providing wholesale service to the Cities of Clearwater, Pinellas Park, and Safety Harbor. The County receives its potable water supply from Tampa Bay Water (TBW).

The County owns and operates two advanced water reclamation facilities<sup>1</sup> with a total permitted capacity of 42 MGD and a collection system of gravity sewers, force main sewers, and pump stations to collect and deliver wastewater to the plant for treatment from approximately 72,000 retail service connections in unincorporated Pinellas County and provides wholesale service to the City of Pinellas Park, Town of Redington Shores, and Town of North Redington Beach. The County treats and disposes a portion of the treated effluent into its reclaimed water system to provide service to approximately 23,000 retail customers within the County and wholesale reclaimed water service to the Town of Belleair, City of Pinellas Park, City of South Pasadena, and City of St. Pete Beach.

The County has established individual enterprise funds for its water and sewer utility systems that separately account for the operating, capital, and other financial requirements of each respective utility system<sup>2</sup>. To ensure that each utility system is generating sufficient revenue to satisfy its ongoing financial requirements, the Board of County Commissioners (BOCC) has historically adopted periodic water, sewer, and reclaimed water rate adjustments.

In 2019, Stantec, along with County staff, presented a four-year plan of annual water, sewer, and reclaimed water rate adjustments to the BOCC for their consideration. The BOCC approved the recommended four-year plan of annual retail water, wholesale water, retail sewer, wholesale sewer, and reclaimed water rate adjustments. By approving the four-year plan of rate adjustments, the BOCC established a multi-year rate setting approach to levelize and minimize annual rate adjustments, while also demonstrating proactive management of the utility systems. Furthermore, the BOCC recognized that periodic review and updates

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<sup>1</sup> William E. Dunn Water Reclamation Facility and South Cross Bayou Water Reclamation Facility.

<sup>2</sup> Annual reclaimed water requirements are accounted for within the sewer enterprise fund.



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of the financial management plans and plan of annual rate adjustments would be needed to account for changes in demands, regulatory requirements, and operating and capital budgets.

Table 1-1 indicates the BOCC approved four-year water, sewer, and reclaimed water rate adjustment plans by fiscal year (FY) resulting from the previous rate study.

**Table 1-1: Adopted Rate Revenue Adjustments by Fiscal Year**

Customer Type	FY 2020	FY 2021	FY 2022	FY 2023
<b>Water System</b>				
Retail	1.00%	1.00%	1.00%	1.00%
Wholesale	1.00%	1.00%	1.00%	1.00%
<b>Sewer System</b>				
Retail	9.50%	9.50%	9.50%	9.50%
Wholesale	9.50%	9.50%	9.50%	9.50%
<b>Reclaimed Water System</b>				
Retail/Wholesale <sup>3</sup>	11.63%	6.25%	5.90%	5.58%

One of the benefits of PCU's proactive rate and financial planning practice is the ability to identify and address challenges that will influence its sustainability and financial performance over both immediate and long-term horizons. Like the water resources industry, PCU faces challenges including inflated operating and capital costs, the need for large-scale capital reinvestment, compliance with water quality standards and other regulatory requirements, and customer affordability.

PCU has recently completed master plans for the water system and its wastewater treatment facilities, and is currently performing a wastewater collection system master plan which collectively outline a plan to address needed capital infrastructure investments including, 1) aging infrastructure that continues to drive the need for additional renewal and replacement, 2) improvements to support system resiliency from the impact of natural disasters, 3) system capacity, and 4) regulatory compliance.

PCU has recently experienced inflated costs related to materials and contractors, which impacts the cost of the capital improvement program (CIP) and large increases in chemical and electricity costs, which impact the cost to operate its water, sewer, and reclaimed water systems.

Purchased water expenses from TBW constitute over half of the water system's annual operating budget. PCU will need to manage and consider the implications of anticipated future cost increases for TBW, in addition to the expiration in FY 2029 of PCU's \$4.4M annual credit related to the acquisition of its assets

<sup>3</sup> Represents combined (retail and wholesale) rate adjustments.



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by TBW. Planning consideration is also given to the implications of potential wholesale water demand and associated revenue reductions from the City of Clearwater as it continues to plan the expansion of its own water supply facilities.

## 1.2 OBJECTIVES

The principal objectives of the Rate Study were as follows:

**Perform a Revenue Sufficiency Analysis** – To evaluate the sufficiency of the water, sewer, and reclaimed water rates over a multi-year projection period and, to the extent necessary, develop a plan of annual water, sewer, and reclaimed water rate adjustments that will provide sufficient revenues to satisfy the updated financial requirements of each fund, including 1) operations and maintenance costs (including inter-fund transfers and minor capital outlay), 2) capital improvement program costs (including renewal and replacement requirements), 3) existing and any new debt service costs and corresponding net income to debt service coverage ratios, and 4) adequate reserves.

**Perform a Cost-of-Service Analysis** – To determine the proper allocation of required rate revenue adjustments, based upon the allocations of cost of service, between retail and wholesale customer classes, and an evaluation of the level of cost recovery provided by current retail and wholesale rates, and consideration of fixed and variable costs for each utility system.

**Perform a Rate Design Analysis** – Including 1) a review of the water, sewer, and reclaimed water structures for conformance to industry best practices, cost of service, and the County's policy and pricing objectives, 2) identification of any recommended adjustments to the retail and/or wholesale rates for water, sewer, and reclaimed water services, 3) development of recommended rates for a four-year period from FY 2024 through FY 2027, and 4) determine the resulting impacts to customers' bills.

**Conduct Rate Surveys and Bill Comparisons** – That compare 1) the monthly cost of water and sewer service to single-family residential customers of other neighboring communities at varying levels of consumption, and 2) the monthly cost of reclaimed water to single-family residential customers within various neighboring communities under metered and non-metered rate structures.

## 1.3 RESULTS

Based on the completion of the analyses described herein, Stantec has developed conclusions and recommendations for the County's water, sewer, and reclaimed water rates. The key findings and recommendations are outlined herein.

### 1.3.1 Revenue Sufficiency

This analysis evaluated the sufficiency of PCU's revenues to meet its current and projected financial requirements over a 10-year projection period and determined the level of any rate revenue increases necessary in each year of the projection period to provide sufficient revenues to fund all PCU's cost





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requirements. Stantec thoroughly discussed the base data and assumptions of the analysis with County staff and reviewed alternative rate adjustment options for PCU that reflected different capital funding sources. Through this process, Stantec identified several options of financial management plans and associated plans of annual rate adjustments for the BOCC to consider as summarized in Table 1-2.

**Table 1-2: Financial Management Plan Options Presented to the BOCC**

Scenarios	New Borrowing	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028 – FY 2032
<b>Water System</b>						
A: Pay as You Go	\$0	6.5%	6.5%	6.5%	6.5%	6.5%
B: Partial Debt	\$95M	5.0%	5.0%	5.0%	5.0%	5.0%
C: Debt Capacity	\$201M	3.5%	3.5%	3.5%	3.5%	3.5%
<b>Sewer System</b>						
A: Pay as You Go	\$0	6.0%	6.0%	6.0%	6.0%	4.0%
B: Partial Debt	\$59M	4.0%	4.0%	4.0%	4.0%	4.0%
C: Debt Capacity	\$179M	2.0%	2.0%	2.0%	2.0%	2.0%

These options were presented to the BOCC in March 2023, and direction was given to PCU staff to proceed with the partial debt options (Option B) as presented for both systems.

As such, the recommended financial management plan and corresponding plan of water, sewer, and reclaimed water rate revenue adjustments are based upon the revenue and expense information, beginning balances, and assumptions as described in Section 2 of this report. Appendices A and B include detailed schedules presenting all components of the financial management plan for the water and sewer systems, respectively reflective of the BOCC direction (Option B).

Table 1-3 presents the recommended overall four-year rate revenue adjustment plan for FY 2024 through FY 2027. The Rate Study includes a ten-year forecast to ensure that these recommended rate increases, and future rate increases, would be sufficient to sustain the Utility beyond the four-year rate plan. As such, a ten-year projection of water, sewer, and reclaimed water rate increases are shown in Schedule 1 of Appendix A and Appendix B of this report. The overall revenue increases for FY 2024 through FY 2027 are achieved within recommended rate structure adjustments identified in Section 4 of this Report.



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**Table 1-3: Recommended Plan of Water, Sewer, and Reclaimed Water Rate Increases**

Service Type	FY 2024	FY 2025	FY 2026	FY 2027
Effective Date	Oct. 1, 2023	Oct. 1, 2024	Oct. 1, 2025	Oct. 1, 2026
Water	5.00%	5.00%	5.00%	5.00%
Sewer <sup>4</sup>	4.00%	4.00%	4.00%	4.00%
Reclaimed Water <sup>5</sup>	6.44%	6.39%	6.63%	6.84%

### 1.3.2 Cost of Service

Stantec performed a cost-of-service analysis that allocated PCU’s costs of its water, sewer, and reclaimed water systems between wholesale and retail customers to determine the level of alignment between the revenues generated from each system and the costs that PCU incurs to provide each service. In addition, costs were allocated to the functional components that make up each system and then between retail and wholesale customer classes. The cost-of-service analysis determined the portion of the water, sewer, and reclaimed water systems’ costs allocable to retail and wholesale customers. Figures 1 and 2 present a summary of FY 2023 costs compared to revenues for retail and wholesale customers of the Water and Sewer Funds, respectively.

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<sup>4</sup> Represents adjustments onto the retail sewer rates, there are no rate adjustments for wholesale sewer during the four-year rate period. Water rate increases shown are applied to retail and wholesale rates.

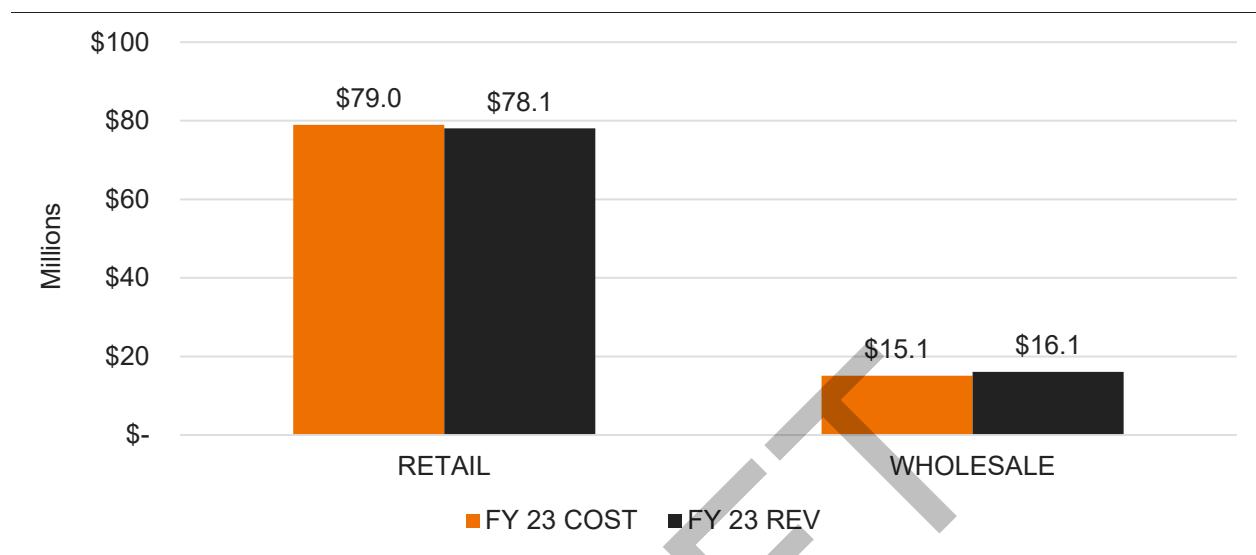
<sup>5</sup> Represents combined (retail and wholesale) rate revenue adjustments.



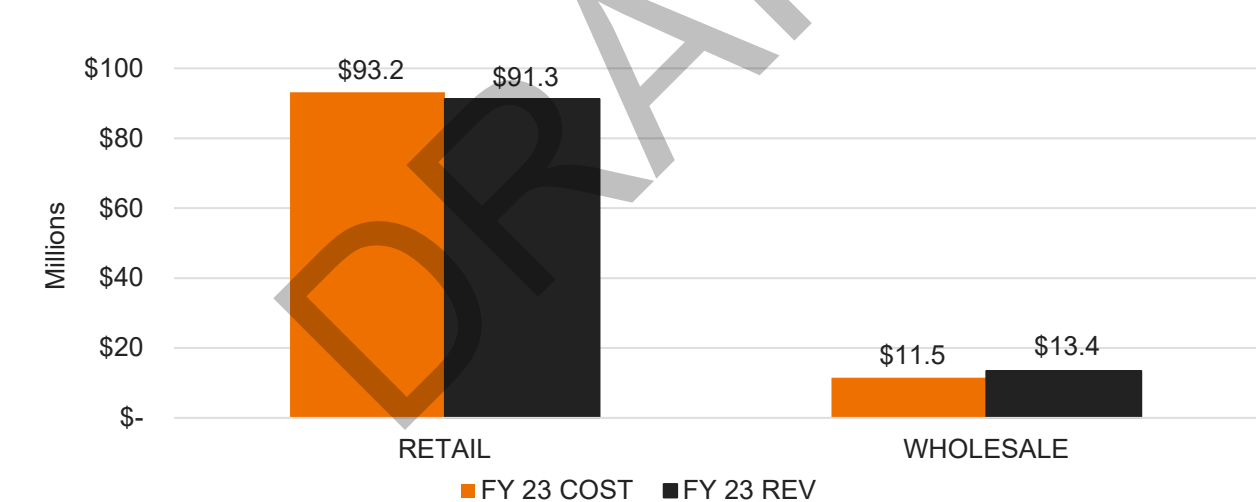
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**Figure 1: Water Retail & Wholesale Costs vs. Revenues<sup>6</sup>**



**Figure 2: Sewer Retail & Wholesale Costs vs. Revenues**



The costs and revenues for PCU's reclaimed water system are included within the Sewer Fund. Once the Sewer Fund cost of service was identified, Stantec then allocated the Sewer Fund costs and revenues between the sewer and reclaimed water systems. Figure 3 presents a summary of the resulting allocated reclaimed water system's costs and revenues by retail and wholesale customer classes.

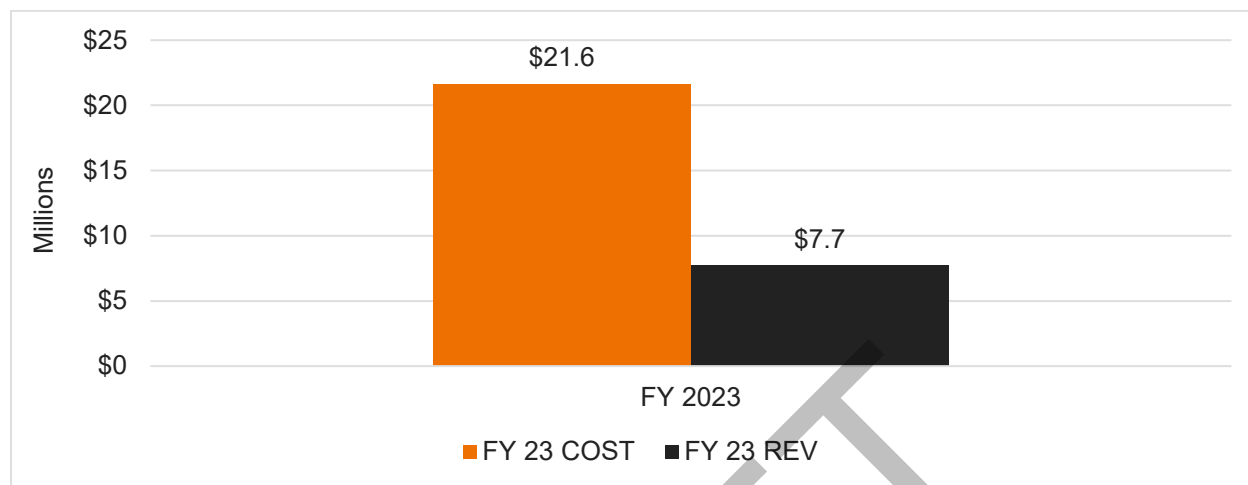
<sup>6</sup> Variance in total due to rounding to the nearest hundred thousand dollars.



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**Figure 3: Reclaimed Water Retail & Wholesale Costs vs. Revenues**



Cost of service studies reflect the analysis of conditions during a test year, selected to provide a normalized set of circumstances, regarding key factors including operating and capital costs. Because cost of service studies reflect the influences of changing technologies, operating costs, regulatory requirements, system investment, and customer behavior, the results tend to change over time and as such, should be conducted periodically. In consideration of PCU's planning process and rate adoption period, the cost allocation process provides direction in establishing the level of rate increases for retail and wholesale services over a multi-year period.

### 1.3.3 Rate Design

Stantec examined PCU's existing water, sewer, and reclaimed water rates and developed recommended rate structure modifications that 1) conform to accepted national and local industry practices, 2) enhance fiscal stability and increased recovery of fixed costs through base charges, 3) promote water conservation, 4) improve affordability to low volume and average users, and 5) minimize the administrative burden during implementation while enhancing the ability to be easily understood.

Customary practice within the water industry is a two-part rate structure comprised of both fixed and variable charges and recovery of a portion of the costs of the system in a fixed readiness-to-serve charge. This practice recognizes that utilities have substantial investments in capital related costs and other fixed costs that are incurred year-round to maintain a state of readiness to meet the demands of their customers when they occur.

#### 1.3.3.1 Water System

The County presently has a fixed charge for water service regardless of whether there is any measured water use, which is a base charge per account for all retail customers, that is scaled by meter size according to the standard maximum safe operating flow rates in proportion to a five-eighths inch or three-quarter inch



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meter as published by the American Water Works Association (AWWA)<sup>7</sup>. Stantec recommends no structural modifications to the water base charge but does recommend adjustments to increase the level of cost recovery from base charges. Specifically, the proposed rates include increases to the current monthly base charge for a three-quarter inch meter of \$6.80 by \$1.25 each year to \$11.80 in FY 2027 and proportionate increases to the base charges for the other meter sizes. The percentage of retail revenues from base charges is estimated to increase from approximately 16.0% to approximately 22.0% by FY 2027 as a result.

PCU's volumetric rate structure for potable water is a uniform rate applied per 1,000 gallons of water use. Industry practice for communities throughout Florida, including those within and surrounding Pinellas County, is to utilize an inclining block structure whereby the volumetric rates increase as usage increases to promote water conservation and promote price incentives to reduce discretionary water use, notably outdoor irrigation. Stantec recommends that PCU implement a two-block inclining rate structure for residential and multi-family customers and maintain the uniform rate applicable to non-residential customers. Additional blocks and pricing may be considered in the future once advanced metering infrastructure (AMI) has been implemented and if PCU switches from bi-monthly to monthly billing. A comparison of the Utility's existing and recommended residential and multi-family two-block rate structure and associated rates for FY 2024 is presented in Table 1-4.

**Table 1-4: Recommended Residential Inclining Block Structure**

Block	Existing (FY 2023)	Recommended (FY 2024)
Block 1 (All Use)	\$5.13 per 1,000 gallons	
Block 1 (0 – 4,000 Gallons per Month) <sup>8</sup>		\$3.83 per 1,000 gallons
Block 2 (All Use Above 4,000 Gallons per Month) <sup>9</sup>		\$8.69 per 1,000 gallons

The revenue generated from these modifications to the retail rates and across-the-board increases to wholesale rates provides the 5.0% annual revenue adjustment identified in Table 1-2 for the water system.

<sup>7</sup> Meter equivalent ratios based upon the standard maximum rate safe operating flow rates per Table 6-1 of the American Water Works Association (AWWA) Manual of Practice M22.

<sup>8</sup> Applied per unit for multi-family customers.

<sup>9</sup> Applied per unit for multi-family customers.



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### 1.3.3.2 Sewer System

The fixed charge for sewer service is a base charge per account for residential customers and a per Equivalent Residential Unit (ERU) for commercial accounts, which is 5,000 gallons of measured water use per month.

For sewer volumes, a uniform rate is applied to metered water use, capped at 10,000 gallons per month for residential sewer customers. This structure is consistent with both national and local practices throughout Florida.

PCU's existing sewer rate structure meets the general objectives outlined previously. As such, Stantec recommends no structural modifications to the sewer rate structure, either base or volumetric components. As such, the recommended sewer rate revenue adjustments identified in Table 1-2 should be applied to both the base and volumetric charges for retail customers.

Table 1-5 provides the resulting monthly bill impacts during the four-year rate period, including the effects of the recommended rate structure modifications for a residential customer with water and sewer service using 5,000 gallons per month, which represents a "typical" use for a residential customer.

**Table 1-5: Water and Sewer Residential Customer Monthly Bill**

Description	FY 23 (Existing)	FY 24 (Proposed)	FY 25 (Proposed)	FY 26 (Proposed)	FY 27 (Proposed)
Water Bill	\$32.45	\$32.06	\$33.96	\$35.96	\$38.07
Sewer Bill	\$55.49	\$57.73	\$60.05	\$62.45	\$64.93
<b>Total Bill</b>	<b>\$87.94</b>	<b>\$89.79</b>	<b>\$94.01</b>	<b>\$98.41</b>	<b>\$103.00</b>
\$ Change	\$4.80	\$1.85	\$4.22	\$4.40	\$4.59
% Change	5.8%	2.1%	4.7%	4.7%	4.7%

### 1.3.3.3 Reclaimed Water System

PCU's retail reclaimed water rate structure consists of charges for metered and unmetered customers. More than 90% of reclaimed water customers are currently unmetered<sup>10</sup> and pay a fixed rate regardless of the amount of reclaimed water used, while metered customers pay a volumetric rate per 1,000 gallons of reclaimed water used. Rate structure modifications implemented by PCU resulting from the previous rate study focused on removing the rate differentials between retail customers throughout the system. However,

<sup>10</sup> PCU expects to meter all reclaimed customer by FY 2027.



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there is a \$7.00 per month availability charge<sup>11</sup> paid by customers that are provided service through distribution infrastructure installed and paid for by PCU (i.e., County funded), whereas funded customers' localized distribution infrastructure was installed by another party such as a developer and do not pay the availability charge.

PCU has started metering its reclaimed water customers and expects to install all reclaimed meters by FY 2027, which will assist in managing its reclaimed water supply and revenues. To account for additional metered customers, improve the alignment of revenues and costs, establish a fixed and variable rate structure like water and sewer, and send a stronger conservation price signal for excessive use, Stantec recommends the following enhancements to PCU's reclaimed water rates:

- Add a base charge component to the metered rate structure, which includes an allowance for 20,000 gallons per month of reclaimed water use. For all use above that allowance, customers pay the volumetric rate per 1,000 gallons. Initially in FY 2024, the allowance will include 20,000 gallons of usage per month that will gradually be reduced to 15,000 gallons in FY 2027. This amount of reclaimed water use represents a reasonable allowance of irrigation needs for the typical single-family parcel, while the phased implementation will minimize the impact to customer's bills as they adjust their usage patterns in response to the modified rate structure.
- No changes to the monthly availability charge for customers in County funded areas are recommended during the four-year rate plan period.

Figure 4 presents a bill comparison of the existing rates and the proposed FY 2024 rates for reclaimed water users at various levels of monthly use, including County funded customers transitioning from unmetered to metered service<sup>12</sup>. As shown, customers with monthly usage above the allowance of 20,000 will pay a volumetric rate per each additional 1,000 gallons of reclaimed water used and will see increases in costs, absent any reclaimed water use reductions.

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<sup>11</sup> Expected to expire in FY 2029 after debt service for the localized and County funded distribution infrastructure is retired.

<sup>12</sup> Includes the \$7.00 monthly availability charge.



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**Figure 4: FY 2024 Reclaimed Water Bill Impacts Proposed Rates (County Funded Distribution Area)**

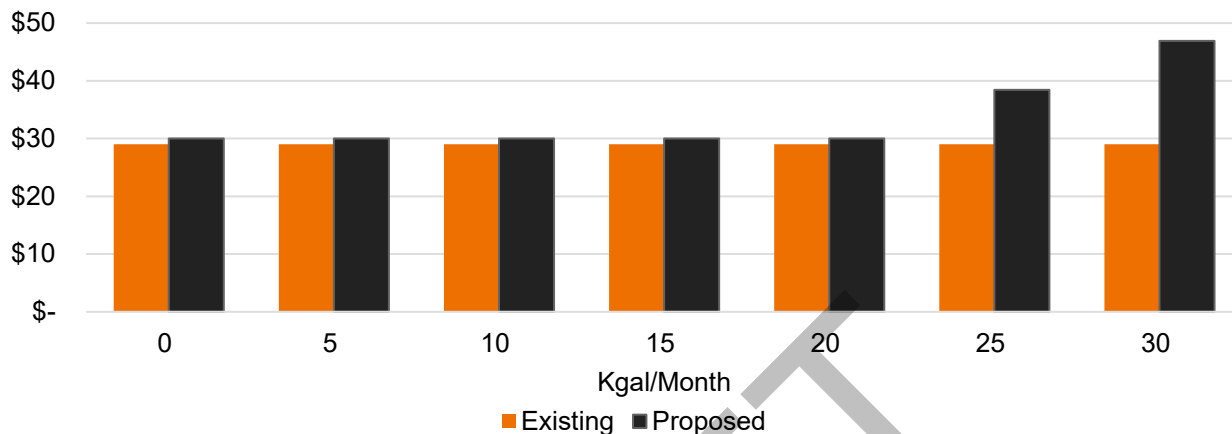


Table 1-6 provides the monthly bill impacts over the four-year rate period for reclaimed water customers within the County funded portion of the system.

**Table 1-6: Reclaimed Water Customer Monthly Bills (County Funded Distribution Area)<sup>13</sup>**

Description	FY 23 (Existing)	FY 24 (Proposed)	FY 25 (Proposed)	FY 26 (Proposed)	FY 27 (Proposed)
<b>Unmetered</b>	<b>\$29.00</b>	<b>\$30.00</b>	<b>\$31.00</b>	<b>\$32.00</b>	<b>\$33.00</b>
\$ Change		\$1.00	\$1.00	\$1.00	\$1.00
% Change		3.4%	3.3%	3.2%	3.1%
<b>Metered (15,000 gallons)</b>	<b>\$29.05</b>	<b>\$30.00</b>	<b>\$31.00</b>	<b>\$32.00</b>	<b>\$33.00</b>
\$ Change		\$0.95	\$1.00	\$1.00	\$1.00
% Change		3.3%	3.3%	3.2%	3.1%

Complete schedules of recommended water, sewer, and reclaimed water rates for FY 2024 through FY 2027 and additional customer bill impacts for various meter sizes and services are included in Appendix F of this report.

<sup>13</sup> Represents greater than 90% of reclaimed water customers and includes the \$7.00 per month availability charge.





## 2.0 REVENUE SUFFICIENCY ANALYSIS

This section of the report presents the financial management plan and corresponding plan of water, sewer, and reclaimed water rate adjustments developed in the Revenue Sufficiency Analysis (RSA) that was conducted as part of the Study. To determine the level of annual rate revenue (and corresponding rate adjustments) necessary to satisfy the financial requirements of each respective utility system over a near-term planning period (FY 2023 – FY 2027) and long-term projection period (FY 2028 – FY 2032), Stantec conducted separate RSAs for each of the utility enterprise funds (i.e., the Water Fund and Sewer Fund)<sup>14</sup>. The following sub-sections herein present a description of the approach, source data, assumptions, and results of each RSA, while Appendices A and B include detailed supporting schedules for the financial management plan identified herein for the water and sewer systems, respectively.

### 2.1 APPROACH

During the Study, Stantec reviewed alternative multi-year financial management plans and corresponding rate revenue adjustment plans through interactive work sessions with County staff. During these work sessions, Stantec examined the impact of various inputs or assumptions upon key financial indicators by use of tabular and graphical output and extensive review of inputs, assumptions, and relationships between key variables. In this way, Stantec developed the recommended financial management plan and corresponding plan of annual water, sewer, and reclaimed water rate revenue adjustments presented in this report that will allow PCU to fund its' cost requirements throughout the planning period and meet its financial performance goals and objectives.

Stantec obtained the Utility's historical and budgeted financial information regarding the operation of its water, sewer, and reclaimed water systems, as well as historical customer counts and volume data by class of customer. Stantec was also provided the Utility's multi-year CIP and current debt service obligations and covenants, or promises made to lenders, relative to net income coverage requirements and reserves. Stantec discussed with PCU staff other assumptions and policies that would affect the financial performance of the Utility, such as trends in demands, planned developments/customer growth, debt coverage levels, levels of reserves, capital funding sources, earnings on invested funds, escalation rates for operating costs, and others.

This information was entered into two financial planning models (one for the Water Fund and another for the Sewer Fund) which produced a ten-year projection of the adequacy of revenues provided by the existing rates of the Utility to meet its current and projected financial requirements. Thereafter, the level of rate

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<sup>14</sup> The RSA begins with FY 2022 data; however, this information serves as base data upon which future year projections of revenue and expenses are based. As such, for the purposes of this analysis, FY 2022 is not considered part of the projection period.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

revenue increases necessary in each year of the projection period to satisfy the system's annual financial requirements was determined.

The financial planning model utilizes all projected available unrestricted funds in each year of the projection period to pay for capital expenditures. The model is set up to reflect the rules of cash-funded expenditures (Pay-As-You-Go or PAYGO), and it produces a detailed summary of the funding sources to be used for each project in the CIP. To the extent that current revenues and unrestricted reserves are not adequate to fund all capital projects in any year of the projection period, the model identifies a borrowing requirement to fund those projects, or portions thereof, that are determined to be eligible for borrowing. The financial plan is used to develop a borrowing program (if necessary) that includes the required borrowing amount by year and the estimated annual debt service requirements for each year in the projection period.

## 2.2 SOURCE DATA

The following sub-sections present the key source data relied upon in updating the RSA.

### 2.2.1 Beginning Fund Balances

County staff provided the historical financial information used to establish the beginning fund balances for each of the various funds, or sub-accounts, of each enterprise fund<sup>15</sup>. The detailed FY 2021 ending fund balances (as of September 30, 2021) that serve as the FY 2022 beginning fund balances are presented on Schedule 3 of Appendices A and B of this report.

### 2.2.2 Revenues

Revenues consist of retail rate revenue, wholesale rate revenue, interest earnings revenue, water impact fee revenue, and other revenue from miscellaneous service charges. In FY 2022, retail, and wholesale rate revenues, as well as other non-rate revenues, are based on unaudited actuals. Beginning in FY 2023, Stantec projected retail and wholesale rate revenues based upon unaudited FY 2022 retail and wholesale rate revenues, adjusted annually by projected future changes in rates, demands, and customers<sup>16</sup>. All other revenue types, excluding interest earnings and water impact fee revenue (which were calculated based upon the current impact fee and the number of new connections), were based upon projected FY 2023 revenues<sup>17</sup>, adjusted annually each year thereafter per applicable growth and escalation assumptions. The

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<sup>15</sup> County staff provided trial balances as of September 30, 2021, for each of the various sub-accounts of the water and sewer enterprise funds, which were reconciled to the County's audited Annual Comprehensive Financial Report, as of September 30, 2021.

<sup>16</sup> In FY 2028, the Water Fund RSA reflects negative adjustments of approximately \$5.2 million for the anticipated reduction in purchased water by the City of Clearwater.

<sup>17</sup> Reflects the Proposed FY 2023 Budget amounts executed at 95% per statutory requirements.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

projected annual cash inflows are presented in line-item detail on Schedule 4 of Appendices A and B of this report.

#### 2.2.3 Expenditures

The revenue requirements of each RSA consist of all operating and maintenance (O&M) costs, inter-fund transfers, debt service expenses, and capital improvement requirements. In FY 2022, all O&M expenditures were based upon FY 2022 unaudited actuals. In FY 2023, all O&M expenditures, excluding purchased water costs<sup>18</sup>, were based upon the FY 2023 Budget provided by PCU staff on July 25, 2022<sup>19</sup>. Beginning in FY 2024, O&M expenses were based upon the FY 2023 Budget, adjusted each year by the assumed cost escalation factors provided by PCU staff; whereas inter-fund transfers were calculated annually<sup>20</sup>, existing debt service requirements were based upon the annual debt service amortization schedules for each outstanding borrowing, and the annual capital requirements were provided by and discussed with County staff. The projected annual cash outflows are presented in line-item detail on Schedule 5 of Appendices A and B of this Report.

#### 2.2.4 Capital Improvement Program

One of the most important elements of a utility's financial plan is to ensure that there is continuous reinvestment in existing infrastructure to provide quality utility services and investment in new infrastructure to support new growth in the system. The annual capital requirements reflected in the RSA are presented in project-level detail on Schedule 6 of Appendices A and B of this report. It is important to note that the RSA for each system includes additional unspecified future capital project costs per discussions with County staff to reflect annual capital spending in the later part of the ten-year projection period. The amounts included in the RSA for each system were discussed at length with County staff and determined to be reasonable additions that will be modified and further delineated as appropriate in the future.

Table 2-1 summarizes the CIP for FY 2023 through FY 2027 by Fund in current day dollars.

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<sup>18</sup> Through FY 2028, annual purchased water costs were calculated based upon Tampa Bay Water's published projections of variable and fixed costs and Stantec's projections of annual member demands and assumed changes in the County's retail and wholesale demands.

<sup>19</sup> Certain line items such as electricity and chemicals were adjusted based on discussions with PCU staff in December 2022 and January 2023 recognizing experienced contract cost increases and inflation.

<sup>20</sup> Renewal & Replacement Contribution in FY 2022 and FY 2023 based on FY 2022 Budget and FY 2023 Budget, respectively. Beginning in FY 2024 the contribution was calculated based upon available reserve balances and annual capital funding requirements.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

**Table 2-1: Pinellas County Utilities Capital Improvement Plan<sup>21</sup>**

Utility System	FY 23	FY 24	FY 25	FY 26	FY 27	5-Year CIP
Water	\$40.7M	\$47.1M	\$53.3M	\$29.1M	\$19.3M	<b>\$189.5M</b>
Sewer/Reclaimed Water	\$70.5M	\$82.6M	\$113.0M	\$80.3M	\$60.1M	<b>\$406.5M</b>

The CIP included in the Study is closely aligned with the needs identified in the water system and wastewater treatment facilities master plan presented to the BOCC in February 2023. PCU is also in the process of completing a wastewater collection system master plan that may identify capital needs in addition to those presented herein. Per discussions with Wade Trim, the consultant performing the wastewater collection system master plan, planning level annual capital needs may be in the range of \$20 million beginning towards the last half of the projection period. Stantec evaluated various scenarios including these costs, but per discussions with PCU staff, these costs were not included in the RSA. However, as these projects and associated costs are defined, these will be considered in future rate studies.

## 2.3 ASSUMPTIONS

The following presents the assumptions, policies, and parameters of each RSA:

### 2.3.1 Customer Growth & Demand Projections

The RSA for each system reflects modest organic retail customer growth projections of approximately 230 new water accounts and approximately 140 new sewer accounts per year based upon recent experienced growth and discussions with County staff. Based upon these levels of new connections, the annual growth rate in new retail water and sewer accounts is approximately 0.2% per year for both systems.

PCU is engaged in a system-wide AMI implementation that is expected to improve the accuracy of water meters, which is anticipated to increase billed water demand and associated billed sewer volumes. As such, the RSA's relied on the Utility's AMI cost benefit analysis, which estimated an increase in billed volume of 4.0% by full implementation in FY 2025 due enhanced meter accuracy. Aside from increases in retail water and sewer demands from AMI, each RSA reflects growth in billed volume that is equal in each year to the projected growth in new water and sewer connections/ERUs.

Each RSA also reflects conservative assumptions in wholesale water and sewer demand. Specifically, it is assumed that wholesale water demand will increase at a growth rate equal to the projected growth in new retail connections in each year of the projection period and wholesale sewer volume will increase at a growth rate equal in each year to the projected growth in new retail sewer connections. Beginning in FY

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<sup>21</sup> Schedule 4 in Appendices A (Water) and B (Sewer/Reclaimed Water).



## **WATER, SEWER & RECLAIMED WATER RATE STUDY**

### Revenue Sufficiency Analysis

2028, the Water Fund RSA assumes the loss of 3.0 million gallons per day (MGD) of wholesale water demand from the City of Clearwater, as they complete the expansion of their own water supply facilities.

It is important to note that the timing and extent of actual wholesale demand reductions may change and should be reviewed and updated on an annual basis. Nevertheless, as presently projected, total billed water demand (retail and wholesale) is expected to increase by 2.0% during the five-year planning period (FY 2023 – FY 2027) and billed sewer demand (retail and wholesale) is expected to increase by 2.0% during the same period. The detailed annual projections of billed water and sewer demands are presented on Schedule 11 and Schedule 11, respectively, of Appendices A and B of this report.

### **2.3.2 Cost of Water Purchases from Tampa Bay Water (TBW)**

Annual purchased water costs through FY 2028 were calculated based upon the County's projected billed water demands (reflecting an annual adjustment of 8.5% to account for line losses<sup>22</sup>) and the projected Tampa Bay Water unitary rate per thousand gallons, less annual credits received by PCU. The annual projected TBW unitary rates were calculated based upon the multi-year expense forecasts within TBW 's FY 2023 published budget,<sup>23</sup> which does not include the potential impacts of additional water quality improvements or alternative water supply projects and projected TBW member demands (as developed by Stantec for each of the TBW member governments). Anticipated increases in water purchases resulting from AMI implementation were also considered. Beginning in FY 2029, annual purchased water costs were based upon projected FY 2028 expenditures, adjusted by applicable cost escalation assumptions, and reflect the expiration of the acquisition credit. The calculation of annual purchased water costs through FY 2028 is presented on Schedule 12 of Appendix A of this Report.

### **2.3.3 Advanced Meter Infrastructure Incremental O&M Expenses**

Incremental net O&M costs related to the system-wide AMI implementation were provided as part of the Utility's net present value (NPV) and payback analysis. The Utility expects incremental costs for AMI meter readers and cellular fees for network and software to be partially offset by operational efficiencies and reductions in call center and maintenance related personnel costs resulting from the AMI implementation. These annual impacts were provided by the County for each year of the analysis. The Utility's estimated net annual change in operating expenses related to the AMI implementation resulting from the County's payback analysis are presented on Schedule 5 of Appendix A.

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<sup>22</sup> Assumed line loss factor was based upon the average line losses for preceding fiscal years, FY 2020 – FY 2022. Water line losses are often related to leaks in pipe joints, undetected breaks, flushing for water quality, and draining for construction projects.

<sup>23</sup> Tampa Bay Water Proposed Operating Budget, Fiscal Year 2023, July 12, 2022.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

#### 2.3.4 Cost Escalation

Annual cost escalation factors were determined for each O&M line-item expense in consultation with County staff<sup>24</sup> and Stantec's experience working with other utility systems and are reflective of both historical experience and current expectations for future cost inflation. The specific cost escalation factors utilized in each RSA are presented on Schedule 2 of Appendices A and B of this report.

Due to recently observed inflation in overall construction and material costs impacting the Utility's capital improvement projects, and through discussions with City staff, the RSA includes adjustments to the FY 2023 cost of the Utility's water and sewer capital projects. Beginning in FY 2024 annual compounding cost escalation of 3.0% was applied to all future capital projects to reflect future cost of construction.

#### 2.3.5 O&M Spending Execution

In FY 2022, each RSA reflects unaudited actual O&M expenditures, including personal services, TBW purchased water costs, and all other O&M.

Historically, the Utility has been able to realize savings by executing or spending less than its annual operations expense budget. Based upon a review of historical actuals to budgeted and discussions with PCU staff regarding future expectations, this RSA assumes execution factors of 95% for personnel expenditures and 100% for budgeted/projected O&M expenditures beginning in FY 2023 through the remainder of the projection period. Schedule 5 of Appendices A and B summarizes the projected annual O&M expenses for each RSA.

#### 2.3.6 CIP Spending Execution

The RSA utilized the CIP provided by County staff for FY 2022 through FY 2031 with assumptions for additional annual capital spending beginning in FY 2029. Consistent with the PCU's historical annual spending and Stantec's experiences with other public utilities, it is likely that even though funds for these projects will be identified and appropriated in subsequent budget years, actual expenditures and project construction will be spread out over a longer time due to procurement and permitting delays, construction/contractor resource constraints, weather, and other factors. As such, Stantec and PCU staff evaluated the level of historical and anticipated annual capital spending relative to the projects included in the CIP and developed a plan of estimated annual capital spending and cash flows during the projection period.

The resulting levels of capital spending included in the water system RSA assumes that approximately \$60.0 million of identified projects from FY 2023 through FY 2025 will be carried forward and spent between FY 2027 and FY 2032, in the amount of \$10.0 million annually. In addition, recognizing the substantial level of near-term planned expenditures, the County estimates that it will be able to execute 50% of its identified

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<sup>24</sup> County staff provided annual cost escalation factors that were consistent with those assumed in PCU's long-term strategic plan.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

annual CIP from FY 2023 increasing by 10% annually through FY 2026 and remaining at 80% through the remainder of the projection period.

The capital spending included in the RSA for the sewer system assumes that approximately \$130.0 million of identified projects from FY 2024 through FY 2027 will be carried forward and spent between FY 2028 and FY 2032. In addition, recognizing the substantial level of near-term planned expenditures, the City estimates that it will be able to execute 50% of its identified annual CIP from FY 2023 increasing to 80% through FY 2027, and increasing to 90% in FY 2028 through the remainder of the projection period.

In total, considering the cost escalation, the CIP, and estimated annual spending, total capital spending including inflation from FY 2022 – FY 2032 included in the RSA's is approximately \$402 million for the Water Fund and approximately \$596 million for the Sewer Fund. A detailed project listing is presented in Schedule 6 of Appendices A and B, respectively.

### 2.3.7 Borrowing Assumptions

Each RSA includes potential debt funding for the CIP. For new debt, the following parameters were assumed:

- Term: 30 Years
- Interest Rate: 5.5% for the Water Fund and 5.0% for the Sewer Fund<sup>25</sup>
- Structure: Level annual debt service, assuming interest-only payment in year of issuance
- Costs of Issuance: 2.0% of Par
- Debt Service Reserve: Equal to one year of annual debt service expense for the Water Fund<sup>26</sup>

### 2.3.8 Interest Earnings on Invested Funds

In FY 2022, actual interest earnings were reflected within each RSA. The projected annual interest earnings rate is 0.4% and 0.6% in FY 2023 for the water and sewer RSA, respectively, and 1.0% each year thereafter.<sup>27</sup>

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<sup>25</sup> Interest rate assumption is based upon discussions with County staff and Stantec's understanding of current market conditions. The Sewer Fund has existing debt obligations while the Water Fund does not have outstanding debt.

<sup>26</sup> No debt service reserve is assumed for the Sewer Fund which has outstanding debt.

<sup>27</sup> Interest earnings assumption reflects the County's Water and Sewer Forecast document as provided by County staff on December 12, 2022.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

#### 2.3.9 Minimum Reserve Balances

Reserve balances for utility systems are funds set aside for a specific cash flow requirement, financial need, projects, or legal covenant. These balances are maintained to meet short-term cash flow requirements, and at the same time, minimize the risk associated with meeting the financial obligations and continued operational and capital needs under adverse financial conditions. The level of reserves maintained by a utility is a critical component and consideration of developing a utility system multi-year financial management plan. Many utilities, rating agencies, and the investment community place a significant emphasis on having sufficient reserves available for potentially adverse conditions. The rationale related to the maintenance of adequate reserves is twofold. First, it helps to assure a utility that it will have adequate funds available to meet its financial obligations during unusual periods (i.e., when revenues are unusually low and/or expenditures are unusually high). Second, it provides funds that can be used for emergency repairs or replacements to the system that can occur because of natural disasters or unanticipated system failures.

PCU's minimum reserve targets which are outlined during the County's annual budgeting process include an operating reserve and a Renewal and Replacement (R&R) reserve:

- 1) Operating Reserve: A minimum operating reserve equal to at least 2.5 months of annual O&M expenses for the Water Fund and the Sewer Fund.
- 2) R&R Reserve: 5.0% of prior year gross revenues in each year of the projection period.

During the Rate Study, Stantec evaluated PCU's reserve levels within both the Water Fund and the Sewer Fund for consistency with industry guidance published by the American Water Works Association (AWWA)<sup>28</sup>, credit rating agencies (Fitch, Moody's, and S&P), and experience working with utility systems across the Country. As a result, Stantec developed separate reserve targets for purposes of this Study that reflect the following considerations for the Water Fund and Sewer Fund:

- Annual Renewal & Replacements Costs - One year of depreciation expense to ensure that the Utility can continually reinvest in aging assets.
- Insurance Deductible Costs – \$5 million per fund to cover property damage based upon a review of the Utility's property and flood insurance policy for its facilities.
- Revenue Loss – 120 days of operating expenses and debt service in the event of a natural disaster such as a hurricane when customer receipts may be impacted.

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<sup>28</sup> American Water Works Association (2018). *Cash Reserve Policy Guidelines* [White Paper].





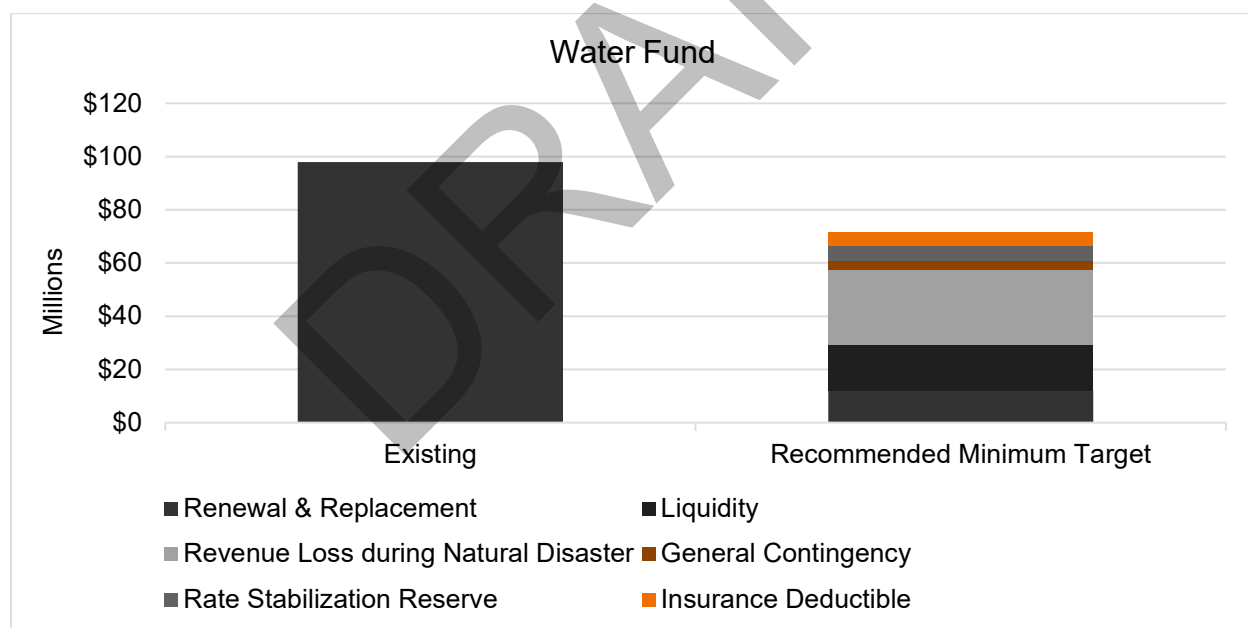
## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

- General Contingency – 4.0% of annual operating expenses, including costs related to Tampa Bay Water purchases for the Water Fund and 3.0% for the Sewer Fund to capture potential unplanned operating costs.
- Liquidity – 75 days of operating expenses and debt service.
- Rate Stabilization Reserve – Accounts for variations in volumetric rate revenue. Water is assumed at 7.0% of volumetric revenue based on the maximum annual change observed in historical demands. Sewer is assumed at 5.0% of volumetric revenue based on the maximum annual change observed in historical billed sewer flows.

These reserve targets represent approximately 300 days of O&M expenses for the Water Fund and approximately 400 days of O&M expenses for the Sewer Fund in FY 2023. It should be noted that Utility’s actual fund balances may fluctuate based upon the level of annual CIP spending and needed appropriations. Figures 5 and 6 provide a comparison of the Utility’s estimated fund balances compared to the developed reserve targets for the FY 2023 for the Water Fund and Sewer Fund, respectively.

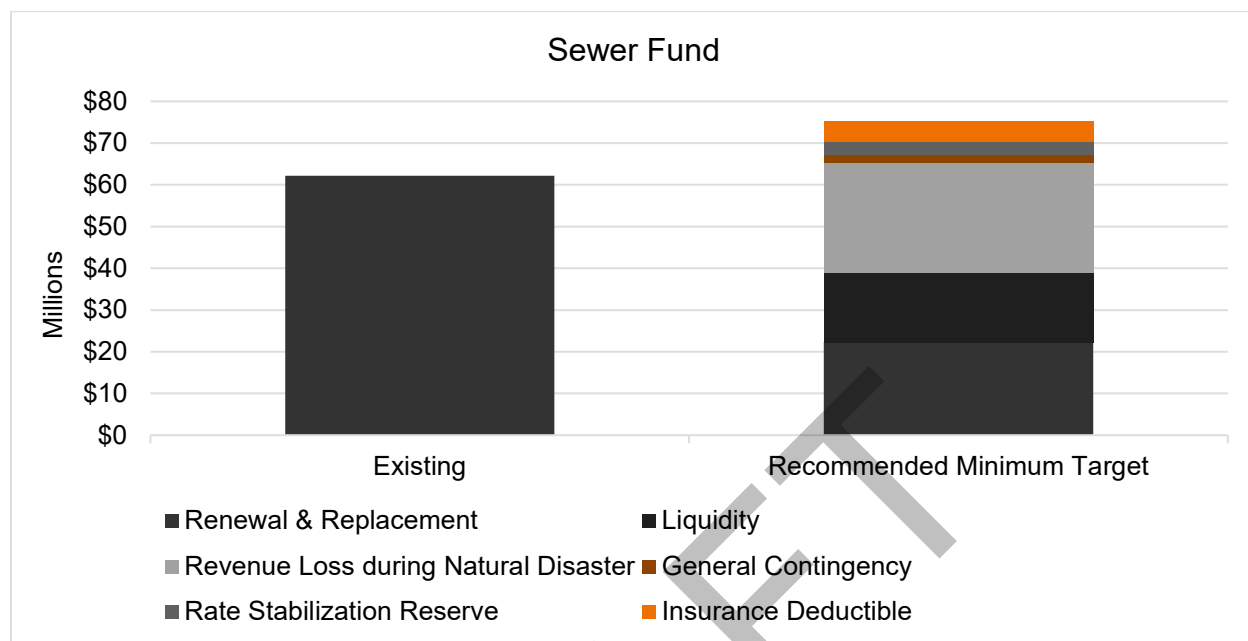
**Figure 5: FY 2023 Water Fund Recommended Reserves**



# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Revenue Sufficiency Analysis

**Figure 6: FY 2023 Sewer Fund Recommended Reserve Targets**



### 2.3.10 Rate Covenant/Debt Service Coverage

The Sewer Fund must maintain net revenues (gross revenues minus O&M expenses) that are at least 1.15 times greater than the annual debt service requirement (i.e., the annual principal and interest payments) on its outstanding debt, or 1.25 times greater if sewer connection or impact fee revenues are included. This coverage requirement is a minimum requirement. To the extent that the Sewer Fund is unable to meet these requirements, it could be found in technical default and could have its credit rating downgraded, which would affect the interest rates and terms of future financing initiatives.

As a policy decision, utilities often measure revenue sufficiency and set rates based upon a higher coverage requirement to ensure compliance with these covenants in the event future projections of revenues and expenses do not occur as predicted. Additionally, as leverage ratios such as debt service coverage are critical components of any utility’s credit rating and long-term financial sustainability, the financial management plan presented herein for the Sewer Fund achieves debt service coverage ratios of greater than 3.6 times net revenues throughout the projection period. This reflects ratios consistent with utility systems with AA and AAA ratings<sup>29</sup> throughout the projection period and is indicative of a financially healthy or strong system per the evaluation criteria published by each of the major municipal rating agencies.

The Water Fund does not currently have any outstanding debt obligations. However, to the extent any debt was to be issued in the future it is assumed that the Water Fund would be required to achieve a minimum debt service coverage ratio of 1.15 on net revenues, consistent with the minimum requirements of the

<sup>29</sup> Fitch Ratings, U.S. Water and Sewer: Peer Review 2022



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

Sewer Fund. The financial management plan presented herein for the Water Fund achieves debt service coverage ratios of greater than 5.8 times net revenues throughout the projection period.

## 2.4 REVENUE SUFFICIENCY RESULTS

To evaluate the sufficiency of existing rates, fees, and charges to fund PCU's revenue requirements over the planning period, a projection of revenue requirements and revenues at current rates was developed as described herein. Fundamentally, the objectives of each RSA were to determine if the current rates for FY 2023 are sufficient to fund the requirements of each utility system beginning in FY 2024, and to identify the level of projected future rate increase requirements that would be necessary for the remainder of a ten-year projection period extending through FY 2032. The supporting financial schedules for the Water Fund RSA are presented in Appendix A of this report, while the supporting financial schedules for the Sewer Fund RSA are presented in Appendix B of this report.

### 2.4.1 Financial Management Plan Options

Based upon the results of the RSAs completed for the Water Fund and the Sewer Fund, it was determined that the previously approved rate adjustments are sufficient to fund PCU's identified financial requirements in FY 2023. However, annual rate revenue adjustments were determined necessary to fund the projected financial requirements of the Water Fund and the Sewer Fund through FY 2032. Stantec presented three financial management plan options to the BOCC in March 2023 including alternate plans of rate adjustments that reflected different capital funding sources, including:

- Option A: Pay as You Go
- Option B: Partial Debt
- Option C: Debt Capacity

The BOCC gave direction to PCU staff to proceed with the partial debt options (Option B) for both the Water Fund and the Sewer Fund. The resulting financial management plans and the proposed rates reflective of the BOCC's direction are described in the remainder of this report.

### 2.4.2 Water Fund

Annual rate revenue adjustments of 5.0% were determined necessary to fund the projected financial requirements of the Water Fund through FY 2032 for both retail and wholesale customers.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Revenue Sufficiency Analysis

**Table 2-2: Recommended Water Rate Revenue Adjustments by Fiscal Year<sup>30</sup>**

Customer Type	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Retail	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Wholesale	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%

### 2.4.3 Sewer Fund

Based upon the results of the Sewer Fund RSA, it was determined that the previously approved rate adjustments are sufficient to fund the identified financial requirements in FY 2023. As shown in Table 2-3, annual retail rate revenue adjustments of 4.0% were determined necessary to fund the projected financial requirements of the Sewer Fund through FY 2032. As for wholesale sewer rates, no increases are projected through FY 2027, followed by annual increases of 4.0% through FY 2032 based on the results of the cost-of-service analysis described in Section 3 herein.

**Table 2-3: Recommended Sewer Rate Revenue Adjustments by Fiscal Year<sup>31</sup>**

Customer Type	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Retail	9.50%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Wholesale	9.50%	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%

Beginning in FY 2024, per the results of the Rate Design Analysis (described in Section 4 herein), Stantec recommends reclaimed water rate adjustments that over the four-year rate plan results in the overall rate adjustments shown in Table 2-4. Thereafter, it is assumed that PCU will continue with a plan of future adjustments that are at least equal to the sewer system increases beginning in FY 2028. This rate plan for reclaimed water service is expected to increase the portion of the cost of service that is recovered by the users of the system by approximately 10.0% when compared to FY 2023 costs.

<sup>30</sup> FY 2023 water rates were adopted by the BOCC on May 21, 2019.

<sup>31</sup> FY 2023 sewer rates were adopted by the BOCC on May 21, 2019.



**WATER, SEWER & RECLAIMED WATER RATE STUDY**

Revenue Sufficiency Analysis

**Table 2-4: Recommended Reclaimed Water Rate Revenue Adjustments by Fiscal Year<sup>32</sup>**

<b>System</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 2030</b>	<b>FY 2031</b>	<b>FY 2032</b>
Reclaimed Water	5.58%	6.44%	6.39%	6.63%	6.84%	4.00%	4.00%	4.00%	4.00%	4.00%

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<sup>32</sup> FY 2023 reclaimed water rates were adopted by the BOCC on May 21, 2019, and reflected an estimated aggregate 5.58% combined (retail and wholesale) adjustment. FY 2024 through FY 2032 reflect aggregated retail and wholesale rate adjustments based on the specific recommended rates outlined in Appendix F.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Cost of Service

## 3.0 COST OF SERVICE

As part of the Study, Stantec performed a cost-of-service analysis to isolate the costs of the water, sewer, and reclaimed water systems and then determine the portion of those costs allocable to each respective system function. Stantec then identified the system functions and corresponding costs that would be utilized to determine the costs to provide both retail and wholesale service for each utility system. To determine the cost of service-based allocation between retail and wholesale customer or service classes, Stantec conducted separate Cost of Service Analyses (COSA) for PCU's water, sewer, and reclaimed water utility systems. The following sub-sections present the procedures and results of each COSA. Appendices C, D, and E of this report present the supporting schedules for the water system COSA, sewer system COSA, and reclaimed water system COSA respectively.

### 3.1 WATER AND SEWER

#### 3.1.1 Retail and Wholesale

To initialize each COSA, the FY 2023 Budget requirements, net of projected off-setting revenues, were identified, and allocated by function to the water and sewer utility systems. The water system requirements were allocated between supply and distribution functions, while the sewer system requirements were allocated between treatment and disposal (T&D) and collection and transmission (C&T) functions. Upon allocating the net requirements of each system by function, the projected FY 2023 flows by customer class (i.e., retail and wholesale customers) were used to allocate the net requirements between customer classes. The components of budgeted requirements allocable by function include 1) debt service costs, 2) operating and maintenance (O&M) expenses, 3) general and administrative (G&A) expenses, 4) renewal, replacement, and improvement (R&R) project expenses, and 5) capital equipment expenses, less 6) off-setting revenues (i.e., all non-rate revenues).

Debt service costs were allocated by function based upon the direct benefit received from the proceeds of each issuance. Cost centers identified as O&M costs were allocated by function based upon the direct benefit received by those cost centers based upon our industry experience and discussions with County staff. Cost centers identified as G&A costs were allocated by function based upon an average 3-year allocation of O&M expenses. Capital costs identified as R&R project expenses were allocated by function based upon the direct benefit received by those costs. Minor capital outlay costs identified as capital equipment expenses included administrative and business support cost centers are allocated by function consistent with G&A costs, and water and sewer cost centers are allocated by function based upon direct benefit received. Off-setting revenues consisting of interest income are allocated by function based upon the 3-year average of total system costs, and all other off-setting revenues are allocated by function based upon the nature of system costs recovered by each respective revenue-type.

Upon determining the total budgeted requirements of each utility system by function, a portion of the distribution (water system) and collection (sewer system) requirements were allocated to the wholesale



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Cost of Service

customer class based upon a reasonable approximation of the minimum below-ground assets (represented by an inch-feet analysis of pipe) that would be required to serve the wholesale customer class (37.6% for the water system and 20.7% for the sewer system). The resulting distribution and collection costs allocable to wholesale customers, plus the costs already allocated to the supply (water system) and treatment and disposal functions (sewer system), were then allocated to the wholesale customer classes based upon the ratio of projected FY 2023 wholesale flows to projected FY 2023 total flows for the water and sewer systems. The remaining requirements were then allocated to the retail customer class.

#### 3.1.2 Fixed and Variable

Once the total retail costs of service were identified, each cost center and budget requirement were assigned as either fixed or variable. Cost requirements were allocated directly as fixed if the water or sewer system would incur the cost even though the volume of water or sewer flows may fluctuate. Budget requirements were allocated as variable if the cost would fluctuate as water or sewer flows either increased or decreased. Some costs were allocated between fixed and variable if the nature of the department or cost center had both fixed and variable components, such as laboratories for water quality sampling or pump station costs.

### 3.2 RECLAIMED WATER

The cost of providing reclaimed water service is comprised of three cost components: O&M expenses, new capital requirements (as identified within the capital improvement program), and historical capital investment (net of contributed or grant-funded<sup>33</sup> capital).

The O&M expenses associated with the provision of reclaimed water service were based upon a detailed allocation of the Sewer Fund FY 2023 Budget requirements. With the assistance of County staff, each Sewer Fund cost center was allocated by service (i.e., between sewer and reclaimed water) based upon specific criteria, such as rate revenue, estimated flows, customer count, historical and projected capital spending, estimates, or on an indirect basis (reflecting the overall allocation of all O&M expenses by service). The allocation of the Sewer Fund FY 2023 Budget requirements is presented by cost center on Schedule 1 of Appendix E of this report, while the criteria legend utilized in determining the allocation of each cost center is presented on Schedule 2 of Appendix E.

The new capital requirements associated with the provision of reclaimed water service were based upon a detailed allocation of the Sewer Fund capital improvement program. With the assistance of County staff, each capital project was allocated by service, while the R&R was allocated based upon the overall allocation of all Sewer Fund FY 2023 Budget O&M expenses between the sewer and reclaimed water systems. The allocation of the new capital requirements of the Sewer Fund is presented in project-level detail on Schedule 3 of Appendix E of this report.

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<sup>33</sup> Represents reimbursements from Southwest Florida Water Management District, Indian Rocks Beach, Bay Pines, and estimated contributed capital.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Cost of Service

The historical capital investment requirements associated with the provision of reclaimed water service were based upon the estimated annual amortization of historical capital investment in the reclaimed water system, net of contributed or grant funded capital, through FY 2021<sup>34</sup>. Per past input from County staff and previous rate studies, it was assumed that 80% of net historical capital investment was funded with bonds and the remaining 20% with cash. The imputed debt service requirement for the bond funded portion of net historical investment was based upon an assumed 3.0% annual cost of borrowing and 30-year term, whereas the annual depreciation for the cash funded portion was based upon an assumed 50-year useful life. The calculation of annual historical capital investment requirement is presented on Schedule 4 of Appendix E of this report.

The identified costs of providing reclaimed water service were then allocated, by cost component<sup>35</sup>, to the reclaimed water system's various functions<sup>36</sup> and then to the retail<sup>37</sup> and wholesale<sup>38</sup> customer classes based upon the units of service that each customer represents. Costs designated as treatment, transmission, and customer were allocable to both retail and wholesale customer class and allocated in proportion to their FY 2022 reclaimed water flows and number of bills, respectively, while distribution and high-service pumping & storage costs were allocated to the retail customer class only. The allocation of reclaimed water costs, by cost center and component, to functional components and to the retail and wholesale customer classes is presented on Schedule 5 of Appendix E of this report.

### 3.3 RESULTS

For each utility system, the resulting FY 2023 net cost requirements by customer class were then compared to projected FY 2023 rate revenue by customer class to determine if the current retail and wholesale rate structures are recovering the appropriate share of revenue as defined by each COSA. The results of each COSA are as follows:

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<sup>34</sup> Historical capital investment in the reclaimed water system, as well as the portion funded from grants, was provided by County staff.

<sup>35</sup> The allocation of the O&M cost component to the retail and wholesale customer classes occurred at the cost center level.

<sup>36</sup> Includes customer related costs, treatment & production, transmission, distribution, and high-service pumping & storage.

<sup>37</sup> Includes users not defined as wholesale customers, including all retail customers and those customers that may be charged via the terms of special service agreements (i.e., golf courses).

<sup>38</sup> Includes the four municipalities provided wholesale reclaimed water service, including Belleair, Pinellas Park, South Pasadena, and St. Pete Beach.





## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Cost of Service

#### 3.3.1 Water

Per the allocation process described, the resulting results of the water cost of service analysis are summarized in Table 3-1.

**Table 3-1: Test Year Water Cost of Service<sup>39</sup>**

Water System	Retail	Wholesale	Total
Cost	\$79.0M	\$15.1M	\$94.1M
% of Costs	83.9%	16.1%	100.0%
Revenue	\$78.1M	\$16.1M	\$94.1M
% of Revenue	82.9%	17.1%	100.0%

The results of the COSA and revenue distribution provided by the current rates is well within acceptable tolerances recognizing the changes in cost allocations that can occur from year to year. Cost of service analyses reflect a specific point in time of “normalized” conditions which are subject to changes in costs and customer demands over time. As such, and in conjunction with PCU’s rate design objectives, it is recommended that the County adjust both its retail and wholesale water rates as described herein. In addition, future consideration should be given for potential reductions in future Clearwater wholesale demands as such reductions may impact the allocation of costs by customer class reliant upon the allocation of metered demands.

Based upon the allocation of the water system’s retail costs between fixed and variable, approximately \$66.4 million, or 84.0%, are fixed costs. In comparison, only \$12.6 million, or 16.0% of retail revenue is recovered from fixed charges. Based upon Stantec’s industry experience and rating agency guidelines, many systems will target a larger fixed revenue recovery percentage, which is one of the objectives identified in the recommended rate structure modifications outlined in Section 4 herein.

The supporting schedules for the water system COSA are presented in Appendix C of this report.

#### 3.3.2 Sewer

Per the allocation process described, the resulting results of the sewer cost of service analysis are summarized in Table 3-2.

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<sup>39</sup> Totals may not add due to rounding.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Cost of Service

**Table 3-2: Test Year Sewer Cost of Service**

<b>Sewer System</b>	<b>Retail</b>	<b>Wholesale</b>	<b>Total</b>
Cost	\$93.2M	\$11.5M	\$104.7M
% of Costs	89.0%	11.0%	100.0%
Revenue	\$91.3M	\$13.4M	\$104.7M
% of Revenue	87.2%	12.8%	100.0%

The results of the COSA demonstrate a strong correlation between costs and revenues for each customer class with wholesale customers slightly over-recovering their costs. However, in conjunction with PCU's rate design objectives considering these results, it is recommended that that the County adjust only its retail sewer rates and maintain the existing wholesale sewer rates during the four-year rate planning period through FY 2027 as described herein.

Based upon the allocation of the sewer system's retail costs between fixed and variable, approximately \$65.6 million, or 70.4%, are fixed. In comparison, \$27.6 million, or 29.6% of retail revenue is recovered from fixed charges. This resulting level of cost recovery from fixed charges is consistent with Stantec's industry experience and rating agency guidelines for reasonable targets of revenue to be recovered from fixed charges.

The supporting schedules for the sewer system COSA are presented in Appendix D of this report.

### **3.3.3 Reclaimed Water**

Per the allocation process described for the sewer system COSA, approximately \$21.6 million of FY 2023 net sewer system cost requirements were allocated to the reclaimed water system. The FY 2023 allocated reclaimed water cost requirements by customer class were then compared to projected FY 2023 rate revenue by customer class to determine if the current retail and wholesale rates are recovering the appropriate share of revenue as defined by the reclaimed water cost of service-based allocation as summarized in Table 3-3.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Cost of Service

**Table 3-3: Test Year Reclaimed Water Cost of Service<sup>40</sup>**

<b>Reclaimed Water System</b>	<b>Retail</b>	<b>Wholesale</b>	<b>Total</b>
Cost	\$16.5M	\$5.0M	\$21.6M
% of Costs	76.6%	23.4%	
Revenue	\$6.7M	\$1.0M	\$7.7M
% of Revenue	87.0%	13.0%	

In total, projected FY 2023 reclaimed water rate revenues recover 35.9% of the total identified cost of providing reclaimed water service. The revenue generated by reclaimed water rates, especially those set by special service agreements with wholesale and large retail customers, is significantly less than the cost of providing reclaimed water service. Therefore, it is recommended that the County take any opportunity available to review its special service agreements and when possible, adjust the reclaimed water rates charged to its wholesale and large retail customers, at a minimum by the increase in retail reclaimed water rates, so that the level of cost recovery from these users is more consistent with that of the PCU's traditional retail customers, while keeping in mind any market price limitations. Furthermore, to enhance the level of cost recovery from the reclaimed water rates charged to retail customers, Stantec recommends that the County adjust both its retail and wholesale rates during the four-year rate.

The supporting schedules for the reclaimed water system COSA are presented in Appendix E of this report.

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<sup>40</sup> Totals may not add due to rounding.



### 4.0 RATE DESIGN

The purpose of the financial plan was to identify required rate adjustments to meet the revenue requirements of the water and sewer systems. The purpose of the COSA was to identify the recovery of costs between systems, between retail and wholesale customer classes, and between fixed and variable components. The next component of the Study was to evaluate the Utility's existing retail rates and rate structure and to provide recommended rates for the four-year period FY 2024 through FY 2027. The following sub-sections present a description of the basis of the recommended rate structures, supporting FY 2024 rate schedules, and customer impacts of the FY 2024 rate recommendations. The recommended rate structures presented herein is intended for implementation on October 1, 2023 (FY 2024), for services provided during the preceding month. Complete rate schedules for both retail and wholesale customers to be effective on October 1 of each fiscal year for FY 2024 through FY 2027 are provided in Appendix F.

#### 4.1 RATE STRUCTURE REVIEW

Stantec reviewed the County's existing water, sewer, and reclaimed water retail rate structures in the context of several aspects, including:

- More equitable recovery of PCU's cost of service between fixed and variable costs
- Conformance to accepted national and local industry practices
- Assurance of fiscal stability and increased recovery of fixed costs through base charges
- Promote resource conservation and consideration of the impact of current and future water quality and environmental regulations
- Improve affordability to low and average volume users
- Minimize the administrative burden during implementation while enabling changes to be easily understood by customers

##### 4.1.1 Water Rates

Customary practice is a two-part rate structure comprised of both fixed and variable charges. Generally accepted practice in the water industry includes recovery of a portion of the costs of the system in a fixed readiness-to-serve charge. This practice recognizes that utilities have substantial investments in capital related costs and other fixed costs that are incurred year-round to maintain a state of readiness to meet demands of their customers when they occur.



# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Rate Design

### 4.1.1.1 Base Charges

PCU presently has a fixed charge for water service regardless of whether there is any measured water use, which is a base charge per account for all retail customers that is scaled by meter size according to the standard maximum safe operating flow rates in proportion to a five-eighths inch or three-quarter inch meter as published by the AWWA and summarized in Table 4-1. A review of local utility water base charges indicates varying meter equivalency ratios while many systems utilize the same meter equivalency ratios as PCU does.

**Table 4-1: Meter Equivalency Ratios<sup>41</sup>**

Meter Size	Meter Equivalency Ratio
5/8" or 3/4"	1
1"	2.5
1 1/2"	5
2"	8
3"	16
4"	25
6"	50
8"	80

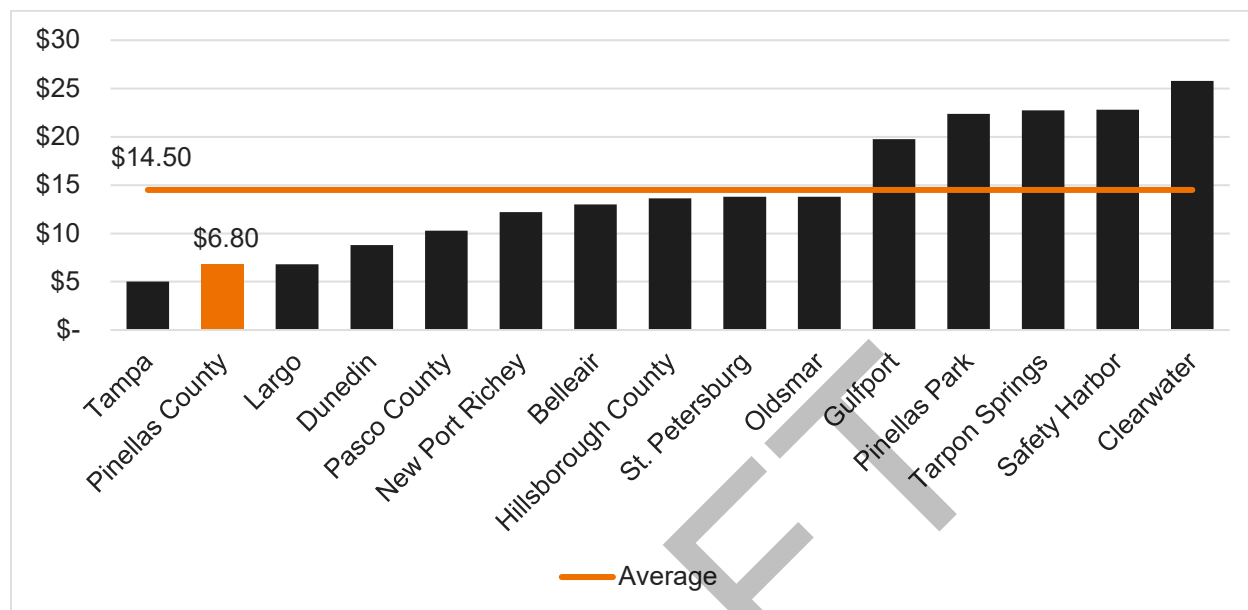
A review of water base charges for a five-eighths inch or three-quarter inch meter equivalent of local water utilities is provided in Figure 7 and demonstrates that PCU's existing base charges are much lower than the regional average and reflective of the relatively low level of cost recovery from fixed charges summarized in Section 3 of this report.

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<sup>41</sup> Meter equivalent ratios based upon the standard maximum rate safe operating flow rates per Table 6-1 of the AWWA Manual of Practice M22.



Figure 7: Local Water Base Charge Comparison (5/8” or 3/4” Meter Equivalent)<sup>42</sup>



4.1.1.2 Volumetric Rates

PCU’s volumetric rate structure for potable water is a uniform rate applied per 1,000 gallons of water use. Industry practice for communities in and surrounding Pinellas County and throughout Florida, is to utilize an inclining block structure whereby the volumetric rates increase as usage increases to promote water conservation and promote price incentives to reduce discretionary water use, notably outdoor irrigation. Figure 8 summarizes the water volumetric rate structure for residential customers including tiers and pricing for local agencies. As can be seen, PCU is the only agency that does not have an inclining block rate structure for residential customers.

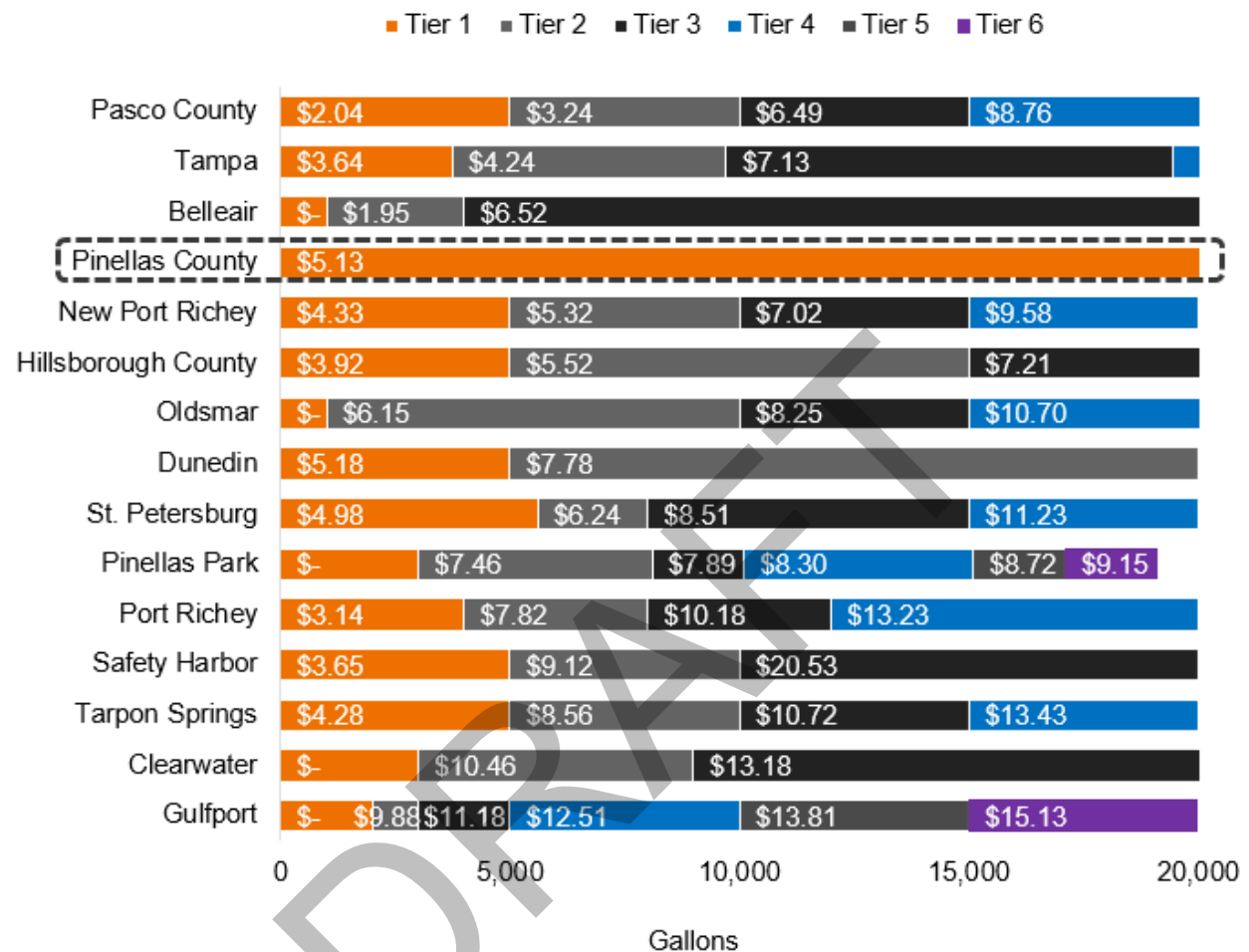
<sup>42</sup> Rates as of January 2023.



# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Rate Design

**Figure 8: Local Water Tier Size and Rate Comparison<sup>43</sup>**



### 4.1.2 Sewer Rates

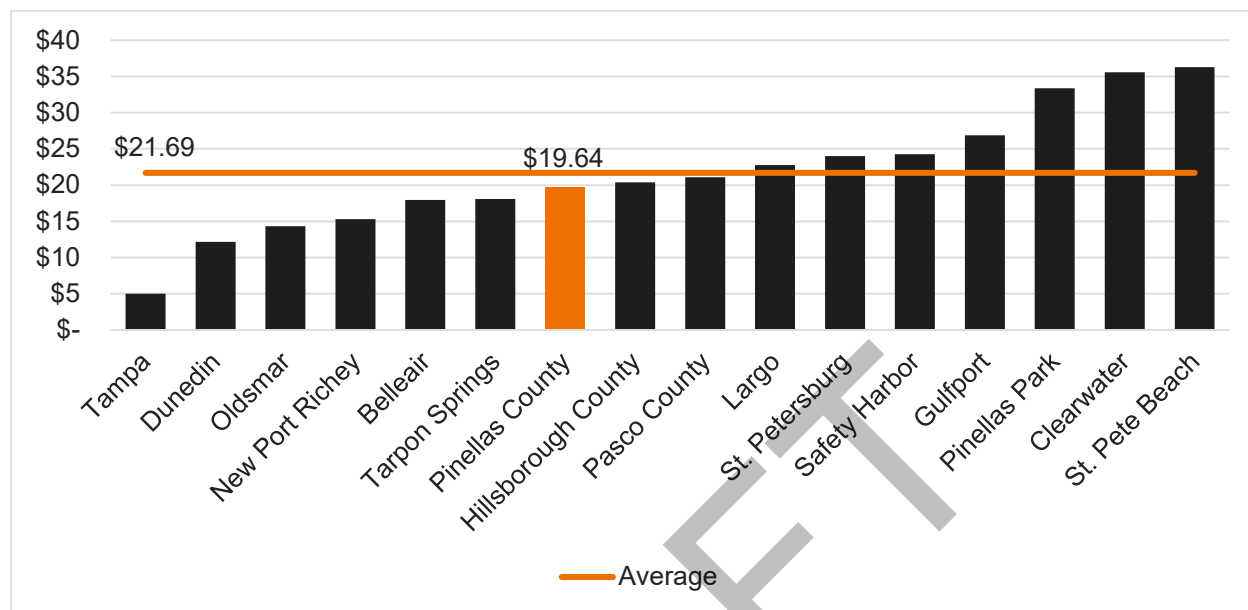
#### 4.1.2.1 Base Charges

PCU presently has a fixed charge for sewer service regardless of whether there is any measured water use, which is applied per account for residential customers or per Equivalent Residential Unit (ERU) for commercial accounts, which is determined as 5,000 gallons of measured water use per month. A local comparison of sewer base charges for one ERU is provided in Figure 9 and demonstrates that PCU’s existing sewer base charge is comparable to other local sewer systems.

<sup>43</sup> Reflects tiers for a residential customer with a 5/8” meter with rates as of January 2023.



Figure 9: Local Sewer Base Charge Comparison (One ERU)<sup>44</sup>



4.1.2.2 Volumetric Rates

PCU currently applies a uniform volumetric rate to all retail sewer customers based upon metered water use, capped at 10,000 gallons per month for residential sewer customers, recognizing that water use above that threshold is typically related to outdoor usage that never enters the sewer collection system. This structure is consistent with the industry and communities throughout Florida.

4.1.3 Reclaimed Water Rates

PCU currently provides retail reclaimed water to approximately 14,500 of its customers, the vast majority of which are residential and unmetered. The Utility’s existing reclaimed water rate structure for unmetered residential customers is a flat rate per month regardless of the amount of reclaimed water used. Metered customers pay a volumetric rate per thousand gallons of reclaimed water use. A summary of PCU’s rate structure which applies to different retail reclaimed water customers includes:

- Flat rate user fee: fixed rate for un-metered customers
- Volumetric rate: uniform volumetric rate per 1,000 gallons for customers with metered service

<sup>44</sup> Rates as of January 2023.





## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Rate Design

- Billing charge: flat charge that varies for customers without water or sewer service in recognition that PCU incurs an additional cost to provide billing and customer service to these customers not already included in the cost of water and sewer service
- Availability charge: fixed rate applied only to customers with unfunded customers in recognition that the County incurred costs for distribution infrastructure to provide reclaimed water to these customers. This charge should continue until FY 2029 when the associated debt is retired.

## 4.2 RATE STRUCTURE MODIFICATIONS

Upon review of PCU's existing rate structure for water, sewer, and reclaimed water service, Stantec identified several rate structure modifications to be considered for implementation. Detailed schedules of recommended rates for FY 2024 through FY 2027 are included in Appendix F of this report.

### 4.2.1 Water

#### 4.2.1.1 Base Charges

As a result of the 2019 Rate Study, PCU implemented a scaled base charge applied based upon the connection's meter size and consistent with local and customary industry practice recognizing higher potential water demand that PCU must size its water system to meet and therefore reflected in a commensurate readiness-to-serve charge. While this modification to the rate structure addressed proportionately in cost recovery between customers with meters of varied sizes, the level of retail revenues recovered from fixed charges is only approximately 16%. While improved from the prior rate study, this level of cost recovery could lead to revenue instability if water demands decreased and demonstrates a disconnect between the fixed costs of the water system and the fixed revenues it receives from customers. As such, Stantec recommends that PCU maintain its existing base charge structure but apply a higher portion of the overall 5.0% recommended rate increase in each year from FY 2024 through FY 2027 to base charges and therefore increase the percentage of revenue recovered from the base charges to approximately 22.0%.

#### 4.2.1.2 Volumetric Rates

As discussed, an inclining block rate structure for residential customers is common both locally and throughout Florida. Stantec recommends that PCU establish an initial two-block inclining rate structure for residential and multi-family customers and maintain the uniform rate applicable to non-residential customers. This structure establishes a lower unit price per thousand gallons to recover the water system's average day costs in the first tier while tier two is priced higher to recover the costs of PCU to meet peak demands. The recommended tiers are summarized in Table 4-2.



# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Rate Design

**Table 4-2: Recommended Residential Inclining Block Structure**

Block	Monthly Water Demand
Block 1	0 – 4,000 Gallons per Unit
Block 2	All Use Above 4,000 Gallons per Unit

For multi-family master-metered customers whereby PCU has identified the number of dwelling units associated with the meter, the blocks should be scaled by the number of units (i.e., the block one rate would be applied to the first 40,000 gallons per month for a multi-family residential building with ten units).

Operational changes such as PCU's on-going AMI implementation and a potential shift from bi-monthly to monthly billing will allow PCU to gather important data and give customers more immediate opportunity to modify water use behaviors and implement a more comprehensive inclining-block rate structure with additional blocks and pricing in future rate studies.

No structural modifications are recommended to the uniform volumetric rate for non-residential customers.

Recommended volumetric water rates in FY 2024 through FY 2027 include this structural modification and are designed to recover the remaining revenues not recovered from the base charges.

### 4.2.2 Sewer

No structural modifications are recommended to the sewer base charges or volumetric rates. As such, the recommended sewer rate revenue adjustments identified in the RSA portion of this Study should be applied across-the-board to the sewer system's base charges and volumetric rates.

### 4.2.3 Reclaimed Water

As a result of the 2019 Rate Study, PCU addressed the key objective of standardizing rates between like customer types. During this analysis, Stantec and PCU staff identified two key objectives to address relative to reclaimed water rates as meters are deployed; 1) develop a fixed and variable component for metered service like PCU has for water and sewer service to provide a pricing signal for excessive reclaimed water use and provide enhanced revenue stability to recover fixed costs during periods when reclaimed water is not widely used, and 2) improve overall cost recovery. As such, Stantec recommends the following reclaimed water rate structure modifications which will apply to all customers as they are metered:

- Establish a base charge including an allowance of reclaimed water user per month. The volumetric rate will apply to demand above the monthly allowance.



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Rate Design

- Establish the monthly allowance to be 20,000 gallons in FY 2024, 18,000 in FY 2025, 16,000 gallons in FY 2026, and 15,000 gallons in FY 2027. This represents a reasonable allowance of irrigation needs for the typical single-family residence while the phased implementation will minimize the impact to customer's bills as they adjust their usage patterns.

Stantec doesn't recommend modifications to the flat fee rate structure for unmetered customers which will eventually become obsolete once all reclaimed water customers are metered, which is estimated to occur by FY 2027. However, the recommended rates for FY 2024 through FY 2027 reflect increases to continue to improve overall cost recovery for the retail customers. No changes are recommended to the bi-monthly billing charge or to the monthly availability charge for unfunded customers. However, Stantec does recommend retiring the availability charge after FY 2028 when the debt service for the localized and County funded distribution infrastructure debt is retired.

In addition, while no structural modifications are recommended for the wholesale rates, increases are recommended to significantly improve the level of cost recovery for these customers. Overall (retail and wholesale) projected reclaimed water system cost recovery with the recommended rate structure modifications and rate adjustments is shown in Table 4-3.

**Table 4-3: Reclaimed Water System Cost Recovery (FY 2023 Costs)**

FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
36%	38%	41%	43%	46%

Schedules of recommended reclaimed water rates for FY 2024 through FY 2027 are included in Appendix F of this report.

### 4.3 CUSTOMER BILL IMPACTS

Table 4-4 presents the monthly impacts of the recommended rate structure for FY 2024 to a single-family residential customer with water and sewer service. The typical usage of a single-family residential customer is approximately 5,000 gallons per month. Additional customer bill impact tables for commercial customers with larger meters are provided in Appendix F.



**WATER, SEWER & RECLAIMED WATER RATE STUDY**

Rate Design

**Table 4-4: Residential 3/4” Meter Customer Water & Sewer Monthly Bill Impacts**

Water Use (Kgals)	Cumulative % Bills	Total Bill: Existing FY 2023 Bill	Total Bill: Proposed FY 2024 Rates	\$ Change	% Change
0	4%	\$26.44	\$28.48	\$2.04	7.7%
1	13%	\$38.74	\$39.77	\$1.03	2.7%
2	27%	\$51.04	\$51.06	\$0.02	0.0%
3	43%	\$63.34	\$62.35	-\$0.99	-1.6%
4	58%	\$75.64	\$73.64	-\$2.00	-2.6%
5	70%	\$87.94	\$89.79	\$1.85	2.1%
6	77%	\$100.24	\$105.94	\$5.70	5.7%
7	82%	\$112.54	\$122.09	\$9.55	8.5%
8	86%	\$124.84	\$138.24	\$13.40	10.7%
9	88%	\$137.14	\$154.39	\$17.25	12.6%
10	90%	\$149.44	\$170.54	\$21.10	14.1%
11	92%	\$154.57	\$179.23	\$24.66	16.0%
12	93%	\$159.70	\$187.92	\$28.22	17.7%
13	94%	\$164.83	\$196.61	\$31.78	19.3%
14	94%	\$169.96	\$205.30	\$35.34	20.8%
15	95%	\$175.09	\$213.99	\$38.90	22.2%
16	96%	\$180.22	\$222.68	\$42.46	23.6%
17	96%	\$185.35	\$231.37	\$46.02	24.8%
18	97%	\$190.48	\$240.06	\$49.58	26.0%
19	97%	\$195.61	\$248.75	\$53.14	27.2%
20	97%	\$200.74	\$257.44	\$56.70	28.2%

Table 4-5 presents the monthly impacts of the recommended reclaimed water rate structure for FY 2024. Additional customer bill impact tables for FY 2025 through FY 2027 are provided in Appendix F.



**WATER, SEWER & RECLAIMED WATER RATE STUDY**

Rate Design

**Table 4-5: Reclaimed Water Monthly Bill Impacts**

<b>Customer Type</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>% Change</b>	<b>Customers<sup>45</sup></b>	<b>% Of Customers</b>
Funded/Un-Metered	\$23.00	\$24.00	4.3%	759	5.2%
County Funded/Un-Metered	\$23.00	\$24.00	4.3%	13,285	91.5%
Funded/Metered (20,000 gallons per month)	\$23.00	\$24.00	4.3%	58	0.4%
County Funded/Metered (20,000 gallons per month)	\$23.00	\$24.00	4.3%	415	2.9%

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<sup>45</sup> Represents customer counts from PCU’s FY 2022 billing data. Reflects customers using reclaimed water service (excludes customers paying only a monthly availability charge). Total reclaimed water customer accounts with service available as of July 25, 2022, were approximately 23,000 as provided by PCU staff.



## **5.0 BENCHMARKING**

As part of this Rate Study, Stantec performed comparative surveys of residential water, sewer, and reclaimed water rates and resulting bills at various usage levels to provide perspective on how the existing and calculated water and sewer bills for the County compare with neighboring communities. Additionally, Stantec evaluated recent national trends relative to water and sewer costs.

### **5.1 LOCAL BILL COMPARISONS**

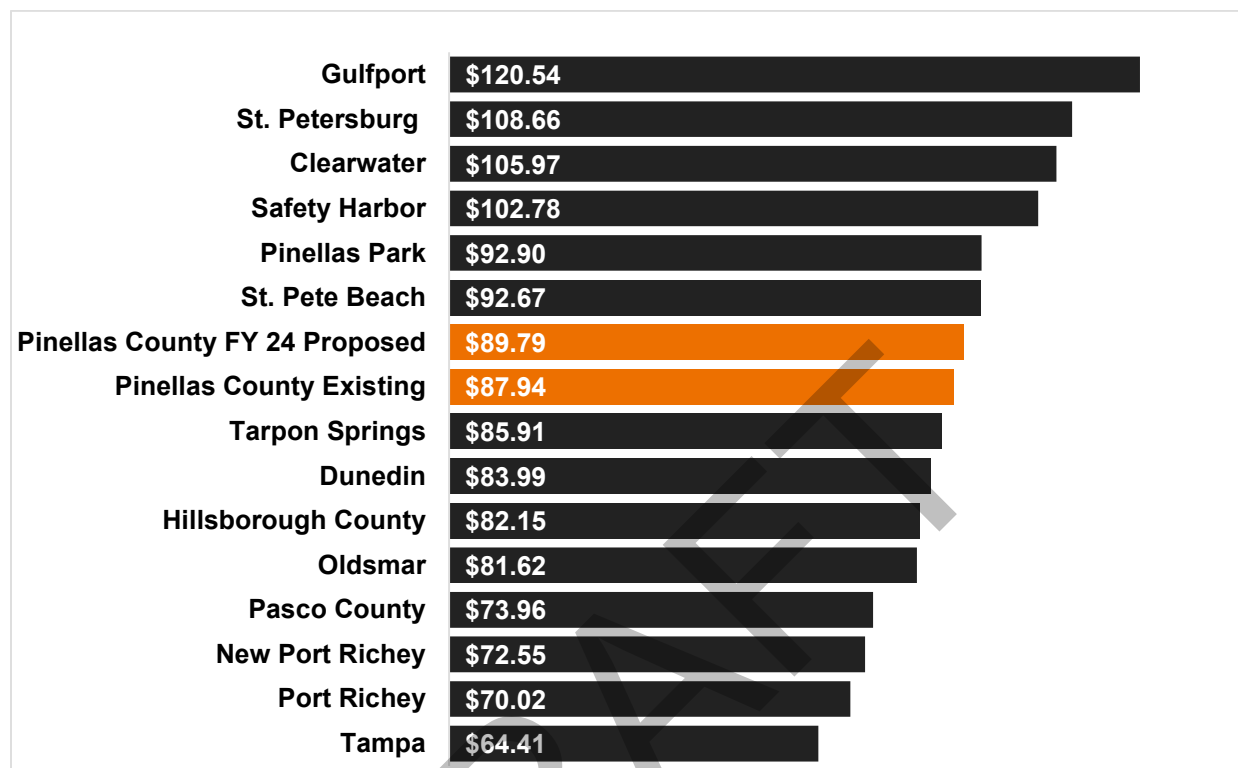
Stantec completed a local residential monthly water and sewer bill comparisons based upon the Utility's various amounts of monthly water use. Specifically, surveys were conducted for three distinct types of single-family residential users: "Low-End" Users using 3,000 gallons of water per month, "Typical" Users using 5,000 gallons of water per month, and "High-End" Users using 10,000 gallons of water per month and are provided in Appendix G. The comparisons of water and sewer bills included the neighboring communities from the greater Tampa Bay area based upon rates in effect during FY 2023. These comparisons demonstrate that the Utility's rates and resulting bills for the typical residential customer are comparable to the monthly cost of other local agencies. Furthermore, they are expected to remain comparable in the foreseeable future to other communities given the recommended rate indexing plan identified herein and already adopted or planned multi-year plans of rate adjustments from other agencies. The combined water and sewer bill for 5,000 gallons for FY 2023 and recommended rates for PCU in FY 2024 is provided in Figure 10.



# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Benchmarking

**Figure 10: Local Water and Sewer Residential Monthly Bill Comparison (5,000 Gallons)<sup>46</sup>**



Furthermore, a separate survey of neighboring communities from the surrounding geographic area was conducted which compared the monthly cost for residential reclaimed water service assuming the FY 2023 rates for 1) unmetered residential customers and 2) metered residential customers using 20,000 gallons per month. The results of each survey demonstrate that PCU's monthly residential reclaimed water bills are within the range of other neighboring communities. Results of each survey are presented in Appendix G of this report.

## 5.2 NATIONAL INDUSTRY TRENDS

The levels of the recommended rate adjustments presented herein are comparable to national trends and our local industry experience. Figure 11 provides the annual change in water and sewer bills for the typical residential customer since 2013 as measured by the United States Consumer Price Index (CPI) Water and Sewerage Maintenance Series, which have increased by 3.9%<sup>47</sup> annually. Longer-term, this index has

<sup>46</sup> Based on FY 2023 rates.

<sup>47</sup> Measured by the annual change in the index from October of each year.

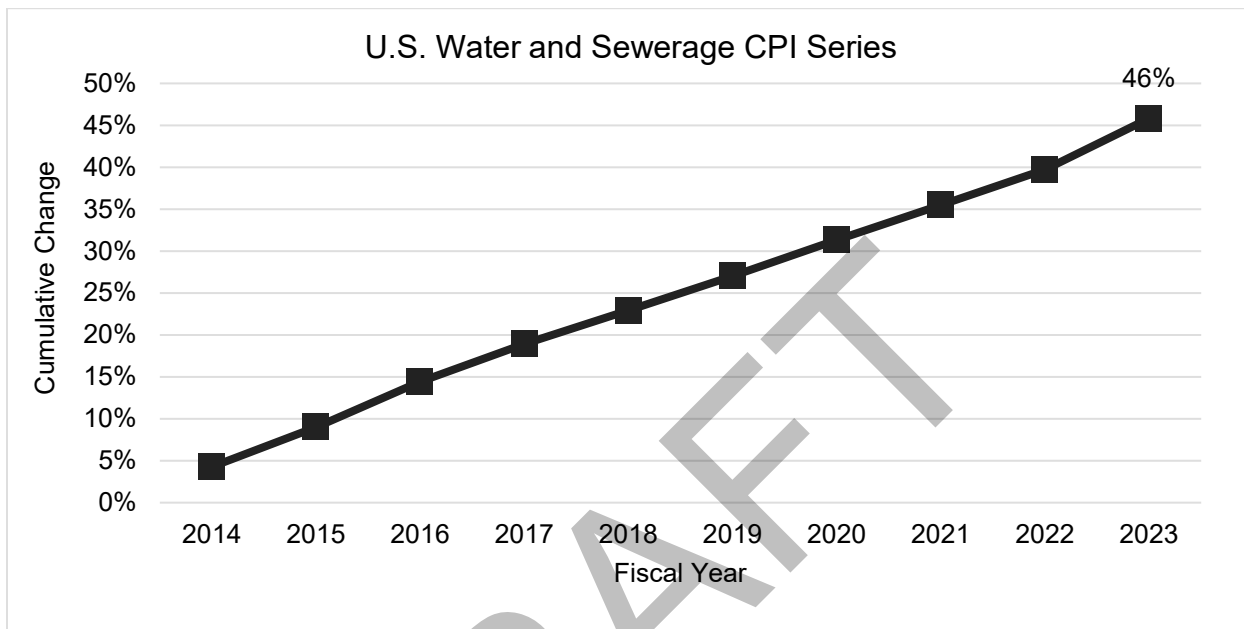


# WATER, SEWER & RECLAIMED WATER RATE STUDY

## Benchmarking

observed annual increases averaging 4.9% since 2003 while more recently the index increased during the twelve-month period ending March 2023 by 4.9%.

**Figure 11: Cumulative Change in Water and Sewer Cost to Typical Residential Customer**





## 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon the analyses presented in this report, Stantec has reached the following conclusions and recommendations:

- Based upon the data and assumptions presented herein, the approved FY 2023 water rate adjustments, followed by 5.0% annual water system rate revenue adjustments each year thereafter, have been determined sufficient to fund the financial requirements of the Water Fund through the immediate five-year planning and ten-year projection period assuming the utilization of some level of debt financing for the identified CIP.
- The capital financing plan developed for the Water Fund includes funding of approximately \$33 million in capital projects annually over the immediate five-year planning period from a combination of grants, PAYGO (cash funding), and the issuance of approximately \$21 million in new borrowing. The Water Fund does not carry outstanding debt and anticipated borrowing needs are not projected until FY 2026. As such, the timing and level of actual borrowing should be regularly evaluated based on the Utility's capital and system reinvestment needs.
- Relative to the water system's rates, Stantec recommends that PCU transition to an inclining-block volumetric water rate structure consisting of two tiers, the first with a lower rate applied to usage up to 4,000 gallons per month per unit for residential and multi-family customers, and a higher rate applied to usage above 4,000 gallons per month per unit. Additionally, Stantec recommends increasing the level of base charges relative to volumetric rates to enhance revenue stability and cost recovery from fixed charges. These modifications result in the recovery of the required 5.0% annual water system retail rate revenue adjustments identified in the RSA. As such, it is recommended that the County consider adopting the recommended retail water base charge rate modifications and rates presented herein to achieve the annual retail rate adjustments of 5.0% from FY 2024 through FY 2027.
- The variance between the water system COSA results and revenue distribution provided by the current water rates is well within acceptable tolerances recognizing the changes in cost allocations that can occur from year to year. In addition, based upon expected substantial demand reductions from the City of Clearwater, the results of this water system COSA may change over the next several years as many system costs are allocated between the retail and wholesale customer classes based upon the metered flows of each respective class. As such, it is our conclusion that the current water rates reflect a fair and equitable allocation of cost between the retail and wholesale customers of the system. Therefore, PCU should adjust its wholesale water rates at the same level as retail rate revenues which is 5.0% annually from FY 2024 through FY 2027.
- Based upon the data and assumptions presented herein, the approved FY 2023 sewer and reclaimed water rate adjustments, followed by 4.0% annual retail sewer rate adjustments beginning



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Conclusions and Recommendations

in FY 2024 through FY 2032, and the annual reclaimed water rate increases described herein have been determined sufficient to fund the financial requirements of the Sewer Fund through the immediate five-year planning and ten-year projection periods assuming the utilization of some level of debt financing for the identified CIP. Based on the sewer system COSA results identifying that wholesale customers are slightly over-recovering their costs, PCU should maintain wholesale sewer rates at current levels through FY 2027 and re-evaluate the cost of service as part of its next rate study.

- The RSA reflects projected capital investment within the Sewer Fund needed over the immediate five-year planning period of approximately \$50 million per year. This Study developed a capital funding plan that included approximately \$17 million to be funded through the issuance of new debt through FY 2027.
- No structural modifications are recommended to the sewer rate structure. As such, it is recommended that the County consider adopting the annual rate adjustments proposed herein for FY 2024 through FY 2027 for the Sewer Fund and apply 4.0% annual increases for retail sewer base and volumetric charges.
- Several modifications to the reclaimed water rate structure were identified to improve overall cost recovery, implement a base and volumetric structure like water and sewer service, and send conservation pricing signals for reclaimed water demand for metered customers. As such, it is recommended that the County consider adopting the rates proposed herein for FY 2024 through FY 2027 for reclaimed water service.
- The rate adjustments identified herein are comparable to those of neighboring utility systems, our industry experience locally and state-wide, as well as the annual changes in relevant national inflation-related indices.
- It is recommended that the County take any opportunity available to review its special service agreements with wholesale and large retail reclaimed water customers and adjust the reclaimed water rates charged to these customers as recommended herein, so that the level of cost recovery from these users is more consistent with that of the PCU's traditional retail customers, while keeping in mind any market price limitations.
- The recommended multi-year rate plan improves the overall cost recovery of the reclaimed water system. However, it is recommended that the BOCC establish a target level of future reclaimed water cost recovery based upon its goals and objectives for providing reclaimed and implement a plan to achieve this target over time. This approach will moderate the impacts to users and maintain comparable rates to those charged by other neighboring reclaimed water utility systems.
- Finally, Stantec recommends that PCU conducts annual or bi-annual Water Fund and Sewer Fund RSA updates as PCU continues to evaluate its infrastructure needs through its current master planning, flow monitoring, and condition assessment studies. Doing so will allow for the recognition



## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Conclusions and Recommendations

of updated revenue and expense information, as well as changes in demands and/or regulatory requirements, so that any necessary adjustments can be made to the identified rate revenue adjustment plans. This will enable the Water Fund and Sewer Fund to continue to meet their respective cost requirements over time.

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## WATER, SEWER & RECLAIMED WATER RATE STUDY

### Disclaimer

#### Disclaimer

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*In preparing this report, Stantec utilized information and data obtained from the County or public and/or industry sources. Stantec has relied on the information and data without independent verification, except only to the extent such verification is expressly described in this document. Any projections of future conditions presented in the document are not intended as predictions, as there may be differences between forecasted and actual results, and those differences may be material.*

*Additionally, the purpose of this document is to summarize Stantec’s analysis and findings related to this project, and it is not intended to address all aspects that may surround the subject area. Therefore, this document may have limitations, assumptions, or reliance on data that are not readily apparent on the face of it. Moreover, the reader should understand that Stantec was called on to provide judgments on a variety of critical factors which are incapable of precise measurement. As such, the use of this document and its findings by the County should only occur after consultation with Stantec, and any use of this document and findings by any other person is done so entirely at their own risk.*



# **APPENDIX: SUPPORTING SCHEDULES**

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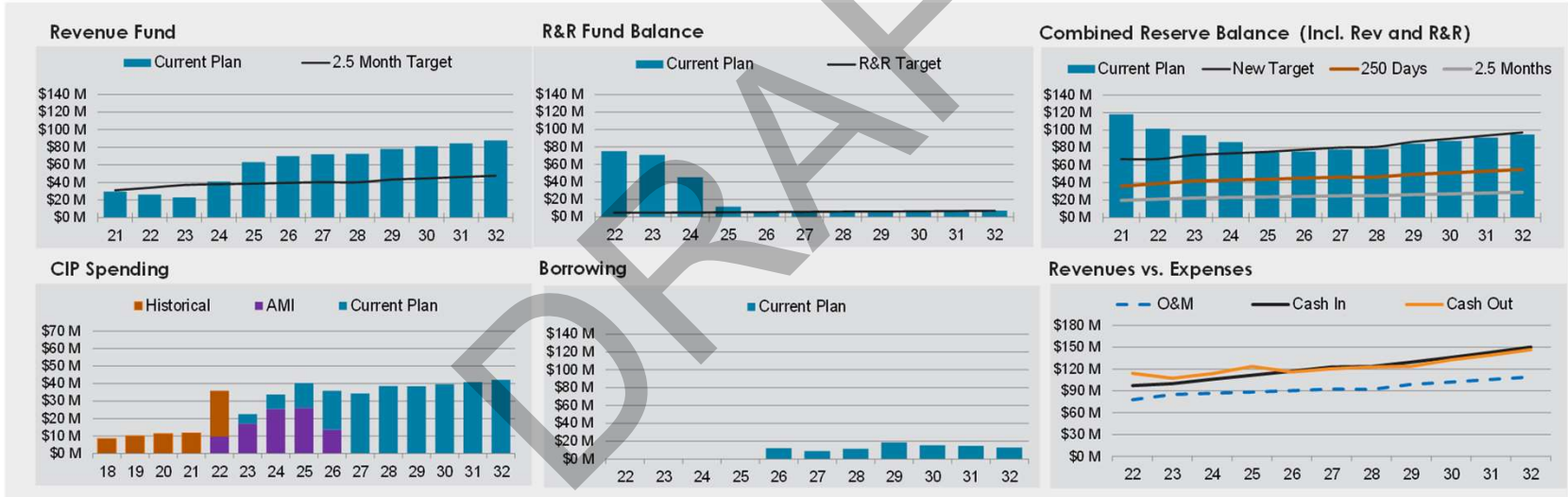
## **Appendix A WATER FUND REVENUE SUFFICIENCY ANALYSIS**

<b>Schedule 1</b>	<b>Financial Management Plan Summary</b>
<b>Schedule 2</b>	<b>Assumptions</b>
<b>Schedule 3</b>	<b>FY 2022 Beginning Fund Balances</b>
<b>Schedule 4</b>	<b>Projection of Cash Inflows</b>
<b>Schedule 5</b>	<b>Projection of Cash Outflows</b>
<b>Schedule 6</b>	<b>Capital Improvement Program (CIP)</b>
<b>Schedule 7</b>	<b>Pro Forma: Projection of Annual Cashflow and Debt Service Coverage</b>
<b>Schedule 8</b>	<b>Projection of Capital Improvement Program Funding Sources</b>
<b>Schedule 9</b>	<b>Sources and Uses by Fund</b>
<b>Schedule 10</b>	<b>Senior-Lien Borrowing Projections</b>
<b>Schedule 11</b>	<b>Historical &amp; Projected Water Demands</b>
<b>Schedule 12</b>	<b>Projection of Purchased Water</b>



	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2027	FY 2032
Override ▶	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	<b>Cumulative</b>	
Water - Retail Rate Plan	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	21.62%	55.15%
Override ▶	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	<b>Scenario Manager</b>	
Water - Wholesale Rate Plan	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	21.62%	55.15%
Senior-Lien DSC	0.00	0.00	0.00	0.00	35.29	20.32	13.43	8.28	6.92	6.16	5.81	Net CIP	
All-In DSC	0.00	0.00	0.00	0.00	35.29	20.32	13.43	8.28	6.92	6.16	5.81	AMI Out	
CIP \$ Redistrib	\$0.00	-\$20.00	-\$20.00	-\$20.00	\$0.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$0.00	
Total Retail Bill	\$32.45	\$32.45	\$34.09	\$35.80	\$37.58	\$39.47	\$41.43	\$43.51	\$45.67	\$47.95	\$50.35	Yes	

\*Total Retail Bill calculation based on 5,000 gallons of consumption



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Assumptions

### Schedule 2

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Rate Increase Adoption Date</b>	10/1/2021	10/1/2022	10/1/2023	10/1/2024	10/1/2025	10/1/2026	10/1/2027	10/1/2028	10/1/2029	10/1/2030	10/1/2031
<b>Annual Growth</b>											
<b>Water - Retail</b>											
Ending # of Customer Accounts	115,674	115,905	116,137	116,369	116,602	116,835	117,069	117,303	117,538	117,773	118,009
Customer Accounts Growth	908	231	232	232	233	233	234	234	235	235	236
% Change in Customer Accounts	0.79%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Water Volume (Gals.)	13,074,385	13,415,082	13,546,971	13,679,108	13,706,466	13,733,879	13,761,347	13,788,870	13,816,447	13,844,080	13,871,768
% Change in Water Use <sup>1</sup>	2.61%	2.61%	0.98%	0.98%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<b>Water - Wholesale</b>											
Ending # of Customer Accounts	7	7	7	7	7	7	7	7	7	7	7
Customer Accounts Growth	-	-	-	-	-	-	-	-	-	-	-
% Change in Customer Accounts	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Water Volume (Gals.)	4,044,736	4,052,826	4,060,931	4,069,053	4,077,191	4,085,346	2,998,516	3,004,513	3,010,522	3,016,543	3,022,576
% Change in Water Use <sup>2</sup>	3.69%	0.20%	0.20%	0.20%	0.20%	0.20%	-26.60%	0.20%	0.20%	0.20%	0.20%
<b>Capital Spending</b>											
Annual Capital Spending (Future Year Dollars)	\$ 35,877,089	\$ 22,495,979	\$ 33,768,465	\$ 40,178,749	\$ 35,880,696	\$ 34,278,947	\$ 38,604,754	\$ 38,496,246	\$ 39,651,133	\$ 40,840,667	\$ 42,065,887
Annual Percent Executed <sup>3</sup>	71%										
<b>Water Impact Fees</b>											
Water Impact Fees	\$352	\$352	\$352	\$352	\$352	\$352	\$352	\$352	\$352	\$352	\$352
<b>Average Annual Interest Earnings Rate</b>											
Water System Enterprise Fund	0.72%	0.40%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
<b>Annual Operating Expense Cost Escalation</b>											
Personal Services	N/A		3.08%	3.08%	3.08%	3.08%	3.08%	3.08%	3.08%	0.00%	0.00%
Power	N/A	<i>Reflects Adopted</i>	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	0.00%	0.00%
Chemicals	N/A	<i>Budget</i>	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	0.00%	0.00%
Regional Water (Tampa Bay Water) <sup>4</sup>	N/A	<i>w/Adjustments</i>	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	0.00%	0.00%
All Other O&M Expenses	N/A		2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	0.00%	0.00%
<b>Reserve Targets</b>											
Operating Reserve (Months of O&M)	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
<b>Total Reserve Calculation</b>											
Renewal & Replacement	\$ 11,666,017	\$ 12,015,997	\$ 12,376,477	\$ 12,747,772	\$ 13,130,205	\$ 13,524,111	\$ 13,929,834	\$ 14,347,729	\$ 14,778,161	\$ 15,221,506	\$ 15,678,151
Insurance Deductible	5,000,000	5,000,000	5,150,000	5,304,500	5,463,635	5,627,544	5,796,370	5,970,261	6,149,369	6,333,850	6,523,866
Revenue Loss during Natural Disaster	25,530,283	27,900,596	28,509,070	29,001,567	29,939,365	30,828,367	30,942,443	33,725,698	35,111,596	36,666,591	38,101,312
General Contingency	3,106,184	3,394,573	3,468,603	3,528,524	3,613,263	3,692,225	3,672,883	3,959,285	4,079,613	4,223,931	4,357,991
Liquidity	15,956,427	17,437,873	17,818,169	18,125,979	18,712,103	19,267,729	19,339,027	21,078,561	21,944,748	22,916,619	23,813,320
Rate Stabilization Reserve	5,608,393	5,785,105	6,124,840	6,484,185	6,822,011	7,177,438	7,163,917	7,537,157	7,929,843	8,342,988	8,777,658
Total Recommended Reserve	\$ 66,867,304	\$ 71,534,143	\$ 73,447,159	\$ 75,192,526	\$ 77,680,582	\$ 80,117,414	\$ 80,844,474	\$ 86,618,692	\$ 89,993,331	\$ 93,705,485	\$ 97,252,298
Total Reserve (Months of O&M)	10.3	10.1	10.2	10.2	10.3	10.4	10.6	10.5	10.6	10.6	10.7
<b>Operating Budget Execution Percentage</b>											
Personal Services <sup>5</sup>	100%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Tampa Bay Water Expense	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
O&M Expenses	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Operating: Minor Capital Outlay	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

<sup>1</sup> Reflects expected increases in billed water use in FY 2023 through FY 2025 resulting from AMI implementation per County's analysis.

<sup>2</sup> Wholesale water use decline in FY 2028 reflects projected demand reduction from Clearwater as the City considers construction of a new treatment plant.

<sup>3</sup> Capital execution in FY 2022 calculated to match total capital spending shown in PCU's forecast.

<sup>4</sup> Estimate based on projected Tampa Bay Water expenses and changes in member water demands as projected by Stantec.

<sup>5</sup> FY 2022 expenses based on actuals. Future year projections executed at 95% per PCU's forecast.





**FY 2022 Beginning Balances as of 10/1/2021**

**Schedule 3**

Grouping of Funds in Model	Revenue Fund	Restricted Reserves	Water Impact Fees	Renewal & Replacement	Vehicle Replacement Reserve
<b>Current Assets</b>					
Cash	\$ 5,483,414	\$ 308,000	\$ 74,248	\$ 3,722,710	\$ -
Investments	17,302,369	6,645,497	483,429	85,034,365	-
Accounts and notes receivable, net	13,136,284	-	-	1	-
Accrued interest receivable	47,140	17,493	1,278	223,836	-
Due from Other Governments	1,563,240	-	-	785,438	-
Inventory	1,564,008	-	-	-	-
Prepaid Items	57,075	-	-	-	-
<b>Total Assets</b>	<b>\$ 39,153,530</b>	<b>\$ 6,970,990</b>	<b>\$ 558,956</b>	<b>\$ 89,766,350</b>	<b>\$ -</b>
<b>Current Liabilities</b>					
Vouchers Payable	\$ (1,680,517)	\$ -	\$ -	\$ (946,681)	\$ -
Contracts Payable	-	-	-	(97,521)	-
Due to other governments	(1,249,521)	-	-	(34,998)	-
Accrued liabilities	(239,790)	-	-	(3,874)	-
Compensated absences	(984,096)	-	-	(12,252)	-
Deposits and other current liabilities	(2,324)	(6,970,990)	-	-	-
<b>Calculated Fund Balance (Assets - Liabilities)</b>	<b>\$ 34,997,282</b>	<b>\$ -</b>	<b>\$ 558,956</b>	<b>\$ 88,671,024</b>	<b>\$ -</b>
Plus/(Less): Inventories	(1,564,008)	-	-	-	-
Plus/(Less): Vehicle Replacement	(3,862,000)	-	-	-	3,862,000
<b>Net Unrestricted Fund Balance</b>	<b>\$ 29,571,274</b>	<b>\$ -</b>	<b>\$ 558,956</b>	<b>\$ 88,671,024</b>	<b>\$ 3,862,000</b>
<b>Available Fund Balance</b>	<b>\$ 29,571,274</b>	<b>\$ -</b>	<b>\$ 558,956</b>	<b>\$ 88,671,024</b>	<b>\$ 3,862,000</b>
<b>Fund Summary</b>					
Revenue Fund	\$ 29,571,274				
Water Impact Fees	558,956				
Renewal & Replacement	88,671,024				
Vehicle Replacement Reserve	3,862,000				
<b>Total Available Funds</b>	<b>\$ 122,663,253</b>				

Source: FY 2021 ACFR and Trial Balances provided by County staff.



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Projection of Cash Inflows

Schedule 4

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Rate Revenue Growth Assumptions</b>											
<b>Water - Retail</b>											
1 % Change in Retail Customers	0.79%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
2 % Change in Retail Water Use	2.61%	2.61%	0.98%	0.98%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<b>Water - Wholesale</b>											
3 % Change in Wholesale Customers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4 % Change in Wholesale Water Use <sup>1</sup>	3.69%	0.20%	0.20%	0.20%	0.20%	0.20%	-26.60%	0.20%	0.20%	0.20%	0.20%
<b>Proposed Rate Increase <sup>2</sup></b>											
5 Retail	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
6 Wholesale	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
<b>Rate Revenue</b>											
7 Retail Base Rate Revenue	\$ 11,327,810	\$ 11,463,970	\$ 12,061,243	\$ 12,689,634	\$ 13,350,764	\$ 14,046,339	\$ 14,778,153	\$ 15,548,095	\$ 16,358,150	\$ 17,210,410	\$ 18,107,072
8 Retail Volumetric Rate Revenue	64,258,449	66,592,247	70,609,291	74,862,911	78,763,269	82,866,835	87,184,198	91,726,494	96,505,445	101,533,378	106,823,267
9 Wholesale Rate Revenue	15,861,448	16,052,103	16,888,417	17,768,304	18,694,032	19,667,991	15,157,477	15,947,182	16,778,030	17,652,165	18,571,843
10 <b>Total Water Rate Revenue</b>	<b>\$ 91,447,707</b>	<b>\$ 94,108,320</b>	<b>\$ 99,558,951</b>	<b>\$ 105,320,849</b>	<b>\$ 110,808,065</b>	<b>\$ 116,581,165</b>	<b>\$ 117,119,827</b>	<b>\$ 123,221,770</b>	<b>\$ 129,641,625</b>	<b>\$ 136,395,953</b>	<b>\$ 143,502,182</b>
<b>Other Operating Revenue <sup>3</sup></b>											
11 Service Charges	\$ 997,500	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505	\$ 1,060,505
12 Water-Late Payment Fee	570,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
13 Wholesale Water Meter SC	19,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
14 Backflow Maint Fee - SAP	712,500	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000
15 Fireline Payments	209,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000
16 Contractual Billing Svc	408,500	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000
17 Water Conservation	342,000	385,000	404,250	424,463	445,686	467,970	491,368	515,937	541,734	568,820	597,261
18 Wellhead Protection	380	400	400	400	400	400	400	400	400	400	400
19 Rent-Bldg/Space	351,500	370,000	370,000	370,000	370,000	370,000	370,000	370,000	370,000	370,000	370,000
20 Sale- Surplus Equipment	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000
21 Ins Proceeds-Furn/Fxtr/Eq	9,500	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000
22 Sale-Forestry Operations	567,200	597,053	597,053	597,053	597,053	597,053	597,053	597,053	597,053	597,053	597,053
23 ISI-CC Trans Rev-SAP	42,750	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000
24 Other Miscellaneous Revenue	28,500	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
25 <b>Total Other Operating Revenue</b>	<b>\$ 4,315,330</b>	<b>\$ 4,580,958</b>	<b>\$ 4,600,208</b>	<b>\$ 4,620,420</b>	<b>\$ 4,641,644</b>	<b>\$ 4,663,928</b>	<b>\$ 4,687,326</b>	<b>\$ 4,711,895</b>	<b>\$ 4,737,692</b>	<b>\$ 4,764,778</b>	<b>\$ 4,793,219</b>
<b>Non-Operating Revenue</b>											
26 Fed Grant-Other Physical Environ	\$ 33,000	\$ 35,000	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27 Transfer from BTS	7,830	-	-	-	-	-	-	-	-	-	-
28 <b>Total Non-Operating Revenue</b>	<b>\$ 40,830</b>	<b>\$ 35,000</b>	<b>\$ 35,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Transfers In</b>											
29 Cap Con-Pvt-Wtr Back Flow	\$ 125,334	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000
30 Cap Con-Pvt-Wtr Connectn	580,080	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000
31 <b>Total Transfers In</b>	<b>\$ 705,414</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>
<b>Interest Income</b>											
32 Unrestricted	\$ 785,903	\$ 406,559	\$ 941,158	\$ 843,361	\$ 787,939	\$ 804,410	\$ 820,229	\$ 852,736	\$ 898,480	\$ 933,914	\$ 970,209
33 <b>Total Interest Income</b>	<b>\$ 785,903</b>	<b>\$ 406,559</b>	<b>\$ 941,158</b>	<b>\$ 843,361</b>	<b>\$ 787,939</b>	<b>\$ 804,410</b>	<b>\$ 820,229</b>	<b>\$ 852,736</b>	<b>\$ 898,480</b>	<b>\$ 933,914</b>	<b>\$ 970,209</b>
<b>Water Impact Fees</b>											
34 Water Impact Fees	\$ 117,216	\$ 81,312	\$ 81,664	\$ 81,664	\$ 82,016	\$ 82,016	\$ 82,368	\$ 82,368	\$ 82,720	\$ 82,720	\$ 83,072
35 <b>Total Water Impact Fees</b>	<b>\$ 117,216</b>	<b>\$ 81,312</b>	<b>\$ 81,664</b>	<b>\$ 81,664</b>	<b>\$ 82,016</b>	<b>\$ 82,016</b>	<b>\$ 82,368</b>	<b>\$ 82,368</b>	<b>\$ 82,720</b>	<b>\$ 82,720</b>	<b>\$ 83,072</b>
36 <b>Total Cash Inflows</b>	<b>\$ 97,412,400</b>	<b>\$ 99,892,149</b>	<b>\$ 105,896,981</b>	<b>\$ 111,546,294</b>	<b>\$ 116,999,663</b>	<b>\$ 122,811,519</b>	<b>\$ 123,389,751</b>	<b>\$ 129,548,769</b>	<b>\$ 136,040,516</b>	<b>\$ 142,857,366</b>	<b>\$ 150,028,683</b>

<sup>1</sup> Wholesale water use decline in FY 2028 reflects projected demand reduction from Clearwater as the City considers construction of a new treatment plant.

<sup>2</sup> FY 2022 and FY 2023 reflect adopted rate increases by the BCC.

<sup>3</sup> FY 2023 Other Operating Revenues are based upon the Adopted Budget, adjusted to account for the County's practice of budgeting at 95% of projected revenues.



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Projection of Cash Outflows**

**Schedule 5**

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>431040 - Warehouse Support</b>											
<b>Personal Services</b>											
1 5110001 Executive Salaries	\$ 138,564	\$ 126,120	\$ 130,000	\$ 134,001	\$ 138,128	\$ 142,385	\$ 146,775	\$ 151,301	\$ 155,967	\$ 160,776	\$ 165,734
2 5120001 Regular Salaries & Wages	582,245	563,460	580,793	598,670	617,108	636,126	655,741	675,961	696,805	718,291	740,440
3 5140001 Overtime Pay	55,804	33,800	34,840	35,912	37,018	38,159	39,336	40,549	41,799	43,088	44,416
4 5150001 One Time COLA Wage Disburse	-	14,040	14,472	14,917	15,377	15,851	16,339	16,843	17,367	17,898	18,450
5 5210001 FICA Taxes	57,713	51,660	53,249	54,888	56,579	58,322	60,121	61,974	63,886	65,855	67,886
6 5220001 Retirement Contributions	86,041	81,070	83,564	86,136	88,789	91,525	94,347	97,257	100,255	103,347	106,534
7 5230001 Hlth.Life,Dntl,Std,Ltd	217,610	222,790	229,643	236,712	244,002	251,522	259,278	267,273	275,514	284,010	292,767
8 5299991 Reg Salary&Wgs-Contra-Prj	(12,546)	-	-	-	-	-	-	-	-	-	-
9 5299992 Benefits-Contra-Projects	(4,098)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
10 5310033 General Consulting	\$ -	\$ 160	\$ 164	\$ 169	\$ 174	\$ 179	\$ 184	\$ 189	\$ 194	\$ 200	\$ 205
11 5349000 Contract Services-Other	52,182	19,500	20,046	20,607	21,184	21,777	22,387	23,014	23,658	24,321	25,002
12 5400001 Travel and Per Diem	176	14,300	14,700	15,112	15,535	15,970	16,417	16,877	17,350	17,835	18,335
13 5400100 Transportation Exp	3,000	-	-	-	-	-	-	-	-	-	-
14 5400105 Mileage-Local	26	-	-	-	-	-	-	-	-	-	-
15 5400110 Mileage-Out of Town	263	-	-	-	-	-	-	-	-	-	-
16 5400200 Meals/Per Diem	926	-	-	-	-	-	-	-	-	-	-
17 5400205 Meals-Taxable	11	-	-	-	-	-	-	-	-	-	-
18 5400300 Hotels/Motels/Lodging	6,931	-	-	-	-	-	-	-	-	-	-
19 5400900 Travel-Other	133	-	-	-	-	-	-	-	-	-	-
20 5410001 Communication Services	2,241	1,890	1,943	1,997	2,053	2,111	2,170	2,231	2,293	2,357	2,423
21 5464000 Repair&Maint-Equipment	1,234	7,020	7,217	7,419	7,626	7,840	8,059	8,285	8,517	8,756	9,001
22 5470001 Printing and Binding Exp	1,183	490	504	518	532	547	563	578	594	611	628
23 5490001 Othr Current Chgs&Obligat	618	60	62	63	65	67	69	71	73	75	77
24 5490060 Incentives & Awards	336	570	586	602	619	637	654	673	692	711	731
25 5496521 Intgv Sv-Fleet-Op & Maint	9,891	12,960	13,323	13,696	14,079	14,474	14,879	15,296	15,724	16,164	16,617
26 5510001 Office Supplies Exp	7,434	2,280	2,344	2,409	2,477	2,546	2,618	2,691	2,766	2,844	2,923
27 5520005 Small Tools, Supp&Allow.	515	5,330	5,479	5,633	5,790	5,953	6,119	6,291	6,467	6,648	6,834
28 5520006 Oper. Supplies-Clothing	297	1,370	1,408	1,448	1,488	1,530	1,573	1,617	1,662	1,709	1,757
29 5520009 Oper. Supplies-Computer	911	3,000	3,084	3,170	3,259	3,350	3,444	3,541	3,640	3,742	3,846
30 5520098 PC Purchases under \$5000	2,384	2,450	2,519	2,589	2,662	2,736	2,813	2,892	2,973	3,056	3,142
31 5520099 PC Purchases under \$1000	1,187	-	-	-	-	-	-	-	-	-	-
32 5529000 Oper. Supplies-Misc	12,439	10,400	10,691	10,991	11,298	11,615	11,940	12,274	12,618	12,971	13,334
33 5540001 Bks, Pub, Subscrp&Membrshps	4,801	650	668	687	706	726	746	767	789	811	833
34 5550001 Training and Education Costs	5,764	8,450	8,687	8,930	9,180	9,437	9,701	9,973	10,252	10,539	10,834
<b>Total 431040 - Warehouse Support</b>	<b>\$ 1,236,214</b>	<b>\$ 1,183,820</b>	<b>\$ 1,219,986</b>	<b>\$ 1,257,278</b>	<b>\$ 1,295,732</b>	<b>\$ 1,335,384</b>	<b>\$ 1,376,273</b>	<b>\$ 1,418,415</b>	<b>\$ 1,461,849</b>	<b>\$ 1,506,613</b>	<b>\$ 1,552,748</b>
<b>431050 Utilities Engineering</b>											
<b>Personal Services</b>											
36 5110001 Executive Salaries	\$ 1,221,387	\$ 1,147,080	\$ 1,182,367	\$ 1,218,760	\$ 1,256,296	\$ 1,295,012	\$ 1,334,944	\$ 1,376,107	\$ 1,418,540	\$ 1,462,281	\$ 1,507,372
37 5120001 Regular Salaries & Wages	290,216	309,890	319,423	329,255	339,395	349,855	360,642	371,763	383,226	395,043	407,225
38 5140001 Overtime Pay	1,836	1,050	1,082	1,116	1,150	1,185	1,222	1,260	1,298	1,339	1,380
39 5150001 One Time COLA Wage Disburse	-	19,200	19,791	20,400	21,028	21,676	22,344	23,033	23,744	24,476	25,231
40 5210001 FICA Taxes	111,285	109,990	113,374	116,863	120,462	124,175	128,004	131,951	136,019	140,214	144,537
41 5220001 Retirement Contributions	170,831	172,710	178,023	183,503	189,154	194,983	200,996	207,193	213,582	220,168	226,957
42 5230001 Hlth.Life,Dntl,Std,Ltd	286,446	307,550	317,011	326,769	336,833	347,213	357,919	368,956	380,333	392,060	404,150
43 5299989 Rg Sal&Wges-Contra-Prj-Bur	(221,100)	(257,080)	(264,988)	(273,145)	(281,557)	(290,234)	(299,183)	(308,409)	(317,919)	(327,722)	(337,827)
44 5299991 Reg Salary&Wgs-Contra-Prj	(608,051)	(644,630)	(664,460)	(684,912)	(706,007)	(727,764)	(750,205)	(773,338)	(797,184)	(821,765)	(847,105)
45 5299992 Benefits-Contra-Projects	(225,458)	(240,650)	(248,053)	(255,688)	(263,563)	(271,685)	(280,063)	(288,698)	(297,601)	(306,777)	(316,237)
<b>Operations &amp; Maintenance</b>											
46 5310033 General Consulting	\$ 829,861	\$ 98,500	\$ 101,258	\$ 104,093	\$ 107,008	\$ 110,004	\$ 113,084	\$ 116,251	\$ 119,506	\$ 122,852	\$ 126,292
47 5349000 Contract Services-Other	8,766	12,600	12,953	13,315	13,688	14,072	14,466	14,871	15,287	15,715	16,155
48 5399989 Op Exp-Contra-Prj-Burdng	(278,529)	(324,610)	(333,699)	(343,043)	(352,648)	(362,522)	(372,673)	(383,107)	(393,834)	(404,862)	(416,198)
49 5400001 Travel and Per Diem	-	6,300	6,476	6,658	6,844	7,036	7,233	7,435	7,644	7,858	8,078
50 5400100 Transportation Exp	496	-	-	-	-	-	-	-	-	-	-
51 5400105 Mileage-Local	71	-	-	-	-	-	-	-	-	-	-
52 5400110 Mileage-Out of Town	153	-	-	-	-	-	-	-	-	-	-
53 5400200 Meals/Per Diem	434	-	-	-	-	-	-	-	-	-	-
54 5400205 Meals-Taxable	37	-	-	-	-	-	-	-	-	-	-



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Projection of Cash Outflows**

**Schedule 5**

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
55 5400300 Hotels/Motels/Lodging	1,226	-	-	-	-	-	-	-	-	-	-
56 5400900 Travel-Other	43	-	-	-	-	-	-	-	-	-	-
57 5410001 Communication Services	3,576	1,680	1,727	1,775	1,825	1,876	1,929	1,983	2,038	2,095	2,154
58 5420001 Freight	48	30	31	32	33	34	34	35	36	37	38
59 5420002 Postage	35	20	21	21	22	22	23	24	24	25	26
60 5440001 Rentals and Leases	1,104	1,050	1,079	1,110	1,141	1,173	1,205	1,239	1,274	1,310	1,346
61 5464000 Repair&Maint-Equipment	831	1,570	1,614	1,659	1,706	1,753	1,802	1,853	1,905	1,958	2,013
62 5470001 Printing and Binding Exp	12	110	113	116	120	123	126	130	133	137	141
63 5490001 Othr Current Chgs&Obligat	166	810	833	856	880	905	930	956	983	1,010	1,039
64 5490060 Incentives & Awards	20	-	-	-	-	-	-	-	-	-	-
65 5496501 Intgv Sv-Info Technology	231,000	269,150	276,686	284,433	292,398	300,585	309,001	317,653	326,547	335,691	345,090
66 5496521 Intgv Sv-Fleet-Op & Maint	4,293	5,060	5,202	5,347	5,497	5,651	5,809	5,972	6,139	6,311	6,488
67 5496901 Intgv Sv-Cost Allocate	325,480	325,480	334,593	343,962	353,693	363,494	373,671	384,134	394,890	405,947	417,313
68 5510001 Office Supplies Exp	863	1,260	1,295	1,332	1,369	1,407	1,447	1,487	1,529	1,572	1,616
69 5520005 Small Tools,Supp&Allow.	9	-	-	-	-	-	-	-	-	-	-
70 5520006 Oper. Supplies-Clothing	152	-	-	-	-	-	-	-	-	-	-
71 5520009 Oper. Supplies-Computer	166	7,560	7,772	7,989	8,213	8,443	8,679	8,922	9,172	9,429	9,693
72 5520098 PC purchases under \$5,000	9,488	-	-	-	-	-	-	-	-	-	-
73 5520099 PC Purchases under \$1000	9,907	-	-	-	-	-	-	-	-	-	-
74 5529000 Oper. Supplies-Misc	537	-	-	-	-	-	-	-	-	-	-
75 5540001 Bks, Pub, Subscrp&Membshps	363	1,600	1,645	1,691	1,738	1,787	1,837	1,888	1,941	1,996	2,051
76 5550001 Training and Education Costs	1,672	5,250	5,397	5,548	5,703	5,863	6,027	6,196	6,370	6,548	6,731
<b>Capital Outlay</b>											
77 5699981 Personal Svs-Proj-Burdng	\$ 112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
78 5699983 Op Exp-Proj-Burdening	142	-	-	-	-	-	-	-	-	-	-
79 5699991 Reg Salaries&Wages-Projects	282	-	-	-	-	-	-	-	-	-	-
80 5699992 Benefits-Projects	99	-	-	-	-	-	-	-	-	-	-
<b>81 Total 431050 Utilities Engineering</b>	<b>\$ 2,180,304</b>	<b>\$ 1,338,530</b>	<b>\$ 1,378,564</b>	<b>\$ 1,419,815</b>	<b>\$ 1,462,321</b>	<b>\$ 1,506,120</b>	<b>\$ 1,551,253</b>	<b>\$ 1,597,740</b>	<b>\$ 1,645,624</b>	<b>\$ 1,694,945</b>	<b>\$ 1,745,747</b>
<b>431070 Field Services</b>											
<b>Personal Services</b>											
82 5110001 Executive Salaries	\$ 57,614	\$ 91,650	\$ 94,469	\$ 97,377	\$ 100,376	\$ 103,470	\$ 106,660	\$ 109,949	\$ 113,339	\$ 116,834	\$ 120,437
83 5120001 Regular Salaries & Wages	421,603	512,830	528,606	544,876	561,658	578,966	596,819	615,222	634,193	653,748	673,907
84 5140001 Overtime Pay	25,368	31,200	32,160	33,150	34,171	35,224	36,310	37,429	38,584	39,773	41,000
85 5150001 One Time COLA Wage Disburse	-	15,500	15,977	16,469	16,976	17,499	18,039	18,595	19,168	19,759	20,368
86 5210001 FICA Taxes	36,825	45,000	46,384	47,812	49,285	50,803	52,370	53,985	55,649	57,365	59,134
87 5220001 Retirement Contributions	55,885	70,710	72,885	75,129	77,442	79,829	82,291	84,828	87,444	90,140	92,920
88 5230001 Hlth,Life,Dntl,Std,Ltd	181,579	246,450	254,031	261,850	269,915	278,233	286,813	295,656	304,773	314,171	323,859
89 5299991 Reg Salary&Wgs-Contra-Prj	(45,854)	-	-	-	-	-	-	-	-	-	-
90 5299992 Benefits-Contra-Projects	(25,682)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
91 5349000 Contract Services-Other	\$ 24,140	\$ 22,880	\$ 23,521	\$ 24,179	\$ 24,856	\$ 25,552	\$ 26,268	\$ 27,003	\$ 27,759	\$ 28,537	\$ 29,336
92 5400001 Travel and Per Diem	-	4,140	4,256	4,375	4,498	4,624	4,753	4,886	5,023	5,164	5,308
93 5400900 Travel-Other	59	-	-	-	-	-	-	-	-	-	-
94 5410001 Communication Services	2,313	2,600	2,673	2,748	2,825	2,904	2,985	3,069	3,154	3,243	3,334
95 5420001 Freight	66	160	164	169	174	179	184	189	194	200	205
96 5420002 Postage	48	100	103	106	109	112	115	118	121	125	128
97 5433000 Util Svc-County Water&Swr	284	1,040	1,069	1,099	1,130	1,161	1,194	1,227	1,262	1,297	1,333
98 5439000 Utility Svc-Miscellaneous	-	650	668	687	706	726	746	767	789	811	833
99 5464000 Repair&Maint-Equipment	11,668	20,800	21,382	21,981	22,597	23,229	23,880	24,548	25,236	25,942	26,669
100 5470001 Printing and Binding Exp	56	1,300	1,336	1,374	1,412	1,452	1,492	1,534	1,577	1,621	1,667
101 5496521 Intgv Sv-Fleet-Op & Maint	48,483	88,050	90,515	93,050	95,655	98,334	101,087	103,917	106,827	109,818	112,893
102 5510001 Office Supplies Exp	82	2,080	2,138	2,198	2,260	2,323	2,388	2,455	2,524	2,594	2,667
103 5520005 Small Tools,Supp&Allow.	555	3,280	3,372	3,466	3,563	3,663	3,766	3,871	3,979	4,091	4,205
104 5520006 Oper. Supplies-Clothing	3,103	4,160	4,276	4,396	4,519	4,646	4,776	4,910	5,047	5,188	5,334
105 5520009 Oper. Supplies-Computer	-	210	216	222	228	235	241	248	255	262	269
106 5520098 PC Purchases under \$5000	9,482	7,540	7,751	7,968	8,191	8,421	8,656	8,899	9,148	9,404	9,667
107 5520099 PC Purchases under \$1000	214	220	226	232	239	245	252	259	267	274	282
108 5529000 Oper. Supplies-Misc	5,009	5,200	5,346	5,495	5,649	5,807	5,970	6,137	6,309	6,486	6,667
109 5540001 Bks, Pub, Subscrp&Membshps	104	-	-	-	-	-	-	-	-	-	-



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

Schedule 5

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
110 5550001 Training and Education Costs	106	4,990	5,130	5,273	5,421	5,573	5,729	5,889	6,054	6,224	6,398
<b>Capital Outlay</b>											
111 5640300 Equip-Vehicle&Heavy Equip	\$ 50,984	\$ 152,400	\$ 156,667	\$ 161,054	\$ 165,563	\$ 170,199	\$ 174,965	\$ 179,864	\$ 184,900	\$ 190,077	\$ 195,399
112 <b>Total 431070 Field Services</b>	<b>\$ 864,095</b>	<b>\$ 1,335,140</b>	<b>\$ 1,375,323</b>	<b>\$ 1,416,736</b>	<b>\$ 1,459,417</b>	<b>\$ 1,503,407</b>	<b>\$ 1,548,747</b>	<b>\$ 1,595,455</b>	<b>\$ 1,643,575</b>	<b>\$ 1,693,148</b>	<b>\$ 1,744,219</b>
<b>431085 Customer Service</b>											
<b>Personal Services</b>											
113 5110001 Executive Salaries	\$ 247,367	\$ 248,490	\$ 256,134	\$ 264,018	\$ 272,149	\$ 280,536	\$ 289,187	\$ 298,104	\$ 307,296	\$ 316,772	\$ 326,539
114 5120001 Regular Salaries & Wages	1,124,815	1,386,550	1,429,203	1,473,195	1,518,567	1,565,364	1,613,633	1,663,390	1,714,682	1,767,554	1,822,058
115 5140001 Overtime Pay	35,195	24,960	25,728	26,520	27,337	28,179	29,048	29,944	30,867	31,819	32,800
116 5150001 One Time COLA Wage Disburse	-	34,740	35,809	36,911	38,048	39,220	40,430	41,676	42,961	44,286	45,652
117 5210001 FICA Taxes	101,074	122,360	126,124	130,006	134,010	138,140	142,400	146,791	151,317	155,983	160,793
118 5220001 Retirement Contributions	164,094	193,380	199,329	205,464	211,792	218,319	225,051	231,990	239,144	246,518	254,120
119 5230001 Hlth,Life,Dntl,Std,Ltd	440,591	553,650	570,681	588,247	606,364	625,051	644,324	664,192	684,673	705,785	727,548
120 5299991 Reg Salary&Wgs-Contra-Prj	(27,135)	-	-	-	-	-	-	-	-	-	-
121 5299992 Benefits-Contra-Projects	(9,139)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
122 5310033 General Consulting	\$ 66,953	\$ 10,560	\$ 10,856	\$ 11,160	\$ 11,472	\$ 11,793	\$ 12,124	\$ 12,463	\$ 12,812	\$ 13,171	\$ 13,539
123 5349000 Contract Services-Other	943,462	1,218,310	1,252,423	1,287,491	1,323,540	1,360,599	1,398,696	1,437,860	1,478,120	1,519,507	1,562,053
124 5400001 Travel and Per Diem	17,333	22,520	23,151	23,799	24,465	25,150	25,854	26,578	27,322	28,088	28,874
125 5400100 Transportation Exp	812	-	-	-	-	-	-	-	-	-	-
126 5400110 Mileage-Out of Town	183	-	-	-	-	-	-	-	-	-	-
127 5400200 Meals/Per Diem	476	-	-	-	-	-	-	-	-	-	-
128 5400300 Hotels/Motels/Lodging	1,078	-	-	-	-	-	-	-	-	-	-
129 5400900 Travel-Other	49	-	-	-	-	-	-	-	-	-	-
130 5410001 Communication Services	2,774	3,280	3,372	3,466	3,563	3,663	3,766	3,871	3,979	4,091	4,205
131 5420001 Freight	-	520	535	550	565	581	597	614	631	649	667
132 5420002 Postage	182,502	189,150	194,446	199,891	205,488	211,241	217,156	223,236	229,487	235,913	242,518
133 5440001 Rentals and Leases	700	-	-	-	-	-	-	-	-	-	-
134 5464000 Repair&Maint-Equipment	113,272	162,590	167,143	171,823	176,634	181,579	186,663	191,890	197,263	202,786	208,464
135 5470001 Printing and Binding Exp	14,439	14,820	15,235	15,662	16,100	16,551	17,014	17,491	17,980	18,484	19,011
136 5490001 Othr Current Chgs&Obligat	334	290	298	306	315	324	333	342	352	362	372
137 5510001 Office Supplies Exp	846	1,560	1,604	1,649	1,695	1,742	1,791	1,841	1,893	1,946	2,000
138 5520009 Oper. Supplies-Computer	354	3,820	3,927	4,037	4,150	4,266	4,386	4,508	4,635	4,764	4,898
139 5520099 PC Purchases under \$1000	1,539	-	-	-	-	-	-	-	-	-	-
140 5529000 Oper. Supplies-Misc	1,866	8,320	8,553	8,792	9,039	9,292	9,552	9,819	10,094	10,377	10,667
141 5540001 Bks,Pub,Subscrip&Membrshps	1,510	2,600	2,673	2,748	2,825	2,904	2,985	3,069	3,154	3,243	3,334
142 5550001 Training and Education Costs	585	2,620	2,693	2,769	2,846	2,926	3,008	3,092	3,179	3,268	3,359
<b>Capital Outlay</b>											
143 5520098 PC Purchases under \$5000	\$ 17,634	\$ 2,500	\$ 2,570	\$ 2,642	\$ 2,716	\$ 2,792	\$ 2,870	\$ 2,951	\$ 3,033	\$ 3,118	\$ 3,205
144 5680100 Software-Purchased	191,857	120,630	124,008	127,480	131,049	134,719	138,491	142,369	146,355	150,453	154,665
145 <b>Total 431085 Customer Service</b>	<b>\$ 3,637,419</b>	<b>\$ 4,328,220</b>	<b>\$ 4,456,493</b>	<b>\$ 4,588,623</b>	<b>\$ 4,724,729</b>	<b>\$ 4,864,932</b>	<b>\$ 5,009,358</b>	<b>\$ 5,158,081</b>	<b>\$ 5,311,229</b>	<b>\$ 5,468,935</b>	<b>\$ 5,631,333</b>
<b>431130 Water &amp; Sewer Administration</b>											
<b>Personal Services</b>											
146 5110001 Executive Salaries	\$ 741,529	\$ 881,490	\$ 908,607	\$ 936,574	\$ 965,419	\$ 995,170	\$ 1,025,857	\$ 1,057,489	\$ 1,090,097	\$ 1,123,711	\$ 1,158,361
147 5120001 Regular Salaries & Wages	194,445	174,820	180,198	185,744	191,465	197,365	203,451	209,725	216,192	222,858	229,730
148 5140001 Overtime Pay	6,803	-	-	-	-	-	-	-	-	-	-
149 5150001 One Time COLA Wage Disburse	-	14,040	14,472	14,917	15,377	15,851	16,339	16,843	17,363	17,898	18,450
150 5210001 FICA Taxes	69,930	78,470	80,884	83,374	85,941	88,590	91,321	94,137	97,040	100,032	103,117
151 5220001 Retirement Contributions	105,789	129,720	133,710	137,826	142,071	146,449	150,965	155,620	160,419	165,365	170,464
152 5230001 Hlth,Life,Dntl,Std,Ltd	181,564	224,680	231,592	238,720	246,072	253,656	261,477	269,540	277,851	286,419	295,251
153 5299991 Reg Salary&Wgs-Contra-Prj	29,234	-	-	-	-	-	-	-	-	-	-
154 5299992 Benefits-Contra-Projects	16,003	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
155 5310033 General Consulting	\$ 66,541	\$ 133,150	\$ 136,878	\$ 140,711	\$ 144,651	\$ 148,701	\$ 152,865	\$ 157,145	\$ 161,545	\$ 166,068	\$ 170,718
156 5311031 Legal (Other Than Court)	-	1,000	1,028	1,057	1,086	1,117	1,148	1,180	1,213	1,247	1,282
157 5320001 Accounting & Auditing	8,871	15,000	15,420	15,852	16,296	16,752	17,221	17,703	18,199	18,708	19,232
158 5340001 Other Contractual Svcs	-	56,000	57,568	59,180	60,837	62,540	64,292	66,092	67,942	69,845	71,800
159 5349000 Contract Services-Other	93,936	102,250	105,113	108,056	111,082	114,192	117,389	120,676	124,055	127,529	131,100



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix A – Water Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
160 5400001 Travel and Per Diem	-	40,000	41,120	42,271	43,455	44,672	45,923	47,208	48,530	49,889	51,286
161 5400100 Transportation Exp	4,308	-	-	-	-	-	-	-	-	-	-
162 5400105 Mileage-Local	59	-	-	-	-	-	-	-	-	-	-
163 5400110 Mileage-Out of Town	2,078	-	-	-	-	-	-	-	-	-	-
164 5400200 Meals/Per Diem	4,993	-	-	-	-	-	-	-	-	-	-
165 5400205 Meals-Taxable	11	-	-	-	-	-	-	-	-	-	-
166 5400300 Hotels/Motels/Lodging	15,745	-	-	-	-	-	-	-	-	-	-
167 5400900 Travel-Other	947	-	-	-	-	-	-	-	-	-	-
168 5410001 Communication Services	99,885	111,420	114,540	117,747	121,044	124,433	127,917	131,499	135,181	138,966	142,857
169 5410006 Comm Svcs-Repair & Maint	-	11,700	12,028	12,364	12,711	13,066	13,432	13,808	14,195	14,593	15,001
170 5420002 Postage	6	10	10	11	11	11	11	12	12	12	13
171 5464000 Repair&Maint-Equipment	4,545	-	-	-	-	-	-	-	-	-	-
172 5470001 Printing and Binding Exp	1,210	980	1,007	1,036	1,065	1,094	1,125	1,157	1,189	1,222	1,257
173 5480001 Promotional Activities Exp	-	4,220	4,338	4,460	4,584	4,713	4,845	4,980	5,120	5,263	5,411
174 5490001 Othr Current Chgs&Obligat	683	880	905	930	956	983	1,010	1,039	1,068	1,098	1,128
175 5490060 Incentives & Awards	4,105	8,090	8,317	8,549	8,789	9,035	9,288	9,548	9,815	10,090	10,373
176 5490070 Employee Celebrations & Rec	-	2,870	2,950	3,033	3,118	3,205	3,295	3,387	3,482	3,580	3,680
177 5496501 Intgv Sv-Info Technology	2,768,980	3,226,280	3,316,616	3,409,481	3,504,947	3,603,085	3,703,971	3,807,683	3,914,298	4,023,898	4,136,567
178 5496521 Intgv Sv-Fleet-Op & Maint	4,260	11,790	12,120	12,459	12,808	13,167	13,536	13,915	14,304	14,705	15,117
179 5496551 Intgv Sv-Risk Financing	1,022,830	1,170,280	1,203,048	1,236,733	1,271,362	1,306,960	1,343,555	1,381,174	1,419,847	1,459,603	1,500,472
180 5496901 Intgv Sv-Cost Allocate	3,901,510	4,900,660	5,037,878	5,178,939	5,323,949	5,473,020	5,626,265	5,783,800	5,945,746	6,112,227	6,283,370
181 5510001 Office Supplies Exp	2,991	8,450	8,687	8,930	9,180	9,437	9,701	9,973	10,252	10,539	10,834
182 5520006 Oper. Supplies-Clothing	-	130	134	137	141	145	149	153	158	162	167
183 5520009 Oper. Supplies-Computer	1,302	2,600	2,673	2,748	2,825	2,904	2,985	3,069	3,154	3,243	3,334
184 5520099 PC Purchases under \$1000	5,333	-	-	-	-	-	-	-	-	-	-
185 5529000 Oper. Supplies-Misc	2,034	-	-	-	-	-	-	-	-	-	-
186 5540001 Bks.,Pub.,Subscrp&Membshps	104,864	153,400	157,695	162,111	166,650	171,316	176,113	181,044	186,113	191,324	196,681
187 5550001 Training and Education Costs	20,935	20,490	21,064	21,654	22,260	22,883	23,524	24,182	24,860	25,556	26,271
188 5999999 Invoices Pend Acct Distribution	480	-	-	-	-	-	-	-	-	-	-
<b>Capital Outlay</b>											
189 5520098 PC Purchases under \$5000	\$ 1,208	\$ 5,200	\$ 5,346	\$ 5,495	\$ 5,649	\$ 5,807	\$ 5,970	\$ 6,137	\$ 6,309	\$ 6,486	\$ 6,667
<b>190 Total 431130 Water &amp; Sewer Administration</b>	<b>\$ 9,489,948</b>	<b>\$ 11,490,070</b>	<b>\$ 11,815,944</b>	<b>\$ 12,151,098</b>	<b>\$ 12,495,799</b>	<b>\$ 12,850,319</b>	<b>\$ 13,214,940</b>	<b>\$ 13,589,919</b>	<b>\$ 13,975,550</b>	<b>\$ 14,372,136</b>	<b>\$ 14,779,989</b>
<b>431240 Technical Services</b>											
<b>Personal Services</b>											
191 5110001 Executive Salaries	\$ 76,872	\$ 100,320	\$ 103,406	\$ 106,589	\$ 109,872	\$ 113,258	\$ 116,750	\$ 120,350	\$ 124,061	\$ 127,887	\$ 131,830
192 5120001 Regular Salaries & Wages	1,363,180	1,501,240	1,547,421	1,595,051	1,644,177	1,694,845	1,747,107	1,800,979	1,856,513	1,913,760	1,972,771
193 5140001 Overtime Pay	85,864	45,000	46,384	47,812	49,285	50,803	52,370	53,985	55,649	57,365	59,134
194 5150001 One Time COLA Wage Disburse	-	33,180	34,201	35,253	36,339	37,459	38,614	39,805	41,032	42,297	43,602
195 5210001 FICA Taxes	110,511	119,930	123,619	127,424	131,349	135,397	139,572	143,875	148,312	152,885	157,599
196 5220001 Retirement Contributions	168,670	187,900	193,680	199,642	205,790	212,132	218,673	225,416	232,367	239,532	246,918
197 5230001 Hlth,Life,Dntl,Std,Ltd	463,051	526,490	542,686	559,390	576,618	594,388	612,716	631,610	651,086	671,162	691,858
198 5299991 Reg Salary&Wgs-Contra-Prj	(44,591)	-	-	-	-	-	-	-	-	-	-
199 5299992 Benefits-Contra-Projects	(13,720)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
200 5349000 Contract Services-Other	\$ 63,465	\$ 43,000	\$ 44,204	\$ 45,442	\$ 46,714	\$ 48,022	\$ 49,367	\$ 50,749	\$ 52,170	\$ 53,631	\$ 55,132
201 5400001 Travel and Per Diem	-	13,200	13,570	13,950	14,340	14,742	15,154	15,579	16,015	16,463	16,924
202 5400100 Transportation Exp	2,041	-	-	-	-	-	-	-	-	-	-
203 5400105 Mileage-Local	39	40	41	42	43	44	46	47	48	50	51
204 5400110 Mileage-Out of Town	289	-	-	-	-	-	-	-	-	-	-
205 5400200 Meals/Per Diem	844	-	-	-	-	-	-	-	-	-	-
206 5400205 Meals-Taxable	102	-	-	-	-	-	-	-	-	-	-
207 5400300 Hotels/Motels/Lodging	4,076	-	-	-	-	-	-	-	-	-	-
208 5400900 Travel-Other	513	-	-	-	-	-	-	-	-	-	-
209 5410001 Communication Services	3,376	4,680	4,811	4,946	5,084	5,227	5,373	5,523	5,678	5,837	6,000
210 5420001 Freight	-	200	206	211	217	223	230	236	243	249	256
211 5420002 Postage	-	200	206	211	217	223	230	236	243	249	256
212 5464000 Repair&Maint-Equipment	14,303	21,000	21,588	22,192	22,814	23,453	24,109	24,784	25,478	26,192	26,925
213 5470001 Printing and Binding Exp	245	1,500	1,542	1,585	1,630	1,675	1,722	1,770	1,820	1,871	1,923
214 5490001 Othr Current Chgs&Obligat	-	2,000	2,056	2,114	2,173	2,234	2,296	2,360	2,427	2,494	2,564
215 5496521 Intgv Sv-Fleet-Op & Maint	97,552	100,090	102,893	105,774	108,735	111,780	114,910	118,127	121,435	124,835	128,330
216 5510001 Office Supplies Exp	3,772	5,670	5,829	5,992	6,160	6,332	6,510	6,692	6,879	7,072	7,270



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

Schedule 5

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
217 5520005 Small Tools, Supp&Allow.	13,487	5,000	5,140	5,284	5,432	5,584	5,740	5,901	6,066	6,236	6,411
218 5520006 Oper. Supplies-Clothing	1,785	6,000	6,168	6,341	6,518	6,701	6,888	7,081	7,280	7,483	7,693
219 5520009 Oper. Supplies-Computer	99	-	-	-	-	-	-	-	-	-	-
220 5520099 PC Purchases under \$1000	1,817	-	-	-	-	-	-	-	-	-	-
221 5529000 Oper. Supplies-Misc	1,110,742	961,880	988,813	1,016,499	1,044,961	1,074,220	1,104,298	1,135,219	1,167,005	1,199,681	1,233,272
222 5550001 Training and Education Costs	5,568	15,300	15,728	16,169	16,622	17,087	17,565	18,057	18,563	19,083	19,617
<b>Capital Outlay</b>											
223 5520098 PC Purchases under \$5000	\$ 21,447	\$ 29,910	\$ 30,747	\$ 31,608	\$ 32,493	\$ 33,403	\$ 34,339	\$ 35,300	\$ 36,288	\$ 37,305	\$ 38,349
224 5640001 Machinery And Equipment	215	-	-	-	-	-	-	-	-	-	-
225 5640300 Equip-Vehicle&Heavy Equip	63,091	170,800	175,582	180,499	185,553	190,748	196,089	201,580	207,224	213,026	218,991
<b>226 Total 431240 Technical Services</b>	<b>\$ 3,618,704</b>	<b>\$ 3,894,530</b>	<b>\$ 4,010,521</b>	<b>\$ 4,130,020</b>	<b>\$ 4,253,136</b>	<b>\$ 4,379,980</b>	<b>\$ 4,510,668</b>	<b>\$ 4,645,262</b>	<b>\$ 4,783,881</b>	<b>\$ 4,926,645</b>	<b>\$ 5,073,679</b>
<b>431250 Maintenance North &amp; South</b>											
<b>Personal Services</b>											
227 5110001 Executive Salaries	\$ 57,600	\$ 55,980	\$ 57,702	\$ 59,478	\$ 61,310	\$ 63,199	\$ 65,148	\$ 67,157	\$ 69,228	\$ 71,363	\$ 73,563
228 5120001 Regular Salaries & Wages	2,056,360	2,453,360	2,528,831	2,606,669	2,686,950	2,769,754	2,855,161	2,943,201	3,033,956	3,127,509	3,223,947
229 5140001 Overtime Pay	260,091	213,060	219,614	226,374	233,346	240,537	247,954	255,600	263,481	271,606	279,981
230 5150001 One Time COLA Wage Disburse	13,012	61,760	63,660	65,619	67,640	69,725	71,875	74,091	76,376	78,731	81,158
231 5200001 Employee Benefits-Overtime	20,360	-	-	-	-	-	-	-	-	-	-
232 5210001 FICA Taxes	217,367	187,220	192,979	198,919	205,046	211,365	217,882	224,601	231,526	238,665	246,025
233 5220001 Retirement Contributions	245,940	305,620	315,022	324,718	334,719	345,034	355,673	366,640	377,946	389,600	401,614
234 5230001 Hlth,Life,Dntl,Std,Ltd	701,758	976,670	1,006,714	1,037,701	1,069,661	1,102,625	1,136,625	1,171,673	1,207,802	1,245,045	1,283,437
235 5299991 Reg Salary&Wgs-Contra-Prj	(28,616)	-	-	-	-	-	-	-	-	-	-
236 5299992 Benefits-Contra-Projects	(1,497)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
237 5310033 General Consulting	\$ -	\$ 20,160	\$ 20,724	\$ 21,305	\$ 21,901	\$ 22,515	\$ 23,145	\$ 23,793	\$ 24,459	\$ 25,144	\$ 25,848
238 5340003 Contract Svcs-Janitorial	9,552	11,240	11,555	11,878	12,211	12,553	12,904	13,266	13,637	14,019	14,411
239 5349000 Contract Services-Other	80,808	52,830	54,309	55,830	57,393	59,000	60,652	62,350	64,096	65,891	67,736
240 5400001 Travel and Per Diem	-	8,820	9,067	9,321	9,582	9,850	10,126	10,409	10,701	11,001	11,309
241 5400100 Transportation Exp	417	-	-	-	-	-	-	-	-	-	-
242 5400110 Mileage-Out of Town	241	-	-	-	-	-	-	-	-	-	-
243 5400200 Meals/Per Diem	786	-	-	-	-	-	-	-	-	-	-
244 5400205 Meals-Taxable	49	-	-	-	-	-	-	-	-	-	-
245 5400300 Hotels/Motels/Lodging	2,956	-	-	-	-	-	-	-	-	-	-
246 5400900 Travel-Other	825	-	-	-	-	-	-	-	-	-	-
247 5410001 Communication Services	5,619	8,080	8,306	8,539	8,778	9,024	9,276	9,536	9,803	10,078	10,360
248 5420001 Freight	320	370	380	391	402	413	425	437	449	461	474
249 5420002 Postage	90	210	216	222	228	235	241	248	255	262	269
250 5431100 Util Svc-Elec-Generl-Power	34,795	40,430	41,562	42,726	43,922	45,152	46,416	47,716	49,052	50,425	51,837
251 5433000 Util Svc-County Water&Swr	5,213	5,150	5,294	5,442	5,595	5,751	5,913	6,078	6,248	6,423	6,603
252 5439000 Utility Svc-Miscellaneous	13,798	16,660	17,126	17,606	18,099	18,606	19,127	19,662	20,213	20,779	21,361
253 5440001 Rentals and Leases	429	2,150	2,272	2,401	2,536	2,675	2,818	2,965	3,116	3,271	3,429
254 5460001 Repair&Maintenance Svcs	7,674	13,730	14,114	14,510	14,916	15,334	15,763	16,204	16,658	17,124	17,604
255 5461000 Repair&Maint-Grounds	43,249	21,800	22,410	23,038	23,683	24,346	25,028	25,729	26,449	27,190	27,951
256 5462000 Repair&Maint-Buildings	62,856	45,810	47,093	48,411	49,767	51,160	52,593	54,065	55,579	57,135	58,735
257 5463000 Repair&Maint-Wtr/Swr Line	1,075,339	700,000	719,600	739,749	760,462	781,755	803,644	826,146	849,278	873,058	897,503
258 5464000 Repair&Maint-Equipment	34,528	96,150	98,842	101,610	104,455	107,380	110,386	113,477	116,654	119,921	123,278
259 5470001 Printing and Binding Exp	357	740	761	782	804	826	850	873	898	923	949
260 5490001 Othr Current Chgs&Obligat	74	1,300	1,336	1,374	1,412	1,452	1,492	1,534	1,577	1,621	1,667
261 5490060 Incentives & Awards	54	490	504	518	532	547	563	578	594	611	628
262 5496102 Intgv Sv-Tl-Highway	5,150	-	-	-	-	-	-	-	-	-	-
263 5496521 Intgv Sv-Fleet-Op & Maint	459,107	601,840	618,692	636,015	653,823	672,130	690,950	710,297	730,185	750,630	771,648
264 5510001 Office Supplies Exp	5,597	13,630	14,012	14,404	14,807	15,222	15,648	16,086	16,537	17,000	17,476
265 5520001 Operating Supplies Exp	445	-	-	-	-	-	-	-	-	-	-
266 5520005 Small Tools, Supp&Allow.	23,325	81,940	84,234	86,593	89,017	91,510	94,072	96,706	99,414	102,198	105,059
267 5520006 Oper. Supplies-Clothing	13,876	10,730	11,030	11,339	11,657	11,983	12,319	12,664	13,018	13,383	13,757
268 5520009 Oper. Supplies-Computer	412	1,010	1,038	1,067	1,097	1,128	1,160	1,192	1,225	1,260	1,295
269 5520099 PC Purchases under \$1000	1,721	-	-	-	-	-	-	-	-	-	-
270 5529000 Oper. Supplies-Misc	744,457	592,900	609,501	626,567	644,111	662,146	680,686	699,746	719,338	739,480	760,185
271 5540001 Bks, Pub, Subscrip&Membrshps	1,845	1,370	1,408	1,448	1,488	1,530	1,573	1,617	1,662	1,709	1,757
272 5550001 Training and Education Costs	15,525	13,960	14,351	14,753	15,166	15,590	16,027	16,476	16,937	17,411	17,899
273 5310033 General Consulting	-	1,650	1,696	1,744	1,793	1,843	1,894	1,947	2,002	2,058	2,116



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix A – Water Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
274 5340003 Contract Svcs-Janitorial	780	920	946	972	999	1,027	1,056	1,086	1,116	1,147	1,180
275 5349000 Contract Services-Other	3,960	4,310	4,431	4,555	4,682	4,813	4,948	5,087	5,229	5,376	5,526
276 5400001 Travel and Per Diem	-	720	740	761	782	804	827	850	874	898	923
277 5400100 Transportation Exp	53	-	-	-	-	-	-	-	-	-	-
278 5400110 Mileage-Out of Town	20	-	-	-	-	-	-	-	-	-	-
279 5400200 Meals/Per Diem	64	-	-	-	-	-	-	-	-	-	-
280 5400205 Meals-Taxable	4	-	-	-	-	-	-	-	-	-	-
281 5400300 Hotels/Motels/Lodging	241	-	-	-	-	-	-	-	-	-	-
282 5400900 Travel-Other	67	-	-	-	-	-	-	-	-	-	-
283 5410001 Communication Services	482	660	678	697	717	737	758	779	801	823	846
284 5420001 Freight	26	30	31	32	33	34	34	35	36	37	38
285 5420002 Postage	7	20	21	21	22	22	23	24	24	25	26
286 5431100 Util Svc-Elec-Generl-Power	2,840	3,300	3,392	3,487	3,585	3,685	3,789	3,895	4,004	4,116	4,231
287 5433000 Util Svc-County Water&Swr	425	420	432	444	456	469	482	496	510	524	539
288 5439000 Utility Svc-Miscellaneous	897	1,360	1,398	1,437	1,477	1,519	1,561	1,605	1,650	1,696	1,744
289 5440001 Rentals and Leases	35	180	185	190	196	201	207	212	218	225	231
290 5460001 Repair&Maintenance Svcs	626	1,100	1,131	1,162	1,195	1,228	1,263	1,298	1,335	1,372	1,410
291 5461000 Repair&Maint-Grounds	3,533	1,780	1,830	1,881	1,934	1,988	2,044	2,101	2,160	2,220	2,282
292 5462000 Repair&Maint-Buildings	292	3,740	3,845	3,952	4,063	4,177	4,294	4,414	4,538	4,665	4,795
293 5464000 Repair&Maint-Equipment	3,547	7,840	8,060	8,285	8,517	8,756	9,001	9,253	9,512	9,778	10,052
294 5470001 Printing and Binding Exp	29	50	51	53	54	56	57	59	61	62	64
295 5490001 Othr Current Chgs&Obligat	6	100	103	106	109	112	115	118	121	125	128
296 5490060 Incentives & Awards	4	40	41	42	43	45	46	47	49	50	51
297 5496521 Intgv Sv-Fleet-Op & Maint	38,079	-	-	-	-	-	-	-	-	-	-
298 5510001 Office Supplies Exp	443	1,110	1,141	1,173	1,206	1,240	1,274	1,310	1,347	1,384	1,423
299 5520005 Small Tools, Supp&Allow.	1,904	6,650	6,836	7,028	7,224	7,427	7,635	7,848	8,068	8,294	8,526
300 5520006 Oper. Supplies-Clothing	1,133	880	905	930	956	983	1,010	1,039	1,068	1,098	1,128
301 5520009 Oper. Supplies-Computer	34	80	82	85	87	89	92	94	97	100	103
302 5520099 PC Purchases under \$1000	817	-	-	-	-	-	-	-	-	-	-
303 5529000 Oper. Supplies-Misc	60,435	48,400	49,755	51,148	52,580	54,053	55,566	57,122	58,722	60,366	62,056
304 5540001 Bks, Pub, Subscrp&Membshps	151	110	113	116	120	123	126	130	133	137	141
305 5550001 Training and Education Costs	1,151	1,140	1,172	1,205	1,238	1,273	1,309	1,345	1,383	1,422	1,462
<b>Capital Outlay</b>											
306 5520098 PC purchases under \$5,000	\$ 31,800	\$ 34,820	\$ 35,795	\$ 36,797	\$ 37,828	\$ 38,887	\$ 39,976	\$ 41,095	\$ 42,246	\$ 43,428	\$ 44,644
307 5640001 Machinery And Equipment	89,459	10,400	10,691	10,991	11,298	11,615	11,940	12,274	12,618	12,971	13,334
<b>308 Total 431250 Maintenance North &amp; South</b>	<b>\$ 6,441,978</b>	<b>\$ 6,748,980</b>	<b>\$ 6,949,701</b>	<b>\$ 7,156,483</b>	<b>\$ 7,369,512</b>	<b>\$ 7,588,982</b>	<b>\$ 7,815,090</b>	<b>\$ 8,047,948</b>	<b>\$ 8,287,760</b>	<b>\$ 8,534,733</b>	<b>\$ 8,789,080</b>
<b>431320 Water Supply &amp; Transmission</b>											
<b>Personal Services</b>											
309 5110001 Executive Salaries	\$ 126,110	\$ 167,160	\$ 172,302	\$ 177,606	\$ 183,076	\$ 188,718	\$ 194,537	\$ 200,535	\$ 206,719	\$ 213,093	\$ 219,664
310 5120001 Regular Salaries & Wages	1,006,563	1,090,210	1,123,747	1,158,336	1,194,012	1,230,807	1,268,760	1,307,883	1,348,212	1,389,784	1,432,639
311 5140001 Overtime Pay	97,515	93,600	96,479	99,449	102,512	105,671	108,929	112,288	115,751	119,320	122,999
312 5150001 One Time COLA Wage Disburse	-	25,200	25,975	26,775	27,599	28,450	29,327	30,231	31,164	32,125	33,115
313 5210001 FICA Taxes	88,574	94,270	97,170	100,161	103,246	106,427	109,709	113,092	116,579	120,174	123,880
314 5220001 Retirement Contributions	134,063	147,870	152,419	157,110	161,949	166,940	172,088	177,394	182,864	188,503	194,315
315 5230001 Hlth, Life, Dntl, Std, Ltd	318,632	400,080	412,387	425,081	438,173	451,676	465,603	479,960	494,760	510,016	525,743
316 5299991 Reg Salary&Wgs-Contra-Prj	(22,705)	-	-	-	-	-	-	-	-	-	-
317 5299992 Benefits-Contra-Projects	(6,561)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
318 5310033 General Consulting	\$ -	\$ 20,550	\$ 21,125	\$ 21,717	\$ 22,325	\$ 22,950	\$ 23,593	\$ 24,253	\$ 24,932	\$ 25,630	\$ 26,348
319 5340003 Contract Svcs-Janitorial	39,626	48,100	49,447	50,831	52,255	53,718	55,222	56,768	58,358	59,992	61,671
320 5349000 Contract Services-Other	172,851	216,750	222,819	229,058	235,472	242,065	248,845	255,810	262,973	270,336	277,905
321 5400001 Travel and Per Diem	-	2,000	2,056	2,114	2,173	2,234	2,296	2,360	2,427	2,494	2,564
322 5400100 Transportation Exp	2,987	-	-	-	-	-	-	-	-	-	-
323 5400105 Mileage-Local	19	-	-	-	-	-	-	-	-	-	-
324 5400110 Mileage-Out of Town	204	-	-	-	-	-	-	-	-	-	-
325 5400200 Meals/Per Diem	994	-	-	-	-	-	-	-	-	-	-
326 5400205 Meals-Taxable	16	-	-	-	-	-	-	-	-	-	-
327 5400300 Hotels/Motels/Lodging	3,853	-	-	-	-	-	-	-	-	-	-
328 5400900 Travel-Other	109	-	-	-	-	-	-	-	-	-	-
329 5410001 Communication Services	4,492	4,400	4,523	4,650	4,780	4,914	5,051	5,193	5,338	5,488	5,641
330 5420001 Freight	213	250	257	264	272	279	287	295	303	312	321





# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

### Schedule 5

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
331 5420002 Postage	-	20	21	21	22	22	23	24	24	25	26
332 5431100 Util Svc-Elec-Generl-Power	837,382	1,135,000	1,166,780	1,199,450	1,233,034	1,267,559	1,303,051	1,339,536	1,377,044	1,415,601	1,455,238
333 5432010 Util Svc-Municipl Wtr-Rcmd	3,277	3,000	3,084	3,170	3,259	3,350	3,444	3,541	3,640	3,742	3,846
334 5433000 Util Svc-County Water&Swr	16,842	17,500	17,990	18,494	19,012	19,544	20,091	20,654	21,232	21,826	22,438
335 5439000 Utility Svc-Miscellaneous	-	1,700	1,748	1,797	1,847	1,899	1,952	2,006	2,063	2,120	2,180
336 5440001 Rentals and Leases	12,651	4,500	4,626	4,756	4,889	5,026	5,166	5,311	5,460	5,613	5,770
337 5461000 Repair&Maint-Grounds	86,085	110,000	113,080	116,246	119,501	122,847	126,287	129,823	133,458	137,195	141,036
338 5462000 Repair&Maint-Buildings	64,405	94,300	96,940	99,655	102,445	105,314	108,262	111,294	114,410	117,613	120,907
339 5464000 Repair&Maint-Equipment	143,007	113,900	117,089	120,368	123,738	127,203	130,764	134,426	138,190	142,059	146,037
340 5470001 Printing and Binding Exp	-	50	51	53	54	56	57	59	61	62	64
341 5490001 Othr Current Chgs&Obligat	4,000	4,600	4,729	4,861	4,997	5,137	5,281	5,429	5,581	5,737	5,898
342 5496521 Intgv Sv-Fleet-Op & Maint	65,997	130,020	133,661	137,403	141,250	145,205	149,271	153,451	157,747	162,164	166,705
343 5510001 Office Supplies Exp	2,776	2,700	2,776	2,853	2,933	3,015	3,100	3,187	3,276	3,368	3,462
344 5520003 Oper. Supplies-Chemicals	940,739	1,400,000	1,439,200	1,479,498	1,520,924	1,563,509	1,607,288	1,652,292	1,698,556	1,746,115	1,795,007
345 5520005 Small Tools, Supp&Allow.	795	2,000	2,056	2,114	2,173	2,234	2,296	2,360	2,427	2,494	2,564
346 5520006 Oper. Supplies-Clothing	1,513	4,250	4,369	4,491	4,617	4,746	4,879	5,016	5,156	5,301	5,449
347 5520009 Oper. Supplies-Computer	14,977	-	-	-	-	-	-	-	-	-	-
348 5520099 PC Purchases under \$1000	8,636	-	-	-	-	-	-	-	-	-	-
349 5529000 Oper. Supplies-Misc	256,203	269,200	276,738	284,486	292,452	300,641	309,058	317,712	326,608	335,753	345,154
350 5540001 Bks, Pub, Subscrp&Membshps	668	2,900	2,981	3,065	3,150	3,239	3,329	3,423	3,518	3,617	3,718
351 5550001 Training and Education Costs	7,115	12,500	12,850	13,210	13,580	13,960	14,351	14,753	15,166	15,590	16,027
<b>Capital Outlay</b>											
352 5520098 PC purchases under \$5,000	\$ 11,682	\$ 8,920	\$ 9,170	\$ 9,427	\$ 9,690	\$ 9,962	\$ 10,241	\$ 10,527	\$ 10,822	\$ 11,125	\$ 11,437
353 5640001 Machinery And Equipment	13,765	5,500	5,654	5,812	5,975	6,142	6,314	6,491	6,673	6,860	7,052
<b>354 Total 431320 Water Supply &amp; Transmission</b>	<b>\$ 4,460,070</b>	<b>\$ 5,633,000</b>	<b>\$ 5,796,299</b>	<b>\$ 5,964,380</b>	<b>\$ 6,137,384</b>	<b>\$ 6,315,458</b>	<b>\$ 6,498,752</b>	<b>\$ 6,687,377</b>	<b>\$ 6,881,489</b>	<b>\$ 7,081,248</b>	<b>\$ 7,286,819</b>
<b>431330 Supervisory Control and Data Acquisition (SCADA)</b>											
<b>Personal Services</b>											
355 5110001 Executive Salaries	\$ 54,543	\$ 55,680	\$ 57,393	\$ 59,159	\$ 60,981	\$ 62,861	\$ 64,799	\$ 66,797	\$ 68,857	\$ 70,980	\$ 73,169
356 5120001 Regular Salaries & Wages	62,287	55,720	57,434	59,202	61,025	62,906	64,846	66,845	68,906	71,031	73,221
357 5140001 Overtime Pay	3,679	2,000	2,062	2,125	2,190	2,258	2,328	2,399	2,473	2,550	2,628
358 5150001 One Time COLA Wage Disburse	-	1,680	1,732	1,785	1,840	1,897	1,955	2,015	2,078	2,142	2,208
359 5210001 FICA Taxes	8,908	8,390	8,648	8,914	9,189	9,472	9,764	10,065	10,376	10,695	11,025
360 5220001 Retirement Contributions	13,355	13,160	13,565	13,982	14,413	14,857	15,315	15,788	16,274	16,776	17,293
361 5230001 Hlth, Life, Dntl, Std, Ltd	24,862	26,850	27,676	28,528	29,406	30,313	31,247	32,211	33,204	34,228	35,283
362 5299991 Reg Salary&Wgs-Contra-Prj	(2,124)	-	-	-	-	-	-	-	-	-	-
363 5299992 Benefits-Contra-Projects	(651)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
364 5310033 General Consulting	\$ -	\$ 100,000	\$ 102,800	\$ 105,678	\$ 108,637	\$ 111,679	\$ 114,806	\$ 118,021	\$ 121,325	\$ 124,723	\$ 128,215
365 5349000 Contract Services-Other	16,936	104,000	106,912	109,906	112,983	116,146	119,399	122,742	126,178	129,711	133,343
366 5400001 Travel and Per Diem	-	840	864	888	913	938	964	991	1,019	1,048	1,077
367 5400100 Transportation Exp	291	-	-	-	-	-	-	-	-	-	-
368 5400110 Mileage-Out of Town	49	50	52	53	55	56	58	59	61	63	65
369 5400200 Meals/Per Diem	112	115	118	122	125	129	132	136	140	144	148
370 5400300 Hotels/Motels/Lodging	124	-	-	-	-	-	-	-	-	-	-
371 5400900 Travel-Other	2	-	-	-	-	-	-	-	-	-	-
372 5410001 Communication Services	10,214	9,200	9,458	9,722	9,995	10,274	10,562	10,858	11,162	11,474	11,796
373 5464000 Repair&Maint-Equipment	60,340	85,940	88,346	90,820	93,363	95,977	98,665	101,427	104,267	107,187	110,188
374 5496521 Intgv Sv-Fleet-Op & Maint	1,300	1,790	1,840	1,892	1,945	1,999	2,055	2,113	2,172	2,233	2,295
375 5510001 Office Supplies Exp	115	40	41	42	43	45	46	47	49	50	51
376 5520001 Operating Supplies Exp	6,707	-	-	-	-	-	-	-	-	-	-
377 5520005 Small Tools, Supp&Allow.	150	-	-	-	-	-	-	-	-	-	-
378 5520009 Oper. Supplies-Computer	11,918	240	247	254	261	268	276	283	291	299	308
379 5520099 PC Purchases under \$1000	387	-	-	-	-	-	-	-	-	-	-
380 5529000 Oper. Supplies-Misc	3,366	400	411	423	435	447	459	472	485	499	513
381 5550001 Training and Education Costs	1,009	1,560	1,604	1,649	1,695	1,742	1,791	1,841	1,893	1,946	2,000
<b>Capital Outlay</b>											
382 5520098 PC purchases under \$5,000	\$ 14,341	\$ 6,000	\$ 6,168	\$ 6,341	\$ 6,518	\$ 6,701	\$ 6,888	\$ 7,081	\$ 7,280	\$ 7,483	\$ 7,693
383 5640001 Machinery And Equipment	4,954	-	-	-	-	-	-	-	-	-	-
<b>384 Total 431330 Supervisory Control and Data Acquisition (SCADA)</b>	<b>\$ 297,172</b>	<b>\$ 473,656</b>	<b>\$ 487,369</b>	<b>\$ 501,484</b>	<b>\$ 516,012</b>	<b>\$ 530,965</b>	<b>\$ 546,355</b>	<b>\$ 562,192</b>	<b>\$ 578,490</b>	<b>\$ 595,261</b>	<b>\$ 612,519</b>



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

### Schedule 5

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>431335 Utilities Data Management</b>											
<b>Personal Services</b>											
385 5110001 Executive Salaries	\$ -	\$ 159,390	\$ 164,293	\$ 169,350	\$ 174,566	\$ 179,946	\$ 185,494	\$ 191,214	\$ 197,110	\$ 203,188	\$ 209,454
386 5120001 Regular Salaries & Wages	-	73,670	75,936	78,274	80,684	83,171	85,735	88,379	91,104	93,913	96,809
387 5140001 Overtime Pay	-	1,500	1,546	1,594	1,643	1,693	1,746	1,799	1,855	1,912	1,971
388 5299992 Benefits-Contra-Projects	(479)	(494)	(509)	(524)	(541)	(557)	(574)	(592)	(610)	(629)	(649)
389 5150001 One Time COLA Wage Disburse	-	3,600	3,711	3,825	3,943	4,064	4,190	4,319	4,452	4,589	4,731
390 5210001 FICA Taxes	-	17,580	18,121	18,679	19,254	19,847	20,459	21,090	21,740	22,411	23,102
391 5220001 Retirement Contributions	-	27,520	28,367	29,240	30,140	31,069	32,027	33,015	34,033	35,082	36,164
392 5230001 Hlth,Life,Dntl,Std,Ltd	-	57,470	59,238	61,061	62,942	64,882	66,882	68,945	71,070	73,262	75,521
<b>Operations &amp; Maintenance</b>											
393 5310033 General Consulting	\$ -	\$ 599,730	\$ 616,522	\$ 633,785	\$ 651,531	\$ 669,774	\$ 688,528	\$ 707,806	\$ 727,625	\$ 747,998	\$ 768,942
394 5349000 Contract Services-Other	-	8,080	8,306	8,539	8,778	9,024	9,276	9,536	9,803	10,078	10,360
395 5400001 Travel and Per Diem	-	10,200	10,486	10,779	11,081	11,391	11,710	12,038	12,375	12,722	13,078
396 5410001 Communication Services	-	360	370	380	391	402	413	425	437	449	462
397 5510001 Office Supplies Exp	-	400	411	423	435	447	459	472	485	499	513
398 5520006 Operating Supplies Exp	-	150	154	159	163	168	172	177	182	187	192
399 5520009 Oper. Supplies-Computer	-	1,130	1,162	1,194	1,228	1,262	1,297	1,334	1,371	1,409	1,449
400 5529000 Oper. Supplies-Misc	-	1,600	1,645	1,691	1,738	1,787	1,837	1,888	1,941	1,996	2,051
401 5540001 Bks, Pub, Subscrp & Membrshps	-	740	761	782	804	826	850	873	898	923	949
402 5550001 Training and Education Costs	-	15,040	15,461	15,894	16,339	16,797	17,267	17,750	18,247	18,758	19,284
<b>Capital Outlay</b>											
403 5640001 Machinery And Equipment	\$ -	\$ 9,650	\$ 9,920	\$ 10,198	\$ 10,484	\$ 10,777	\$ 11,079	\$ 11,389	\$ 11,708	\$ 12,036	\$ 12,373
404 <b>Total 431335 Utilities Data Management</b>	<b>\$ (479)</b>	<b>\$ 987,316</b>	<b>\$ 1,015,901</b>	<b>\$ 1,045,321</b>	<b>\$ 1,075,602</b>	<b>\$ 1,106,769</b>	<b>\$ 1,138,847</b>	<b>\$ 1,171,858</b>	<b>\$ 1,205,827</b>	<b>\$ 1,240,783</b>	<b>\$ 1,276,755</b>
<b>431340 Water Quality - Laboratory</b>											
<b>Personal Services</b>											
405 5110001 Executive Salaries	\$ 52,120	\$ 53,100	\$ 54,733	\$ 56,418	\$ 58,156	\$ 59,948	\$ 61,796	\$ 63,702	\$ 65,666	\$ 67,691	\$ 69,778
406 5120001 Regular Salaries & Wages	199,907	207,340	213,718	220,297	227,081	234,079	241,297	248,738	256,408	264,314	272,464
407 5140001 Overtime Pay	5,553	4,500	4,638	4,781	4,928	5,080	5,237	5,398	5,565	5,737	5,913
408 5150001 One Time COLA Wage Disburse	-	4,660	4,803	4,951	5,104	5,261	5,423	5,590	5,763	5,941	6,124
409 5210001 FICA Taxes	18,945	19,570	20,172	20,793	21,433	22,094	22,775	23,477	24,201	24,948	25,717
410 5220001 Retirement Contributions	32,166	34,070	35,118	36,199	37,314	38,464	39,650	40,872	42,133	43,432	44,771
411 5230001 Hlth,Life,Dntl,Std,Ltd	67,626	72,920	75,163	77,477	79,863	82,324	84,863	87,479	90,177	92,957	95,824
412 5299991 Reg Salary & Wgs-Contra-Prj	(1,522)	-	-	-	-	-	-	-	-	-	-
413 5299992 Benefits-Contra-Projects	(523)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
414 5310033 General Consulting	\$ -	\$ 150	\$ 154	\$ 159	\$ 163	\$ 168	\$ 172	\$ 177	\$ 182	\$ 187	\$ 192
415 5340003 Contract Svcs-Janitorial	1,310	960	987	1,015	1,043	1,072	1,102	1,133	1,165	1,197	1,231
416 5349000 Contract Services-Other	5,292	16,820	17,291	17,775	18,273	18,784	19,310	19,851	20,407	20,978	21,566
417 5400001 Travel and Per Diem	-	1,440	1,480	1,522	1,564	1,608	1,653	1,700	1,747	1,796	1,846
418 5400100 Transportation Exp	357	-	-	-	-	-	-	-	-	-	-
419 5400105 Mileage-Local	14	-	-	-	-	-	-	-	-	-	-
420 5400110 Mileage-Out of Town	52	-	-	-	-	-	-	-	-	-	-
421 5400200 Meals/Per Diem	298	-	-	-	-	-	-	-	-	-	-
422 5400300 Hotels/Motels/Lodging	722	-	-	-	-	-	-	-	-	-	-
423 5400900 Travel-Other	27	-	-	-	-	-	-	-	-	-	-
424 5410001 Communication Services	52	150	154	159	163	168	172	177	182	187	192
425 5420001 Freight	-	60	62	63	65	67	69	71	73	75	77
426 5420002 Postage	27	10	10	11	11	11	11	12	12	12	13
427 5431100 Util Svc-Elec-Generl-Power	26,043	35,890	36,895	37,928	38,990	40,082	41,204	42,358	43,544	44,763	46,016
428 5433000 Util Svc-County Water&Swr	340	360	370	380	391	402	413	425	437	449	462
429 5440001 Rentals and Leases	7,943	1,110	1,141	1,173	1,206	1,240	1,274	1,310	1,347	1,384	1,423
430 5462000 Repair&Maint-Buildings	1,187	1,980	2,035	2,092	2,151	2,211	2,273	2,337	2,402	2,470	2,539
431 5464000 Repair&Maint-Equipment	29,876	29,730	30,562	31,418	32,298	33,202	34,132	35,088	36,070	37,080	38,118
432 5470001 Printing and Binding Exp	1	10	10	11	11	11	11	12	12	12	13
433 5480001 Promotional Activities Exp	-	60	62	63	65	67	69	71	73	75	77
434 5490001 Othr Current Chgs&Obligat	504	2,500	2,570	2,642	2,716	2,792	2,870	2,951	3,033	3,118	3,205
435 5490060 Incentives & Awards	-	50	51	53	54	56	57	59	61	62	64
436 5496521 Intgv Sv-Fleet-Op & Maint	1,200	1,840	1,892	1,944	1,999	2,055	2,112	2,172	2,232	2,295	2,359
437 5510001 Office Supplies Exp	360	760	781	803	826	849	873	897	922	948	974



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

### Schedule 5

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
438 5520098 PC Purchases under \$5000	335	4,050	4,163	4,280	4,400	4,523	4,650	4,780	4,914	5,051	5,193
439 5520099 PC Purchases under \$1000	258	-	-	-	-	-	-	-	-	-	-
440 5529000 Oper. Supplies-Misc	42,346	43,540	44,759	46,012	47,301	48,625	49,987	51,386	52,825	54,304	55,825
441 5540001 Bks, Pub, Subscrp&Membshps	133	130	134	137	141	145	149	153	158	162	167
442 5550001 Training and Education Costs	1,630	1,070	1,100	1,131	1,162	1,195	1,228	1,263	1,298	1,335	1,372
<b>Capital Outlay</b>											
443 5640001 Machinery And Equipment	\$ -	\$ 70,000	\$ 71,960	\$ 73,975	\$ 76,046	\$ 78,175	\$ 80,364	\$ 82,615	\$ 84,928	\$ 87,306	\$ 89,750
444 <b>Total 431340 Water Quality - Laboratory</b>	<b>\$ 494,582</b>	<b>\$ 608,830</b>	<b>\$ 626,971</b>	<b>\$ 645,662</b>	<b>\$ 664,919</b>	<b>\$ 684,758</b>	<b>\$ 705,200</b>	<b>\$ 726,253</b>	<b>\$ 747,935</b>	<b>\$ 770,267</b>	<b>\$ 793,266</b>
<b>431350 Water Quality - Monitoring</b>											
<b>Personal Services</b>											
445 5110001 Executive Salaries	\$ 278,268	\$ 266,360	\$ 274,554	\$ 283,005	\$ 291,721	\$ 300,711	\$ 309,983	\$ 319,542	\$ 329,395	\$ 339,552	\$ 350,022
446 5120001 Regular Salaries & Wages	554,083	616,660	635,630	655,195	675,374	696,187	717,654	739,783	762,595	786,110	810,350
447 5140001 Overtime Pay	25,873	31,900	32,881	33,893	34,937	36,014	37,124	38,269	39,449	40,666	41,920
448 5150001 One Time COLA Wage Disburse	-	16,450	16,956	17,478	18,016	18,571	19,144	19,734	20,343	20,970	21,617
449 5210001 FICA Taxes	62,975	66,330	68,370	70,475	72,645	74,884	77,193	79,574	82,027	84,557	87,164
450 5220001 Retirement Contributions	98,340	108,520	111,858	115,301	118,852	122,515	126,293	130,187	134,202	138,340	142,606
451 5230001 Hlth, Life, Dntl, Std, Ltd	235,360	265,350	273,513	281,932	290,615	299,570	308,808	318,330	328,146	338,264	348,695
452 5299989 Rg Sal&Wges-Contra-Prj-Bur	(363)	-	-	-	-	-	-	-	-	-	-
453 5299991 Reg Salary&Wgs-Contra-Prj	(28,435)	-	-	-	-	-	-	-	-	-	-
454 5299992 Benefits-Contra-Projects	(12,120)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
455 5310033 General Consulting	\$ -	\$ 416,400	\$ 428,059	\$ 440,045	\$ 452,366	\$ 465,032	\$ 478,053	\$ 491,439	\$ 505,199	\$ 519,345	\$ 533,886
456 5340003 Contract Svcs-Janitorial	4,431	4,400	4,523	4,650	4,780	4,914	5,051	5,193	5,338	5,488	5,641
457 5349000 Contract Services-Other	22,564	50,790	52,212	53,674	55,177	56,722	58,310	59,943	61,621	63,347	65,120
458 5399989 Op Exp-Contra-Proj-Burdng	(869)	-	-	-	-	-	-	-	-	-	-
459 5400001 Travel and Per Diem	-	14,900	15,317	15,746	16,187	16,640	17,106	17,585	18,077	18,584	19,104
460 5400100 Transportation Exp	2,004	-	-	-	-	-	-	-	-	-	-
461 5400105 Mileage-Local	56	-	-	-	-	-	-	-	-	-	-
462 5400110 Mileage-Out of Town	409	-	-	-	-	-	-	-	-	-	-
463 5400200 Meals/Per Diem	2,518	-	-	-	-	-	-	-	-	-	-
464 5400300 Hotels/Motels/Lodging	6,677	-	-	-	-	-	-	-	-	-	-
465 5400900 Travel-Other	303	-	-	-	-	-	-	-	-	-	-
466 5410001 Communication Services	1,985	2,170	2,231	2,293	2,357	2,423	2,491	2,561	2,633	2,706	2,782
467 5420001 Freight	86	700	720	740	760	782	804	826	849	873	898
468 5420002 Postage	443	1,160	1,192	1,226	1,260	1,295	1,332	1,369	1,407	1,447	1,487
469 5440001 Rentals and Leases	1,615	2,090	2,149	2,209	2,271	2,334	2,399	2,467	2,536	2,607	2,680
470 5460001 Repair&Maintenance Svcs	14,923	-	-	-	-	-	-	-	-	-	-
471 5461000 Repair&Maint-Grounds	2,315	15,080	15,502	15,936	16,383	16,841	17,313	17,798	18,296	18,808	19,335
472 5462000 Repair&Maint-Buildings	21,951	10,030	10,311	10,600	10,896	11,201	11,515	11,837	12,169	12,510	12,860
473 5464000 Repair&Maint-Equipment	339	55,170	56,715	58,303	59,935	61,613	63,339	65,112	66,935	68,809	70,736
474 5470001 Printing and Binding Exp	-	580	596	613	630	648	666	685	704	723	744
475 5480001 Promotional Activities Exp	9,927	810	833	856	880	905	930	956	983	1,010	1,039
476 5490001 Othr Current Chgs&Obligat	58	290	298	306	315	324	333	342	352	362	372
477 5490060 Incentives & Awards	-	170	175	180	185	190	195	201	206	212	218
478 5496521 Intgv Sv-Fleet-Op & Maint	37,053	58,700	60,344	62,033	63,770	65,556	67,391	69,278	71,218	73,212	75,262
479 5510001 Office Supplies Exp	1,507	1,740	1,789	1,839	1,890	1,943	1,998	2,054	2,111	2,170	2,231
480 5520005 Small Tools, Supp&Allow.	1,121	2,080	2,138	2,198	2,260	2,323	2,388	2,455	2,524	2,594	2,667
481 5520006 Oper. Supplies-Clothing	2,208	3,770	3,876	3,984	4,096	4,210	4,328	4,449	4,574	4,702	4,834
482 5520009 Oper. Supplies-Computer	955	1,450	1,491	1,532	1,575	1,619	1,665	1,711	1,759	1,808	1,859
483 5520098 PC purchases under \$5,000	19,396	5,800	5,962	6,129	6,301	6,477	6,659	6,845	7,037	7,234	7,436
484 5520099 PC Purchases under \$1000	3,025	-	-	-	-	-	-	-	-	-	-
485 5529000 Oper. Supplies-Misc	34,982	49,010	50,382	51,793	53,243	54,734	56,267	57,842	59,462	61,127	62,838
486 5540001 Bks, Pub, Subscrp&Membshps	127	150	154	159	163	168	172	177	182	187	192
487 5550000 Training	-	990	1,015	1,040	1,066	1,093	1,120	1,148	1,177	1,206	1,236
488 5550001 Training and Education Costs	4,116	6,130	6,302	6,478	6,659	6,846	7,038	7,235	7,437	7,645	7,860
<b>Capital Outlay</b>											
489 5640001 Machinery And Equipment	\$ -	\$ 50,000	\$ 51,400	\$ 52,839	\$ 54,319	\$ 55,840	\$ 57,403	\$ 59,010	\$ 60,663	\$ 62,361	\$ 64,107
490 5640300 Equip-Vehicle&Heavy Equip	-	293,600	301,821	310,272	318,959	327,890	337,071	346,509	356,211	366,185	376,439
491 <b>Total 431350 Water Quality - Monitoring</b>	<b>\$ 1,410,206</b>	<b>\$ 2,419,730</b>	<b>\$ 2,491,268</b>	<b>\$ 2,564,951</b>	<b>\$ 2,640,845</b>	<b>\$ 2,719,017</b>	<b>\$ 2,799,537</b>	<b>\$ 2,882,446</b>	<b>\$ 2,967,817</b>	<b>\$ 3,055,721</b>	<b>\$ 3,146,236</b>



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Projection of Cash Outflows**

**Schedule 5**

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>431370 Water &amp; Sewer Code Enforcement</b>											
<b>Personal Services</b>											
492 5120001 Regular Salaries & Wages	\$ 65,183	\$ 123,570	\$ 127,371	\$ 131,292	\$ 135,335	\$ 139,506	\$ 143,808	\$ 148,242	\$ 152,813	\$ 157,525	\$ 162,383
493 5140001 Overtime Pay	2,104	4,980	5,133	5,291	5,454	5,622	5,796	5,974	6,159	6,348	6,544
494 5150001 One Time COLA Wage Disburse	-	3,000	3,092	3,187	3,286	3,387	3,491	3,599	3,710	3,824	3,942
495 5210001 FICA Taxes	5,026	9,240	9,524	9,817	10,120	10,432	10,753	11,085	11,427	11,779	12,142
496 5220001 Retirement Contributions	7,403	14,470	14,915	15,374	15,848	16,336	16,840	17,359	17,894	18,446	19,015
497 5230001 Hlth,Life,Dntl,Std,Ltd	24,459	47,270	48,724	50,224	51,771	53,366	55,012	56,708	58,457	60,259	62,117
498 5299991 Reg Salaries&Wages-Projects	(689)	-	-	-	-	-	-	-	-	-	-
499 5299992 Benefits-Contra-Projects	(261)	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
500 5349000 Contract Services-Other	\$ 4,730	\$ 21,270	\$ 21,866	\$ 22,478	\$ 23,107	\$ 23,754	\$ 24,419	\$ 25,103	\$ 25,806	\$ 26,528	\$ 27,271
501 5400001 Travel and Per Diem	-	4,100	4,215	4,333	4,454	4,579	4,707	4,839	4,974	5,114	5,257
502 5410001 Communication Services	801	830	853	877	902	927	953	980	1,007	1,035	1,064
503 5420001 Freight	-	20	21	21	22	22	23	24	24	25	26
504 5420002 Postage	534	1,120	1,151	1,184	1,217	1,251	1,286	1,322	1,359	1,397	1,436
505 5470001 Printing and Binding Exp	219	1,330	1,367	1,406	1,445	1,485	1,527	1,570	1,614	1,659	1,705
506 5480001 Promotional Activities Exp	34	4,980	5,119	5,263	5,410	5,562	5,717	5,877	6,042	6,211	6,385
507 5496521 Intgv Sv-Fleet-Op & Maint	3,970	9,780	10,054	10,335	10,625	10,922	11,228	11,542	11,866	12,198	12,539
508 5510001 Office Supplies Exp	73	250	257	264	272	279	287	295	303	312	321
509 5520001 Oper. Supplies-Exp	-	330	338	347	355	364	373	383	392	402	412
510 5520006 Oper. Supplies-Clothing	90	250	257	264	272	279	287	295	303	312	321
511 5520098 PC Purchases under \$5000	708	2,780	2,858	2,938	3,020	3,105	3,192	3,281	3,373	3,467	3,564
512 5520099 PC Purchases under \$1000	115	-	-	-	-	-	-	-	-	-	-
513 5529000 Oper. Supplies-Misc	835	830	853	877	902	927	953	980	1,007	1,035	1,064
514 5540001 Bks, Pub, Subscrp&Membshps	(155)	-	-	-	-	-	-	-	-	-	-
515 5550001 Training and Education Costs	1,689	3,870	3,978	4,090	4,204	4,322	4,443	4,567	4,695	4,827	4,962
<b>Capital Outlay</b>											
516 5640300 Equip-Vehicle&Heavy Equip	\$ -	\$ 98,700	\$ 101,464	\$ 104,305	\$ 107,225	\$ 110,227	\$ 113,314	\$ 116,487	\$ 119,748	\$ 123,101	\$ 126,548
<b>517 Total 431370 Water &amp; Sewer Code Enforcement</b>	<b>\$ 116,867</b>	<b>\$ 352,970</b>	<b>\$ 363,412</b>	<b>\$ 374,167</b>	<b>\$ 385,244</b>	<b>\$ 396,655</b>	<b>\$ 408,409</b>	<b>\$ 420,511</b>	<b>\$ 432,973</b>	<b>\$ 445,805</b>	<b>\$ 459,019</b>
<b>431415 Land, Forestry and Wildlife</b>											
<b>Operations &amp; Maintenance</b>											
518 5310033 General Consulting	\$ 2,909	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
519 5349000 Contract Services-Other	695,265	975,000	1,002,300	1,030,364	1,059,215	1,088,873	1,119,361	1,150,703	1,182,923	1,216,045	1,250,094
520 5400900 Travel-Other	50	-	-	-	-	-	-	-	-	-	-
521 5410001 Communication Services	1,693	2,000	2,056	2,114	2,173	2,234	2,296	2,360	2,427	2,494	2,564
522 5420001 Freight	8	50	51	53	54	56	57	59	61	62	64
523 5431100 Util Svc-Elec-Generl-Power	7,932	16,000	16,448	16,909	17,382	17,869	18,369	18,883	19,412	19,956	20,514
524 5440001 Rentals and Leases	6,840	7,000	7,196	7,397	7,605	7,818	8,036	8,261	8,493	8,731	8,975
525 5461000 Repair&Maint-Grounds	5,800	1,000	1,028	1,057	1,086	1,117	1,148	1,180	1,213	1,247	1,282
526 5462000 Repair&Maint-Buildings	-	30,000	30,840	31,704	32,591	33,504	34,442	35,406	36,398	37,417	38,464
527 5464000 Repair&Maint-Equipment	21,077	5,000	5,140	5,284	5,432	5,584	5,740	5,901	6,066	6,236	6,411
528 5490001 Othr Current Chgs&Obligat	297,023	60,650	62,348	64,094	65,889	67,733	69,630	71,580	73,584	75,644	77,762
529 5490012 Commissions-Cross Bar	7,170	25,000	25,700	26,420	27,159	27,920	28,702	29,505	30,331	31,181	32,054
530 5496521 Intgv Sv-Fleet-Op & Maint	888	1,350	1,388	1,427	1,467	1,508	1,550	1,593	1,638	1,684	1,731
531 5520003 Oper. Supplies-Chemicals	-	200	206	211	217	223	230	236	243	249	256
532 5529000 Oper. Supplies-Misc	-	1,000	1,028	1,057	1,086	1,117	1,148	1,180	1,213	1,247	1,282
<b>533 Total 431415 Land, Forestry and Wildlife</b>	<b>\$ 1,046,654</b>	<b>\$ 1,124,250</b>	<b>\$ 1,155,729</b>	<b>\$ 1,188,089</b>	<b>\$ 1,221,356</b>	<b>\$ 1,255,554</b>	<b>\$ 1,290,709</b>	<b>\$ 1,326,849</b>	<b>\$ 1,364,001</b>	<b>\$ 1,402,193</b>	<b>\$ 1,441,454</b>
<b>894031 Emergency Events-Water</b>											
<b>Personal Services</b>											
534 5299991 Reg Salary&Wgs-Contra-Prj	\$ 176,396	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
535 5299992 Benefits-Contra-Projects	60,023	-	-	-	-	-	-	-	-	-	-
<b>Operations &amp; Maintenance</b>											
536 5520001 Operating Supplies Exp	\$ 263	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
537 5490001 Othr Current Chgs&Obligat	101	-	-	-	-	-	-	-	-	-	-
<b>538 Total 894031 Emergency Events-Water</b>	<b>\$ 236,782</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



**WATER, SEWER RECLAIMED WATER RATE STUDY**  
**Appendix A – Water Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

Expense Line Item	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>433110 Tampa Bay Water (TBW)</b>											
540 <b>Operations &amp; Maintenance</b>											
541 5434000 Util Svc-Regional Water <sup>1</sup>	\$ 42,637,167	\$ 44,726,462	\$ 45,436,467	\$ 45,760,011	\$ 46,669,313	\$ 47,398,437	\$ 45,633,123	\$ 51,473,864	\$ 53,124,116	\$ 54,827,275	\$ 56,740,065
542 <b>Total 433110 Tampa Bay Water (TBW)</b>	\$ 42,637,167	\$ 44,726,462	\$ 45,436,467	\$ 45,760,011	\$ 46,669,313	\$ 47,398,437	\$ 45,633,123	\$ 51,473,864	\$ 53,124,116	\$ 54,827,275	\$ 56,740,065
<b>Other Operating Expenses</b>											
543 Incremental AMI Expense Impacts	\$ -	\$ 239,601	\$ 238,399	\$ 191,522	\$ 190,777	\$ 140,648	\$ 140,432	\$ 86,819	\$ 87,211	\$ 536,897	\$ 537,984
544 <b>Total Other Operating Expenses</b>	\$ -	\$ 239,601	\$ 238,399	\$ 191,522	\$ 190,777	\$ 140,648	\$ 140,432	\$ 86,819	\$ 87,211	\$ 536,897	\$ 537,984
<b>Total Expenses by Category</b>											
545 Personal Services	\$ 15,864,899	\$ 17,464,108	\$ 18,002,023	\$ 18,556,850	\$ 19,129,133	\$ 19,719,433	\$ 20,328,332	\$ 20,956,031	\$ 21,603,111	\$ 22,270,172	\$ 22,957,829
546 Variable Operations & Maintenance	42,637,167	44,726,462	45,436,467	45,760,011	46,669,313	47,398,437	45,633,123	51,473,864	53,124,116	54,827,275	56,740,065
547 Operations & Maintenance	19,152,545	23,546,949	24,176,698	24,824,080	25,489,589	26,173,731	26,877,029	27,600,020	28,343,254	29,614,329	30,399,767
548 Capital Outlay	513,071	1,147,585	1,203,158	1,214,699	1,274,063	1,285,783	1,349,207	1,361,076	1,428,845	1,440,830	1,513,252
549 <b>Total Expenses</b>	\$ 78,167,681	\$ 86,885,104	\$ 88,818,346	\$ 90,355,640	\$ 92,562,098	\$ 94,577,385	\$ 94,187,691	\$ 101,390,991	\$ 104,499,327	\$ 108,152,605	\$ 111,610,913
<b>Expense Execution Factors</b>											
550 Personal Services	100%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
551 Variable Operations & Maintenance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
552 Other O&M	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
553 Operating Minor Capital Outlay	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Total Expenses at Execution</b>											
554 Personal Services	\$ 15,864,899	\$ 16,590,903	\$ 17,101,922	\$ 17,629,008	\$ 18,172,676	\$ 18,733,462	\$ 19,311,915	\$ 19,908,229	\$ 20,522,956	\$ 21,156,663	\$ 21,809,937
555 Variable Operations & Maintenance	42,637,167	44,726,462	45,436,467	45,760,011	46,669,313	47,398,437	45,633,123	51,473,864	53,124,116	54,827,275	56,740,065
556 Operations & Maintenance	19,152,545	23,546,949	24,176,698	24,824,080	25,489,589	26,173,731	26,877,029	27,600,020	28,343,254	29,614,329	30,399,767
557 Capital Outlay	513,071	1,147,585	1,203,158	1,214,699	1,274,063	1,285,783	1,349,207	1,361,076	1,428,845	1,440,830	1,513,252
558 <b>Total Expenses at Execution</b>	\$ 78,167,681	\$ 86,011,899	\$ 87,918,245	\$ 89,427,798	\$ 91,605,641	\$ 93,591,413	\$ 93,171,274	\$ 100,343,189	\$ 103,419,171	\$ 107,039,097	\$ 110,463,021
<b>Transfers Out</b>											
559 Trans To Water R&R <sup>2</sup>	\$ 22,407,770	\$ 16,955,810	\$ -	\$ -	\$ 17,824,704	\$ 25,509,924	\$ 27,405,113	\$ 19,777,668	\$ 24,664,491	\$ 26,418,686	\$ 29,334,897
560 <b>Total Transfers Out</b>	\$ 22,407,770	\$ 16,955,810	\$ -	\$ -	\$ 17,824,704	\$ 25,509,924	\$ 27,405,113	\$ 19,777,668	\$ 24,664,491	\$ 26,418,686	\$ 29,334,897
<b>Debt Service</b>											
561 New Debt Service	-	-	-	-	733,990	1,463,985	2,294,529	3,600,219	4,807,446	5,929,279	6,941,722
562 <b>Total Debt Service</b>	\$ -	\$ -	\$ -	\$ -	\$ 733,990	\$ 1,463,985	\$ 2,294,529	\$ 3,600,219	\$ 4,807,446	\$ 5,929,279	\$ 6,941,722
563 <b>Total Cash Outflows</b>	\$ 100,575,451	\$ 102,967,709	\$ 87,918,245	\$ 89,427,798	\$ 110,164,336	\$ 120,565,322	\$ 122,870,916	\$ 123,721,076	\$ 132,891,109	\$ 139,387,062	\$ 146,739,640

<sup>1</sup> Tampa Bay Water (TBW) expense estimates are based on projections of annual demand and the Tampa Bay Water rate.

<sup>2</sup> FY 2022 and FY 2023 Renewal & Replacement Contributions are based on FY 2022 Actuals and FY 2023 Budget Request, respectively, as provided by County staff. Each year thereafter, the Renewal & Replacement Contribution is calculated based on the funding requirements of the Capital Improvement Plan less any available bond proceeds and any excess fund balance in the R&R Fund above the minimum requirement.



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Capital Improvement Program (CIP)

### Schedule 6

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
<b>Projects</b>												
1	000700B - Westwinds Dr. Bridge Replacement - Utility Relocations: Main	\$ 57,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,000
2	000702B - Crosswinds Dr. Bridge Replacement - Utility Relocations: Main	58,000	-	-	-	-	-	-	-	-	-	\$ 58,000
3	000744A - Facility Miscellaneous Improvements: Main	560,000	1,025,000	100,000	100,000	100,000	100,000	100,000	-	-	-	\$ 2,085,000
4	000791A - FDOT Relocation Projects Miscellaneous: Main	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	\$ 70,000
5	000791A - FDOT Relocation Projects Miscellaneous: Main	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	\$ 70,000
6	000791A - FDOT Relocation Projects Miscellaneous: Main	25,000	25,000	25,000	25,000	25,000	25,000	25,000	-	-	-	\$ 175,000
7	000791A - FDOT Relocation Projects Miscellaneous: Main	55,000	55,000	55,000	55,000	55,000	55,000	55,000	-	-	-	\$ 385,000
8	000791B - Utility Upgrades 19/Seminole Blvd. from S. of 53rd Av. to S. of 102nd Av.: Main	18,000	-	-	-	-	-	-	-	-	-	\$ 18,000
9	000791C - Utility Upgrades SR 595 (Alt. US 19/Seminole Blvd.) Fr. N. of 101st Av. N. to East Bay: Main	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
10	000831A - Water, Sewer and Reclaimed Water Relocation Projects: Main	400,000	400,000	400,000	400,000	400,000	400,000	400,000	-	-	-	\$ 2,800,000
11	000971B - Sands Pt Dr/13th St Bridge Water Main utility relocation: Main	-	135,000	-	-	-	-	-	-	-	-	\$ 135,000
12	001023B - 131st St and 86th Ave Water Main Relocation: Main	197,000	-	-	-	-	-	-	-	-	-	\$ 197,000
13	001035B - Oakwood Dr. Bridge Replacement Utility Relocations: Main	59,000	106,000	-	-	-	-	-	-	-	-	\$ 165,000
14	001057A - General Upgrades to Supervisory Control and Data Acquisition (SCADA): Main	18,000	10,000	56,000	-	-	15,000	-	-	-	-	\$ 99,000
15	001177D - Lakeshore Estates Road and Drainage Improvements Phase II Utilities Relocations: Main	111,000	-	-	-	-	-	-	-	-	-	\$ 111,000
16	001253A - Water ImpFee 4036 Reserves: Main	677,670	-	-	-	-	-	-	-	-	-	\$ 677,670
17	001283A - Replanting of Pine Seedlings @ Cross Bar Ranch: Main	150,000	50,000	50,000	50,000	50,000	50,000	50,000	-	-	-	\$ 450,000
18	001333B - North Highland Avenue Water and Sewer Improvements Phase I: Main	90,000	-	-	-	-	-	-	-	-	-	\$ 90,000
19	001333B - North Highland Avenue Water and Sewer Improvements Phase I: Main	-	39,000	-	-	-	-	-	-	-	-	\$ 39,000
20	001522A - FDOT US 19 Main to Northside: Main	115,000	-	-	-	-	-	-	-	-	-	\$ 115,000
21	001522A - FDOT US 19 Main to Northside: Main	70,000	-	-	-	-	-	-	-	-	-	\$ 70,000
22	001522A - FDOT US 19 Main to Northside: Main	10,395,062	-	-	1,015,000	-	-	-	-	-	-	\$ 11,410,062
23	001522A - FDOT US 19 Main to Northside: Main	-	-	-	1,015,000	-	-	-	-	-	-	\$ 1,015,000
24	001523A - FDOT US19 Northside to CR95: Main	115,000	-	-	-	-	-	-	-	-	-	\$ 115,000
25	001523A - FDOT US19 Northside to CR95: Main	70,000	-	-	-	-	-	-	-	-	-	\$ 70,000
26	001523A - FDOT US19 Northside to CR95: Main	9,717,353	-	-	847,000	-	-	-	-	-	-	\$ 10,564,353
27	001523A - FDOT US19 Northside to CR95: Main	-	-	-	847,000	-	-	-	-	-	-	\$ 847,000
28	001525A - Future Supply & Treatment Projects: Main	-	-	400,000	400,000	400,000	400,000	400,000	-	-	-	\$ 2,000,000
29	001525A - Future Supply & Treatment Projects: Main	-	-	1,600,000	9,600,000	6,600,000	5,600,000	1,600,000	-	-	-	\$ 25,000,000
30	001528A - Future Relocations and System Upgrades: Main	-	-	-	200,000	200,000	200,000	200,000	-	-	-	\$ 800,000
31	001528A - Future Relocations and System Upgrades: Main	-	-	-	1,800,000	1,800,000	2,800,000	2,800,000	-	-	-	\$ 9,200,000
32	001601A - Advanced Metering Infrastructure (AMI) Water Meter Replacement: Main	9,677,600	13,187,000	19,055,000	18,937,000	9,644,000	-	-	-	-	-	\$ 70,500,600
33	001638B - Granger Dr Water Line Relocations: Main	180,000	-	-	-	-	-	-	-	-	-	\$ 180,000
34	001817B - Crystal Beach Water, Sewer and Reclaim Water Relocations Along Grace St., Seafford Ave., Disston St.: Main	134,000	20,000	-	-	-	-	-	-	-	-	\$ 154,000
35	002063B - Starkey Road Utility Relocation from Flame Vine Ave to Bryan Dairy Road: Main	35,000	35,000	35,000	-	-	-	-	-	-	-	\$ 105,000
36	002063B - Starkey Road Utility Relocation from Flame Vine Ave to Bryan Dairy Road: Main	3,000,000	3,000,000	3,375,000	-	-	-	-	-	-	-	\$ 9,375,000
37	002086B - Huston Lane / Pinecrest Dr. Water Line Relocation: Main	75,000	-	-	-	-	-	-	-	-	-	\$ 75,000
38	002109B - Whitney Rd- Wolford Rd Intersection Water Imp: Main	250,000	250,000	-	-	-	-	-	-	-	-	\$ 500,000
39	002149A - Logan Laboratory Improvements: Main	438,000	124,000	-	-	-	-	-	-	-	-	\$ 562,000
40	002149A - Logan Laboratory Improvements: Main	-	-	1,513,820	-	-	-	-	-	-	-	\$ 1,513,820
41	002149A - Logan Laboratory Improvements: Main	269,000	-	3,606,720	2,523,000	-	-	-	-	-	-	\$ 6,398,720
42	002150A - Gulf Beach Pump Station Upgrades: Main	500,000	250,000	-	-	-	-	-	-	-	-	\$ 750,000
43	002150A - Gulf Beach Pump Station Upgrades: Main	-	-	2,500,000	4,000,000	-	-	-	-	-	-	\$ 6,500,000
44	002232B - Indian Rocks Road Sidewalk Improvements Phase 2B From Church Creek to 8th Avenue SW - Utilities Relo: Main	60,000	-	-	-	-	-	-	-	-	-	\$ 60,000
45	002627A - FDOT- Gateway Projects Utility Relocation: Main	161,000	-	-	-	-	-	-	-	-	-	\$ 161,000
46	003562A - Myrtle Ave Water Main Replacement: Main	148,000	310,000	-	-	-	-	-	-	-	-	\$ 458,000
47	003678B - Madonna Blvd bridge over Pine Key Water Main utility relocation: Main	-	140,000	-	-	-	-	-	-	-	-	\$ 140,000
48	003748A - Gulf Blvd. Relocations @ the Narrows: Main	662,000	-	-	-	-	-	-	-	-	-	\$ 662,000
49	003763A - Utilities Facilities Security: Main	25,000	23,000	29,000	50,000	50,000	50,000	50,000	-	-	-	\$ 277,000



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Capital Improvement Program (CIP)

### Schedule 6

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
50 003763A - Utilities Facilities Security: Main	25,000	23,000	29,000	50,000	50,000	50,000	50,000	-	-	-	-	\$ 277,000
51 003764A - Water Ground Storage Tank Rehabilitation: Main	5,000	-	-	-	-	-	-	-	-	-	-	\$ 5,000
52 003764A - Water Ground Storage Tank Rehabilitation: Main	5,000	-	-	-	-	-	-	-	-	-	-	\$ 5,000
53 003764A - Water Ground Storage Tank Rehabilitation: Main	80,000	-	-	-	-	-	-	-	-	-	-	\$ 80,000
54 003764A - Water Ground Storage Tank Rehabilitation: Main	80,000	-	-	-	-	-	-	-	-	-	-	\$ 80,000
55 003765A - Programmable Logic Controller Upgrades: Main	-	208,000	79,000	-	-	-	-	-	-	-	-	\$ 287,000
56 003767A - Water Facilities Annual Improvements: Main	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	-	\$ 70,000
57 003767A - Water Facilities Annual Improvements: Main	90,000	90,000	90,000	90,000	90,000	90,000	90,000	-	-	-	-	\$ 630,000
58 003768A - Wholesale Meter Rehabilitation: Main	40,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	-	\$ 100,000
59 003768A - Wholesale Meter Rehabilitation: Main	463,000	250,000	250,000	250,000	250,000	250,000	250,000	-	-	-	-	\$ 1,963,000
60 003896B - Crystal Beach Utility Relocation and Replacement Associated with Drainage and Roadway Improvements: Main	-	50,000	-	-	-	-	-	-	-	-	-	\$ 50,000
61 003896B - Crystal Beach Utility Relocation and Replacement Associated with Drainage and Roadway Improvements: Main	-	125,000	375,000	-	-	-	-	-	-	-	-	\$ 500,000
62 004071A - Rosery Road Phase I Water Main Relocation from Pinellas Trail to Missouri Avenue: Main	1,320,000	-	-	-	-	-	-	-	-	-	-	\$ 1,320,000
63 004090B - Cycle Springs Water Main Pipe Relocation: Main	110,000	-	-	-	-	-	-	-	-	-	-	\$ 110,000
64 004229C - Utility Work - Starkey Rd Corridor sidewalk from Ulmerton Rd to East Bay Dr: Main	-	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
65 004353A - Replacement of the 10 Inch Water Main Subaqueous Crossing along 27th Ave and N. Tessier Drive: Main	200,000	-	-	-	-	-	-	-	-	-	-	\$ 200,000
66 004355A - S. K. Keller Polyphosphate Building Process Upgrades: Main	200,000	40,000	-	-	-	-	-	-	-	-	-	\$ 240,000
67 004355A - S. K. Keller Polyphosphate Building Process Upgrades: Main	700,000	1,520,000	-	-	-	-	-	-	-	-	-	\$ 2,220,000
68 004356A - North Water Booster Station Variable Frequency Drive Modifications: Main	-	100,000	100,000	-	-	-	-	-	-	-	-	\$ 200,000
69 004356A - North Water Booster Station Variable Frequency Drive Modifications: Main	639,000	2,800,000	500,000	-	-	-	-	-	-	-	-	\$ 3,939,000
70 004572A - Marlin Drive Utility Relocation for City of Belleair Bluffs Roadway Improvements: Main	-	5,000	-	-	-	-	-	-	-	-	-	\$ 5,000
71 004572A - Marlin Drive Utility Relocation for City of Belleair Bluffs Roadway Improvements: Main	146,000	155,000	-	-	-	-	-	-	-	-	-	\$ 301,000
72 004573A - Pass A Grille Way and Gulf Way from 9th Ave. to 22nd Ave Water Improvement Project: Main	-	60,000	-	-	-	-	-	-	-	-	-	\$ 60,000
73 004573A - Pass A Grille Way and Gulf Way from 9th Ave. to 22nd Ave Water Improvement Project: Main	200,000	2,240,000	-	-	-	-	-	-	-	-	-	\$ 2,440,000
74 004574A - FDOT Utility Relocation US 19 From CR 95 to Pine: Main	22,500	22,000	11,000	8,000	-	-	-	-	-	-	-	\$ 63,500
75 004574A - FDOT Utility Relocation US 19 From CR 95 to Pine: Main	-	-	-	1,000,000	3,500,000	2,500,000	-	-	-	1,000,000	-	\$ 8,000,000
76 004575A - FDOT Utility Relocation US 19 from Nebraska Av to Timberlane Rd 433797-1: Main	22,500	-	-	-	-	-	-	-	-	-	-	\$ 22,500
77 004575A - FDOT Utility Relocation US 19 from Nebraska Av to Timberlane Rd 433797-1: Main	-	-	-	-	-	-	-	-	2,625,000	2,250,000	-	\$ 4,875,000
78 004576A - FDOT Utility Relocation US 19 from Timberlane Rd. to Lake St. 433796-1: Main	22,500	-	-	-	-	-	-	-	-	-	-	\$ 22,500
79 004578A - Building Hardening - General Maintenance Building South: Main	17,000	-	-	-	-	-	-	-	-	-	-	\$ 17,000
80 004578A - Building Hardening - General Maintenance Building South: Main	-	306,940	-	-	-	-	-	-	-	-	-	\$ 306,940
81 004578A - Building Hardening - General Maintenance Building South: Main	815,000	508,060	-	-	-	-	-	-	-	-	-	\$ 1,323,060
82 004900A - Vina Del Mar Neighborhood, St. Pete Beach Water Main Improvements: Main	200,000	75,000	25,000	-	-	-	-	-	-	-	-	\$ 300,000
83 004900A - Vina Del Mar Neighborhood, St. Pete Beach Water Main Improvements: Main	1,600,000	2,000,000	1,525,000	-	-	-	-	-	-	-	-	\$ 5,125,000
84 004902A - 127th Place, 127th Ave, 122nd Ave, 103rd and 104th St. N, Utility Relocation: Main	198,000	45,000	-	-	-	-	-	-	-	-	-	\$ 243,000
85 004902A - 127th Place, 127th Ave, 122nd Ave, 103rd and 104th St. N, Utility Relocation: Main	500,000	1,300,000	-	-	-	-	-	-	-	-	-	\$ 1,800,000
86 004979B - Watermain Replacement Shore Drive Canal Bridge: Main	-	30,000	-	-	-	-	-	-	-	-	-	\$ 30,000
87 004979B - Watermain Replacement Shore Drive Canal Bridge: Main	-	200,000	-	-	-	-	-	-	-	-	-	\$ 200,000
88 005054A - Replacement of Park Blvd. 24" Water Main: Main	-	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
89 005054A - Replacement of Park Blvd. 24" Water Main: Main	-	2,550,000	-	-	-	-	-	-	-	-	-	\$ 2,550,000



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Capital Improvement Program (CIP)

### Schedule 6

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
90 005063A - Water Main Relocation and Improvements City of Largo's Valencia Drive: Main	-	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
91 005063A - Water Main Relocation and Improvements City of Largo's Valencia Drive: Main	-	700,000	-	-	-	-	-	-	-	-	-	\$ 700,000
92 005071A - (Area 3 Project) Pruitt, Marguerite and Bayshore Drive, Madeira Beach Utility Relocation: Main	-	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
93 005071A - (Area 3 Project) Pruitt, Marguerite and Bayshore Drive, Madeira Beach Utility Relocation: Main	-	800,000	150,000	-	-	-	-	-	-	-	-	\$ 950,000
94 005072A - Gladys Street Water Main Relocation and Improvements from Wilcox Rd to Dryer Ave, Largo: Main	-	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
95 005072A - Gladys Street Water Main Relocation and Improvements from Wilcox Rd to Dryer Ave, Largo: Main	-	700,000	-	-	-	-	-	-	-	-	-	\$ 700,000
96 005073A - 129th and 131st Avenue E Madeira Beach Utility Relocation: Main	-	100,000	-	-	-	-	-	-	-	-	-	\$ 100,000
97 005073A - 129th and 131st Avenue E Madeira Beach Utility Relocation: Main	-	700,000	-	-	-	-	-	-	-	-	-	\$ 700,000
98 005216A - Sharkey Road, Terrace Road to Belcher Road Water Main Improvements: Main	-	100,000	50,000	-	-	-	-	-	-	-	-	\$ 150,000
99 005216A - Sharkey Road, Terrace Road to Belcher Road Water Main Improvements: Main	-	-	750,000	200,000	-	-	-	-	-	-	-	\$ 950,000
100 005218A - North Booster Pump Station Hardening: Main	-	-	-	400,000	400,000	200,000	400,000	400,000	-	-	-	\$ 1,800,000
101 005218A - North Booster Pump Station Hardening: Main	-	-	-	-	-	2,000,000	4,000,000	-	4,000,000	-	-	\$ 10,000,000
102 005220A - Utilities Generator Buildings Sprinkler Installations: Main	-	28,000	10,000	10,000	-	-	-	-	-	-	-	\$ 48,000
103 005220A - Utilities Generator Buildings Sprinkler Installations: Main	-	-	70,000	70,000	-	-	-	-	-	-	-	\$ 140,000
104 005222A - Logan Utilities Operations Center Building: Main	-	425,000	213,000	-	-	-	-	-	-	-	-	\$ 638,000
105 005222A - Logan Utilities Operations Center Building: Main	-	-	1,911,000	2,548,000	2,548,000	-	-	-	-	-	-	\$ 7,007,000
106 005223A - Rosery Road Water Main Relocation (Phase 2) from Mandalay Drive to Eagle Lake Park, City of Largo: Main	-	250,000	50,000	-	-	-	-	-	-	-	-	\$ 300,000
107 005223A - Rosery Road Water Main Relocation (Phase 2) from Mandalay Drive to Eagle Lake Park, City of Largo: Main	-	1,500,000	700,000	-	-	-	-	-	-	-	-	\$ 2,200,000
108 005224A - 60" Transmission Water Main Line Valve at Keller Water Treatment Facility: Main	-	50,000	50,000	-	-	-	-	-	-	-	-	\$ 100,000
109 005224A - 60" Transmission Water Main Line Valve at Keller Water Treatment Facility: Main	-	-	200,000	200,000	-	-	-	-	-	-	-	\$ 400,000
110 005227A - Keller Emergency Operations Building/Warehouse: Main	-	200,000	200,000	200,000	200,000	200,000	-	-	-	-	-	\$ 800,000
111 005227A - Keller Emergency Operations Building/Warehouse: Main	-	-	-	-	2,750,000	2,750,000	-	-	-	-	-	\$ 5,500,000
112 005228A - Keller Regional Treatment Facility Open Air Building Upgrades: Main	-	-	150,000	150,000	10,000	10,000	10,000	-	-	-	-	\$ 330,000
113 005228A - Keller Regional Treatment Facility Open Air Building Upgrades: Main	-	-	-	-	-	1,500,000	1,500,000	-	-	-	-	\$ 3,000,000
114 005015D-Manufactured Home Communities (MHC) Potable Water Systems Improvements Total	-	960,000	6,740,000	6,200,000	-	-	-	-	-	-	-	\$ 13,900,000
115 Pipe Replacement	-	-	-	-	-	-	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	\$ 50,000,000
116 Unspecified Future Capital <sup>1</sup>	-	-	-	-	-	-	-	10,600,000	4,375,000	7,750,000	11,000,000	\$ 33,725,000
<b>117 Total CIP Budget (in current dollars)</b>	<b>\$ 46,403,186</b>	<b>\$ 40,740,000</b>	<b>\$ 47,068,540</b>	<b>\$ 53,280,000</b>	<b>\$ 29,162,000</b>	<b>\$ 19,285,000</b>	<b>\$ 22,020,000</b>	<b>\$ 21,000,000</b>	<b>\$ 21,000,000</b>	<b>\$ 21,000,000</b>	<b>\$ 21,000,000</b>	<b>\$ 341,988,726</b>
<b>118 Escalated CIP <sup>2,3</sup></b>	<b>\$ 46,403,186</b>	<b>\$ 52,581,918</b>	<b>\$ 60,226,730</b>	<b>\$ 71,131,324</b>	<b>\$ 41,425,936</b>	<b>\$ 28,217,069</b>	<b>\$ 33,185,380</b>	<b>\$ 32,597,628</b>	<b>\$ 33,575,557</b>	<b>\$ 34,582,823</b>	<b>\$ 35,620,308</b>	<b>\$ 469,547,857</b>
119 CIP Adjustment <sup>4</sup>	(10,526,097)	(30,085,939)	(26,458,265)	(30,952,574)	(5,545,240)	6,061,878	5,419,374	5,898,618	6,075,577	6,257,844	6,445,580	
<b>120 Final CIP Funding Level</b>	<b>\$ 35,877,089</b>	<b>\$ 22,495,979</b>	<b>\$ 33,768,465</b>	<b>\$ 40,178,749</b>	<b>\$ 35,880,696</b>	<b>\$ 34,278,947</b>	<b>\$ 38,604,754</b>	<b>\$ 38,496,246</b>	<b>\$ 39,651,133</b>	<b>\$ 40,840,667</b>	<b>\$ 42,065,887</b>	<b>\$ 402,138,613</b>

<sup>1</sup> Unspecified future year capital expenses calculated to match PCU's forecast of \$21M per year.

<sup>2</sup> CIP escalation factor of 30% in FY 2023 and 3% annually beginning in FY 2024.

<sup>3</sup> Escalation not applied to highlighted projects which are fully funded through ARPA, State, or other Federal grants.

<sup>4</sup> Adjustment to reflect assumed annual capital spending.





# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix A – Water Fund Revenue Sufficiency Analysis

### Pro Forma: Projection of Annual Cashflow and Debt Service Coverage

### Schedule 7

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Operating Revenue</b>											
1 Water - Retail, Water - Wholesale Rate Revenue	\$ 91,447,707	\$ 91,447,707	\$ 94,108,320	\$ 99,558,951	\$ 105,320,849	\$ 110,808,065	\$ 116,581,165	\$ 117,119,827	\$ 123,221,770	\$ 129,641,625	\$ 136,395,953
2 Change in Revenue From Growth <sup>1</sup>	-	1,728,848	709,728	746,620	210,642	221,616	(5,038,473)	234,240	246,444	259,283	272,792
3 Subtotal	\$ 91,447,707	\$ 93,176,555	\$ 94,818,049	\$ 100,305,571	\$ 105,531,491	\$ 111,029,681	\$ 111,542,693	\$ 117,354,067	\$ 123,468,214	\$ 129,900,908	\$ 136,668,745
4 Weighted Average Rate Increase	0.00%	1.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
5 Additional Rate Revenue From Rate Increase	-	931,766	4,740,902	5,015,279	5,276,575	5,551,484	5,577,135	5,867,703	6,173,411	6,495,045	6,833,437
6 Total Rate Revenue	\$ 91,447,707	\$ 94,108,320	\$ 99,558,951	\$ 105,320,849	\$ 110,808,065	\$ 116,581,165	\$ 117,119,827	\$ 123,221,770	\$ 129,641,625	\$ 136,395,953	\$ 143,502,182
7 Plus: Other Operating Revenue	4,315,330	4,580,958	4,600,208	4,620,420	4,641,644	4,663,928	4,687,326	4,711,895	4,737,692	4,764,778	4,793,219
8 <b>Equals: Total Operating Revenue</b>	<b>\$ 95,763,037</b>	<b>\$ 98,689,278</b>	<b>\$ 104,159,159</b>	<b>\$ 109,941,269</b>	<b>\$ 115,449,709</b>	<b>\$ 121,245,093</b>	<b>\$ 121,807,154</b>	<b>\$ 127,933,665</b>	<b>\$ 134,379,316</b>	<b>\$ 141,160,732</b>	<b>\$ 148,295,402</b>
<b>Less: Operating Expenses</b>											
9 Personal Services	\$ (15,864,899)	\$ (16,590,903)	\$ (17,101,922)	\$ (17,629,008)	\$ (18,172,676)	\$ (18,733,462)	\$ (19,311,915)	\$ (19,908,229)	\$ (20,522,956)	\$ (21,156,663)	\$ (21,809,937)
10 Variable Operations & Maintenance Costs	(42,637,167)	(44,726,462)	(45,436,467)	(45,760,011)	(46,669,313)	(47,398,437)	(45,633,123)	(51,473,864)	(53,124,116)	(54,827,275)	(56,740,065)
11 Operations & Maintenance Costs	(19,152,545)	(23,546,949)	(24,176,698)	(24,824,080)	(25,489,589)	(26,173,731)	(26,877,029)	(27,600,020)	(28,343,254)	(29,614,329)	(30,399,767)
12 <b>Equals: Net Operating Income</b>	<b>\$ 18,108,427</b>	<b>\$ 13,824,964</b>	<b>\$ 17,444,071</b>	<b>\$ 21,728,171</b>	<b>\$ 25,118,131</b>	<b>\$ 28,939,463</b>	<b>\$ 29,985,086</b>	<b>\$ 28,951,552</b>	<b>\$ 32,388,990</b>	<b>\$ 35,562,464</b>	<b>\$ 39,345,633</b>
<b>Plus: Non-Operating Income/(Expense)</b>											
13 Non-Operating Revenue	\$ 40,830	\$ 35,000	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14 Interest Income	785,903	406,559	941,158	843,361	787,939	804,410	820,229	852,736	898,480	933,914	970,209
15 Water Impact Fees	117,216	81,312	81,664	81,664	82,016	82,016	82,368	82,368	82,720	82,720	83,072
16 Transfers In	705,414	680,000	680,000	680,000	680,000	680,000	680,000	680,000	680,000	680,000	680,000
17 <b>Equals: Net Income</b>	<b>\$ 19,757,790</b>	<b>\$ 15,027,835</b>	<b>\$ 19,181,894</b>	<b>\$ 23,333,196</b>	<b>\$ 26,668,085</b>	<b>\$ 30,505,889</b>	<b>\$ 31,567,683</b>	<b>\$ 30,566,655</b>	<b>\$ 34,050,190</b>	<b>\$ 37,259,098</b>	<b>\$ 41,078,914</b>
<b>Less: Revenues Excluded From Coverage Test</b>											
18 Water Impact Fees	\$ (117,216)	\$ (81,312)	\$ (81,664)	\$ (81,664)	\$ (82,016)	\$ (82,016)	\$ (82,368)	\$ (82,368)	\$ (82,720)	\$ (82,720)	\$ (83,072)
19 <b>Equals: Net Income Available For Debt Service</b>	<b>\$ 18,935,160</b>	<b>\$ 14,266,523</b>	<b>\$ 18,420,230</b>	<b>\$ 22,571,532</b>	<b>\$ 25,906,069</b>	<b>\$ 29,743,873</b>	<b>\$ 30,805,315</b>	<b>\$ 29,804,287</b>	<b>\$ 33,287,470</b>	<b>\$ 36,496,378</b>	<b>\$ 40,315,842</b>
<b>Senior Lien Debt Service Coverage Test</b>											
20 Net Income Available for Senior-Lien Debt Service	\$ 18,935,160	\$ 14,266,523	\$ 18,420,230	\$ 22,571,532	\$ 25,906,069	\$ 29,743,873	\$ 30,805,315	\$ 29,804,287	\$ 33,287,470	\$ 36,496,378	\$ 40,315,842
21 Cumulative New Senior Lien Debt Service (calculated)	-	-	-	-	733,990	1,463,985	2,294,529	3,600,219	4,807,446	5,929,279	6,941,722
22 <b>Total Annual Senior-Lien Debt Service</b>	<b>Req. \$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 733,990</b>	<b>\$ 1,463,985</b>	<b>\$ 2,294,529</b>	<b>\$ 3,600,219</b>	<b>\$ 4,807,446</b>	<b>\$ 5,929,279</b>	<b>\$ 6,941,722</b>
23 <i>Calculated Senior-Lien Debt Service Coverage</i>	<b>1.15</b>	-	-	-	35.29	20.32	13.43	8.28	6.92	6.16	5.81
<b>Subordinate Debt Service Coverage Test</b>											
24 Net Income Available for Subordinate Debt Service	\$ 18,935,160	\$ 14,266,523	\$ 18,420,230	\$ 22,571,532	\$ 25,172,079	\$ 28,279,888	\$ 28,510,787	\$ 26,204,068	\$ 28,480,024	\$ 30,567,099	\$ 33,374,119
25 <b>Total Annual Subordinate Debt Service</b>	<b>Req. \$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
26 <i>Calculated Subordinate Debt Service Coverage</i>	<b>1.25</b>	-	-	-	-	-	-	-	-	-	-
<b>Total All-In Debt Service Coverage Test</b>											
27 Net Income Available for Subordinate Debt Service	\$ 18,935,160	\$ 14,266,523	\$ 18,420,230	\$ 22,571,532	\$ 25,906,069	\$ 29,743,873	\$ 30,805,315	\$ 29,804,287	\$ 33,287,470	\$ 36,496,378	\$ 40,315,842
28 Total Senior-Lien Debt Service	-	-	-	-	733,990	1,463,985	2,294,529	3,600,219	4,807,446	5,929,279	6,941,722
29 <b>Total Annual Debt Service</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 733,990</b>	<b>\$ 1,463,985</b>	<b>\$ 2,294,529</b>	<b>\$ 3,600,219</b>	<b>\$ 4,807,446</b>	<b>\$ 5,929,279</b>	<b>\$ 6,941,722</b>
30 <i>Calculated All-In Debt Service Coverage</i>	-	-	-	-	35.29	20.32	13.43	8.28	6.92	6.16	5.81
<b>Cash Flow Test</b>											
31 Net Income Available For Debt Service	\$ 18,935,160	\$ 14,266,523	\$ 18,420,230	\$ 22,571,532	\$ 25,906,069	\$ 29,743,873	\$ 30,805,315	\$ 29,804,287	\$ 33,287,470	\$ 36,496,378	\$ 40,315,842
32 Net Interfund Transfers (In - Out)	(21,702,356)	(16,275,810)	680,000	680,000	(17,144,704)	(24,829,924)	(26,725,113)	(19,097,668)	(23,984,491)	(25,738,686)	(28,654,897)
33 Capital Outlay	(513,071)	(1,147,585)	(1,203,158)	(1,214,699)	(1,274,063)	(1,285,783)	(1,349,207)	(1,361,076)	(1,428,845)	(1,440,830)	(1,513,252)
34 <b>Net Cash Flow</b>	<b>\$ (3,280,267)</b>	<b>\$ (3,156,872)</b>	<b>\$ 17,897,072</b>	<b>\$ 22,036,832</b>	<b>\$ 6,753,312</b>	<b>\$ 2,164,181</b>	<b>\$ 436,467</b>	<b>\$ 5,745,325</b>	<b>\$ 3,066,688</b>	<b>\$ 3,387,584</b>	<b>\$ 3,205,971</b>
<b>Unrestricted Reserve Fund Test</b>											
35 Balance At Beginning Of Fiscal Year	\$ 29,571,274	\$ 26,291,006	\$ 23,134,134	\$ 41,031,206	\$ 63,068,039	\$ 69,821,350	\$ 71,985,532	\$ 72,421,999	\$ 78,167,323	\$ 81,234,011	\$ 84,621,595
36 Cash Flow Surplus/(Deficit)	(3,280,267)	(3,156,872)	17,897,072	22,036,832	6,753,312	2,164,181	436,467	5,745,325	3,066,688	3,387,584	3,205,971
37 Reserve Fund Balance Used For Cash Flow Deficit	-	-	-	-	-	-	-	-	-	-	-
38 <b>Balance At End Of Fiscal Year</b>	<b>\$ 26,291,006</b>	<b>\$ 23,134,134</b>	<b>\$ 41,031,206</b>	<b>\$ 63,068,039</b>	<b>\$ 69,821,350</b>	<b>\$ 71,985,532</b>	<b>\$ 72,421,999</b>	<b>\$ 78,167,323</b>	<b>\$ 81,234,011</b>	<b>\$ 84,621,595</b>	<b>\$ 87,827,566</b>
39 Minimum Working Capital Reserve Target	66,867,304	71,534,143	73,447,159	75,192,526	77,680,582	80,117,414	80,844,474	86,618,692	89,993,331	93,705,485	97,252,298
40 <b>Excess/(Deficiency) Of Working Capital To Target</b>	<b>\$ (40,576,297)</b>	<b>\$ (48,400,009)</b>	<b>\$ (32,415,953)</b>	<b>\$ (12,124,488)</b>	<b>\$ (7,859,232)</b>	<b>\$ (8,131,882)</b>	<b>\$ (8,422,475)</b>	<b>\$ (8,451,369)</b>	<b>\$ (8,759,320)</b>	<b>\$ (9,083,890)</b>	<b>\$ (9,424,732)</b>

<sup>1</sup> Increase in FY 2023 through FY 2025 due to more accurate meter reads with AMI per County's analysis.



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Projection of Capital Improvement Program Funding Sources**

**Schedule 8**

Final Capital Projects Funding Sources	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
1 Grants	\$ -	\$ 306,940	\$ 1,513,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2 Renewal & Replacement	\$ 35,877,089	\$ 21,229,039	\$ 25,514,645	\$ 33,978,749	\$ 23,720,555	\$ 25,237,273	\$ 27,114,520	\$ 19,748,774	\$ 24,356,541	\$ 26,094,116	\$ 28,994,054
3 ARPA <sup>1</sup>	-	960,000	6,740,000	6,200,000	-	-	-	-	-	-	-
4 Senior-Lien Debt Proceeds	-	-	-	-	12,160,142	9,041,674	11,490,234	18,747,472	15,294,593	14,746,551	13,071,833
<b>5 Total Projects Paid</b>	<b>\$ 35,877,089</b>	<b>\$ 22,495,979</b>	<b>\$ 33,768,465</b>	<b>\$ 40,178,749</b>	<b>\$ 35,880,696</b>	<b>\$ 34,278,947</b>	<b>\$ 38,604,754</b>	<b>\$ 38,496,246</b>	<b>\$ 39,651,133</b>	<b>\$ 40,840,667</b>	<b>\$ 42,065,887</b>

<sup>1</sup> American Rescue Plan Act

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**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

Schedule 9

**Sources and Uses by Fund**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Water Impact Fees</b>											
1 Balance At Beginning Of Fiscal Year	\$ 558,956	\$ 680,589	\$ 764,786	\$ 854,506	\$ 945,124	\$ 1,037,001	\$ 1,129,797	\$ 1,223,875	\$ 1,318,894	\$ 1,415,216	\$ 1,512,502
2 Annual Revenues	117,216	81,312	81,664	81,664	82,016	82,016	82,368	82,368	82,720	82,720	83,072
3 Subtotal	\$ 676,172	\$ 761,901	\$ 846,450	\$ 936,170	\$ 1,027,140	\$ 1,119,017	\$ 1,212,165	\$ 1,306,243	\$ 1,401,614	\$ 1,497,936	\$ 1,595,574
4 Total Amount Available For Projects	\$ 676,172	\$ 761,901	\$ 846,450	\$ 936,170	\$ 1,027,140	\$ 1,119,017	\$ 1,212,165	\$ 1,306,243	\$ 1,401,614	\$ 1,497,936	\$ 1,595,574
5 Subtotal	\$ 676,172	\$ 761,901	\$ 846,450	\$ 936,170	\$ 1,027,140	\$ 1,119,017	\$ 1,212,165	\$ 1,306,243	\$ 1,401,614	\$ 1,497,936	\$ 1,595,574
6 Plus: Interest Earnings	4,418	2,885	8,056	8,953	9,861	10,780	11,710	12,651	13,603	14,566	15,540
7 <b>Balance At End Of Fiscal Year</b>	<b>\$ 680,589</b>	<b>\$ 764,786</b>	<b>\$ 854,506</b>	<b>\$ 945,124</b>	<b>\$ 1,037,001</b>	<b>\$ 1,129,797</b>	<b>\$ 1,223,875</b>	<b>\$ 1,318,894</b>	<b>\$ 1,415,216</b>	<b>\$ 1,512,502</b>	<b>\$ 1,611,114</b>
<b>Grants</b>											
8 Annual Revenues	\$ -	\$ 306,940	\$ 1,513,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9 Subtotal	\$ -	\$ 306,940	\$ 1,513,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10 Total Amount Available For Projects	\$ -	\$ 306,940	\$ 1,513,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11 Amount Paid For Projects	-	(306,940)	(1,513,820)	-	-	-	-	-	-	-	-
12 <b>Balance At End Of Fiscal Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Renewal &amp; Replacement</b>											
13 Balance At Beginning Of Fiscal Year	\$ 88,671,024	\$ 75,201,705	\$ 70,928,476	\$ 45,413,831	\$ 11,435,082	\$ 5,539,232	\$ 5,811,882	\$ 6,102,475	\$ 6,131,369	\$ 6,439,320	\$ 6,763,890
14 Annual Revenues	22,407,770	16,955,810	-	-	17,824,704	25,509,924	27,405,113	19,777,668	24,664,491	26,418,686	29,334,897
15 Subtotal	\$ 111,078,794	\$ 92,157,515	\$ 70,928,476	\$ 45,413,831	\$ 29,259,786	\$ 31,049,155	\$ 33,216,995	\$ 25,880,143	\$ 30,795,861	\$ 32,858,006	\$ 36,098,786
16 Less: Restricted Funds	(4,859,667)	(4,827,447)	(4,954,792)	(5,255,016)	(5,539,232)	(5,811,882)	(6,102,475)	(6,131,369)	(6,439,320)	(6,763,890)	(7,104,732)
17 Total Amount Available For Projects	\$ 106,219,127	\$ 87,330,068	\$ 65,973,684	\$ 40,158,815	\$ 23,720,555	\$ 25,237,273	\$ 27,114,520	\$ 19,748,774	\$ 24,356,541	\$ 26,094,116	\$ 28,994,054
18 Amount Paid For Projects	(35,877,089)	(21,229,039)	(25,514,645)	(33,978,749)	(23,720,555)	(25,237,273)	(27,114,520)	(19,748,774)	(24,356,541)	(26,094,116)	(28,994,054)
19 Subtotal	\$ 70,342,038	\$ 66,101,029	\$ 40,459,039	\$ 6,180,066	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20 Add Back: Restricted Funds	4,859,667	4,827,447	4,954,792	5,255,016	5,539,232	5,811,882	6,102,475	6,131,369	6,439,320	6,763,890	7,104,732
21 Plus: Interest Earnings	586,106	292,260	581,712	284,245	84,872	56,756	59,572	61,169	62,853	66,016	69,343
22 Less: Interest Allocated To Cash Flow	(586,106)	(292,260)	(581,712)	(284,245)	(84,872)	(56,756)	(59,572)	(61,169)	(62,853)	(66,016)	(69,343)
23 <b>Balance At End Of Fiscal Year</b>	<b>\$ 75,201,705</b>	<b>\$ 70,928,476</b>	<b>\$ 45,413,831</b>	<b>\$ 11,435,082</b>	<b>\$ 5,539,232</b>	<b>\$ 5,811,882</b>	<b>\$ 6,102,475</b>	<b>\$ 6,131,369</b>	<b>\$ 6,439,320</b>	<b>\$ 6,763,890</b>	<b>\$ 7,104,732</b>
<b>Vehicle Replacement Reserve</b>											
24 Balance At Beginning Of Fiscal Year	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000
25 Subtotal	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000	\$ 3,862,000
26 Less: Restricted Funds	(3,862,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)
27 Total Amount Available For Projects	\$ -	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000
28 Subtotal	\$ -	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000	\$ 862,000
29 Add Back: Restricted Funds	3,862,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
30 Plus: Interest Earnings	27,626	15,448	38,620	38,620	38,620	38,620	38,620	38,620	38,620	38,620	38,620
31 Less: Interest Allocated To Cash Flow	(27,626)	(15,448)	(38,620)	(38,620)	(38,620)	(38,620)	(38,620)	(38,620)	(38,620)	(38,620)	(38,620)
32 <b>Balance At End Of Fiscal Year</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>	<b>\$ 3,862,000</b>
<b>ARPA <sup>1</sup></b>											
33 Annual Revenues	\$ -	\$ 960,000	\$ 6,740,000	\$ 6,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Subtotal	\$ -	\$ 960,000	\$ 6,740,000	\$ 6,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35 Total Amount Available For Projects	\$ -	\$ 960,000	\$ 6,740,000	\$ 6,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Amount Paid For Projects	-	(960,000)	(6,740,000)	(6,200,000)	-	-	-	-	-	-	-
37 <b>Balance At End Of Fiscal Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Sources and Uses by Fund**

**Schedule 9**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Revenue Fund</b>											
38 Balance At Beginning Of Fiscal Year	\$ 29,571,274	\$ 26,291,006	\$ 23,134,134	\$ 41,031,206	\$ 63,068,039	\$ 69,821,350	\$ 71,985,532	\$ 72,421,999	\$ 78,167,323	\$ 81,234,011	\$ 84,621,595
39 Net Cash Flow	(3,280,267)	(3,156,872)	17,897,072	22,036,832	6,753,312	2,164,181	436,467	5,745,325	3,066,688	3,387,584	3,205,971
40 Subtotal	\$ 26,291,006	\$ 23,134,134	\$ 41,031,206	\$ 63,068,039	\$ 69,821,350	\$ 71,985,532	\$ 72,421,999	\$ 78,167,323	\$ 81,234,011	\$ 84,621,595	\$ 87,827,566
41 Less: Restricted Funds	(26,291,006)	(23,134,134)	(41,031,206)	(63,068,039)	(69,821,350)	(71,985,532)	(72,421,999)	(78,167,323)	(81,234,011)	(84,621,595)	(87,827,566)
42 Add Back: Restricted Funds	26,291,006	23,134,134	41,031,206	63,068,039	69,821,350	71,985,532	72,421,999	78,167,323	81,234,011	84,621,595	87,827,566
43 Plus: Interest Earnings	199,797	98,850	320,827	520,496	664,447	709,034	722,038	752,947	797,007	829,278	862,246
44 Less: Interest Allocated To Cash Flow	(199,797)	(98,850)	(320,827)	(520,496)	(664,447)	(709,034)	(722,038)	(752,947)	(797,007)	(829,278)	(862,246)
45 <b>Balance At End Of Fiscal Year</b>	<b>\$ 26,291,006</b>	<b>\$ 23,134,134</b>	<b>\$ 41,031,206</b>	<b>\$ 63,068,039</b>	<b>\$ 69,821,350</b>	<b>\$ 71,985,532</b>	<b>\$ 72,421,999</b>	<b>\$ 78,167,323</b>	<b>\$ 81,234,011</b>	<b>\$ 84,621,595</b>	<b>\$ 87,827,566</b>

<sup>1</sup> American Rescue Plan Act

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**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Senior Lien Borrowing Projections**

**Schedule 10**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Term (Years)	30	30	30	30	30	30	30	30	30	30	30
Interest Rate	4.00%	4.50%	5.00%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
<b>Sources of Funds</b>											
Par Amount	\$ -	\$ -	\$ -	\$ -	\$ 13,345,274	\$ 9,922,879	\$ 12,610,077	\$ 20,574,608	\$ 16,785,210	\$ 16,183,756	\$ 14,345,819
<b>Uses of Funds</b>											
Proceeds	\$ -	\$ -	\$ -	\$ -	\$ 12,160,142	\$ 9,041,674	\$ 11,490,234	\$ 18,747,472	\$ 15,294,593	\$ 14,746,551	\$ 13,071,833
Cost of Issuance	2.00%				266,905	198,458	252,202	411,492	335,704	323,675	286,916
Underwriter's Discount	-				-	-	-	-	-	-	-
Bond Insurance	0				-	-	-	-	-	-	-
Capitalized Interest	0				-	-	-	-	-	-	-
Debt Service Surety	0.00%				-	-	-	-	-	-	-
Debt Service Reserve	1				918,227	682,748	867,641	1,415,644	1,154,913	1,113,530	987,070
Other Costs	-	-	-	-	-	-	-	-	-	-	-
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,345,274</b>	<b>\$ 9,922,879</b>	<b>\$ 12,610,077</b>	<b>\$ 20,574,608</b>	<b>\$ 16,785,210</b>	<b>\$ 16,183,756</b>	<b>\$ 14,345,819</b>
1 Year Interest	-	-	-	-	733,990	545,758	693,554	1,131,603	923,187	890,107	789,020
<b>Annual Debt Service</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 918,227</b>	<b>\$ 682,748</b>	<b>\$ 867,641</b>	<b>\$ 1,415,644</b>	<b>\$ 1,154,913</b>	<b>\$ 1,113,530</b>	<b>\$ 987,070</b>
Total Debt Service	-	-	-	-	27,546,803	20,482,427	26,029,238	42,469,318	34,647,387	33,405,889	29,612,090
<b>Cumulative New Annual Senior Lien Debt Service<sup>1</sup></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 733,990</b>	<b>\$ 1,463,985</b>	<b>\$ 2,294,529</b>	<b>\$ 3,600,219</b>	<b>\$ 4,807,446</b>	<b>\$ 5,929,279</b>	<b>\$ 6,941,722</b>

<sup>1</sup>Reflects interest-only payment due in year of issuance.

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**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix A – Water Fund Revenue Sufficiency Analysis

**Historical & Projected Water Demands**

**Schedule 11**

Projected Water Sales (In 1,000 Gallons)	Historical			Projected									
	FY 2020 <sup>(1)</sup>	FY 2021 <sup>(1)</sup>	FY 2022 <sup>(1)</sup>	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Annual Growth:	0.8%	2.6%	2.6%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Retail Water Sales:	12,421,462	12,742,023	13,074,385	13,100,534	13,126,735	13,152,988	13,179,294	13,205,653	13,232,064	13,258,528	13,285,046	13,311,616	13,338,239
In MGD	34.03	34.91	35.82	36.75	35.96	36.04	36.11	36.18	36.25	36.32	36.40	36.47	36.54
Wholesale Water Sales:	3,698,321	3,900,778	4,044,736	4,052,826	4,060,931	4,069,053	4,077,191	4,085,346	4,093,516	3,004,513	3,010,522	3,016,543	3,022,576
Adjustment - Clearwater <sup>(2)</sup>	-	-	-	-	-	-	-	-	(1,095,000)	-	-	-	-
<b>Wholesale Water Sales</b>	<b>3,698,321</b>	<b>3,900,778</b>	<b>4,044,736</b>	<b>4,052,826</b>	<b>4,060,931</b>	<b>4,069,053</b>	<b>4,077,191</b>	<b>4,085,346</b>	<b>2,998,516</b>	<b>3,004,513</b>	<b>3,010,522</b>	<b>3,016,543</b>	<b>3,022,576</b>
<b>In MGD</b>	<b>10.13</b>	<b>10.69</b>	<b>11.08</b>	<b>11.10</b>	<b>11.13</b>	<b>11.15</b>	<b>11.17</b>	<b>11.19</b>	<b>8.22</b>	<b>8.23</b>	<b>8.25</b>	<b>8.26</b>	<b>8.28</b>
<b>Total Projected Water Sales</b>	<b>16,119,783</b>	<b>16,642,801</b>	<b>17,119,121</b>	<b>17,467,908</b>	<b>17,607,903</b>	<b>17,748,161</b>	<b>17,783,657</b>	<b>17,819,225</b>	<b>16,759,863</b>	<b>16,793,383</b>	<b>16,826,970</b>	<b>16,860,624</b>	<b>16,894,345</b>
<b>Projected Water Sales in MGD</b>	<b>48.76</b>	<b>46.07</b>	<b>43.42</b>	<b>46.24</b>	<b>44.44</b>	<b>44.07</b>	<b>44.16</b>	<b>45.60</b>	<b>46.90</b>	<b>47.86</b>	<b>48.24</b>	<b>48.63</b>	<b>48.72</b>
<b>Estimated Line Losses from TBW Purchases <sup>(3)</sup></b>	<b>1,915,047</b>	<b>1,391,939</b>	<b>911,879</b>	<b>1,147,512</b>	<b>1,044,747</b>	<b>941,794</b>	<b>943,678</b>	<b>945,565</b>	<b>854,124</b>	<b>855,833</b>	<b>857,544</b>	<b>859,259</b>	<b>860,978</b>
<b>Total Estimated TBW Water Purchase Req</b>	<b>18,034,830</b>	<b>18,034,740</b>	<b>18,031,000</b>	<b>18,615,419</b>	<b>18,652,650</b>	<b>18,689,955</b>	<b>18,727,335</b>	<b>18,764,790</b>	<b>17,613,988</b>	<b>17,649,216</b>	<b>17,684,514</b>	<b>17,719,883</b>	<b>17,755,323</b>
<b>Total TBW Water Purchase Req in MGD</b>	<b>49.41</b>	<b>49.41</b>	<b>49.40</b>	<b>51.00</b>	<b>51.10</b>	<b>51.21</b>	<b>51.31</b>	<b>51.41</b>	<b>48.26</b>	<b>48.35</b>	<b>48.45</b>	<b>48.55</b>	<b>48.64</b>

<sup>1</sup> Retail and wholesale water sales are based upon actual sales as provided by County staff.

<sup>2</sup> Represents 3 MGD reduction due to decline in Clearwater demand.

<sup>3</sup> Estimated line losses from TBW purchases after FY 2022 are calculated annually based upon a 3-year average of line loss factors as a percent of total sales (FY 2020 - FY 2022) and adjusted to account for increases in billed volume resulting from AMI.

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**Projection of Purchased Water**

**Schedule 12**

<b>Tampa Bay Water - Summary</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>
Variable \$	\$ 31,824,144	\$ 31,882,029	\$ 32,338,594	\$ 37,127,633	\$ 39,112,021	\$ 41,073,814
All Other \$	\$ 154,023,611	\$ 159,534,515	\$ 163,169,187	\$ 165,245,785	\$ 169,303,924	\$ 174,365,462
Annual \$	\$ 185,847,755	\$ 191,416,544	\$ 195,507,781	\$ 202,373,418	\$ 208,415,945	\$ 215,439,276
<b>Bdgt/Forecast MGD</b>	<b>197.5</b>	<b>200.6</b>	<b>202.8</b>	<b>206.7</b>	<b>209.3</b>	<b>211.8</b>
V Portion (\$ / TGAL)	\$0.4415	\$0.4342	\$0.4369	\$0.4921	\$0.5120	\$0.5299
AO (\$ / TGAL)	\$2.1366	\$2.1729	\$2.2043	\$2.1903	\$2.2162	\$2.2493
<b>TBW Unitary Rate (\$ / TGAL)</b>	<b>\$2.5781</b>	<b>\$2.6072</b>	<b>\$2.6412</b>	<b>\$2.6824</b>	<b>\$2.7282</b>	<b>\$2.7792</b>
<b>DEMAND FORECAST</b>	<b>Projected----&gt;</b>					
PCU	51.00	51.10	51.21	51.31	51.41	48.26
St. Pete	27.68	27.68	27.68	27.68	27.68	27.68
Hillsborough	75.95	78.23	80.58	83.00	85.49	88.05
Pasco	34.55	35.59	36.65	37.75	38.89	40.05
New Port Richey	2.94	2.94	2.94	2.94	2.94	2.94
Tampa (Morris Br)	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total MGD</b>	<b>192.13</b>	<b>195.54</b>	<b>199.06</b>	<b>202.68</b>	<b>206.40</b>	<b>206.98</b>
<b>Revised Unitary Rate (\$ / TGAL) <sup>1</sup></b>	<b>\$2.6379</b>	<b>\$2.6634</b>	<b>\$2.6826</b>	<b>\$2.7258</b>	<b>\$2.7593</b>	<b>\$2.8315</b>
Var from TBW Rate	2.3%	2.2%	1.6%	1.6%	1.1%	1.9%
TBW Expenses - Revised Unitary Rate	\$ 49,104,857	\$ 49,814,863	\$ 50,138,406	\$ 51,047,709	\$ 51,776,833	\$ 50,011,519
Less: Credits	\$ (4,378,396)	\$ (4,378,396)	\$ (4,378,396)	\$ (4,378,396)	\$ (4,378,396)	\$ (4,378,396)
<b>Net PCU PW Expense - Revised</b>	<b>\$ 44,726,462</b>	<b>\$ 45,436,467</b>	<b>\$ 45,760,011</b>	<b>\$ 46,669,313</b>	<b>\$ 47,398,437</b>	<b>\$ 45,633,123</b>

(1) Unit rate projected to increase by 3% beginning in FY 2029.



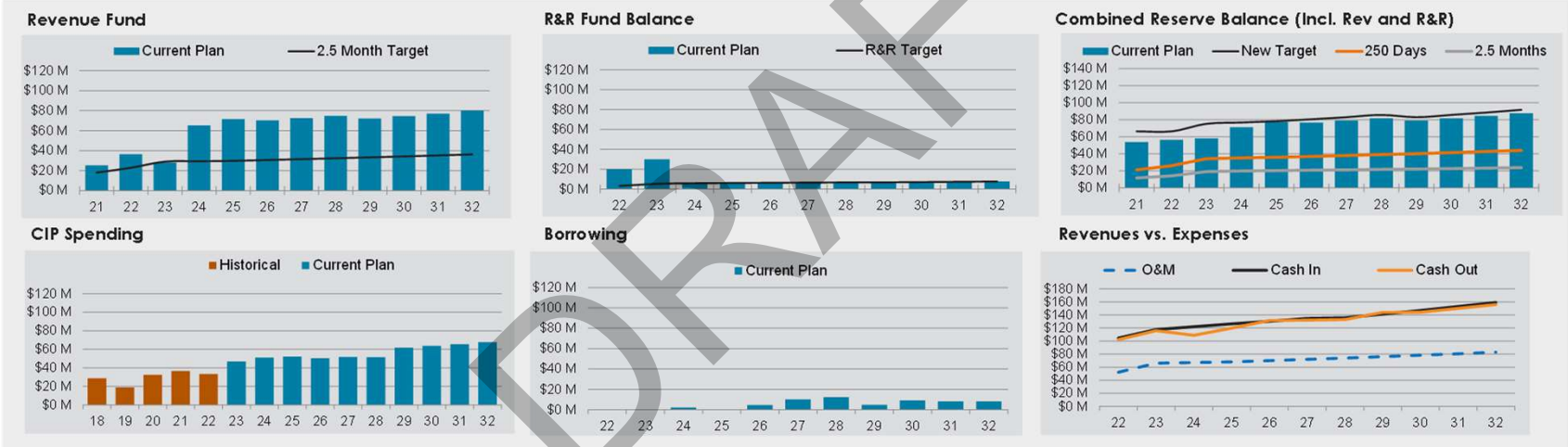
## **Appendix B SEWER FUND REVENUE SUFFICIENCY ANALYSIS**

- Schedule 1 Financial Management Plan Summary**
- Schedule 2 Assumptions**
- Schedule 3 FY 2022 Beginning Fund Balances**
- Schedule 4 Projection of Cash Inflows**
- Schedule 5 Projection of Cash Outflows**
- Schedule 6 Capital Improvement Program (CIP)**
- Schedule 7 Pro Forma: Projection of Annual Cashflow and Debt Service Coverage**
- Schedule 8 Sources and Uses by Fund**
- Schedule 9 Projection of Capital Improvement Program Funding Sources**
- Schedule 10 Senior-Lien Borrowing**
- Schedule 11 Historical & Projected Sewer Volumes**





	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2027	FY 2032
Override ▶	0.00%	9.50%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	<b>Cumulative</b>	
Sewer - Retail Rate Plan	0.00%	9.50%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	28.09%	55.85%
Override ▶	0.00%	9.50%	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	<b>Cumulative</b>	
Sewer - Wholesale Rate Plan	0.00%	9.50%	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	28.09%	55.85%
Override ▶	0.00%	5.58%	6.44%	6.39%	6.63%	6.84%	4.00%	4.00%	4.00%	4.00%	4.00%	<b>Scenario Manager</b>	
Reclaimed Rate Plan	0.00%	5.58%	6.44%	6.39%	6.63%	6.84%	4.00%	4.00%	4.00%	4.00%	4.00%	Net CIP	\$0.00
Senior-Lien DSC	3.73	3.66	3.88	4.07	4.14	4.13	3.87	9.75	9.49	9.29	8.36	AMI Out	Yes
CIP \$ Redistrib	\$0.00	\$0.00	-\$30.00	-\$60.00	-\$30.00	-\$10.00	\$10.00	\$30.00	\$30.00	\$30.00	\$30.00		
Retail Sewer - Retail Bill (5 kgal)	\$50.69	\$55.49	\$57.73	\$60.05	\$62.45	\$64.93	\$67.55	\$70.26	\$73.05	\$75.98	\$79.01		



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix B – Sewer Fund Revenue Sufficiency Analysis

### Assumptions

### Schedule 2

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Rate Increase Adoption Date</b>	10/1/2021	10/1/2022	10/1/2023	10/1/2024	10/1/2025	10/1/2026	10/1/2027	10/1/2028	10/1/2029	10/1/2030	10/1/2031
<b>Annual Growth</b>											
<b>Sewer - Retail</b>											
Ending # of Customer Accounts	70,961	71,103	71,245	71,388	71,530	71,673	71,817	71,960	72,104	72,249	72,393
Customer Account Growth		142	142	142	143	143	143	144	144	144	144
% Change in Customer Accounts		0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Billed Volume (Kgal)	6,775,095	6,951,643	7,019,987	7,088,460	7,102,637	7,116,842	7,131,076	7,145,338	7,159,629	7,173,948	7,188,296
% Change in Billed Volume		2.61%	0.98%	0.98%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<b>Sewer - Wholesale</b>											
Ending # of Customer Accounts	3	3	3	3	3	3	3	3	3	3	3
Customer Account Growth		-	-	-	-	-	-	-	-	-	-
% Change in Customer Accounts		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Billed Volume (Kgal)	1,940,326	1,944,207	1,948,095	1,951,991	1,955,895	1,959,807	1,963,727	1,967,654	1,971,589	1,975,533	1,979,484
% Change in Billed Volume		0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
% Paying Capital Charges	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Reclaimed</b>											
Ending # of Customer Accounts	23,075	23,075	23,075	23,075	23,075	23,075	23,075	23,075	23,075	23,075	23,075
Customer Account Growth		-	-	-	-	-	-	-	-	-	-
% Change in Customer Accounts		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Capital Spending</b>											
Annual Capital Spending (Future Year Dollars)	\$ 33,432,430	\$ 46,758,956	\$ 51,111,852	\$ 52,175,898	\$ 50,505,912	\$ 51,878,125	\$ 51,402,717	\$ 61,792,206	\$ 63,645,973	\$ 65,555,352	\$ 67,522,012
Annual Percent Executed <sup>1</sup>	50%										
<b>Average Annual Interest Earnings Rate</b>											
Sewer System Enterprise Fund	0.94%	0.60%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
<b>Annual O&amp;M Expense Cost Escalation:</b>											
Personal Services	N/A		3.08%	3.08%	3.08%	3.08%	3.08%	3.08%	3.08%	3.08%	3.08%
Operating Expenses	N/A	Reflects	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%
Power, Water & Sewer, Other Utilities	N/A	Adopted	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%
Chemicals	N/A	Budget	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%
Cost Allocation	N/A	w/Adjustments	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%
Capital Equipment	N/A		2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%
<b>Reserve Targets</b>											
Operating Reserve (Months of O&M)	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
<b>Total Reserve Calculation</b>											
Renewal & Replacement	\$ 21,679,339	\$ 22,329,719	\$ 22,999,611	\$ 23,689,599	\$ 24,400,287	\$ 25,132,296	\$ 25,886,265	\$ 26,662,852	\$ 27,462,738	\$ 28,286,620	\$ 29,135,219
Insurance Deductible	5,000,000	5,000,000	5,150,000	5,304,500	5,463,635	5,627,544	5,796,370	5,970,261	6,149,369	6,333,850	6,523,866
Revenue Loss during Natural Disaster	21,813,394	26,400,090	26,732,032	27,090,129	27,812,089	28,666,955	29,601,824	27,249,171	28,148,105	29,070,722	30,271,467
General Contingency	1,567,162	1,988,057	2,014,779	2,042,314	2,100,687	2,160,765	2,222,597	2,286,222	2,351,693	2,419,062	2,488,386
Liquidity	13,633,371	16,500,056	16,707,520	16,931,331	17,382,556	17,916,847	18,501,140	17,030,732	17,592,566	18,169,201	18,919,667
Rate Stabilization Reserve	2,750,181	3,069,544	3,190,572	3,317,496	3,430,024	3,547,480	3,695,240	3,849,157	4,009,488	4,176,499	4,350,470
Total Recommended Reserve	\$ 66,443,447	\$ 75,287,466	\$ 76,794,514	\$ 78,375,368	\$ 80,589,277	\$ 83,051,887	\$ 85,703,436	\$ 83,048,395	\$ 85,713,959	\$ 88,455,956	\$ 91,689,075
Total (Months O&M)	15.3	13.6	13.7	13.8	13.8	13.8	13.9	13.1	13.1	13.2	13.3
<b>Operating Budget Execution Percentage</b>											
Personal Services <sup>2</sup>	100%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
All Other O&M Expenses	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Operating: Minor Capital Outlay	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

1) Capital execution in FY 2022 calculated to match total capital spending shown in PCU's forecast.

2) FY 2022 expenses based on actuals. Future year projections executed at 95% per PCU's forecast.



**WATER, SEWER RECLAIMED WATER RATE STUDY**  
Appendix B – Sewer Fund Revenue Sufficiency Analysis

**FY 2022 Beginning Balances as of 10/1/2021**

**Schedule 3**

Grouping of Funds in Model	Revenue Fund	Restricted Reserves	Sewer Interest & Sinking	Vehicle Replacement	Renewal & Replacement
<b>Current Assets</b>					
Cash	\$ 5,386,776	\$ -	\$ 162,251	\$ -	\$ 4,027,529
Investments	16,881,309	-	474,992	-	29,800,378
Accounts and Notes Receivable	9,528,718	-	-	-	-
Assessments Receivable	660	-	-	-	-
Accrued Interest Receivable	46,176	-	1,250	-	78,475
Due from Other Governments	1,756,746	-	-	-	213,475
Inventory of Supplies	550,826	-	-	-	-
Prepaid Expenses	114,007	-	-	-	-
<b>Total Assets</b>	<b>\$ 34,265,219</b>	<b>\$ -</b>	<b>\$ 638,493</b>	<b>\$ -</b>	<b>\$ 34,119,857</b>
<b>Current Liabilities</b>					
Less: Vouchers Payable	\$ (3,527,219)	\$ -	\$ -	\$ -	\$ (3,783,379)
Less: Contracts Payable	-	-	-	-	(1,831,694)
Less: Due to Other Funds	-	-	-	-	(51)
Less: Due to Other Governments	(33,286)	-	-	-	-
Less: Accrued Liabilities	(258,986)	-	-	-	-
Less: Compensated Absences	(1,053,433)	-	-	-	-
<b>Calculated Fund Balance (Assets - Liabilities)</b>	<b>\$ 29,392,295</b>	<b>\$ -</b>	<b>\$ 638,493</b>	<b>\$ -</b>	<b>\$ 28,504,732</b>
Plus/(Less): Restricted for Debt Service	-	375,150	(375,150)	-	-
Plus/(Less): Vehicle Replacement	(4,000,000)	-	-	4,000,000	-
<b>Net Unrestricted Fund Balance</b>	<b>\$ 25,392,295</b>	<b>\$ 375,150</b>	<b>\$ 263,343</b>	<b>\$ 4,000,000</b>	<b>\$ 28,504,732</b>
<b>Available Fund Balance</b>	<b>\$ 25,392,295</b>	<b>\$ 375,150</b>	<b>\$ 263,343</b>	<b>\$ 4,000,000</b>	<b>\$ 28,504,732</b>
<b>Fund Summary</b>					
Revenue Fund	\$ 25,392,295				
Restricted Reserves		375,150			
Sewer Interest & Sinking			263,343		
Vehicle Replacement				4,000,000	
Renewal & Replacement					28,504,732
<b>Total Available Funds</b>	<b>\$</b>	<b>58,535,519</b>			

Sources: 2021 ACFR and Trial Balances provided by County Staff



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix B – Sewer Fund Revenue Sufficiency Analysis

### Projection of Cash Inflows

### Schedule 4

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Rate Revenue Growth Assumptions</b>											
<b>Sewer - Retail</b>											
1 % Change in Retail Customers	N/A	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
2 % Change in Retail Billed Volume	N/A	2.61%	0.98%	0.98%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<b>Sewer - Wholesale</b>											
3 % Change in Wholesale Customers	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4 % Change in Wholesale Billed Volume	N/A	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<b>Ending # of</b>											
5 % Change in Reclaimed Water Customers	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Proposed Rate Revenue Increases <sup>(1)</sup></b>											
6 Retail Sewer Rate Increase	9.50%	9.50%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
7 Wholesale Sewer Rate Increase	9.50%	9.50%	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%
8 Reclaimed Rate Increase	5.90%	5.58%	6.44%	6.39%	6.63%	6.84%	4.00%	4.00%	4.00%	4.00%	4.00%
<b>Rate Revenue</b>											
9 Retail Sewer Base Rate Revenue	\$ 25,382,188	\$ 27,849,083	\$ 29,020,972	\$ 30,242,175	\$ 31,514,765	\$ 32,840,907	\$ 34,222,852	\$ 35,662,950	\$ 37,163,647	\$ 38,727,493	\$ 40,357,146
10 Retail Sewer Volumetric Rate Revenue	41,879,308	47,052,822	49,416,035	51,893,959	54,077,656	56,353,244	58,724,589	61,195,719	63,770,835	66,454,312	69,250,709
11 Wholesale Sewer Rate Revenue	12,280,939	13,447,629	13,447,629	13,447,629	13,447,629	13,447,629	13,985,534	14,544,955	15,126,753	15,731,823	16,361,096
12 Retail Reclaimed Water Rate Revenue	6,481,922	6,843,613	7,284,342	7,749,811	8,263,623	8,828,855	7,258,009	7,548,330	7,850,263	8,164,274	8,490,845
13 Wholesale Reclaimed Water Rate Revenue	843,368	890,427	947,771	1,008,334	1,075,186	1,148,729	1,194,678	1,242,465	1,292,164	1,343,850	1,397,604
<b>14 Total Sewer Fund Rate Revenue</b>	<b>\$ 86,867,725</b>	<b>\$ 96,083,574</b>	<b>\$ 100,116,748</b>	<b>\$ 104,341,906</b>	<b>\$ 108,378,860</b>	<b>\$ 112,619,364</b>	<b>\$ 115,385,662</b>	<b>\$ 120,194,419</b>	<b>\$ 125,203,662</b>	<b>\$ 130,421,752</b>	<b>\$ 135,857,400</b>
<b>Other Operating Revenue <sup>(2)</sup></b>											
15 3290006 Industrl Wstewtr Dis Perm	\$ 49,850	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000
16 3290007 Grease Permitting Fee	119,180	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
17 3435120 Tapping Fees	224,604	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
18 3435121 Sewer-Late Payment Fee	463,858	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000	540,000
19 3435351 Swr Svc- Bill Fr Belleair <sup>3</sup>	1,547,241	1,727,395	1,727,395	1,727,395	1,727,395	1,727,395	1,796,491	1,868,351	1,943,085	2,020,808	2,101,641
20 3435352 Swr Svc- Bill Fr Gulfport <sup>3</sup>	1,093,932	1,207,697	1,207,697	1,207,697	1,207,697	1,207,697	1,256,005	1,306,246	1,358,495	1,412,835	1,469,349
21 3435353 Swr Svc- Bill Fr Pnlis Prk <sup>3</sup>	746,166	826,900	826,900	826,900	826,900	826,900	859,976	894,375	930,150	967,356	1,006,051
22 3435354 Swr Svc- Bill Fr St Pete <sup>3</sup>	11,216,197	12,424,538	12,424,538	12,424,538	12,424,538	12,424,538	12,921,519	13,438,380	13,975,915	14,534,952	15,116,350
23 3435355 Swr Svc- Bill Fr Utls Inc <sup>3</sup>	190,211	164,568	164,568	164,568	164,568	164,568	171,150	177,996	185,116	192,521	200,222
24 3435502 Laboratory Services	259,559	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000
25 3435570 Miscellaneous Revenue	47,817	42,747	42,747	42,747	42,747	42,747	42,747	42,747	42,747	42,747	42,747
26 3435601 Fat/Oil/Grease Tip Fees	226,263	238,168	238,168	238,168	238,168	238,168	238,168	238,168	238,168	238,168	238,168
27 3435701 Pelletized Sludge Sales	189,559	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000
28 3490010 Chg For Sv-Bad Dbt Ex(DR)	(21,788)	-	-	-	-	-	-	-	-	-	-
29 3621008 Rent-Bldg/Space	193,772	198,000	198,000	198,000	198,000	198,000	198,000	198,000	198,000	198,000	198,000
30 3644100 Sale- Surplus Equipment	92,822	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
31 3644200 Ins Proceeds-Furn/Fxtr/Eq	15,877	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
32 3650003 Sale-Scrap	2,360	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
33 3699305 Inter-Reimb-External-Other	126,425	165,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000
34 3699350 Refund Of Prior Yrs Exp	36,405	-	-	-	-	-	-	-	-	-	-
35 3699991 Other Miscellaneous Revenue	5,473	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
36 3898351 Cap Con-Pvt-Swr Connectn	545,041	682,000	682,000	682,000	682,000	682,000	682,000	682,000	682,000	682,000	682,000
37 3815001 Transfer from BTS	4,090	-	-	-	-	-	-	-	-	-	-
38 3313901 Fed Grant-Other Physical Environ	10,557	-	-	-	-	-	-	-	-	-	-
39 3693099 Miscellaneous Settlements	86,923	-	-	-	-	-	-	-	-	-	-
40 Reclaimed Meter Reimbursement Fees	-	2,298,339	2,298,339	2,298,339	2,298,339	2,298,339	2,298,339	-	-	-	-
<b>41 Total Other Operating Revenue</b>	<b>\$ 17,472,394</b>	<b>\$ 21,218,353</b>	<b>\$ 21,218,353</b>	<b>\$ 21,218,353</b>	<b>\$ 21,218,353</b>	<b>\$ 21,218,353</b>	<b>\$ 19,574,058</b>	<b>\$ 20,254,264</b>	<b>\$ 20,961,678</b>	<b>\$ 21,697,388</b>	<b>\$ 22,462,527</b>
<b>Interest Income</b>											
42 Unrestricted	\$ 519,329	\$ 367,771	\$ 687,121	\$ 784,946	\$ 811,666	\$ 818,206	\$ 843,777	\$ 843,759	\$ 843,812	\$ 870,850	\$ 900,725
43 Restricted	3,532	2,251	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752
<b>44 Total Interest Income</b>	<b>\$ 522,861</b>	<b>\$ 370,022</b>	<b>\$ 690,872</b>	<b>\$ 788,697</b>	<b>\$ 815,418</b>	<b>\$ 821,957</b>	<b>\$ 847,528</b>	<b>\$ 847,511</b>	<b>\$ 847,563</b>	<b>\$ 874,601</b>	<b>\$ 904,477</b>
<b>45 Total Cash Inflows</b>	<b>\$ 104,862,979</b>	<b>\$ 117,671,949</b>	<b>\$ 122,025,974</b>	<b>\$ 126,348,957</b>	<b>\$ 130,412,631</b>	<b>\$ 134,659,674</b>	<b>\$ 135,807,248</b>	<b>\$ 141,296,194</b>	<b>\$ 147,012,903</b>	<b>\$ 152,993,741</b>	<b>\$ 159,224,404</b>

1) FY 2022 and FY 2023 reflect actual BCC adopted rates. Reclaimed water increases in FY 2022 and FY 2023 reflect projected overall increases per previous rate study based on recommended and adopted rates.

2) FY 2023 Other Operating Revenues reflect the Adopted Budget adjusted to account for the County's practice of budgeting at 95% of projected revenues.

3) Wholesale rates projected to increase by rates shown in line 7.



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix B – Sewer Fund Revenue Sufficiency Analysis

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	
<b>FUND 4051 - SEWER OPERATING</b>												
<b>431040 - Warehouse Support</b>												
<b>Personal Services</b>												
1	5110001 Executive Salaries	\$ 74,610	\$ 67,930	\$ 70,020	\$ 72,175	\$ 74,398	\$ 76,690	\$ 79,055	\$ 81,493	\$ 84,006	\$ 86,596	\$ 89,266
2	5120001 Regular Salaries & Wages	313,525	289,080	297,973	307,144	316,604	326,361	336,424	346,798	357,492	368,515	379,878
3	5140001 Overtime Pay	30,049	18,200	18,760	19,337	19,933	20,547	21,181	21,834	22,507	23,201	23,917
4	5210001 FICA Taxes	31,077	26,760	27,583	28,432	29,308	30,211	31,143	32,103	33,093	34,113	35,165
5	5220001 Retirement Contributions	46,330	41,970	43,261	44,593	45,966	47,383	48,844	50,350	51,902	53,503	55,153
6	5230001 Hlth,Life,Dntl,Std,Ltd	117,172	115,300	118,847	122,505	126,278	130,170	134,183	138,321	142,586	146,983	151,515
7	5299991 Reg Salary&Wgs-Contra-Prj	(6,755)	-	-	-	-	-	-	-	-	-	-
8	5299992 Benefits-Contra-Projects	(2,207)	-	-	-	-	-	-	-	-	-	-
9	5150001 One Time COLA Wage Disburse	-	7,260	7,483	7,714	7,951	8,196	8,449	8,710	8,978	9,255	9,540
<b>O&amp;M Expenses</b>												
10	5310033 General Consulting	\$ -	\$ 90	\$ 93	\$ 95	\$ 98	\$ 101	\$ 103	\$ 106	\$ 109	\$ 112	\$ 115
11	5349000 Contract Services-Other	28,098	10,500	10,794	11,096	11,407	11,726	12,055	12,392	12,739	13,096	13,463
12	5400001 Travel and Per Diem	95	7,700	7,916	8,137	8,365	8,599	8,840	9,088	9,342	9,604	9,873
13	5400100 Transportation Exp	1,615	-	-	-	-	-	-	-	-	-	-
14	5400110 Mileage-Out of Town	142	-	-	-	-	-	-	-	-	-	-
15	5400200 Meals/Per Diem	499	-	-	-	-	-	-	-	-	-	-
16	5400205 Meals-Taxable	6	-	-	-	-	-	-	-	-	-	-
17	5400300 Hotels/Motels/Lodging	3,732	-	-	-	-	-	-	-	-	-	-
18	5400900 Travel-Other	71	-	-	-	-	-	-	-	-	-	-
19	5410001 Communication Services	1,207	1,010	1,038	1,067	1,097	1,128	1,160	1,192	1,225	1,260	1,295
20	5464000 Repair&Maint-Equipment	664	3,780	3,886	3,995	4,106	4,221	4,340	4,461	4,586	4,715	4,847
21	5470001 Printing and Binding Exp	637	260	267	275	282	290	298	307	315	324	333
22	5490001 Othr Current Chgs&Obligat	333	40	41	42	43	45	46	47	49	50	51
23	5496521 Intgv Sv-Fleet-Op & Maint	6,080	6,730	6,918	7,112	7,311	7,516	7,726	7,943	8,165	8,394	8,629
24	5510001 Office Supplies Exp	3,994	1,230	1,264	1,300	1,336	1,374	1,412	1,452	1,492	1,534	1,577
25	5520005 Small Tools,Supp&Allow.	277	2,870	2,950	3,033	3,118	3,205	3,295	3,387	3,482	3,580	3,680
26	5520006 Oper. Supplies-Clothing	160	730	750	771	793	815	838	862	886	910	936
27	5520009 Oper. Supplies-Computer	490	-	-	-	-	-	-	-	-	-	-
28	5520099 PC Purchases under \$1000	638	-	-	-	-	-	-	-	-	-	-
29	5529000 Oper. Supplies-Misc	6,698	5,600	5,757	5,918	6,084	6,254	6,429	6,609	6,794	6,984	7,180
30	5540001 Bks, Pub, Subscrp&Membrshps	2,585	350	360	370	380	391	402	413	425	437	449
31	5550001 Training and Education Costs	3,103	4,550	4,677	4,808	4,943	5,081	5,224	5,370	5,520	5,675	5,834
32	5400105 Mileage-Local	14	-	-	-	-	-	-	-	-	-	-
33	5490060 Incentives & Awards	181	310	319	328	337	346	356	366	376	387	397
34	5520098 PC purchases under \$5,000	1,283	-	-	-	-	-	-	-	-	-	-
<b>431050 - Utilities Engineering</b>												
<b>Personal Services</b>												
35	5110001 Executive Salaries	\$ 1,071,854	\$ 1,534,460	\$ 1,581,663	\$ 1,630,347	\$ 1,680,560	\$ 1,732,349	\$ 1,785,767	\$ 1,840,832	\$ 1,897,595	\$ 1,956,108	\$ 2,016,425
36	5120001 Regular Salaries & Wages	148,980	367,870	379,186	390,858	402,896	415,312	428,118	441,319	454,928	468,956	483,416
37	5130001 Other Salaries And Wages	12,578	-	-	-	-	-	-	-	-	-	-
38	5140001 Overtime Pay	4,812	3,950	4,072	4,197	4,326	4,459	4,597	4,739	4,885	5,035	5,191
39	5210001 FICA Taxes	91,717	143,490	147,904	152,457	157,152	161,995	166,990	172,139	177,447	182,919	188,559
40	5220001 Retirement Contributions	135,605	222,490	229,334	236,393	243,674	251,183	258,928	266,913	275,143	283,627	292,373
41	5230001 Hlth,Life,Dntl,Std,Ltd	229,225	431,740	445,021	458,719	472,847	487,419	502,449	517,942	533,913	550,376	567,347
42	5299989 Rg Sal&Wges-Contra-Prj-Bur	(110,330)	(106,550)	(109,828)	(113,208)	(116,695)	(120,291)	(124,000)	(127,824)	(131,765)	(135,828)	(140,017)
43	5299991 Reg Salary&Wgs-Contra-Prj	(148,135)	(267,170)	(275,389)	(283,865)	(292,608)	(301,625)	(310,926)	(320,513)	(330,397)	(340,585)	(351,087)
44	5299992 Benefits-Contra-Projects	(34,544)	(99,740)	(102,808)	(105,973)	(109,236)	(112,603)	(116,075)	(119,654)	(123,344)	(127,147)	(131,068)
45	5150001 One Time COLA Wage Disburse	-	27,000	27,831	28,687	29,571	30,482	31,422	32,391	33,390	34,419	35,481
<b>O&amp;M Expenses</b>												
46	5310033 General Consulting	\$ 4,879,138	\$ 8,001,500	\$ 7,225,542	\$ 6,427,857	\$ 6,607,837	\$ 6,792,857	\$ 6,983,057	\$ 7,178,582	\$ 7,379,582	\$ 7,586,211	\$ 7,798,625
47	5349000 Contract Services-Other	63,187	87,400	89,847	92,363	94,949	97,608	100,341	103,150	106,038	109,007	112,060
48	5399989 Op Exp-Contra-Proj-Burdng	(139,584)	(134,530)	(138,297)	(142,169)	(146,150)	(150,242)	(154,449)	(158,773)	(163,219)	(167,789)	(172,487)
49	5400001 Travel and Per Diem	-	23,700	24,364	25,046	25,747	26,468	27,209	27,971	28,754	29,559	30,387
50	5400100 Transportation Exp	1,865	-	-	-	-	-	-	-	-	-	-
51	5400105 Mileage-Local	184	-	-	-	-	-	-	-	-	-	-



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
52 5400110 Mileage-Out of Town	386	-	-	-	-	-	-	-	-	-	-
53 5400200 Meals/Per Diem	1,634	-	-	-	-	-	-	-	-	-	-
54 5400205 Meals-Taxable	138	-	-	-	-	-	-	-	-	-	-
55 5400300 Hotels/Motels/Lodging	4,612	-	-	-	-	-	-	-	-	-	-
56 5400900 Travel-Other	123	-	-	-	-	-	-	-	-	-	-
57 5410001 Communication Services	3,068	6,320	6,497	6,679	6,866	7,058	7,256	7,459	7,668	7,882	8,103
58 5420001 Freight	180	120	123	127	130	134	138	142	146	150	154
59 5420002 Postage	130	80	82	85	87	89	92	94	97	100	103
60 5440001 Rentals and Leases	3,313	3,950	4,061	4,174	4,291	4,411	4,535	4,662	4,792	4,927	5,064
61 5464000 Repair&Maint-Equipment	5,363	4,380	4,503	4,629	4,758	4,892	5,029	5,169	5,314	5,463	5,616
62 5470001 Printing and Binding Exp	46	390	401	412	424	436	448	460	473	486	500
63 5490001 Othr Current Chgs&Obligat	625	3,090	3,177	3,265	3,357	3,451	3,548	3,647	3,749	3,854	3,962
64 5490060 Incentives & Awards	73	-	-	-	-	-	-	-	-	-	-
65 5496501 Intgv Sv-Info Technology	124,380	144,960	149,019	153,191	157,481	161,890	166,423	171,083	175,873	180,798	185,860
66 5496521 Intgv Sv-Fleet-Op & Maint	14,059	1,059	1,922	1,976	2,032	2,088	2,147	2,207	2,269	2,332	2,398
67 5496901 Intgv Sv-Cost Allocate	175,260	175,260	180,167	185,212	190,398	195,729	201,209	206,843	212,635	218,589	224,709
68 5510001 Office Supplies Exp	3,259	4,740	4,873	5,009	5,149	5,294	5,442	5,594	5,751	5,912	6,077
69 5520005 Small Tools,Supp&Allow.	32	-	-	-	-	-	-	-	-	-	-
70 5520006 Oper. Supplies-Clothing	571	1,000	1,028	1,057	1,086	1,117	1,148	1,180	1,213	1,247	1,282
71 5520009 Oper. Supplies-Computer	6,825	36,940	37,974	39,038	40,131	41,254	42,409	43,597	44,818	46,073	47,363
72 5520098 PC purchases under \$5,000	3,589	2,000	2,056	2,114	2,173	2,234	2,296	2,360	2,427	2,494	2,564
73 5520099 PC Purchases under \$1000	8,558	-	-	-	-	-	-	-	-	-	-
74 5529000 Oper. Supplies-Misc	2,047	-	-	-	-	-	-	-	-	-	-
75 5540001 Bks, Pub, Subscrp&Membrshps	1,365	6,000	6,168	6,341	6,518	6,701	6,888	7,081	7,280	7,483	7,693
76 5550001 Training and Education Costs	6,290	19,750	20,303	20,871	21,456	22,057	22,674	23,309	23,962	24,633	25,322
77 5699981 Personal Svs-Proj-Burding	1,460	-	-	-	-	-	-	-	-	-	-
78 5699983 Op Exp-Proj-Burdening	1,844	-	-	-	-	-	-	-	-	-	-
79 5699991 Reg Salaries&Wages-Projects	3,661	-	-	-	-	-	-	-	-	-	-
80 5699992 Benefits-Projects	1,473	-	-	-	-	-	-	-	-	-	-
81 5839000 Other Grants & Aids-Misc	-	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
<b>431070 - Field Services</b>											
<b>Personal Services</b>											
82 5110001 Executive Salaries	\$ 53,181	\$ 84,610	\$ 87,213	\$ 89,897	\$ 92,666	\$ 95,522	\$ 98,467	\$ 101,503	\$ 104,633	\$ 107,860	\$ 111,186
83 5120001 Regular Salaries & Wages	389,166	473,500	488,066	503,089	518,583	534,564	551,048	568,040	585,555	603,611	622,224
84 5140001 Overtime Pay	23,416	28,800	29,686	30,600	31,542	32,514	33,517	34,550	35,616	36,714	37,846
85 5210001 FICA Taxes	33,992	41,580	42,859	44,178	45,539	46,942	48,390	49,882	51,420	53,006	54,640
86 5220001 Retirement Contributions	51,586	65,210	67,216	69,285	71,419	73,620	75,890	78,230	80,642	83,129	85,692
87 5230001 Hlth, Life, Dntl, Std, Ltd	167,619	228,010	235,024	242,258	249,719	257,415	265,352	273,535	281,969	290,664	299,627
88 5299991 Reg Salary&Wgs-Contra-Prj	(42,325)	-	-	-	-	-	-	-	-	-	-
89 5299992 Benefits-Contra-Projects	(23,707)	-	-	-	-	-	-	-	-	-	-
90 5150001 One Time COLA Wage Disburse	-	14,500	14,946	15,406	15,881	16,370	16,875	17,395	17,931	18,484	19,054
<b>O&amp;M Expenses</b>											
91 5349000 Contract Services-Other	\$ 22,283	\$ 21,120	\$ 21,711	\$ 22,319	\$ 22,944	\$ 23,587	\$ 24,247	\$ 24,926	\$ 25,624	\$ 26,341	\$ 27,079
92 5400001 Travel and Per Diem	-	3,810	3,917	4,026	4,139	4,255	4,374	4,497	4,622	4,752	4,885
93 5400900 Travel-Other	55	-	-	-	-	-	-	-	-	-	-
94 5410001 Communication Services	2,136	2,400	2,467	2,536	2,607	2,680	2,755	2,833	2,912	2,993	3,077
95 5420001 Freight	61	140	144	148	152	156	161	165	170	175	180
96 5420002 Postage	45	100	103	106	109	112	115	118	121	125	128
97 5433000 Utl Svc-County Water&Swr	231	960	987	1,015	1,043	1,072	1,102	1,133	1,165	1,197	1,231
98 5439000 Utility Svc-Miscellaneous	-	600	617	634	652	670	689	708	728	748	769
99 5464000 Repair&Maint-Equipment	10,771	19,200	19,738	20,290	20,858	21,442	22,043	22,660	23,294	23,947	24,617
100 5470001 Printing and Binding Exp	52	1,200	1,234	1,268	1,304	1,340	1,378	1,416	1,456	1,497	1,539
101 5496521 Intgv Sv-Fleet-Op & Maint	41,425	15,550	15,985	16,433	16,893	17,366	17,852	18,352	18,866	19,394	19,937
102 5510001 Office Supplies Exp	75	1,920	1,974	2,029	2,086	2,144	2,204	2,266	2,329	2,395	2,462
103 5520005 Small Tools,Supp&Allow.	512	3,020	3,105	3,191	3,281	3,373	3,467	3,564	3,664	3,767	3,872
104 5520006 Oper. Supplies-Clothing	2,864	3,840	3,948	4,058	4,172	4,288	4,409	4,532	4,659	4,789	4,923
105 5520009 Oper. Supplies-Computer	-	190	195	201	206	212	218	224	231	237	244
106 5520099 PC Purchases under \$1000	197	-	-	-	-	-	-	-	-	-	-
107 5529000 Oper. Supplies-Misc	4,624	4,800	4,934	5,073	5,215	5,361	5,511	5,665	5,824	5,987	6,154



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
108 5540001 Bks, Pub, Subscrp&Membshps	96	-	-	-	-	-	-	-	-	-	-
109 5550001 Training and Education Costs	98	4,610	4,739	4,872	5,008	5,148	5,293	5,441	5,593	5,750	5,911
110 5520098 PC purchases under \$5,000	7,040	6,960	7,155	7,355	7,561	7,773	7,991	8,214	8,444	8,681	8,924
<b>431085 - Customer Service</b>											
<b>Personal Services</b>											
111 5110001 Executive Salaries	\$ 228,336	\$ 229,430	\$ 236,488	\$ 243,767	\$ 251,275	\$ 259,018	\$ 267,005	\$ 275,238	\$ 283,725	\$ 292,474	\$ 301,493
112 5120001 Regular Salaries & Wages	1,041,888	1,283,950	1,323,447	1,364,183	1,406,198	1,449,533	1,494,230	1,540,305	1,587,801	1,636,761	1,687,232
113 5140001 Overtime Pay	32,644	23,040	23,749	24,480	25,234	26,011	26,813	27,640	28,492	29,371	30,277
114 5210001 FICA Taxes	93,574	113,280	116,765	120,359	124,066	127,889	131,833	135,898	140,088	144,408	148,861
115 5220001 Retirement Contributions	151,883	179,000	184,506	190,186	196,043	202,084	208,316	214,739	221,361	228,187	235,223
116 5230001 Hlth, Life, Dntl, Std, Ltd	408,195	512,180	527,936	544,186	560,946	578,233	596,063	614,442	633,389	652,920	673,053
117 5299991 Reg Salary&Wgs-Contra-Prj	(25,142)	-	-	-	-	-	-	-	-	-	-
118 5299992 Benefits-Contra-Projects	(8,465)	-	-	-	-	-	-	-	-	-	-
119 5150001 One Time COLA Wage Disburse	-	32,460	33,459	34,488	35,551	36,646	37,776	38,941	40,142	41,380	42,656
<b>O&amp;M Expenses</b>											
120 5310033 General Consulting	\$ 61,803	\$ 9,740	\$ 10,013	\$ 10,293	\$ 10,581	\$ 10,878	\$ 11,182	\$ 11,495	\$ 11,817	\$ 12,148	\$ 12,488
121 5349000 Contract Services-Other	943,341	1,208,810	1,242,657	1,277,451	1,313,220	1,349,990	1,387,790	1,426,648	1,466,594	1,507,658	1,549,873
122 5400001 Travel and Per Diem	16,000	20,810	21,393	21,992	22,607	23,240	23,891	24,560.13605	25,247.81986	25,954.75881	26,681.49206
123 5400100 Transportation Exp	749	-	-	-	-	-	-	-	-	-	-
124 5400110 Mileage-Out of Town	169	-	-	-	-	-	-	-	-	-	-
125 5400200 Meals/Per Diem	440	-	-	-	-	-	-	-	-	-	-
126 5400300 Hotels/Motels/Lodging	996	-	-	-	-	-	-	-	-	-	-
127 5400900 Travel-Other	45	-	-	-	-	-	-	-	-	-	-
128 5410001 Communication Services	2,560	3,020	3,105	3,191	3,281	3,373	3,467	3,564	3,664	3,767	3,872
129 5420001 Freight	-	480	493	507	521	536	551	567	582	599	615
130 5420002 Postage	168,463	174,600	179,489	184,514	189,681	194,992	200,452	206,064	211,834	217,766	223,863
131 5440001 Rentals and Leases	644	-	-	-	-	-	-	-	-	-	-
132 5464000 Repair&Maint-Equipment	169,905	150,090	154,293	158,613	163,054	167,619	172,313	177,137	182,097	187,196	192,438
133 5470001 Printing and Binding Exp	13,328	13,680	14,063	14,457	14,862	15,278	15,705	16,145	16,597	17,062	17,540
134 5490001 Othr Current Chgs&Obligat	308	260	267	275	282	290	298	307	315	324	333
135 5510001 Office Supplies Exp	781	1,440	1,480	1,522	1,564	1,608	1,653	1,700	1,747	1,796	1,846
136 5520009 Oper. Supplies-Computer	334	3,530	3,629	3,730	3,835	3,942	4,053	4,166	4,283	4,403	4,526
137 5520099 PC Purchases under \$1000	1,421	-	-	-	-	-	-	-	-	-	-
138 5529000 Oper. Supplies-Misc	1,722	7,680	7,895	8,116	8,343	8,577	8,817	9,064	9,318	9,579	9,847
139 5540001 Bks, Pub, Subscrp&Membshps	1,394	2,400	2,467	2,536	2,607	2,680	2,755	2,833	2,912	2,993	3,077
140 5550001 Training and Education Costs	540	2,410	2,477	2,547	2,618	2,691	2,767	2,844	2,924	3,006	3,090
141 5520098 PC purchases under \$5,000	16,277	2,300	2,364	2,431	2,499	2,569	2,641	2,714	2,790	2,869	2,949
<b>Capital Outlay</b>											
142 5680100 Software-Purchased	\$ 177,099	\$ 111,350	\$ 114,468	\$ 117,673	\$ 120,968	\$ 124,355	\$ 127,837	\$ 131,416	\$ 135,096	\$ 138,879	\$ 142,767
<b>431130 - Water &amp; Sewer Administration</b>											
<b>Personal Services</b>											
143 5110001 Executive Salaries	\$ 399,368	\$ 474,630	\$ 489,231	\$ 504,289	\$ 519,821	\$ 535,840	\$ 552,363	\$ 569,395	\$ 586,953	\$ 605,052	\$ 623,709
144 5120001 Regular Salaries & Wages	104,700	94,150	97,046	100,033	103,114	106,292	109,569	112,948	116,431	120,021	123,722
145 5140001 Overtime Pay	3,663	-	-	-	-	-	-	-	-	-	-
146 5210001 FICA Taxes	37,654	42,300	43,601	44,943	46,327	47,755	49,228	50,746	52,310	53,923	55,586
147 5220001 Retirement Contributions	56,963	69,870	72,019	74,236	76,522	78,881	81,313	83,820	86,405	89,069	91,816
148 5230001 Hlth, Life, Dntl, Std, Ltd	97,764	121,050	124,774	128,614	132,575	136,661	140,875	145,219	149,697	154,313	159,071
149 5299991 Reg Salary&Wgs-Contra-Prj	25,634	-	-	-	-	-	-	-	-	-	-
150 5299992 Benefits-Contra-Projects	13,337	-	-	-	-	-	-	-	-	-	-
151 5150001 One Time COLA Wage Disburse	-	7,560	7,793	8,032	8,280	8,535	8,798	9,069	9,349	9,637	9,935
<b>O&amp;M Expenses</b>											
152 5310033 General Consulting	\$ 58,030	\$ 22,850	\$ 23,490	\$ 24,148	\$ 24,824	\$ 25,519	\$ 26,233	\$ 26,968	\$ 27,723	\$ 28,499	\$ 29,297
153 5311031 Legal (Other Than Court)	27,500	1,000	1,028	1,057	1,086	1,117	1,148	1,180	1,213	1,247	1,282
154 5320001 Accounting & Auditing	9,163	15,000	15,420	15,852	16,296	16,752	17,221	17,703	18,199	18,708	19,232
155 5349000 Contract Services-Other	8,446	350	360	370	380	391	402	413	425	437	449
156 5400100 Transportation Exp	2,320	-	-	-	-	-	-	-	-	-	-
157 5400105 Mileage-Local	32	-	-	-	-	-	-	-	-	-	-



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
158 5400110 Mileage-Out of Town	1,072	-	-	-	-	-	-	-	-	-	-
159 5400200 Meals/Per Diem	2,522	-	-	-	-	-	-	-	-	-	-
160 5400205 Meals-Taxable	6	-	-	-	-	-	-	-	-	-	-
161 5400300 Hotels/Motels/Lodging	8,318	-	-	-	-	-	-	-	-	-	-
162 5400900 Travel-Other	1,115	-	-	-	-	-	-	-	-	-	-
163 5410001 Communication Services	53,785	60,000	61,680	63,407	65,182	67,008	68,884	70,813	72,795	74,834	76,929
164 5410006 Comm Svcs-Repair & Maint	-	6,300	6,476	6,658	6,844	7,036	7,233	7,435	7,644	7,858	8,078
165 5420002 Postage	3	10	10	11	11	11	11	12	12	12	13
166 5464000 Repair&Maint-Equipment	2,447	-	-	-	-	-	-	-	-	-	-
167 5470001 Printing and Binding Exp	683	520	535	550	565	581	597	614	631	649	667
168 5480001 Promotional Activities Exp	-	2,280	2,344	2,409	2,477	2,546	2,618	2,691	2,766	2,844	2,923
169 5490001 Othr Current Chgs&Obligat	368	480	493	507	521	536	551	567	582	599	615
170 5490060 Incentives & Awards	2,210	4,350	4,472	4,597	4,726	4,858	4,994	5,134	5,278	5,425	5,577
171 5496501 Intgv Sv-Info Technology	1,490,990	1,737,650	1,786,304	1,836,321	1,887,738	1,940,594	1,994,931	2,050,789	2,108,211	2,167,241	2,227,924
172 5496521 Intgv Sv-Fleet-Op & Maint	2,052	1,560	1,604	1,649	1,695	1,742	1,791	1,841	1,893	1,946	2,000
173 5496551 Intgv Sv-Risk Financing	2,042,610	1,937,120	1,991,359	2,047,117	2,104,437	2,163,361	2,223,935	2,286,205	2,350,219	2,416,025	2,483,674
174 5496901 Intgv Sv-Cost Allocate	2,100,810	2,638,810	2,712,697	2,788,652	2,866,734	2,947,003	3,029,519	3,114,346	3,201,547	3,291,191	3,383,344
175 5510001 Office Supplies Exp	1,619	4,550	4,677	4,808	4,943	5,081	5,224	5,370	5,520	5,675	5,834
176 5520006 Oper. Supplies-Clothing	-	70	72	74	76	78	80	83	85	87	90
177 5520009 Oper. Supplies-Computer	686	1,400	1,439	1,479	1,521	1,564	1,607	1,652	1,699	1,746	1,795
178 5520099 PC Purchases under \$1000	2,872	-	-	-	-	-	-	-	-	-	-
179 5529000 Oper. Supplies-Misc	1,095	-	-	-	-	-	-	-	-	-	-
180 5540001 Bks, Pub, Subscrp&Membrshps	55,127	-	-	-	-	-	-	-	-	-	-
181 5550001 Training and Education Costs	13,744	260	267	275	282	290	298	307	315	324	333
182 5490070 Employee Celebrations & Rec	-	2,860	2,940	3,022	3,107	3,194	3,283	3,375	3,470	3,567	3,667
183 5520098 PC purchases under \$5,000	651	2,800	2,878	2,959	3,042	3,127	3,215	3,305	3,397	3,492	3,590
<b>431240 - Technical Services</b>											
184 5120001 Regular Salaries & Wages	\$ 68,993	\$ 76,690	\$ 79,049	\$ 81,482	\$ 83,992	\$ 86,580	\$ 89,250	\$ 92,002	\$ 94,839	\$ 97,763	\$ 100,778
185 5140001 Overtime Pay	1,662	-	-	-	-	-	-	-	-	-	-
186 5210001 FICA Taxes	5,229	5,750	5,927	6,109	6,297	6,492	6,692	6,898	7,111	7,330	7,556
187 5220001 Retirement Contributions	7,831	9,010	9,287	9,573	9,868	10,172	10,486	10,809	11,142	11,486	11,840
188 5230001 Hlth, Life, Dntl, Std, Ltd	22,521	25,700	26,491	27,306	28,147	29,014	29,909	30,831	31,782	32,762	33,772
189 5299992 Benefits-Contra-Projects	(335)	-	-	-	-	-	-	-	-	-	-
190 5150001 One Time COLA Wage Disburse	-	1,620	1,670	1,721	1,774	1,829	1,885	1,943	2,003	2,065	2,129
<b>O&amp;M Expenses</b>											
191 5349000 Contract Services-Other	\$ 1,236	\$ 27,000	\$ 27,756	\$ 28,533	\$ 29,332	\$ 30,153	\$ 30,998	\$ 31,866	\$ 32,758	\$ 33,675	\$ 34,618
192 5410001 Communication Services	361	-	-	-	-	-	-	-	-	-	-
193 5464000 Repair&Maint-Equipment	1,035	-	-	-	-	-	-	-	-	-	-
194 5529000 Oper. Supplies-Misc	34	40,000	41,120	42,271	43,455	44,672	45,923	47,208	48,530	49,889	51,286
195 5540001 Bks, Pub, Subscrp&Membrshps	-	750	771	793	815	838	861	885	910	935	962
196 5299991 Reg Salary&Wgs-Contra-Prj	(978)	-	-	-	-	-	-	-	-	-	-
<b>431250 - Maintenance North &amp; South</b>											
<b>Personal Services</b>											
197 5110001 Executive Salaries	\$ 51,078	\$ 49,630	\$ 51,157	\$ 52,731	\$ 54,355	\$ 56,030	\$ 57,758	\$ 59,539	\$ 61,375	\$ 63,268	\$ 65,219
198 5120001 Regular Salaries & Wages	1,823,940	2,174,730	2,241,629	2,310,627	2,381,791	2,455,191	2,530,898	2,608,939	2,689,387	2,772,315	2,857,801
199 5140001 Overtime Pay	230,292	188,940	194,752	200,747	206,929	213,306	219,884	226,664	233,653	240,858	248,285
200 5210001 FICA Taxes	152,892	166,100	171,210	176,479	181,915	187,521	193,303	199,264	205,408	211,742	218,271
201 5220001 Retirement Contributions	239,220	270,890	279,223	287,818	296,682	305,825	315,255	324,976	334,997	345,327	355,975
202 5230001 Hlth, Life, Dntl, Std, Ltd	681,267	865,530	892,156	919,616	947,939	977,152	1,007,283	1,038,343	1,070,360	1,103,365	1,137,388
203 5299991 Reg Salary&Wgs-Contra-Prj	(33,371)	-	-	-	-	-	-	-	-	-	-
204 5299992 Benefits-Contra-Projects	(11,102)	-	-	-	-	-	-	-	-	-	-
205 5150001 One Time COLA Wage Disburse	-	54,040	55,702	57,417	59,185	61,009	62,890	64,830	66,829	68,889	71,014
<b>O&amp;M Expenses</b>											
206 5310001 Professional Services	\$ 1,470	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
207 5310033 General Consulting	41,191	19,340	19,882	20,438	21,010	21,599	22,204	22,825	23,464	24,121	24,797
208 5340003 Contract Svcs-Janitorial	9,163	10,780	11,082	11,392	11,711	12,039	12,376	12,723	13,079	13,445	13,822
209 5349000 Contract Services-Other	120,181	50,670	52,089	53,547	55,047	56,588	58,172	59,801	61,476	63,197	64,966
210 5400001 Travel and Per Diem	-	8,460	8,697	8,940	9,191	9,448	9,713	9,985	10,264	10,552	10,847





# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix B – Sewer Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

### Schedule 5

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
211 5400100 Transportation Exp	417	-	-	-	-	-	-	-	-	-	-
212 5400110 Mileage-Out of Town	232	-	-	-	-	-	-	-	-	-	-
213 5400200 Meals/Per Diem	754	-	-	-	-	-	-	-	-	-	-
214 5400205 Meals-Taxable	47	-	-	-	-	-	-	-	-	-	-
215 5400300 Hotels/Motels/Lodging	2,835	-	-	-	-	-	-	-	-	-	-
216 5400900 Travel-Other	791	-	-	-	-	-	-	-	-	-	-
217 5410001 Communication Services	5,700	7,760	7,977	8,201	8,430	8,666	8,909	9,158	9,415	9,678	9,949
218 5420001 Freight	307	350	360	370	380	391	402	413	425	437	449
219 5420002 Postage	87	200	206	211	217	223	230	236	243	249	256
220 5431100 Util Svc-Elec-Generl-Power	33,375	50,414	51,826	53,277	54,768	56,302	57,878	59,499	61,165	62,878	64,638
221 5433000 Util Svc-County Water&Swr	5,839	4,930	5,068	5,210	5,356	5,506	5,660	5,818	5,981	6,149	6,321
222 5439000 Utility Svc-Miscellaneous	52,093	15,980	16,427	16,887	17,360	17,846	18,346	18,860	19,388	19,931	20,489
223 5440001 Rentals and Leases	531	2,070	2,128	2,188	2,249	2,312	2,376	2,443	2,511	2,582	2,654
224 5460001 Repair&Maintenance Svcs	29,548	13,170	13,539	13,918	14,308	14,708	15,120	15,543	15,979	16,426	16,886
225 5461000 Repair&Maint-Grounds	41,508	20,920	21,506	22,108	22,727	23,363	24,017	24,690	25,381	26,092	26,823
226 5462000 Repair&Maint-Buildings	59,439	43,950	45,181	46,446	47,746	49,083	50,457	51,870	53,323	54,816	56,350
227 5463000 Repair&Maint-Wtr/Swr Line	1,749,863	2,700,000	2,775,600	2,853,317	2,933,210	3,015,340	3,099,769	3,186,563	3,275,786	3,367,508	3,461,799
228 5464000 Repair&Maint-Equipment	83,265	92,210	94,792	97,446	100,175	102,979	105,863	108,827	111,874	115,007	118,227
229 5470001 Printing and Binding Exp	342	710	730	750	771	793	815	838	861	886	910
230 5490001 Othr Current Chgs&Obligat	71	1,250	1,285	1,321	1,358	1,396	1,435	1,475	1,517	1,559	1,603
231 5490060 Incentives & Awards	52	470	483	497	511	525	540	555	570	586	603
232 5496521 Intgv Sv-Fleet-Op & Maint	481,326	497,890	511,831	526,162	540,895	556,040	571,609	587,614	604,067	620,981	638,368
233 5510001 Office Supplies Exp	5,359	13,080	13,446	13,823	14,210	14,608	15,017	15,437	15,869	16,314	16,770
234 5520005 Small Tools,Supp&Allow.	22,373	78,570	80,770	83,032	85,356	87,746	90,203	92,729	95,325	97,994	100,738
235 5520006 Oper. Supplies-Clothing	13,327	10,290	10,578	10,874	11,179	11,492	11,814	12,144	12,484	12,834	13,193
236 5520009 Oper. Supplies-Computer	395	970	997	1,025	1,054	1,083	1,114	1,145	1,177	1,210	1,244
237 5520098 PC purchases under \$5,000	28,442	30,870	31,734	32,623	33,536	34,475	35,441	36,433	37,453	38,502	39,580
238 5520099 PC Purchases under \$1000	2,275	-	-	-	-	-	-	-	-	-	-
239 5529000 Oper. Supplies-Misc	706,150	568,700	584,624	600,993	617,821	635,120	652,903	671,184	689,978	709,297	729,157
240 5540001 Bks, Pub, Subscrp&Membshps	1,770	1,320	1,357	1,395	1,434	1,474	1,515	1,558	1,601	1,646	1,692
241 5550001 Training and Education Costs	14,788	13,390	13,765	14,150	14,547	14,954	15,373	15,803	16,245	16,700	17,168
242 5529000 Oper. Supplies-Misc	879	-	-	-	-	-	-	-	-	-	-
<b>Capital Outlay</b>											
243 5640001 Machinery And Equipment	\$ 69,702	\$ 144,010	\$ 148,042	\$ 152,187	\$ 156,449	\$ 160,829	\$ 165,332	\$ 169,962	\$ 174,721	\$ 179,613	\$ 184,642
244 5640300 Equip-Vehicle&Heavy Equip	1,706,434	2,178,300	2,239,292	2,301,993	2,366,448	2,432,709	2,500,825	2,570,848	2,642,832	2,716,831	2,792,902
<b>431330 - Supervisory Control and Data Acquisition (SCADA)</b>											
<b>Personal Services</b>											
245 5110001 Executive Salaries	\$ 163,628	\$ 167,080	\$ 172,220	\$ 177,521	\$ 182,988	\$ 188,627	\$ 194,444	\$ 200,439	\$ 206,620	\$ 212,991	\$ 219,559
246 5120001 Regular Salaries & Wages	186,857	167,170	172,313	177,616	183,087	188,729	194,548	200,547	206,731	213,106	219,677
247 5140001 Overtime Pay	11,036	5,000	5,154	5,312	5,476	5,645	5,819	5,998	6,183	6,374	6,570
248 5210001 FICA Taxes	26,723	25,210	25,986	26,785	27,610	28,461	29,339	30,243	31,176	32,137	33,128
249 5220001 Retirement Contributions	40,064	39,520	40,736	41,990	43,283	44,617	45,992	47,411	48,873	50,380	51,933
250 5230001 Hlth, Life, Dntl, Std, Ltd	74,581	80,430	82,904	85,456	88,088	90,803	93,602	96,489	99,464	102,531	105,693
251 5299991 Reg Salary&Wgs-Contra-Prt	(6,372)	-	-	-	-	-	-	-	-	-	-
252 5299992 Benefits-Contra-Projects	(1,954)	-	-	-	-	-	-	-	-	-	-
253 5150001 One Time COLA Wage Disburse	-	5,040	5,195	5,355	5,520	5,690	5,865	6,046	6,233	6,425	6,623
<b>O&amp;M Expenses</b>											
254 5310033 General Consulting	\$ -	\$ 150,000	\$ 154,200	\$ 158,518	\$ 162,956	\$ 167,519	\$ 172,209	\$ 177,031	\$ 181,988	\$ 187,084	\$ 192,322
255 5349000 Contract Services-Other	50,807	162,000	166,536	171,199	175,993	180,920	185,986	191,194	196,547	202,051	207,708
256 5400001 Travel and Per Diem	-	2,520	2,591	2,663	2,738	2,814	2,893	2,974	3,057	3,143	3,231
257 5400100 Transportation Exp	872	-	-	-	-	-	-	-	-	-	-
258 5400300 Hotels/Motels/Lodging	371	-	-	-	-	-	-	-	-	-	-
259 5400900 Travel-Other	6	-	-	-	-	-	-	-	-	-	-
260 5410001 Communication Services	30,649	27,590	28,363	29,157	29,973	30,812	31,675	32,562	33,474	34,411	35,374
261 5464000 Repair&Maint-Equipment	174,689	167,820	172,519	177,349	182,315	187,420	192,668	198,063	203,608	209,309	215,170
262 5496521 Intgv Sv-Fleet-Op & Maint	4,151	4,250	4,369	4,491	4,617	4,746	4,879	5,016	5,156	5,301	5,449
263 5510001 Office Supplies Exp	346	120	123	127	130	134	138	142	146	150	154
264 5520001 Operating Supplies Exp	16,141	-	-	-	-	-	-	-	-	-	-



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix B – Sewer Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

Schedule 5

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
265 5520005 Small Tools, Supp&Allow.	449	-	-	-	-	-	-	-	-	-	-
266 5520009 Oper. Supplies-Computer	35,755	720	740	761	782	804	827	850	874	898	923
267 5520098 PC purchases under \$5,000	43,022	18,000	18,504	19,022	19,555	20,102	20,665	21,244	21,839	22,450	23,079
268 5520099 PC Purchases under \$1000	1,552	-	-	-	-	-	-	-	-	-	-
269 5529000 Oper. Supplies-Misc	10,099	1,200	1,234	1,268	1,304	1,340	1,378	1,416	1,456	1,497	1,539
270 5550001 Training and Education Costs	3,027	4,680	4,811	4,946	5,084	5,227	5,373	5,523	5,678	5,837	6,000
271 5400200 Meals/Per Diem	335	-	-	-	-	-	-	-	-	-	-
272 5400110 Mileage-Out of Town	146	-	-	-	-	-	-	-	-	-	-
<b>Capital Outlay</b>											
273 5640001 Machinery And Equipment	\$ 14,862	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>431335 - Utilities Data Management</b>											
<b>Personal Services</b>											
274 5110001 Executive Salaries	\$ -	\$ 159,400	\$ 164,303	\$ 169,361	\$ 174,577	\$ 179,957	\$ 185,506	\$ 191,226	\$ 197,123	\$ 203,201	\$ 209,467
275 5120001 Regular Salaries & Wages	-	73,670	75,936	78,274	80,684	83,171	85,735	88,379	91,104	93,913	96,809
276 5140001 Overtime Pay	-	1,500	1,546	1,594	1,643	1,693	1,746	1,799	1,855	1,912	1,971
277 5150001 One Time COLA Wage Disburse	-	3,600	3,711	3,825	3,943	4,064	4,190	4,319	4,452	4,589	4,731
278 5210001 FICA Taxes	-	17,510	18,049	18,604	19,177	19,768	20,378	21,006	21,654	22,322	23,010
279 5220001 Retirement Contributions	-	27,540	28,387	29,261	30,162	31,092	32,050	33,039	34,057	35,108	36,190
280 5230001 Hlth,Life,Dntl,Std,Ltd	-	57,420	59,186	61,008	62,887	64,825	66,824	68,885	71,009	73,198	75,455
281 5299992 Benefits-Contra-Projects	(372)	-	-	-	-	-	-	-	-	-	-
<b>O&amp;M Expenses</b>											
282 5310033 General Consulting	\$ -	\$ 124,730	\$ 128,222	\$ 131,813	\$ 135,503	\$ 139,298	\$ 143,198	\$ 147,207	\$ 151,329	\$ 155,566	\$ 159,922
283 5349000 Contract Services-Other	-	8,080	8,306	8,539	8,778	9,024	9,276	9,536	9,803	10,078	10,360
284 5400001 Travel and Per Diem	-	10,200	10,486	10,779	11,081	11,391	11,710	12,038	12,375	12,722	13,078
285 5410001 Communication Services	-	360	370	380	391	402	413	425	437	449	462
286 5510001 Office Supplies Exp	-	400	411	423	435	447	459	472	485	499	513
287 5520006 Oper. Supplies-Clothing	-	150	154	159	163	168	172	177	182	187	192
288 5520009 Oper. Supplies-Computer	-	1,130	1,162	1,194	1,228	1,262	1,297	1,334	1,371	1,409	1,449
289 5529000 Oper. Supplies-Misc	-	1,600	1,645	1,691	1,738	1,787	1,837	1,888	1,941	1,996	2,051
290 5540001 Bks, Pub, Subscrp&Membshps	-	740	761	782	804	826	850	873	898	923	949
291 5550001 Training and Education Cost	-	15,040	15,461	15,894	16,339	16,797	17,267	17,750	18,247	18,758	19,284
<b>Capital Outlay</b>											
292 5640001 Machinery And Equipment	\$ -	\$ 9,650	\$ 9,920	\$ 10,198	\$ 10,484	\$ 10,777	\$ 11,079	\$ 11,389	\$ 11,708	\$ 12,036	\$ 12,373
<b>431340 - Water Quality - Laboratory</b>											
<b>Personal Services</b>											
293 5110001 Executive Salaries	\$ 196,891	\$ 200,580	\$ 206,750	\$ 213,114	\$ 219,678	\$ 226,448	\$ 233,430	\$ 240,628	\$ 248,048	\$ 255,697	\$ 263,581
294 5120001 Regular Salaries & Wages	677,048	698,480	719,967	742,128	764,984	788,558	812,874	837,939	863,778	890,412	917,869
295 5140001 Overtime Pay	18,731	17,000	17,523	18,062	18,619	19,192	19,784	20,394	21,023	21,671	22,340
296 5210001 FICA Taxes	66,247	67,660	69,741	71,888	74,102	76,386	78,741	81,169	83,672	86,252	88,912
297 5220001 Retirement Contributions	112,531	118,830	122,485	126,256	130,144	134,155	138,291	142,556	146,952	151,483	156,154
298 5230001 Hlth,Life,Dntl,Std,Ltd	224,275	241,690	249,125	256,793	264,702	272,859	281,273	289,946	298,887	308,103	317,604
299 5299991 Reg Salary&Wgs-Contra-Prj	(4,461)	-	-	-	-	-	-	-	-	-	-
300 5299992 Benefits-Contra-Projects	(1,473)	-	-	-	-	-	-	-	-	-	-
301 5150001 One Time COLA Wage Disburse	-	15,060	15,523	16,001	16,494	17,002	17,526	18,067	18,624	19,198	19,790
<b>O&amp;M Expenses</b>											
302 5310033 General Consulting	\$ -	\$ 540	\$ 555	\$ 571	\$ 587	\$ 603	\$ 620	\$ 637	\$ 655	\$ 674	\$ 692
303 5340003 Contract Svcs-Janitorial	4,950	3,600	3,701	3,804	3,911	4,020	4,133	4,249	4,368	4,490	4,616
304 5349000 Contract Services-Other	19,992	41,310	42,467	43,656	44,878	46,135	47,426	48,754	50,120	51,523	52,966
305 5400001 Travel and Per Diem	-	5,440	5,592	5,749	5,910	6,075	6,245	6,420	6,600	6,785	6,975
306 5400110 Mileage-Out of Town	197	-	-	-	-	-	-	-	-	-	-
307 5400200 Meals/Per Diem	1,127	-	-	-	-	-	-	-	-	-	-
308 5400300 Hotels/Motels/Lodging	2,726	-	-	-	-	-	-	-	-	-	-
309 5400900 Travel-Other	102	-	-	-	-	-	-	-	-	-	-
310 5410001 Communication Services	198	560	576	592	608	625	643	661	679	698	718
311 5420001 Freight	-	240	247	254	261	268	276	283	291	299	308
312 5420002 Postage	103	30	31	32	33	34	34	35	36	37	38



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
313 5431100 Util Svc-Elec-Generl-Power	98,386	176,267	181,202	186,276	191,492	196,854	202,366	208,032	213,857	219,845	226,000
314 5433000 Util Svc-County Water&Swr	1,286	1,360	1,398	1,437	1,477	1,519	1,561	1,605	1,650	1,696	1,744
315 5440001 Rentals and Leases	30,007	4,180	4,297	4,417	4,541	4,668	4,799	4,933	5,071	5,213	5,359
316 5462000 Repair&Maint-Buildings	2,765	7,480	7,689	7,905	8,126	8,354	8,588	8,828	9,075	9,329	9,590
317 5464000 Repair&Maint-Equipment	112,368	112,320	115,465	118,698	122,022	125,438	128,950	132,561	136,273	140,088	144,011
318 5470001 Printing and Binding Exp	4	30	31	32	33	34	34	35	36	37	38
319 5490001 Othr Current Chgs&Obligat	1,904	9,450	9,715	9,987	10,266	10,554	10,849	11,153	11,465	11,786	12,116
320 5496521 Intgv Sv-Fleet-Op & Maint	577	-	-	-	-	-	-	-	-	-	-
321 5510001 Office Supplies Exp	1,765	2,850	2,930	3,012	3,096	3,183	3,272	3,364	3,458	3,555	3,654
322 5520099 PC Purchases under \$1000	984	-	-	-	-	-	-	-	-	-	-
323 5529000 Oper. Supplies-Misc	163,473	164,490	169,096	173,830	178,698	183,701	188,845	194,132	199,568	205,156	210,900
324 5540001 Bks, Pub, Subscrp&Membrshps	496	520	535	550	565	581	597	614	631	649	667
325 5550001 Training and Education Costs	6,157	4,090	4,205	4,322	4,443	4,568	4,696	4,827	4,962	5,101	5,244
326 5400100 Transportation Exp	1,348	-	-	-	-	-	-	-	-	-	-
327 5400105 Mileage-Local	54	-	-	-	-	-	-	-	-	-	-
328 5480001 Promotional Activities Exp	-	200	206	211	217	223	230	236	243	249	256
329 5490060 Incentives & Awards	-	210	216	222	228	235	241	248	255	262	269
330 5520098 PC purchases under \$5,000	1,264	15,300	15,728	16,169	16,622	17,087	17,565	18,057	18,563	19,083	19,617
<b>Capital Outlay</b>											
331 5640001 Machinery And Equipment	\$ 22,029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>431350 - Water Quality - Monitoring</b>											
<b>Personal Services</b>											
332 5110001 Executive Salaries	\$ 191,910	\$ 183,690	\$ 189,341	\$ 195,169	\$ 201,180	\$ 207,379	\$ 213,774	\$ 220,366	\$ 227,161	\$ 234,165	\$ 241,386
333 5120001 Regular Salaries & Wages	382,126	572,740	590,359	608,530	627,272	646,603	666,541	687,094	708,281	730,121	752,634
334 5140001 Overtime Pay	18,244	22,000	22,677	23,375	24,095	24,837	25,603	26,393	27,206	28,045	28,910
335 5210001 FICA Taxes	43,432	56,720	58,465	60,264	62,120	64,035	66,009	68,045	70,143	72,306	74,535
336 5220001 Retirement Contributions	67,821	92,100	94,933	97,855	100,869	103,978	107,184	110,489	113,896	117,408	121,028
337 5230001 Hlth, Life, Dntl, Std, Ltd	162,316	240,160	247,548	255,167	263,026	271,132	279,492	288,111	296,995	306,153	315,593
338 5299989 Rg Sal&Wges-Contra-Prj-Bur	(897)	-	-	-	-	-	-	-	-	-	-
339 5299991 Reg Salary&Wgs-Contra-Prj	(19,610)	-	-	-	-	-	-	-	-	-	-
340 5299992 Benefits-Contra-Projects	(8,244)	-	-	-	-	-	-	-	-	-	-
341 5150001 One Time COLA Wage Disburse	-	14,880	15,338	15,810	16,297	16,799	17,317	17,851	18,401	18,969	19,554
<b>O&amp;M Expenses</b>											
342 5310033 General Consulting	\$ -	\$ 155,280	\$ 159,628	\$ 164,097	\$ 168,692	\$ 173,416	\$ 178,271	\$ 183,263	\$ 188,394	\$ 193,669	\$ 199,092
343 5340003 Contract Svcs-Janitorial	3,056	3,020	3,105	3,191	3,281	3,373	3,467	3,564	3,664	3,767	3,872
344 5349000 Contract Services-Other	15,561	555,020	570,561	586,536	602,959	619,842	637,198	655,039	673,380	692,235	711,618
345 5399989 Op Exp-Contra-Prj-Burdng	(1,086)	-	-	-	-	-	-	-	-	-	-
346 5400001 Travel and Per Diem	-	10,290	10,578	10,874	11,179	11,492	11,814	12,144	12,484	12,834	13,193
347 5400100 Transportation Exp	1,382	-	-	-	-	-	-	-	-	-	-
348 5400105 Mileage-Local	39	-	-	-	-	-	-	-	-	-	-
349 5400110 Mileage-Out of Town	282	-	-	-	-	-	-	-	-	-	-
350 5400200 Meals/Per Diem	1,736	-	-	-	-	-	-	-	-	-	-
351 5400300 Hotels/Motels/Lodging	4,858	-	-	-	-	-	-	-	-	-	-
352 5400900 Travel-Other	209	-	-	-	-	-	-	-	-	-	-
353 5410001 Communication Services	1,470	1,500	1,542	1,585	1,630	1,675	1,722	1,770	1,820	1,871	1,923
354 5420001 Freight	59	480	493	507	521	536	551	567	582	599	615
355 5420002 Postage	306	800	822	845	869	893	918	944	971	998	1,026
356 5440001 Rentals and Leases	1,114	1,440	1,480	1,522	1,564	1,608	1,653	1,700	1,747	1,796	1,846
357 5461000 Repair&Maint-Grounds	10,336	10,400	10,691	10,991	11,298	11,615	11,940	12,274	12,618	12,971	13,334
358 5462000 Repair&Maint-Buildings	1,597	6,920	7,114	7,313	7,518	7,728	7,945	8,167	8,396	8,631	8,872
359 5464000 Repair&Maint-Equipment	23,822	38,050	39,115	40,211	41,337	42,494	43,684	44,907	46,164	47,457	48,786
360 5470001 Printing and Binding Exp	234	400	411	423	435	447	459	472	485	499	513
361 5480001 Promotional Activities Exp	-	560	576	592	608	625	643	661	679	698	718
362 5490001 Othr Current Chgs&Obligat	-	200	206	211	217	223	230	236	243	249	256
363 5496521 Intgv Sv-Fleet-Op & Maint	27,607	23,940	24,610	25,299	26,008	26,736	27,485	28,254	29,045	29,859	30,695
364 5510001 Office Supplies Exp	1,040	1,200	1,234	1,268	1,304	1,340	1,378	1,416	1,456	1,497	1,539
365 5520002 Oper. Supplies-Fuel&Lub	18	-	-	-	-	-	-	-	-	-	-
366 5520005 Small Tools, Supp&Allow.	884	1,440	1,480	1,522	1,564	1,608	1,653	1,700	1,747	1,796	1,846
367 5520006 Oper. Supplies-Clothing	1,523	2,600	2,673	2,748	2,825	2,904	2,985	3,069	3,154	3,243	3,334



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix B – Sewer Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

Schedule 5

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
368 5520009 Oper. Supplies-Computer	184	1,000	1,028	1,057	1,086	1,117	1,148	1,180	1,213	1,247	1,282
369 5520098 PC purchases under \$5,000	13,377	4,000	4,112	4,227	4,345	4,467	4,592	4,721	4,853	4,989	5,129
370 5520099 PC Purchases under \$1000	2,086	-	-	-	-	-	-	-	-	-	-
371 5529000 Oper. Supplies-Misc	23,765	33,800	34,746	35,719	36,719	37,748	38,805	39,891	41,008	42,156	43,337
372 5540001 Bks, Pub, Subscrp&Membrshps	88	100	103	106	109	112	115	118	121	125	128
373 5550001 Training and Education Costs	2,896	4,230	4,348	4,470	4,595	4,724	4,856	4,992	5,132	5,276	5,423
374 5490060 Incentives & Awards	-	120	123	127	130	134	138	142	146	150	154
375 5550000 Training	-	680	699	719	739	759	781	803	825	848	872
<b>Capital Outlay</b>											
376 5640001 Machinery And Equipment	\$ -	\$ 70,000	\$ 71,960	\$ 73,975	\$ 76,046	\$ 78,175	\$ 80,364	\$ 82,615	\$ 84,928	\$ 87,306	\$ 89,750
<b>431360 - South Operations (South Cross)</b>											
<b>Personal Services</b>											
377 5110001 Executive Salaries	\$ 239,383	\$ 265,430	\$ 273,595	\$ 282,017	\$ 290,702	\$ 299,661	\$ 308,901	\$ 318,426	\$ 328,245	\$ 338,366	\$ 348,800
378 5120001 Regular Salaries & Wages	2,402,652	2,842,210	2,929,642	3,019,818	3,112,824	3,208,752	3,307,695	3,409,689	3,514,828	3,623,209	3,734,933
379 5140001 Overtime Pay	409,361	360,000	371,074	382,496	394,276	406,427	418,959	431,878	445,195	458,923	473,074
380 5210001 FICA Taxes	224,310	232,900	240,065	247,454	255,075	262,936	271,043	279,401	288,017	296,898	306,053
381 5220001 Retirement Contributions	355,839	371,630	383,062	394,853	407,014	419,557	432,494	445,830	459,577	473,749	488,357
382 5230001 Hlth, Life, Dntl, Std, Ltd	748,944	1,009,410	1,040,462	1,072,487	1,105,518	1,139,587	1,174,727	1,210,950	1,248,290	1,286,782	1,326,460
383 5299991 Reg Salary&Wgs-Contra-Prj	(37,959)	-	-	-	-	-	-	-	-	-	-
384 5299992 Benefits-Contra-Projects	(11,149)	-	-	-	-	-	-	-	-	-	-
385 5150001 One Time COLA Wage Disburse	-	63,600	65,556	67,574	69,656	71,802	74,016	76,298	78,651	81,076	83,576
<b>O&amp;M Expenses</b>											
386 5310033 General Consulting	\$ 172,589	\$ 69,000	\$ 70,932	\$ 72,918	\$ 74,960	\$ 77,059	\$ 79,216	\$ 81,434	\$ 83,715	\$ 86,059	\$ 88,468
387 5340003 Contract Svcs-Janitorial	55,545	84,100	86,455	88,876	91,364	93,922	96,552	99,256	102,035	104,892	107,829
388 5340005 Sludge Recycling	1,234,669	1,300,000	1,336,400	1,373,819	1,412,286	1,451,830	1,492,481	1,534,271	1,577,230	1,621,393	1,666,792
389 5349000 Contract Services-Other	760,820	867,600	891,893	916,866	942,538	968,929	996,059	1,023,949	1,052,619	1,082,093	1,112,391
390 5400001 Travel and Per Diem	-	12,000	12,336	12,681	13,036	13,402	13,777	14,163	14,559	14,967	15,386
391 5400100 Transportation Exp	4,824	-	-	-	-	-	-	-	-	-	-
392 5400105 Mileage-Local	47	-	-	-	-	-	-	-	-	-	-
393 5400110 Mileage-Out of Town	271	-	-	-	-	-	-	-	-	-	-
394 5400200 Meals/Per Diem	1,759	-	-	-	-	-	-	-	-	-	-
395 5400300 Hotels/Motels/Lodging	6,443	-	-	-	-	-	-	-	-	-	-
396 5400900 Travel-Other	313	-	-	-	-	-	-	-	-	-	-
397 5410001 Communication Services	5,484	7,200	7,402	7,609	7,822	8,041	8,266	8,498	8,735	8,980	9,231
398 5420001 Freight	11,088	3,700	3,804	3,910	4,020	4,132	4,248	4,367	4,489	4,615	4,744
399 5420002 Postage	73	250	257	264	272	279	287	295	303	312	321
400 5431100 Util Svc-Elec-Generl-Power	2,804,405	3,640,000	3,741,920	3,846,694	3,954,401	4,065,124	4,178,948	4,295,958	4,416,245	4,539,900	4,667,017
401 5432000 Util Svc-Municipal Wtr&Swr	29,311	37,000	38,036	39,101	40,196	41,321	42,478	43,668	44,890	46,147	47,439
402 5433000 Util Svc-County Water&Swr	80,116	84,000	86,352	88,770	91,255	93,811	96,437	99,138	101,913	104,767	107,700
403 5439000 Utility Svc-Miscellaneous	561,009	550,000	565,400	581,231	597,506	614,236	631,434	649,115	667,290	685,974	705,181
404 5440001 Rentals and Leases	12,923	108,800	111,846	114,978	118,197	121,507	124,909	128,407	132,002	135,698	139,498
405 5461000 Repair&Maint-Grounds	176,364	199,500	205,086	210,828	216,732	222,800	229,038	235,452	242,044	248,821	255,788
406 5462000 Repair&Maint-Buildings	130,826	285,000	292,980	301,183	309,617	318,286	327,198	336,359	345,777	355,459	365,412
407 5463000 Repair&Maint-Wtr&Swr Line	24,259	-	-	-	-	-	-	-	-	-	-
408 5464000 Repair&Maint-Equipment	789,998	1,271,200	1,306,794	1,343,384	1,380,999	1,419,667	1,459,417	1,500,281	1,542,289	1,585,473	1,629,866
409 5470001 Printing and Binding Exp	1,312	3,000	3,084	3,170	3,259	3,350	3,444	3,541	3,640	3,742	3,846
410 5490001 Othr Current Chgs&Obligat	13,687	9,850	10,126	10,409	10,701	11,000	11,308	11,625	11,951	12,285	12,629
411 5490060 Incentives & Awards	1,256	-	-	-	-	-	-	-	-	-	-
412 5496521 Intgv Sv-Fleet-Op & Maint	520,423	636,880	654,713	673,045	691,890	711,263	731,178	751,651	772,697	794,333	816,574
413 5510001 Office Supplies Exp	7,845	16,000	16,448	16,909	17,382	17,869	18,369	18,883	19,412	19,956	20,514
414 5520001 Operating Supplies Exp	6,637	-	-	-	-	-	-	-	-	-	-
415 5520003 Oper. Supplies-Chemicals	2,920,860	3,831,200	3,938,474	4,048,751	4,162,116	4,278,655	4,398,457	4,521,614	4,648,219	4,778,370	4,912,164
416 5520005 Small Tools, Supp&Allow.	8,987	48,000	49,344	50,726	52,146	53,606	55,107	56,650	58,236	59,867	61,543
417 5520006 Oper. Supplies-Clothing	13,335	17,500	17,990	18,494	19,012	19,544	20,091	20,654	21,232	21,826	22,438
418 5520009 Oper. Supplies-Computer	758	8,000	8,224	8,454	8,691	8,934	9,185	9,442	9,706	9,978	10,257
419 5520098 PC purchases under \$5,000	21,645	30,000	30,840	31,704	32,591	33,504	34,442	35,406	36,398	37,417	38,464
420 5520099 PC Purchases under \$1000	2,691	-	-	-	-	-	-	-	-	-	-
421 5529000 Oper. Supplies-Misc	990,606	1,454,000	1,494,712	1,536,564	1,579,588	1,623,816	1,669,283	1,716,023	1,764,072	1,813,466	1,864,243
422 5540001 Bks, Pub, Subscrp&Membrshps	2,806	3,000	3,084	3,170	3,259	3,350	3,444	3,541	3,640	3,742	3,846



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix B – Sewer Fund Revenue Sufficiency Analysis

### Projection of Cash Outflows

### Schedule 5

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
423 5550001 Training and Education Costs	13,023	40,000	41,120	42,271	43,455	44,672	45,923	47,208	48,530	49,889	51,286
424 5480001 Promotional Activities Exp	3,858	4,000	4,112	4,227	4,345	4,467	4,592	4,721	4,853	4,989	5,129
<b>Capital Outlay</b>											
425 5640001 Machinery And Equipment	\$ 142,014	\$ 38,200	\$ 39,270	\$ 40,369	\$ 41,499	\$ 42,661	\$ 43,856	\$ 45,084	\$ 46,346	\$ 47,644	\$ 48,978
426 5640300 Equip-Vehicle&Heavy Equip	156,977	271,700	279,308	287,128	295,168	303,433	311,929	320,663	329,641	338,871	348,360
<b>431370 - Water &amp; Sewer Code Enforcement</b>											
<b>Personal Services</b>											
427 5120001 Regular Salaries & Wages	\$ 13,351	\$ 25,290	\$ 26,068	\$ 26,870	\$ 27,698	\$ 28,551	\$ 29,432	\$ 30,339	\$ 31,275	\$ 32,239	\$ 33,233
428 5140001 Overtime Pay	431	1,020	1,051	1,084	1,117	1,152	1,187	1,224	1,261	1,300	1,340
429 5210001 FICA Taxes	1,030	1,880	1,938	1,997	2,059	2,122	2,188	2,255	2,325	2,397	2,470
430 5220001 Retirement Contributions	1,516	2,960	3,051	3,145	3,242	3,342	3,445	3,551	3,660	3,773	3,890
431 5230001 Hlth,Life,Dntl,Std,Ltd	5,009	9,710	10,009	10,317	10,635	10,962	11,300	11,649	12,008	12,378	12,760
432 5299991 Reg Salary&Wgs-Contra-Prj	(141)	-	-	-	-	-	-	-	-	-	-
433 5299992 Benefits-Contra-Projects	(53)	-	-	-	-	-	-	-	-	-	-
434 5150001 One Time COLA Wage Disburse	-	600	618	637	657	677	698	720	742	765	788
<b>O&amp;M Expenses</b>											
435 5349000 Contract Services-Other	\$ 969	\$ 3,120	\$ 3,207	\$ 3,297	\$ 3,389	\$ 3,484	\$ 3,582	\$ 3,682	\$ 3,785	\$ 3,891	\$ 4,000
436 5400001 Travel and Per Diem	-	850	874	898	923	949	976	1,003	1,031	1,060	1,090
437 5410001 Communication Services	164	170	175	180	185	190	195	201	206	212	218
438 5420001 Freight	-	10	10	11	11	11	11	12	12	12	13
439 5420002 Postage	109	230	236	243	250	257	264	271	279	287	295
440 5470001 Printing and Binding Exp	45	270	278	285	293	302	310	319	328	337	346
441 5480001 Promotional Activities Exp	7	1,020	1,049	1,078	1,108	1,139	1,171	1,204	1,238	1,272	1,308
442 5496521 Intgv Sv-Fleet-Op & Maint	1,819	-	-	-	-	-	-	-	-	-	-
443 5510001 Office Supplies Exp	15	50	51	53	54	56	57	59	61	62	64
444 5520006 Oper. Supplies-Clothing	19	50	51	53	54	56	57	59	61	62	64
445 5520099 PC Purchases under \$1000	24	-	-	-	-	-	-	-	-	-	-
446 5529000 Oper. Supplies-Misc	171	170	175	180	185	190	195	201	206	212	218
447 5540001 Bks,Pub,Subscrp&Membrshps	(32)	-	-	-	-	-	-	-	-	-	-
448 5550001 Training and Education Costs	346	780	802	824	847	871	895	921	946	973	1,000
449 5520001 Operating Supplies Exp	-	70	72	74	76	78	80	83	85	87	90
450 5520098 PC purchases under \$5,000	145	570	586	602	619	637	654	673	692	711	731
<b>435110 - Wholesale Wastewater</b>											
<b>O&amp;M Expenses</b>											
451 5340006 Swr Svcs-Treatment Charge	\$ 1,438,403	\$ 1,789,000	\$ 1,839,092	\$ 1,890,587	\$ 1,943,523	\$ 1,997,942	\$ 2,053,884	\$ 2,111,393	\$ 2,170,512	\$ 2,231,286	\$ 2,293,762
<b>435120 - North Operations (Dunn)</b>											
<b>Personal Services</b>											
452 5110001 Executive Salaries	\$ 62,252	\$ 101,290	\$ 104,406	\$ 107,620	\$ 110,934	\$ 114,353	\$ 117,879	\$ 121,514	\$ 125,261	\$ 129,123	\$ 133,105
453 5120001 Regular Salaries & Wages	1,298,846	1,487,970	1,533,743	1,580,952	1,629,643	1,679,864	1,731,663	1,785,060	1,840,103	1,896,843	1,955,333
454 5140001 Overtime Pay	167,224	120,000	123,691	127,499	131,425	135,476	139,653	143,959	148,398	152,974	157,691
455 5210001 FICA Taxes	111,602	119,160	122,826	126,606	130,506	134,527	138,676	142,952	147,360	151,903	156,588
456 5220001 Retirement Contributions	174,874	189,220	195,041	201,044	207,236	213,622	220,210	227,000	234,000	241,215	248,653
457 5230001 Hlth,Life,Dntl,Std,Ltd	386,029	514,270	530,090	546,406	563,235	580,592	598,495	616,950	635,974	655,584	675,799
458 5299991 Reg Salary&Wgs-Contra-Prj	(22,807)	-	-	-	-	-	-	-	-	-	-
459 5299992 Benefits-Contra-Projects	(7,179)	-	-	-	-	-	-	-	-	-	-
460 5150001 One Time COLA Wage Disburse	-	32,400	33,397	34,425	35,485	36,578	37,706	38,869	40,068	41,303	42,577
<b>O&amp;M Expenses</b>											
461 5310033 General Consulting	\$ -	\$ 7,000	\$ 7,196	\$ 7,397	\$ 7,605	\$ 7,818	\$ 8,036	\$ 8,261	\$ 8,493	\$ 8,731	\$ 8,975
462 5340003 Contract Svcs-Janitorial	19,425	59,600	61,269	62,984	64,748	66,561	68,425	70,340	72,310	74,335	76,416
463 5340005 Sludge Recycling	616,032	495,000	508,860	523,108	537,755	552,812	568,291	584,203	600,561	617,377	634,663
464 5349000 Contract Services-Other	294,692	407,980	419,403	431,147	443,219	455,629	468,387	481,501	494,983	508,843	523,091
465 5400001 Travel and Per Diem	-	6,250	6,425	6,605	6,790	6,980	7,175	7,376	7,583	7,795	8,013
466 5400100 Transportation Exp	968	-	-	-	-	-	-	-	-	-	-
467 5400105 Mileage-Local	32	-	-	-	-	-	-	-	-	-	-
468 5400110 Mileage-Out of Town	199	-	-	-	-	-	-	-	-	-	-
469 5400200 Meals/Per Diem	296	-	-	-	-	-	-	-	-	-	-



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>FUND 4051 - SEWER OPERATING</b>											
470 5400300 Hotels/Motels/Lodging	3,030	-	-	-	-	-	-	-	-	-	-
471 5400900 Travel-Other	52	-	-	-	-	-	-	-	-	-	-
472 5410001 Communication Services	2,715	3,500	3,598	3,699	3,802	3,909	4,018	4,131	4,246	4,365	4,488
473 5420001 Freight	9,690	11,000	11,308	11,625	11,950	12,285	12,629	12,982	13,346	13,719	14,104
474 5420002 Postage	373	80	82	85	87	89	92	94	97	100	103
475 5431100 Util Svc-Elec-Generl-Power	1,135,651	1,539,200	1,582,298	1,626,602	1,672,147	1,718,967	1,767,098	1,816,577	1,867,441	1,919,729	1,973,482
476 5432000 Util Svc-Municipal Wtr&Swr	773	700	720	740	760	782	804	826	849	873	898
477 5433000 Util Svc-County Water&Swr	22,618	24,000	24,672	25,363	26,073	26,803	27,554	28,325	29,118	29,933	30,772
478 5439000 Utility Svc-Miscellaneous	152,496	110,550	113,645	116,827	120,099	123,461	126,918	130,472	134,125	137,881	141,741
479 5440001 Rentals and Leases	75,296	140,200	144,126	148,161	152,310	156,574	160,958	165,465	170,098	174,861	179,757
480 5461000 Repair&Maint-Grounds	170,594	151,000	155,228	159,574	164,042	168,636	173,357	178,211	183,201	188,331	193,604
481 5462000 Repair&Maint-Buildings	23,332	128,500	132,098	135,797	139,599	143,508	147,526	151,657	155,903	160,268	164,756
482 5464000 Repair&Maint-Equipment	186,572	161,130	165,642	170,280	175,047	179,949	184,987	190,167	195,492	200,965	206,592
483 5470001 Printing and Binding Exp	67	300	308	317	326	335	344	354	364	374	385
484 5490001 Othr Current Chgs&Obligat	3,607	4,500	4,626	4,756	4,889	5,026	5,166	5,311	5,460	5,613	5,770
485 5496521 Intgv Sv-Fleet-Op & Maint	254,576	314,650	323,460	332,517	341,828	351,399	361,238	371,353	381,750	392,439	403,428
486 5510001 Office Supplies Exp	39,497	6,000	6,168	6,341	6,518	6,701	6,888	7,081	7,280	7,483	7,693
487 5520003 Oper. Supplies-Chemicals	637,125	849,650	873,440	897,897	923,038	948,883	975,451	1,002,764	1,030,841	1,059,705	1,089,377
488 5520005 Small Tools,Supp&Allow.	10,479	10,000	10,280	10,568	10,864	11,168	11,481	11,802	12,133	12,472	12,821
489 5520006 Oper. Supplies-Clothing	4,689	5,300	5,448	5,601	5,758	5,919	6,085	6,255	6,430	6,610	6,795
490 5520009 Oper. Supplies-Computer	60	550	565	581	598	614	631	649	667	686	705
491 5520099 PC Purchases under \$1000	18,086	-	-	-	-	-	-	-	-	-	-
492 5529000 Oper. Supplies-Misc	502,720	686,300	705,516	725,271	745,578	766,455	787,915	809,977	832,656	855,971	879,938
493 5540001 Bks, Pub, Subscrp&Membrshps	720	2,500	2,570	2,642	2,716	2,792	2,870	2,951	3,033	3,118	3,205
494 5550001 Training and Education Costs	12,281	17,500	17,990	18,494	19,012	19,544	20,091	20,654	21,232	21,826	22,438
495 5520098 PC purchases under \$5,000	6,622	19,500	20,046	20,607	21,184	21,777	22,387	23,014	23,658	24,321	25,002
<b>Capital Outlay</b>											
496 5640001 Machinery And Equipment	\$ 324	\$ 173,600	\$ 178,461	\$ 183,458	\$ 188,595	\$ 193,875	\$ 199,304	\$ 204,884	\$ 210,621	\$ 216,518	\$ 222,581
497 5640300 Equip-Vehicles&Heavy Equip	207,275	460,000	472,880	486,121	499,732	513,725	528,109	542,896	558,097	573,724	589,788
<b>435130 - Purchase of Reclaim</b>											
<b>O&amp;M Expenses</b>											
498 5432010 Util Svc-Municip Wtr-Rclmd	\$ 36,807	\$ 30,000	\$ 30,840	\$ 31,704	\$ 32,591	\$ 33,504	\$ 34,442	\$ 35,406	\$ 36,398	\$ 37,417	\$ 38,464
<b>894051 - Emergency Events-Sewer</b>											
<b>Personal Services</b>											
499 5299992 Benefits-Contra-Projects	\$ 76,937	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>O&amp;M Expenses</b>											
500 5299991 Reg Salary&Wgs-Contra-Prj	\$ 228,798	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
501 5340001 Other Contractual Svcs	7,190	-	-	-	-	-	-	-	-	-	-
502 5520001 Operating Supplies Exp	4,088	-	-	-	-	-	-	-	-	-	-
503 5440001 Rentals and Leases	3,095	-	-	-	-	-	-	-	-	-	-
504 5490001 Othr Current Chgs&Obligat	85	-	-	-	-	-	-	-	-	-	-
<b>431470 - CIP Planning &amp; Design</b>											
<b>O&amp;M Expenses</b>											
505 5400105 Mileage-Local	\$ 459	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>431470 - CIP Planning &amp; Design</b>											
<b>Capital Outlay</b>											
506 5640001 Machinery And Equipment	\$ 50,524	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
507 5470001 Printing and Binding Exp	316	-	-	-	-	-	-	-	-	-	-
<b>431471 - Construction Management</b>											
<b>O&amp;M Expenses</b>											
508 5610001 Land Costs	\$ 18,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
509 5611000 Land-Acquisition	10,291	-	-	-	-	-	-	-	-	-	-
510 5620200 Building-Architect & Eng	214	-	-	-	-	-	-	-	-	-	-



**WATER, SEWER RECLAIMED WATER RATE STUDY**  
**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Projection of Cash Outflows**

**Schedule 5**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	
<b>FUND 4051 - SEWER OPERATING</b>												
<b>431471 - Construction Management</b>												
<b>Capital Outlay</b>												
511	5470001 Printing and Binding Exp	\$ 591	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
512	5400105 Mileage-Local	6	-	-	-	-	-	-	-	-	-	
513	5640001 Machinery And Equipment	18,932	-	-	-	-	-	-	-	-	-	
514	Personal Services	\$ 17,782,443	\$ 21,954,410	\$ 22,629,774	\$ 23,326,326	\$ 24,044,744	\$ 24,785,730	\$ 25,550,008	\$ 26,337,853	\$ 27,149,992	\$ 27,987,174	\$ 28,850,170
515	Operations & Maintenance	34,456,281	45,411,871	45,661,003	45,917,111	47,180,391	48,479,042	49,814,055	51,186,448	52,597,269	54,047,592	55,538,525
516	Capital Outlay	2,567,084	3,456,810	3,553,601	3,653,101	3,755,388	3,860,539	3,968,634	4,079,756	4,193,989	4,311,421	4,432,141
517	<b>Total Expenses</b>	<b>\$ 54,805,807</b>	<b>\$ 70,823,091</b>	<b>\$ 71,844,379</b>	<b>\$ 72,896,539</b>	<b>\$ 74,980,523</b>	<b>\$ 77,125,310</b>	<b>\$ 79,332,697</b>	<b>\$ 81,604,058</b>	<b>\$ 83,941,250</b>	<b>\$ 86,346,187</b>	<b>\$ 88,820,836</b>
<b>Expense Execution Factors</b>												
518	Personal Services	100%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
519	All Other O&M Expenses	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
520	Capital Outlay	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Total Expenses at Execution</b>												
521	Personal Services	\$ 17,782,443	\$ 20,856,690	\$ 21,498,286	\$ 22,160,010	\$ 22,842,507	\$ 23,546,443	\$ 24,272,508	\$ 25,020,961	\$ 25,792,493	\$ 26,587,815	\$ 27,407,661
522	Operations & Maintenance	34,456,281	45,411,871	45,661,003	45,917,111	47,180,391	48,479,042	49,814,055	51,186,448	52,597,269	54,047,592	55,538,525
523	Capital Outlay	2,567,084	3,456,810	3,553,601	3,653,101	3,755,388	3,860,539	3,968,634	4,079,756	4,193,989	4,311,421	4,432,141
524	<b>Total Expenses at Execution</b>	<b>\$ 54,805,807</b>	<b>\$ 69,725,371</b>	<b>\$ 70,712,890</b>	<b>\$ 71,730,223</b>	<b>\$ 73,778,286</b>	<b>\$ 75,886,024</b>	<b>\$ 78,055,197</b>	<b>\$ 80,287,165</b>	<b>\$ 82,583,751</b>	<b>\$ 84,946,828</b>	<b>\$ 87,378,327</b>
<b>Transfers Out</b>												
525	Trans To Sewer R & R	\$ 24,911,190	\$ 42,143,640	\$ -	\$ 34,015,599	\$ 43,433,017	\$ 41,344,386	\$ 39,360,535	\$ 57,045,964	\$ 54,810,645	\$ 57,802,711	\$ 59,782,474
526	<b>Total Transfers Out</b>	<b>\$ 24,911,190</b>	<b>\$ 42,143,640</b>	<b>\$ -</b>	<b>\$ 34,015,599</b>	<b>\$ 43,433,017</b>	<b>\$ 41,344,386</b>	<b>\$ 39,360,535</b>	<b>\$ 57,045,964</b>	<b>\$ 54,810,645</b>	<b>\$ 57,802,711</b>	<b>\$ 59,782,474</b>
<b>Debt Service</b>												
527	Series 2008A	\$ 2,194,160	\$ 2,189,345	\$ 2,187,988	\$ 9,737,031	\$ 9,736,507	\$ 9,729,662	\$ 9,722,190	\$ -	\$ -	\$ -	\$ -
528	Series 2008B	5,389,245	5,390,048	5,387,646	-	-	-	-	-	-	-	-
529	Series 2016	2,026,128	2,027,372	2,028,670	-	-	-	-	-	-	-	-
530	Series 2021A	447,847	-	-	-	-	-	-	-	-	-	-
531	Series 2021B	111,760	111,640	111,520	111,400	112,280	112,140	112,000	111,860	111,720	111,580	5,326,440
532	Series 2022	3,941,209	4,313,310	4,328,914	4,335,804	4,347,074	4,361,666	4,370,532	4,382,731	4,396,217	4,406,965	-
533	New Debt Service	-	-	105,905	137,786	376,347	966,371	1,747,598	2,180,894	2,719,455	3,269,495	3,803,086
534	<b>Total Debt Service</b>	<b>\$ 14,110,350</b>	<b>\$ 14,031,714</b>	<b>\$ 14,150,642</b>	<b>\$ 14,322,021</b>	<b>\$ 14,572,207</b>	<b>\$ 15,169,838</b>	<b>\$ 15,952,320</b>	<b>\$ 6,675,485</b>	<b>\$ 7,227,392</b>	<b>\$ 7,788,040</b>	<b>\$ 9,129,526</b>
535	<b>Total Cash Outflows</b>	<b>\$ 93,827,347</b>	<b>\$ 125,900,724</b>	<b>\$ 84,863,532</b>	<b>\$ 120,067,842</b>	<b>\$ 131,783,510</b>	<b>\$ 132,400,248</b>	<b>\$ 133,368,051</b>	<b>\$ 144,008,613</b>	<b>\$ 144,621,787</b>	<b>\$ 150,537,580</b>	<b>\$ 156,290,327</b>



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix B – Sewer Fund Revenue Sufficiency Analysis

**Capital Improvement Program (CIP)**

**Schedule 6**

		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
1	000744A-Facility Miscellaneous Improvements	\$ 607,000	\$ 586,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 1,693,000
2	000847A-South Cross Bayou Wastewater Treatment Facility Upgrades and Replacement	682,000	736,000	400,000	400,000	400,000	400,000	400,000	-	-	-	-	3,418,000
3	001057A-General Upgrades to Supervisory Control and Data Acquisition (SCADA)	479,000	902,000	1,040,000	872,000	872,000	917,000	-	-	-	-	-	5,082,000
4	002149A-Logan Laboratory Improvements	-	-	814,870	-	-	-	-	-	-	-	-	814,870
5	002149A-Logan Laboratory Improvements	147,000	66,000	1,942,130	1,359,000	-	-	-	-	-	-	-	3,514,130
6	002166A-South Cross Bayou Dewatering Improvements	-	1,600,000	5,200,000	2,700,000	590,000	-	-	-	-	-	-	10,090,000
7	002937A-South Cross Bayou Aeration Improvements	-	-	-	560,000	1,005,000	2,250,000	3,850,000	-	-	-	-	7,665,000
8	002938A-South Cross Bayou Bio Solids Process Train Improvements	450,000	800,000	-	3,300,000	4,900,000	-	-	-	-	-	-	9,450,000
9	002941A-South Cross Bayou High Service Pump Improvements	200,000	250,000	-	3,000,000	3,500,000	-	-	-	-	-	-	6,950,000
10	002944A-South Cross Bayou Grit Facility Improvements	8,054,000	-	-	-	-	-	-	-	-	-	-	8,054,000
11	003407A-South Cross Bayou Pavement Rehabilitation	-	-	-	30,000	720,000	-	-	-	-	-	-	750,000
12	003408A-South Cross Bayou Denitrification Filter Rehab	-	1,800,000	5,850,000	2,390,000	-	-	-	-	-	-	-	10,040,000
13	003408A-South Cross Bayou Denitrification Filter Rehab	158,000	58,000	-	-	-	-	-	-	-	-	-	216,000
14	003756A-SCB Plant Lighting Upgrades	1,502,000	-	-	-	-	-	-	-	-	-	-	1,502,000
15	003758A-South Cross Bayou Influent Pump Station Improvements	-	-	-	400,000	1,300,000	1,300,000	-	-	-	-	-	3,000,000
16	003759A-South Cross Bayou Operations and Control Building Improvements	300,000	-	-	-	300,000	-	-	-	-	-	-	600,000
17	003763A-Utilities Facilities Security	90,000	24,000	32,000	100,000	100,000	100,000	100,000	-	-	-	-	546,000
18	003765A-Programmable Logic Controller Upgrades	1,632,000	2,540,000	1,339,100	-	-	-	-	-	-	-	-	5,511,100
19	004143B-Regional Resource Recovery Facility	-	-	-	4,000,000	3,000,000	-	-	-	-	-	-	7,000,000
20	004358A-South Cross Bayou Digester Gas Flowmeter Installation	735,000	883,000	-	-	-	-	-	-	-	-	-	1,618,000
21	004359A-South Cross Bayou North and South Train Primary Clarifier Improvements	-	-	135,000	30,000	480,000	1,020,000	-	-	-	-	-	1,665,000
22	004360A-Pump Station 016 Improvements	700,000	200,000	-	50,000	100,000	2,500,000	2,000,000	-	-	-	-	5,550,000
23	004368A-South Cross UV Disinfection System Replacement	250,000	-	250,000	2,500,000	2,500,000	-	-	-	-	-	-	5,500,000
24	004489A-SCB Roofing replacements-Multiple Buildings	-	-	-	150,000	400,000	-	-	-	-	-	-	550,000
25	004574A-FDOT Utility Relocation US 19 From CR 95 to Pine	7,500	7,000	4,000	252,000	250,000	100,000	-	-	-	250,000	-	870,500
26	004575A-FDOT Utility Relocation US 19 from Nebraska Av to Timberlane Rd 433797-1	7,500	-	-	-	-	-	-	250,000	250,000	100,000	-	607,500
27	004576A-FDOT Utility Relocation US 19 from Timberlane Rd. to Lake St. 433796-1	7,500	-	-	-	-	-	-	-	-	-	-	7,500
28	004903A-South Cross Bayou Fiber Optic Upgrades	150,000	482,000	-	-	-	-	-	-	-	-	-	632,000
29	004904A-South Cross Bayou Pelletizer Dust Hazard Mitigation	820,000	820,000	-	-	-	-	-	-	-	-	-	1,640,000
30	004905A-South Cross Bayou Reclaim Water Storage Tanks Rehabilitation	20,000	20,000	300,000	300,000	-	-	-	-	-	-	-	640,000
31	004906A-South Cross Bayou Electrical Switchgear Replacement	120,000	120,000	1,520,000	1,520,000	1,430,000	1,400,000	-	-	-	-	-	6,110,000
32	005220A-Utilities Generator Buildings Sprinkler Installations	-	28,000	80,000	80,000	-	-	-	-	-	-	-	188,000
33	005221A-Pump Station 182 Rehabilitation	-	2,165,000	750,000	-	-	-	-	-	-	-	-	2,915,000
34	005222A-Logan Utilities Operations Center Building	-	229,000	1,144,000	1,372,000	1,372,000	-	-	-	-	-	-	4,117,000





**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix B – Sewer Fund Revenue Sufficiency Analysis

**Capital Improvement Program (CIP)**

**Schedule 6**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
35 005226A-South Cross Bayou Building Hardenings for the Operations Support Center and Dewatering Building	-	-	-	238,000	123,250	-	-	-	-	-	-	361,250
36 005226A-South Cross Bayou Building Hardenings for the Operations Support Center and Dewatering Building	-	-	100,000	262,000	376,750	-	-	-	-	-	-	738,750
37 000700B-Westwinds Dr. Bridge Replacement-Utility Relocations	55,000	-	-	-	-	-	-	-	-	-	-	55,000
38 000702B-Crosswinds Dr. Bridge Replacement-Utility Relocations	24,000	-	-	-	-	-	-	-	-	-	-	24,000
39 000791A-FDOT Relocation Projects Miscellaneous	100,000	100,000	100,000	100,000	100,000	100,000	100,000	-	-	-	-	700,000
40 000831A-Water, Sewer and Reclaimed Water Relocation Projects	100,000	100,000	100,000	100,000	100,000	100,000	100,000	-	-	-	-	700,000
41 000852A-W.E. Dunn Wastewater Treatment Facility Upgrades and Repair and Replacement	978,000	550,000	500,000	500,000	500,000	500,000	500,000	-	-	-	-	4,028,000
42 000964A-Sanitary Sewer Pump Station Rehabilitation & Improvements	2,923,000	2,400,000	2,350,000	2,300,000	2,300,000	2,300,000	2,300,000	-	-	-	-	16,873,000
43 001035B-Oakwood Dr. Bridge Replacement Utility Relocations	-	133,000	-	-	-	-	-	-	-	-	-	133,000
44 001177D-Lakeshore Estates Road and Drainage Improvements Phase II Utilities Relocations	211,000	-	-	-	-	-	-	-	-	-	-	211,000
45 001333B-North Highland Avenue Water and Sewer Improvements Phase I	320,000	232,000	-	-	-	-	-	-	-	-	-	552,000
46 001523A-FDOT US19 Northside to CR95	50,000	25,000	25,000	-	-	-	-	-	-	-	-	100,000
47 001814A-Sanitary Sewer Manhole Rehab Project	-	-	500,000	500,000	500,000	500,000	500,000	-	-	-	-	2,500,000
48 001814C-Sanitary Sewer Manhole Rehabilitation FY22-23	-	640,000	-	-	-	-	-	-	-	-	-	640,000
49 001817B-Crystal Beach Water, Sewer and Reclaim Water Relocations Along Grace St., Seafford Ave., Disston St.	203,000	20,000	-	-	-	-	-	-	-	-	-	223,000
50 001933A-Sanitary Sewer Cured In Place Pipe Lining	50,000	2,050,000	2,050,000	2,050,000	2,050,000	2,050,000	2,050,000	-	-	-	-	12,350,000
51 001933D-Annual Sewer CIPP-Tarpon Springs, Palm Harbor, Curlew City	900,000	900,000	900,000	-	-	-	-	-	-	-	-	2,700,000
52 001933E-Annual Sewer CIPP-Bardmoor, Kenneth City	-	-	980,000	-	-	-	-	-	-	-	-	980,000
53 001933F-Annual Sewer CIPP-Belleair, Belleair Bluffs	950,000	1,555,000	-	-	-	-	-	-	-	-	-	2,505,000
54 001933G-Annual Sewer CIPP-Ridgewood, Oakhurst, Belleair Beach, N. Lake Seminole	2,583,000	2,600,000	-	-	-	-	-	-	-	-	-	5,183,000
55 002063B-Starkey Road Utility Relocation from Flame Vine Ave to Bryan Dairy Road	1,015,000	15,000	1,015,000	1,125,000	-	-	-	-	-	-	-	3,170,000
56 002069F-62nd Ave N & 25 St N. Intersection and Sidewalk Improvements Utility Relocations	-	57,000	-	-	-	-	-	-	-	-	-	57,000
57 002131B-46th Ave N Sidewalk Improvements from 49th St to 37th St Utility Relocation	-	110,000	-	-	-	-	-	-	-	-	-	110,000
58 002160A-Pump Station 016/Park Blvd Force Main to South Cross Bayou Replacement	2,796,000	900,000	-	-	-	-	-	-	-	-	-	3,696,000
59 002232B-Indian Rocks Road Sidewalk Improvements Phase 2B From Church Creek to 8th Avenue SW-Utilities Relo	60,000	-	-	-	-	-	-	-	-	-	-	60,000
60 002346B-Indian Rocks Sewer CIPP-Phase 1	-	800,000	800,000	-	-	-	-	-	-	-	-	1,600,000
61 002690B-Utility Relocation for 62nd St @ 142nd Ave Intersection Improvements	32,000	-	-	-	-	-	-	-	-	-	-	32,000
62 002747C-Sewer Interceptor Rehabilitation 94th Ave to 86th Ave	200,000	-	-	-	-	-	-	-	-	-	-	200,000
63 002747F-Sanitary Sewer Interceptor Pipe Rehabilitation-Bee Pond Road	645,800	710,000	-	-	-	-	-	-	-	-	-	1,355,800
64 002747G-Sanitary Sewer Interceptor Pipe Rehabilitation-109th St.	500,000	821,000	-	-	-	-	-	-	-	-	-	1,321,000



**WATER, SEWER RECLAIMED WATER RATE STUDY**

**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Capital Improvement Program (CIP)**

**Schedule 6**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
65 002747H-Sanitary Sewer Interceptor Pipe Rehabilitation -74th Ave	250,000	340,000	-	-	-	-	-	-	-	-	-	590,000
66 002747I-Sanitary Sewer Interceptor Pipe Rehabilitation -Lealman	1,000,000	1,028,000	-	-	-	-	-	-	-	-	-	2,028,000
67 002747J-Sanitary Sewer Interceptor Pipe Rehabilitation-Hamlin Blvd and 46th Ave	829,800	660,000	-	-	-	-	-	-	-	-	-	1,489,800
68 002747K-Sanitary Sewer Pipe Rehabilitation-Seminole By-Pass Canal 10"	1,143,000	170,000	-	-	-	-	-	-	-	-	-	1,313,000
69 002927B-46th Avenue North Utility Relocation Sidewalk Design & Roadway Improvements From West Drainage Outfa	220,000	390,000	-	-	-	-	-	-	-	-	-	610,000
70 002936B-Corey Causeway Bridge 20 Inch Reclaimed Water Main Replacement	167,000	-	-	-	-	-	-	-	-	-	-	167,000
71 003122B-Dunn Filtration and Disinfection Improvements	11,000,000	5,080,000	-	-	-	-	-	-	-	-	-	16,080,000
72 003123J-ARV Hamlin Road and Nearby Design	1,475,000	700,000	-	-	-	-	-	-	-	-	-	2,175,000
73 003123L-ARV Highland Ave	150,000	-	-	-	-	-	-	-	-	-	-	150,000
74 003142A-Pump Station No. 357 Upgrades and Force Main Improvements	44,000	-	-	-	-	-	-	-	-	-	-	44,000
75 003147A-Pinellas Park Interceptor Collection System Improvements	600,000	-	-	4,540,000	3,532,000	100,000	-	-	-	-	-	8,772,000
76 003204I-Ridgewood Sewer Improvements	1,150,000	30,000	351,000	1,000,000	-	-	-	-	-	-	-	2,531,000
77 003205A-Pump Station 079 Improvements (North Redington Beach)	4,334,000	1,436,000	-	-	-	-	-	-	-	-	-	5,770,000
78 003210H-Force main and ARV Replacement-Klosterman Road and Disston	708,000	-	-	-	-	-	-	-	-	-	-	708,000
79 003239A-Pump Station and Collection System Odor Control Equipment	314,000	200,000	200,000	200,000	200,000	200,000	200,000	-	-	-	-	1,514,000
80 003409A-Dunn Electrical Upgrades	-	2,300,000	7,950,000	2,050,000	-	-	-	-	-	-	-	12,300,000
81 003430A-Dunn Dewatering Improvements	-	300,000	200,000	4,100,000	2,000,000	-	-	-	-	-	-	6,600,000
82 003431A-Dunn Pond Liner Replacement	-	-	1,050,000	5,050,000	-	-	-	-	-	-	-	6,100,000
83 003432A-Dunn Odor Control System	-	-	-	-	300,000	-	-	-	-	-	-	300,000
84 003605A-Gravity Sewer Ductal Iron Pipe Rehab Program throughout the County	-	500,000	1,000,000	17,000,000	17,000,000	17,000,000	17,000,000	-	-	-	-	69,500,000
85 003605B-Gravity Sewer Ductile Iron Pipe Rehabilitation Lansbrook	-	-	900,000	-	-	-	-	-	-	-	-	900,000
86 003746A-WED Grit Capture System Improvements	-	-	-	200,000	1,000,000	4,600,000	-	-	-	-	-	5,800,000
87 003747A-WE Dunn Offsite Reclaim Pump Station Improvements	242,000	1,500,000	3,600,000	2,200,000	-	-	-	-	-	-	-	7,542,000
88 003748A-Gulf Blvd. Relocations @ the Narrows	234,000	-	-	-	-	-	-	-	-	-	-	234,000
89 003750A-WE Dunn Internal Recycle Pump Station Rehabilitation	100,000	-	100,000	300,000	2,040,000	6,900,000	-	-	-	-	-	9,440,000
90 003760A-North County Force Main Improvements	650,000	650,000	1,150,000	4,150,000	1,350,000	-	-	-	-	-	-	7,950,000
91 003761A-Force Main Capacity Improvements-Highland Lakes FM	-	100,000	400,000	3,550,000	3,550,000	-	-	-	-	-	-	7,600,000
92 003762A-Pump Stations Generator Improvements	2,183,000	2,200,000	1,700,000	1,400,000	-	-	-	-	-	-	-	7,483,000
93 003769A-Advanced Metering Infrastructure (AMI) Reclaimed Water Meters	2,147,000	2,442,000	3,362,000	3,341,000	1,701,000	-	-	-	-	-	-	12,993,000
94 003896B-Crystal Beach Utility Relocation and Replacement Associated with Drainage and Roadway Improvements	-	175,000	375,000	-	-	-	-	-	-	-	-	550,000
95 004354A-Pinellas Trail Loop North Segment Utility Relocations	120,000	-	-	-	-	-	-	-	-	-	-	120,000
96 004361A-WE Dunn Fall Protection Installation	-	-	-	-	101,000	970,000	531,000	-	-	-	-	1,602,000
97 004362A-WED Operations Building Modifications	-	-	-	100,000	1,000,000	900,000	-	-	-	-	-	2,000,000
98 004363A-Chesnut Park Managed Aquifer Recharge Project	1,100,000	-	-	-	-	-	-	-	-	-	-	1,100,000
99 004364A-Chesnut Park Aquifer Storage and Recovery System Project	-	75,000	75,000	450,000	1,500,000	580,000	-	-	-	-	-	2,680,000



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**Capital Improvement Program (CIP)**

**Schedule 6**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total Cost
100 004364A-Chesnut Park Aquifer Storage and Recovery System Project	-	75,000	75,000	450,000	1,500,000	4,369,000	-	-	-	-	6,469,000	12,938,000
101 004365A-Dunn Exploratory Well	900,000	-	-	-	900,000	855,000	-	1,550,000	2,895,000	-	-	7,100,000
102 004478F-Bryan Dairy at Lake Seminole Bypass Canal 8-Inch F.M. Replacement	89,000	-	-	-	-	-	-	-	-	-	-	89,000
103 004478G-3343 Crescent Oaks Blvd Gravity Sewer Main Replacement	651,000	650,000	-	-	-	-	-	-	-	-	-	1,301,000
104 004495A-72nd Terrace Gravity Sewer and 72nd Avenue Gravity Interceptor Upgrade	1,050,000	870,000	3,255,000	-	-	-	-	-	-	-	-	5,175,000
105 004532A-CR 95 Force Main Replacement/Relocation	949,000	50,000	-	-	-	-	-	-	-	-	-	999,000
106 004540B-West Bay Drive Utility Relocation and Replacement	-	256,000	150,000	-	-	-	-	-	-	-	-	406,000
107 004572A-Marlin Drive Utility Relocation for City of Belleair Bluffs Roadway Improvements	283,000	55,000	400,000	-	-	-	-	-	-	-	-	738,000
108 004578A-Building Hardening-General Maintenance Building South	-	182,660	-	-	-	-	-	-	-	-	-	182,660
109 004578A-Building Hardening-General Maintenance Building South	9,000	302,340	-	-	-	-	-	-	-	-	-	311,340
110 004907A-Force Main and ARV Replacements-20\201D Force Main Camelot Court	200,000	550,000	-	1,250,000	490,000	-	-	-	-	-	-	2,490,000
111 004908A-Force Main and ARV Replacements-30\201D Force Main Pinellas Trail and Klosterman	250,000	-	250,000	4,050,000	3,700,000	-	-	-	-	-	-	8,250,000
112 004909A-62nd Street North Force Main Extension and Gravity Main Capacity Improvement	340,000	820,000	-	-	-	-	-	-	-	-	-	1,160,000
113 004911A-Bear Creek 14\201D Force Main Replacement Project	10,000	180,000	1,650,000	-	-	-	-	-	-	-	-	1,840,000
114 005015A-Manufactured Home Communities Wastewater Collection System Improvements	-	10,554,000	8,000,000	8,000,000	400,000	-	-	-	-	-	-	26,954,000
115 005015C-Manufactured Home Communities Wastewater Collection System Imp-Canal Crossings	-	200,000	800,000	600,000	300,000	-	-	-	-	-	-	1,900,000
116 005217A-North County Supplemental Reclaim Water Supply	-	-	270,000	4,310,000	1,110,000	-	-	-	-	-	-	5,690,000
117 005219A-Forelock/Mistwood Force Main Replacement from Lift Station 387	-	140,000	2,000,000	-	-	-	-	-	-	-	-	2,140,000
118 005225A-Find and Fix Pipe Lining and Private Sewer Laterals	-	5,300,000	5,100,000	5,100,000	5,100,000	4,900,000	-	-	-	-	-	25,500,000
119 005229A-Pump Station 327 Rehabilitation	-	-	-	-	110,000	1,110,000	1,110,000	-	-	-	-	2,330,000
120 005582A-24 in Force Main Replacement at 53rd Avenue and Duhme Rd.	-	250,000	2,500,000	-	-	-	-	-	-	-	-	2,750,000
121 005584A-Countywide Concrete Force Main Replacement	-	375,000	375,000	2,375,000	2,000,000	2,000,000	2,000,000	-	-	-	-	9,125,000
122 006052A-Septic to Sewer Program Phase 1	-	400,000	5,000,000	4,600,000	-	-	-	-	-	-	-	10,000,000
123 Unspecified Upcoming Projects <sup>1</sup>	-	-	-	-	-	-	-	18,200,000	16,855,000	19,650,000	13,531,000	68,236,000
<b>124 Total CIP Budget (in current dollars)</b>	<b>\$ 66,706,100</b>	<b>\$ 70,520,000</b>	<b>\$ 82,559,100</b>	<b>\$ 113,006,000</b>	<b>\$ 80,253,000</b>	<b>\$ 60,121,000</b>	<b>\$ 32,841,000</b>	<b>\$ 20,000,000</b>	<b>\$ 20,000,000</b>	<b>\$ 20,000,000</b>	<b>\$ 20,000,000</b>	<b>\$ 586,006,200</b>
<b>125 Escalated CIP<sup>2,3</sup></b>	<b>\$ 66,706,100</b>	<b>\$ 78,906,251</b>	<b>\$ 93,189,848</b>	<b>\$ 133,827,472</b>	<b>\$ 100,178,159</b>	<b>\$ 77,646,008</b>	<b>\$ 43,782,478</b>	<b>\$ 27,463,203</b>	<b>\$ 28,287,099</b>	<b>\$ 29,135,712</b>	<b>\$ 30,009,783</b>	<b>\$ 709,132,112</b>
<b>126 CIP Adjustment<sup>4</sup></b>	<b>(33,273,670)</b>	<b>(32,147,296)</b>	<b>(42,077,996)</b>	<b>(81,651,574)</b>	<b>(49,672,247)</b>	<b>(25,767,883)</b>	<b>7,620,239</b>	<b>34,329,004</b>	<b>35,358,874</b>	<b>36,419,640</b>	<b>37,512,229</b>	
<b>127 Final CIP Funding Level</b>	<b>\$ 33,432,430</b>	<b>\$ 46,758,956</b>	<b>\$ 51,111,852</b>	<b>\$ 52,175,898</b>	<b>\$ 50,505,912</b>	<b>\$ 51,878,125</b>	<b>\$ 51,402,717</b>	<b>\$ 61,792,206</b>	<b>\$ 63,645,973</b>	<b>\$ 65,555,352</b>	<b>\$ 67,522,012</b>	<b>\$ 595,781,432</b>

<sup>1</sup> Unspecified future year capital expenses calculated to match PCU's forecast of \$20M per year.

<sup>2</sup> CIP escalation factor of 15% in FY 2023 and 3% annually beginning in FY 2024.

<sup>3</sup> Escalation not applied to highlighted projects which are fully funded through ARPA, State, or other Federal grants.

<sup>4</sup> Adjustment to reflect assumed annual capital spending.



**WATER, SEWER RECLAIMED WATER RATE STUDY**  
**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Pro Forma: Projection of Annual Cashflow and Debt Service Coverage**

**Schedule 7**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Operating Revenue</b>											
Sewer - Retail, Sewer - Wholesale And Reclaimed											
1 Rate Revenue	\$ 86,867,725	\$ 86,867,725	\$ 96,083,574	\$ 100,116,748	\$ 104,341,906	\$ 108,378,860	\$ 112,619,364	\$ 115,385,662	\$ 120,194,419	\$ 125,203,662	\$ 130,421,752
2 Change in Revenue From Growth	-	1,142,070	518,294	540,044	164,272	171,185	178,388	185,895	193,717	201,869	210,364
3 Subtotal	\$ 86,867,725	\$ 88,009,795	\$ 96,601,868	\$ 100,656,792	\$ 104,506,179	\$ 108,550,045	\$ 110,947,752	\$ 115,571,557	\$ 120,388,136	\$ 125,405,531	\$ 130,632,116
4 Weighted Average Rate Increase	0.00%	9.17%	3.64%	3.66%	3.71%	3.75%	4.00%	4.00%	4.00%	4.00%	4.00%
5 Additional Rate Revenue From Rate Increase	-	8,073,779	3,514,880	3,685,114	3,872,681	4,069,319	4,437,910	4,622,862	4,815,525	5,016,221	5,225,285
6 Total Rate Revenue	\$ 86,867,725	\$ 96,083,574	\$ 100,116,748	\$ 104,341,906	\$ 108,378,860	\$ 112,619,364	\$ 115,385,662	\$ 120,194,419	\$ 125,203,662	\$ 130,421,752	\$ 135,857,400
7 Plus: Other Operating Revenue	17,472,394	21,218,353	21,218,353	21,218,353	21,218,353	21,218,353	19,574,058	20,254,264	20,961,678	21,697,388	22,462,527
8 <b>Equals: Total Operating Revenue</b>	<b>\$ 104,340,118</b>	<b>\$ 117,301,927</b>	<b>\$ 121,335,101</b>	<b>\$ 125,560,259</b>	<b>\$ 129,597,213</b>	<b>\$ 133,837,717</b>	<b>\$ 134,959,720</b>	<b>\$ 140,448,683</b>	<b>\$ 146,165,340</b>	<b>\$ 152,119,140</b>	<b>\$ 158,319,928</b>
<b>Less: Operating Expenses</b>											
9 Personal Services	\$ (17,781,984)	\$ (20,856,690)	\$ (21,498,286)	\$ (22,160,010)	\$ (22,842,507)	\$ (23,546,443)	\$ (24,272,508)	\$ (25,020,961)	\$ (25,792,493)	\$ (26,587,815)	\$ (27,407,661)
10 Operations & Maintenance Costs	(34,456,740)	(45,411,871)	(45,661,003)	(45,917,111)	(47,180,391)	(48,479,042)	(49,814,055)	(51,186,448)	(52,597,269)	(54,047,592)	(55,538,525)
11 <b>Equals: Net Operating Income</b>	<b>\$ 52,101,395</b>	<b>\$ 51,033,367</b>	<b>\$ 54,175,812</b>	<b>\$ 57,483,138</b>	<b>\$ 59,574,316</b>	<b>\$ 61,812,232</b>	<b>\$ 60,873,158</b>	<b>\$ 64,241,274</b>	<b>\$ 67,775,578</b>	<b>\$ 71,483,733</b>	<b>\$ 75,373,741</b>
<b>Plus: Non-Operating Income/(Expense)</b>											
12 Interest Income	\$ 522,861	\$ 370,022	\$ 690,872	\$ 788,697	\$ 815,418	\$ 821,957	\$ 847,528	\$ 847,511	\$ 847,563	\$ 874,601	\$ 904,477
13 <b>Equals: Net Income</b>	<b>\$ 52,624,256</b>	<b>\$ 51,403,389</b>	<b>\$ 54,866,685</b>	<b>\$ 58,271,836</b>	<b>\$ 60,389,734</b>	<b>\$ 62,634,189</b>	<b>\$ 61,720,686</b>	<b>\$ 65,088,785</b>	<b>\$ 68,623,142</b>	<b>\$ 72,358,334</b>	<b>\$ 76,278,218</b>
<b>Senior Lien Debt Service Coverage Test</b>											
14 Net Income Available for Senior-Lien Debt Service	\$ 52,624,256	\$ 51,403,389	\$ 54,866,685	\$ 58,271,836	\$ 60,389,734	\$ 62,634,189	\$ 61,720,686	\$ 65,088,785	\$ 68,623,142	\$ 72,358,334	\$ 76,278,218
15 Existing Senior-Lien Debt	14,110,350	14,031,714	14,044,737	14,184,235	14,195,861	14,203,467	14,204,721	4,494,591	4,507,937	4,518,545	5,326,440
16 Cumulative New Senior Lien Debt Service (calculated)	-	-	105,905	137,786	376,347	966,371	1,747,598	2,180,894	2,719,455	3,269,495	3,803,086
17 <b>Total Annual Senior-Lien Debt Service</b>	<b>Req. \$ 14,110,350</b>	<b>\$ 14,031,714</b>	<b>\$ 14,150,642</b>	<b>\$ 14,322,021</b>	<b>\$ 14,572,207</b>	<b>\$ 15,169,838</b>	<b>\$ 15,952,320</b>	<b>\$ 6,675,485</b>	<b>\$ 7,227,392</b>	<b>\$ 7,788,040</b>	<b>\$ 9,129,526</b>
18 <i>Calculated Senior-Lien Debt Service Coverage</i>	<b>1.15</b>	3.73	3.66	3.88	4.07	4.14	4.13	3.87	9.75	9.49	9.29
<b>Subordinate Debt Service Coverage Test</b>											
19 Net Income Available for Subordinate Debt Service	\$ 38,513,906	\$ 37,371,675	\$ 40,716,042	\$ 43,949,815	\$ 45,817,526	\$ 47,464,351	\$ 45,768,366	\$ 58,413,300	\$ 61,395,750	\$ 64,570,294	\$ 67,148,692
20 <b>Total Annual Subordinate Debt Service</b>	<b>Req. \$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
21 <i>Calculated Subordinate Debt Service Coverage</i>	<b>1.15</b>	-	-	-	-	-	-	-	-	-	-
<b>Total All-In Debt Service Coverage Test</b>											
22 Net Income Available for Subordinate Debt Service	\$ 52,624,256	\$ 51,403,389	\$ 54,866,685	\$ 58,271,836	\$ 60,389,734	\$ 62,634,189	\$ 61,720,686	\$ 65,088,785	\$ 68,623,142	\$ 72,358,334	\$ 76,278,218
23 Total Senior-Lien Debt Service	14,110,350	14,031,714	14,150,642	14,322,021	14,572,207	15,169,838	15,952,320	6,675,485	7,227,392	7,788,040	9,129,526
24 <b>Total Annual Debt Service</b>	<b>\$ 14,110,350</b>	<b>\$ 14,031,714</b>	<b>\$ 14,150,642</b>	<b>\$ 14,322,021</b>	<b>\$ 14,572,207</b>	<b>\$ 15,169,838</b>	<b>\$ 15,952,320</b>	<b>\$ 6,675,485</b>	<b>\$ 7,227,392</b>	<b>\$ 7,788,040</b>	<b>\$ 9,129,526</b>
25 <i>Calculated All-In Debt Service Coverage</i>	3.73	3.66	3.88	4.07	4.14	4.13	3.87	9.75	9.49	9.29	8.36
<b>Cash Flow Test</b>											
26 Net Income Available For Debt Service	\$ 52,624,256	\$ 51,403,389	\$ 54,866,685	\$ 58,271,836	\$ 60,389,734	\$ 62,634,189	\$ 61,720,686	\$ 65,088,785	\$ 68,623,142	\$ 72,358,334	\$ 76,278,218
27 Net Interfund Transfers (In - Out)	(24,911,190)	(42,143,640)	-	(34,015,599)	(43,433,017)	(41,344,386)	(39,360,535)	(57,045,964)	(54,810,645)	(57,802,711)	(59,782,474)
28 Net Debt Service Payment	(14,110,350)	(14,031,714)	(14,150,642)	(14,322,021)	(14,572,207)	(15,169,838)	(15,952,320)	(6,675,485)	(7,227,392)	(7,788,040)	(9,129,526)
29 Capital Outlay	(2,567,084)	(3,456,810)	(3,553,601)	(3,653,101)	(3,755,388)	(3,860,539)	(3,968,634)	(4,079,756)	(4,193,989)	(4,311,421)	(4,432,141)
30 <b>Net Cash Flow</b>	<b>\$ 11,035,633</b>	<b>\$ (8,228,775)</b>	<b>\$ 37,162,442</b>	<b>\$ 6,281,115</b>	<b>\$ (1,370,879)</b>	<b>\$ 2,259,426</b>	<b>\$ 2,439,197</b>	<b>\$ (2,712,420)</b>	<b>\$ 2,391,116</b>	<b>\$ 2,456,162</b>	<b>\$ 2,934,077</b>
<b>Unrestricted Reserve Fund Test</b>											
31 Balance At Beginning Of Fiscal Year	\$ 25,392,295	\$ 36,427,927	\$ 28,199,152	\$ 65,361,594	\$ 71,642,708	\$ 70,271,830	\$ 72,531,255	\$ 74,970,453	\$ 72,258,033	\$ 74,649,149	\$ 77,105,311
32 Cash Flow Surplus/(Deficit)	11,035,633	(8,228,775)	37,162,442	6,281,115	(1,370,879)	2,259,426	2,439,197	(2,712,420)	2,391,116	2,456,162	2,934,077
33 <b>Balance At End Of Fiscal Year</b>	<b>\$ 36,427,927</b>	<b>\$ 28,199,152</b>	<b>\$ 65,361,594</b>	<b>\$ 71,642,708</b>	<b>\$ 70,271,830</b>	<b>\$ 72,531,255</b>	<b>\$ 74,970,453</b>	<b>\$ 72,258,033</b>	<b>\$ 74,649,149</b>	<b>\$ 77,105,311</b>	<b>\$ 80,039,388</b>
34 Minimum Working Capital (O&M) Reserve Target	66,443,447	75,287,466	76,794,514	78,375,368	80,589,277	83,051,887	85,703,436	83,048,395	85,713,959	88,455,956	91,689,075
35 <b>Excess/(Deficiency) Of Working Capital To Target</b>	<b>\$ (30,015,519)</b>	<b>\$ (47,088,314)</b>	<b>\$ (11,432,920)</b>	<b>\$ (6,732,660)</b>	<b>\$ (10,317,448)</b>	<b>\$ (10,520,632)</b>	<b>\$ (10,732,984)</b>	<b>\$ (10,790,362)</b>	<b>\$ (11,064,810)</b>	<b>\$ (11,350,645)</b>	<b>\$ (11,649,687)</b>



**WATER, SEWER RECLAIMED WATER RATE STUDY**  
**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Sources and Uses by Fund**

**Schedule 8**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Sewer Interest &amp; Sinking</b>											
Balance At Beginning Of Fiscal Year	\$ 263,343	\$ 265,822	\$ 267,417	\$ 270,091	\$ 272,792	\$ 275,520	\$ 278,275	\$ 281,058	\$ 283,869	\$ 286,707	\$ 289,574
Subtotal	\$ 263,343	\$ 265,822	\$ 267,417	\$ 270,091	\$ 272,792	\$ 275,520	\$ 278,275	\$ 281,058	\$ 283,869	\$ 286,707	\$ 289,574
Total Amount Available For Projects	\$ 263,343	\$ 265,822	\$ 267,417	\$ 270,091	\$ 272,792	\$ 275,520	\$ 278,275	\$ 281,058	\$ 283,869	\$ 286,707	\$ 289,574
Amount Paid For Projects	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 263,343	\$ 265,822	\$ 267,417	\$ 270,091	\$ 272,792	\$ 275,520	\$ 278,275	\$ 281,058	\$ 283,869	\$ 286,707	\$ 289,574
Plus: Interest Earnings	2,480	1,595	2,674	2,701	2,728	2,755	2,783	2,811	2,839	2,867	2,896
<b>Balance At End Of Fiscal Year</b>	<b>\$ 265,822</b>	<b>\$ 267,417</b>	<b>\$ 270,091</b>	<b>\$ 272,792</b>	<b>\$ 275,520</b>	<b>\$ 278,275</b>	<b>\$ 281,058</b>	<b>\$ 283,869</b>	<b>\$ 286,707</b>	<b>\$ 289,574</b>	<b>\$ 292,470</b>
<b>Vehicle Replacement</b>											
Balance At Beginning Of Fiscal Year	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
Subtotal	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
Less: Restricted Funds	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)	(4,000,000)
Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Add Back: Restricted Funds	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Plus: Interest Earnings	37,664	24,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Less: Interest Allocated To Cash Flow	(37,664)	(24,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)
<b>Balance At End Of Fiscal Year</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>	<b>\$ 4,000,000</b>
<b>Renewal &amp; Replacement</b>											
Balance At Beginning Of Fiscal Year	\$ 28,504,732	\$ 19,983,492	\$ 29,979,836	\$ 5,883,597	\$ 6,101,299	\$ 6,317,448	\$ 6,520,632	\$ 6,732,984	\$ 6,790,362	\$ 7,064,810	\$ 7,350,645
Annual Revenues	24,911,190	42,143,640	-	34,015,599	43,433,017	41,344,386	39,360,535	57,045,964	54,810,645	57,802,711	59,782,474
Subtotal	\$ 53,415,922	\$ 62,127,132	\$ 29,979,836	\$ 39,899,196	\$ 49,534,316	\$ 47,661,834	\$ 45,881,166	\$ 63,778,947	\$ 61,601,007	\$ 64,867,521	\$ 67,133,119
Less: Restricted Funds	(3,088,720)	(5,243,149)	(5,883,597)	(6,101,299)	(6,317,448)	(6,520,632)	(6,732,984)	(6,790,362)	(7,064,810)	(7,350,645)	(7,649,687)
Total Amount Available For Projects	\$ 50,327,202	\$ 56,883,983	\$ 24,096,239	\$ 33,797,898	\$ 43,216,868	\$ 41,141,202	\$ 39,148,182	\$ 56,988,585	\$ 54,536,197	\$ 57,516,876	\$ 59,483,432
Amount Paid For Projects	(33,432,430)	(32,147,296)	(24,096,239)	(33,797,898)	(43,216,868)	(41,141,202)	(39,148,182)	(56,988,585)	(54,536,197)	(57,516,876)	(59,483,432)
Subtotal	\$ 16,894,772	\$ 24,736,687	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Add Back: Restricted Funds	3,088,720	5,243,149	5,883,597	6,101,299	6,317,448	6,520,632	6,732,984	6,790,362	7,064,810	7,350,645	7,649,687
Plus: Interest Earnings	228,281	149,890	179,317	59,924	62,094	64,190	66,268	67,617	69,276	72,077	75,002
Less: Interest Allocated To Cash Flow	(228,281)	(149,890)	(179,317)	(59,924)	(62,094)	(64,190)	(66,268)	(67,617)	(69,276)	(72,077)	(75,002)
<b>Balance At End Of Fiscal Year</b>	<b>\$ 19,983,492</b>	<b>\$ 29,979,836</b>	<b>\$ 5,883,597</b>	<b>\$ 6,101,299</b>	<b>\$ 6,317,448</b>	<b>\$ 6,520,632</b>	<b>\$ 6,732,984</b>	<b>\$ 6,790,362</b>	<b>\$ 7,064,810</b>	<b>\$ 7,350,645</b>	<b>\$ 7,649,687</b>
<b>ARPA</b>											
Balance At Beginning Of Fiscal Year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Revenues	-	3,800,000	16,050,000	9,690,000	590,000	-	-	-	-	-	-
Subtotal	\$ -	\$ 3,800,000	\$ 16,050,000	\$ 9,690,000	\$ 590,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amount Available For Projects	\$ -	\$ 3,800,000	\$ 16,050,000	\$ 9,690,000	\$ 590,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amount Paid For Projects	-	(3,800,000)	(16,050,000)	(9,690,000)	(590,000)	-	-	-	-	-	-
<b>Balance At End Of Fiscal Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Revenue Fund</b>											
Balance At Beginning Of Fiscal Year	\$ 25,392,295	\$ 36,427,927	\$ 28,199,152	\$ 65,361,594	\$ 71,642,708	\$ 70,271,830	\$ 72,531,255	\$ 74,970,453	\$ 72,258,033	\$ 74,649,149	\$ 77,105,311
Net Cash Flow	11,035,633	(8,228,775)	37,162,442	6,281,115	(1,370,879)	2,259,426	2,439,197	(2,712,420)	2,391,116	2,456,162	2,934,077
Subtotal	\$ 36,427,927	\$ 28,199,152	\$ 65,361,594	\$ 71,642,708	\$ 70,271,830	\$ 72,531,255	\$ 74,970,453	\$ 72,258,033	\$ 74,649,149	\$ 77,105,311	\$ 80,039,388
Less: Restricted Funds	(36,427,927)	(28,199,152)	(65,361,594)	(71,642,708)	(70,271,830)	(72,531,255)	(74,970,453)	(72,258,033)	(74,649,149)	(77,105,311)	(80,039,388)
Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



**WATER, SEWER RECLAIMED WATER RATE STUDY**  
Appendix B – Sewer Fund Revenue Sufficiency Analysis

**Sources and Uses by Fund**

**Schedule 8**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 2030</b>	<b>FY 2031</b>	<b>FY 2032</b>
Add Back: Restricted Funds	36,427,927	28,199,152	65,361,594	71,642,708	70,271,830	72,531,255	74,970,453	72,258,033	74,649,149	77,105,311	80,039,388
Plus: Interest Earnings	291,048	193,881	467,804	685,022	709,573	714,015	737,509	736,142	734,536	758,772	785,723
Less: Interest Allocated To Cash Flow	(291,048)	(193,881)	(467,804)	(685,022)	(709,573)	(714,015)	(737,509)	(736,142)	(734,536)	(758,772)	(785,723)
<b>Balance At End Of Fiscal Year</b>	<b>\$ 36,427,927</b>	<b>\$ 28,199,152</b>	<b>\$ 65,361,594</b>	<b>\$ 71,642,708</b>	<b>\$ 70,271,830</b>	<b>\$ 72,531,255</b>	<b>\$ 74,970,453</b>	<b>\$ 72,258,033</b>	<b>\$ 74,649,149</b>	<b>\$ 77,105,311</b>	<b>\$ 80,039,388</b>
<b>Restricted Reserves</b>											
Balance At Beginning Of Fiscal Year	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150
Subtotal	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150	\$ 375,150
Plus: Interest Earnings	3,532	2,251	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752
Less: Interest Allocated To Cash Flow	(3,532)	(2,251)	(3,752)	(3,752)	(3,752)	(3,752)	(3,752)	(3,752)	(3,752)	(3,752)	(3,752)
<b>Balance At End Of Fiscal Year</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>	<b>\$ 375,150</b>

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**WATER, SEWER RECLAIMED WATER RATE STUDY**  
 Appendix B – Sewer Fund Revenue Sufficiency Analysis

**Projection of Capital Improvement Program Funding Sources**

**Schedule 9**

Final Capital Projects Funding Source:	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Renewal & Replacement	\$ 33,432,430	\$ 32,147,296	\$ 24,096,239	\$ 33,797,898	\$ 43,216,868	\$ 41,141,202	\$ 39,148,182	\$ 56,988,585	\$ 54,536,197	\$ 57,516,876	\$ 59,483,432
Grants	-	10,811,660	8,889,870	8,688,000	2,023,250	580,000	-	-	-	-	-
ARPA	-	3,800,000	16,050,000	9,690,000	590,000	-	-	-	-	-	-
Senior-Lien Debt Proceeds	-	-	2,075,744	-	4,675,794	10,156,923	12,254,534	4,803,621	9,109,775	8,038,476	8,038,580
<b>Total Projects Paid</b>	<b>\$ 33,432,430</b>	<b>\$ 46,758,956</b>	<b>\$ 51,111,852</b>	<b>\$ 52,175,898</b>	<b>\$ 50,505,912</b>	<b>\$ 51,878,125</b>	<b>\$ 51,402,717</b>	<b>\$ 61,792,206</b>	<b>\$ 63,645,973</b>	<b>\$ 65,555,352</b>	<b>\$ 67,522,012</b>

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**WATER, SEWER RECLAIMED WATER RATE STUDY**  
**Appendix B – Sewer Fund Revenue Sufficiency Analysis**

**Senior Lien Borrowing**

**Schedule 10**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>FY 2030</b>	<b>FY 2031</b>	<b>FY 2032</b>	
Term (Years)	30	30	30	30	30	30	30	30	30	30	30	
Interest Rate	4.50%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	
<b>Sources of Funds</b>												
Par Amount	\$ -	\$ -	\$ 2,118,106	\$ -	\$ 4,771,219	\$ 10,364,207	\$ 12,504,627	\$ 4,901,655	\$ 9,295,689	\$ 8,202,526	\$ 8,202,633	
<b>Uses of Funds</b>												
Proceeds	\$ -	\$ -	\$ 2,075,744	\$ -	\$ 4,675,794	\$ 10,156,923	\$ 12,254,534	\$ 4,803,621	\$ 9,109,775	\$ 8,038,476	\$ 8,038,580	
Cost of Issuance	-	-	42,362	-	95,424	207,284	250,093	98,033	185,914	164,051	164,053	
Underwriter's Discount	-	-	-	-	-	-	-	-	-	-	-	
Bond Insurance	-	-	-	-	-	-	-	-	-	-	-	
Capitalized Interest	-	-	-	-	-	-	-	-	-	-	-	
Debt Service Surety	-	-	-	-	-	-	-	-	-	-	-	
Debt Service Reserve	-	-	-	-	-	-	-	-	-	-	-	
Other Costs	-	-	-	-	-	-	-	-	-	-	-	
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,118,106</b>	<b>\$ -</b>	<b>\$ 4,771,219</b>	<b>\$ 10,364,207</b>	<b>\$ 12,504,627</b>	<b>\$ 4,901,655</b>	<b>\$ 9,295,689</b>	<b>\$ 8,202,526</b>	<b>\$ 8,202,633</b>	
1 Year Interest	-	-	105,905	-	238,561	518,210	625,231	245,083	464,784	410,126	410,132	
<b>Annual Debt Service</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 137,786</b>	<b>\$ -</b>	<b>\$ 310,375</b>	<b>\$ 674,207</b>	<b>\$ 813,444</b>	<b>\$ 318,860</b>	<b>\$ 604,698</b>	<b>\$ 533,586</b>	<b>\$ 533,593</b>	
<b>Total Debt Service</b>	<b>-</b>	<b>-</b>	<b>4,133,575</b>	<b>-</b>	<b>9,311,239</b>	<b>20,226,196</b>	<b>24,403,318</b>	<b>9,565,791</b>	<b>18,140,937</b>	<b>16,007,583</b>	<b>16,007,791</b>	
<b>Cumulative New Annual Senior Lien Debt Service<sup>1</sup></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 105,905</b>	<b>\$ 137,786</b>	<b>\$ 376,347</b>	<b>\$ 966,371</b>	<b>\$ 1,747,598</b>	<b>\$ 2,180,894</b>	<b>\$ 2,719,455</b>	<b>\$ 3,269,495</b>	<b>\$ 3,803,086</b>	

1) Reflects interest-only payment due in year of issuance.





**WATER, SEWER RECLAIMED WATER RATE STUDY**  
 Appendix B – Sewer Fund Revenue Sufficiency Analysis

**Historical & Projected Sewer Volumes**

**Schedule 11**

Projected Sewer Sales (In 1,000 Gallons)	Historical			Projection									
	FY 2020 <sup>(1)</sup>	FY 2021 <sup>(1)</sup>	FY 2022 <sup>(1)</sup>	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>Annual Growth:</b>				0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
<b>Retail Sewer Sales:</b>	6,050,636	6,715,569	6,775,095	6,951,643	7,019,987	7,088,460	7,102,637	7,116,842	7,131,076	7,145,338	7,159,629	7,173,948	7,188,296
In MGD	16.58	18.40	18.56	19.05	19.23	19.42	19.46	19.50	19.54	19.58	19.62	19.65	19.69
<b>Wholesale Sewer Sales:</b>	1,641,200	2,386,469	1,940,326	1,944,207	1,948,095	1,951,991	1,955,895	1,959,807	1,963,727	1,967,654	1,971,589	1,975,533	1,979,484
In MGD	4.50	6.54	5.32	5.33	5.34	5.35	5.36	5.37	5.38	5.39	5.40	5.41	5.42
<b>Total Projected Sewer Sales</b>	<b>7,691,836</b>	<b>9,102,038</b>	<b>8,715,421</b>	<b>8,895,849</b>	<b>8,968,082</b>	<b>9,040,451</b>	<b>9,058,532</b>	<b>9,076,649</b>	<b>9,094,803</b>	<b>9,112,992</b>	<b>9,131,218</b>	<b>9,149,481</b>	<b>9,167,780</b>
<b>Projected Sewer Sales in MGD</b>	<b>21.07</b>	<b>24.94</b>	<b>23.88</b>	<b>24.37</b>	<b>24.57</b>	<b>24.77</b>	<b>24.82</b>	<b>24.87</b>	<b>24.92</b>	<b>24.97</b>	<b>25.02</b>	<b>25.07</b>	<b>25.12</b>

1) Retail and wholesale sewer sales are based upon actual sales as provided by County staff.

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## **Appendix C WATER SYSTEM COST OF SERVICE**

- Schedule 1 Retail & Wholesale Cost of Service Analysis Results: Water System**
- Schedule 2 Cost Allocation by Customer Class & Cost Type**
- Schedule 3 Debt Service: Water Supply & Water Distribution**
- Schedule 4 Operating, Administrative & Capital Expenses: Water Supply**
- Schedule 5 Operating, Administrative & Capital Expenses: Water Distribution**
- Schedule 6 Off-setting Revenues: Water Supply & Water Distribution**

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**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix C – Water System Cost of Service

**RETAIL VS. WHOLESALE COST OF SERVICE ANALYSIS: WATER SYSTEM**

**Schedule 1**

		FY 2023 TEST YEAR		FY 2019 TEST YEAR
<u>WATER SUPPLY:</u>				
1	Operating, Administrative & Capital Expenses	\$ 63,135,448		\$ 58,253,897
2	Debt Service	-		-
3	Subtotal Revenue Requirement	\$ 63,135,448		\$ 58,253,897
4	Off-Setting Revenues	(865,004)		(1,980,830)
5	Use of Reserve Funds <sup>(1)</sup>	(2,942,795)		(2,671,955)
6	<b>Total Revenue Requirement - Water Supply</b>	<b>\$ 59,327,649</b>		<b>\$ 53,601,112</b>
<u>WATER DISTRIBUTION:</u>				
7	Operating, Administrative & Capital Expenses	\$ 44,105,490		\$ 33,875,524
8	Debt Service	-		-
9	Subtotal Revenue Requirement	\$ 44,105,490		\$ 33,875,524
10	Off-Setting Revenues	(4,837,512)		(5,319,876)
11	Use of Reserve Funds <sup>(2)</sup>	(4,487,306)		4,580,249
12	<b>Total Revenue Requirement - Water Distribution</b>	<b>\$ 34,780,671</b>		<b>\$ 33,135,897</b>
<u>COMBINED WATER SYSTEM:</u>				
13	Operating, Administrative & Capital Expenses	\$ 107,240,938		\$ 92,129,421
14	Debt Service	-		-
15	Subtotal Revenue Requirement	\$ 107,240,938		\$ 92,129,421
16	Off-Setting Revenues	(5,702,517)		(7,300,706)
17	Use of Reserve Funds	(7,430,101)		1,908,294
18	<b>Total Revenue Requirement - Combined Water System</b>	<b>\$ 94,108,320</b>		<b>\$ 86,737,009</b>
<u>Reallocation of Water Distribution Revenue Requirement:</u>				
19	% of Below Ground Assets Required to Serve Wholesale <sup>(3)</sup>	37.60%		37.00%
20	Allocation to Water Supply <sup>(4)</sup>	\$ 5,765,742		\$ 8,784,640
<u>Billed Water Demands (In 1,000 gallons):</u>				
21	Wholesale	23.2% 4,052,826		23.1% 3,702,725
22	Retail	76.8% 13,415,082		76.9% 12,346,111
23	<b>FY 2023 Cost of Service Allocations:</b>	<b>\$ 94,108,320</b>		<b>\$ 86,737,009</b>
24	Wholesale	16.0% \$ 15,102,676		16.6% \$ 14,393,399
25	Retail	84.0% \$ 79,005,644		83.4% \$ 72,343,610
26	<b>FY 2023 Rate Revenues (Per FAMS):</b>	<b>\$ 94,108,320</b>		<b>\$ 86,737,009</b>
27	Wholesale	17.1% \$ 16,052,103		17.6% \$ 15,299,590
28	Retail	82.9% \$ 78,056,218		82.4% \$ 71,437,419

<u>FY 2023 Rate Revenues per FY 2023 Cost of Service Analysis:</u>				
29	Wholesale	\$ 16,052,103		\$ 15,299,590
30	Retail	\$ 78,056,218		\$ 71,437,419
<u>FY 2023 Revenue Adjustments Per Cost of Service Analysis:</u>				
31	Wholesale	\$ (949,426)		\$ (906,191)
32	Retail	\$ 949,426		\$ 906,191
<u>FY 2023 Rate Adjustments to Align with Cost of Service Analysis:</u>				
33	Wholesale	-5.91%		-5.92%
34	Retail	1.22%		1.27%

- (1) Reflects the portion of unrestricted reserves necessary to fund the annual Renewal & Replacement Fund transfer allocable to Water Supply.
- (2) Reflects the portion of unrestricted reserves necessary to fund the annual Renewal & Replacement Fund transfer allocable to Water Distribution.
- (3) Wholesale allocation based on linear footage of water lines greater than 8" as a percentage of total water lines.
- (4) Not applicable to Renewal, Replacement, & Improvement Expenses, as the allocation of capital expenditures already included the allocation of below ground asset



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix C – Water System Cost of Service

**RETAIL COST ALLOCATION BY CUSTOMER CLASS: WATER SYSTEM**

**Schedule 2**

	FY 2023 TEST YEAR <sup>(1)</sup>	WHOLESALE VS. RETAIL ALLOCATION:				RETAIL FIXED VS. VARIABLE ALLOCATION:		
		RETAIL	WHOLESALE	RETAIL	WHOLESALE	TOTAL RETAIL <sup>(4)</sup>		
						FIXED	VARIABLE	
<b>WATER SUPPLY:</b>								
1	Operating, Administrative & Capital Expenses <sup>(2)</sup>	\$ 63,135,448	76.80%	23.20%	\$ 48,487,045	\$ 14,648,403	\$ 40,734,809	7,752,236
2	Debt Service	-	76.80%	23.20%	-	-	-	-
3	Subtotal Revenue Requirement	\$ 63,135,448						
4	Off-Setting Revenues <sup>(2)</sup>	(865,004)	76.80%	23.20%	(664,310)	(200,694)	(558,098)	(106,212)
5	Use of Reserve Funds <sup>(2)</sup>	(2,942,795)	76.80%	23.20%	(2,260,021)	(682,774)	(1,898,683)	(361,338)
6	<b>Total Revenue Requirement - Water Supply</b>	<b>\$ 59,327,649</b>			<b>\$ 45,562,714</b>	<b>\$ 13,764,935</b>	<b>\$ 38,278,028</b>	<b>7,284,686</b>
<b>WATER DISTRIBUTION:</b>								
7	Operating, Administrative & Capital Expenses <sup>(3)</sup>	\$ 44,105,490	96.15%	3.85%	\$ 42,409,095	\$ 1,696,395	\$ 35,628,618	6,780,478
8	Debt Service	-	96.15%	3.85%	-	-	-	-
9	Subtotal Revenue Requirement	\$ 44,105,490						
10	Off-Setting Revenues <sup>(3)</sup>	(4,837,512)	96.15%	3.85%	(4,651,451)	(186,061)	(3,907,765)	(743,686)
11	Use of Reserve Funds <sup>(3)</sup>	(4,487,306)	96.15%	3.85%	(4,314,715)	(172,592)	(3,624,867)	(689,848)
12	<b>Total Revenue Requirement - Water Distribution</b>	<b>\$ 34,780,671</b>			<b>\$ 33,442,930</b>	<b>\$ 1,337,742</b>	<b>\$ 28,095,986</b>	<b>5,346,943</b>
<b>COMBINED WATER SYSTEM:</b>								
13	Operating, Administrative & Capital Expenses	\$ 107,240,938			\$ 90,896,140	\$ 16,344,798	\$ 76,363,426	\$ 14,532,714
14	Debt Service	-			-	-	-	-
15	Subtotal Revenue Requirement	\$ 107,240,938			\$ 90,896,140	\$ 16,344,798	\$ 76,363,426	\$ 14,532,714
16	Off-Setting Revenues	(5,702,517)			(5,315,761)	(386,756)	(4,465,863)	(849,898)
17	Use of Reserve Funds	(7,430,101)			(6,574,735)	(855,366)	(5,523,549)	(1,051,186)
18	<b>Total Revenue Requirement - Combined Water System</b>	<b>\$ 94,108,320</b>			<b>\$ 79,005,644</b>	<b>\$ 15,102,676</b>	<b>\$ 66,374,014</b>	<b>\$ 12,631,630</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Proposed Budget. Personnel expenses are executed at 95%, while O&M and Capital Outlay costs are executed at a 100%.

(2) Retail and wholesale allocation of water Supply expenses is based upon projected FY 2023 billed volume shown in Schedule 1

(3) \$4.2M of Water Distribution expense is allocable to all customers and allocated to retail and wholesale based on projected FY 2023 billed volume shown in Schedule 1.

(4) Retail allocation of fixed and variable costs are based upon costs of each cost center, shown in Schedules 4 and 5.



**DEBT SERVICE:  
 WATER SUPPLY & WATER DISTRIBUTION**

**Schedule 3**

		FY 2021 ACTUAL	FY 2022 ACTUAL	FY 2023 TEST YEAR	FY 2024 PROJECTED	3-YEAR AVERAGE
1	<b>TOTAL DEBT SERVICE - COMBINED WATER SYSTEM <sup>(1)</sup></b>	\$ -	-	-	-	\$ -
	<u>Debt Service by Issue:</u>					
2	Model Calculated Debt	\$ -	-	-	-	\$ -
3	Other Debt Service Costs	\$ -	-	-	-	\$ -
4	Senior Lien Debt Service - Water Supply	\$ -	-	-	-	\$ -
5	Coverage Requirement	1.00 \$	-	-	-	\$ -
6	Senior Lien Debt Service - Water Distribution	\$ -	-	-	-	\$ -
7	Coverage Requirement	1.00 \$	-	-	-	\$ -
8	<b>Total Debt on Bonds</b>	\$ -	-	-	-	\$ -
9	<b>Coverage Requirement</b>	1.00 \$	-	-	-	\$ -

(1) There is no debt service for the Pinellas County Utility Water Fund.



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix C – Water System Cost of Service

### OPERATING, ADMINISTRATIVE & CAPITAL EXPENSES: WATER SUPPLY

Schedule 4

	FY 2021	FY 2022	FY 2023	3-YEAR	FIXED VS. VARIABLE ALLOCATION:	
	ACTUAL	ACTUAL	TEST YEAR <sup>(1)</sup>		AVERAGE	FY 2023 TEST YEAR
					\$ FIXED	\$ VAR
<b>OPERATING &amp; MAINTENANCE EXPENSES</b>						
1 431320 - Water Supply & Transmission <sup>(2)</sup>	\$ 4,241,685	\$ 4,434,623	\$ 5,517,661	\$ 4,731,323	\$ 3,792,883	\$ 1,724,778
2 431330 - Supervisory Control and Data Acquisition (SCADA) <sup>(3)</sup>	118,115	138,939	229,741	162,265	172,306	57,435
3 431340 - Water Quality Laboratory <sup>(4)</sup>	447,335	494,582	519,022	486,980	493,760	25,262
4 431350 - Water Quality - Monitoring <sup>(5)</sup>	736,058	705,103	1,003,776	814,979	-	1,003,776
5 431370 - Water & Sewer Code Enforcement	107,382	116,867	244,144	156,131	244,144	-
6 431415 - Land, Forestry and Wildlife	874,610	1,046,654	1,124,250	1,015,171	1,124,250	-
7 431335 - Utilities Data Management	-	(239)	480,327	160,029	480,327	-
Incremental AMI Costs	-	-	-	-	-	-
8 <b>TOTAL OPERATING &amp; MAINTENANCE EXPENSES</b>	<b>\$ 6,525,186</b>	<b>\$ 6,936,528</b>	<b>\$ 9,118,920</b>	<b>\$ 7,526,878</b>	<b>\$ 6,307,669</b>	<b>\$ 2,811,251</b>
<b>TAMPA BAY WATER EXPENSES:</b>						
9 433110 Tampa Bay Water (TBW) <sup>(6)</sup>	\$ 41,755,633	\$ 42,637,167	\$ 44,726,462	\$ 43,039,754	\$ 37,443,451	\$ 7,283,011
10 <b>TOTAL TAMPA BAY WATER EXPENSES</b>	<b>\$ 41,755,633</b>	<b>\$ 42,637,167</b>	<b>\$ 44,726,462</b>	<b>\$ 43,039,754</b>	<b>\$ 37,443,451</b>	<b>\$ 7,283,011</b>
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>						
11 431040 Warehouse Support	\$ 1,307,724	\$ 1,236,214	\$ 1,129,173	\$ 1,224,370	\$ 1,129,173	\$ -
12 431050 - Utilities Engineering	1,967,012	2,179,670	1,292,275	1,812,985	1,292,275	-
13 431085 - Customer Service	3,807,330	3,427,928	4,076,884	3,770,714	4,076,884	-
14 431130 - Water & Sewer Administration	9,215,262	9,432,739	11,409,709	10,019,237	11,409,709	-
15 Data Processing Costs	-	(8,090)	-	(2,697)	-	-
16 Subtotal	\$ 16,297,328	\$ 16,268,461	\$ 17,908,040	\$ 16,824,610	\$ 17,908,040	\$ -
17 Allocation to Water Supply <sup>(7)</sup>	39.61%	39.61%	39.61%	39.61%	39.61%	39.61%
18 <b>TOTAL GENERAL &amp; ADMINISTRATIVE EXPENSES</b>	<b>\$ 6,454,783</b>	<b>\$ 6,443,350</b>	<b>\$ 7,092,728</b>	<b>\$ 6,663,621</b>	<b>\$ 7,092,728</b>	<b>\$ -</b>
<b>RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES:</b>						
19 Water Supply & Transmission <sup>(8)</sup>	\$ -	\$ 19,303,551	\$ 1,783,766	\$ 10,543,659	\$ 1,783,766	\$ -
20 <b>TOTAL RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES</b>	<b>\$ -</b>	<b>\$ 19,303,551</b>	<b>\$ 1,783,766</b>	<b>\$ 10,543,659</b>	<b>\$ 1,783,766</b>	<b>\$ -</b>
<b>IN-HOUSE COST CENTER EXPENSES:</b>						
<b>Admin &amp; Business Support Cost Centers</b>						
21 431130 Water & Sewer Administration	\$ -	\$ 56,000	\$ -	\$ 18,667	\$ -	\$ -
22 Subtotal	\$ -	\$ 56,000	\$ -	\$ 18,667	\$ -	\$ -
23 Allocation to Water Supply <sup>(9)</sup>	39.61%	39.61%	39.61%	39.61%	39.61%	39.61%
24 Total Admin & Business Support Cost Centers	\$ -	\$ 22,180	\$ -	\$ 7,393	\$ -	\$ -
25 <b>TOTAL IN-HOUSE COST CENTER EXPENSES</b>	<b>\$ -</b>	<b>\$ 22,180</b>	<b>\$ -</b>	<b>\$ 7,393</b>	<b>\$ -</b>	<b>\$ -</b>
<b>CAPITAL EQUIPMENT EXPENSES:</b>						
<b>Admin &amp; Business Support Cost Centers</b>						
27 431085 - Customer Service	\$ -	\$ 209,491	\$ 123,130	\$ 110,874	\$ 123,130	\$ -
28 431130 Water & Sewer Administration	-	1,208	5,200	2,136	5,200	-
29 Subtotal	\$ -	\$ 210,699	\$ 128,330	\$ 113,010	\$ 128,330	\$ -
30 Allocation to Water Supply <sup>(9)</sup>	39.61%	39.61%	39.61%	39.61%	39.61%	39.61%
31 Total Admin & Business Support Cost Centers	\$ -	\$ 83,450	\$ 50,827	\$ 44,759	\$ 50,827	\$ -
<b>Water &amp; Sewer Cost Centers</b>						
32 431320 - Water Supply & Transmission	\$ -	\$ 25,447	\$ 14,420	\$ 13,289	\$ 14,420	\$ -
33 431330 - Supervisory Control and Data Acquisition (SCADA) <sup>(3)</sup>	5,163	9,647	3,000	5,937	3,000	-
34 431340 - Water Quality Laboratory	8,494	-	70,000	26,165	70,000	-
35 431350 - Water Quality - Monitoring <sup>(5)</sup>	-	-	171,800	57,267	171,800	-
36 431370 - Water & Sewer Code Enforcement	-	-	98,700	32,900	98,700	-
37 431335 Utilities Data Management	-	-	4,825	1,608	4,825	-
38 Incremental AMI Costs	-	-	-	-	-	-
39 Total Water & Sewer Cost Centers	\$ 13,657	\$ 35,094	\$ 362,745	\$ 137,165	\$ 362,745	\$ -
<b>Engineering &amp; Technical Support Cost Centers</b>						
40 431050 - Utilities Engineering	\$ 374	\$ 635	\$ -	\$ 336	\$ -	\$ -
41 Subtotal	\$ 374	\$ 635	\$ -	\$ 336	\$ -	\$ -
42 Allocation to Water Supply <sup>(10)</sup>	46.76%	46.76%	46.76%	46.76%	46.76%	46.76%
43 Total Engineering & Technical Support Cost Centers	\$ 175	\$ 297	\$ -	\$ 157	\$ -	\$ -
44 <b>TOTAL CAPITAL EQUIPMENT EXPENSES</b>	<b>\$ 13,831</b>	<b>\$ 118,841</b>	<b>\$ 413,572</b>	<b>\$ 182,081</b>	<b>\$ 413,572</b>	<b>\$ -</b>
45 <b>TOTAL EXPENSES - WATER SUPPLY <sup>(11)</sup></b>	<b>\$ 54,749,433</b>	<b>\$ 75,461,616</b>	<b>\$ 63,135,448</b>	<b>\$ 64,448,832</b>	<b>\$ 53,041,187</b>	<b>\$ 10,094,261</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Proposed Budget. Personnel expenses are executed at 95%, while O&M and Capital Outlay costs are executed at a 100%.  
 (2) Chemical portion of costs (36%) assumed to be variable.  
 (3) Costs assumed to be 50% allocable to Water Supply and 50% allocable to Water Distribution based on County staff direction. Costs assumed to be 75% fixed and 25% variable based on County staff  
 (4) Electric power portion of costs (7%) assumed to be variable.  
 (5) Costs assumed to be 50% allocable to Water Supply and 50% allocable to Water Distribution based on County staff direction.  
 (6) Tampa Bay Water expense based on expense projections used in Revenue Sufficiency Analysis.  
 (7) Based upon the 3-year average of Operating & Maintenance Expenses and In-House Cost Center Expenses directly assignable to Water Supply.  
 (8) Based upon allocation of capital expenditures by function as provided by County staff. FY 2021 not provided.  
 (9) Based upon the annual allocations of General & Administrative Expenses to Water Supply.  
 (10) Based upon the 3-year average of Renewal, Replacement, & Improvement Project Expenses directly assignable to Water Supply.  
 (11) Total FY 2021 expenses excludes RR&I projects (allocations not provided)



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix C – Water System Cost of Service

### OPERATING, ADMINISTRATIVE & CAPITAL EXPENSES: WATER DISTRIBUTION

Schedule 5

	FY 2021	FY 2022	FY 2023	3-YEAR AVERAGE	FIXED VS. VARIABLE ALLOCATION: FY 2023 TEST YEAR	
	ACTUAL	ACTUAL	TEST YEAR <sup>(1)</sup>		\$ FIXED	\$ VAR
<b>OPERATING &amp; MAINTENANCE EXPENSES</b>						
1 431070 - Field Services	\$ 784,050	\$ 813,110	\$ 1,337,855	\$ 978,338	\$ -	\$ 1,337,855
2 431240 - Technical Services	3,113,969	3,533,950	3,568,117	3,405,345	3,568,117	-
3 431250 - Maintenance North & South <sup>(2)</sup>	5,057,302	5,935,349	6,491,077	5,827,909	6,491,077	-
4 431330 - Supervisory Control and Data Acquisition (SCADA) <sup>(3)</sup>	118,115	138,939	229,741	162,265	172,306	57,435
5 431350 - Water Quality - Monitoring <sup>(4)</sup>	736,058	705,103	1,003,776	814,979	-	1,003,776
6 431335 - Utilities Data Management	-	(239)	480,327	160,029	480,327	-
7 <b>TOTAL OPERATING &amp; MAINTENANCE EXPENSES</b>	<b>\$ 9,809,494</b>	<b>\$ 11,126,212</b>	<b>\$ 13,110,892</b>	<b>\$ 11,348,866</b>	<b>\$ 10,711,826</b>	<b>\$ 2,399,066</b>
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>						
8 431040 Warehouse Support	\$ 1,307,724	\$ 1,236,214	\$ 1,129,173	\$ 1,224,370	\$ 1,129,173	\$ -
9 431050 - Utilities Engineering	1,967,012	2,179,670	1,292,275	1,812,985	1,292,275	-
10 431085 - Customer Service	3,807,330	3,427,928	4,076,884	3,770,714	4,076,884	-
11 431130 - Water & Sewer Administration	9,215,262	9,432,739	11,409,709	10,019,237	11,409,709	-
12 Data Processing Costs	-	(8,090)	-	(2,697)	-	-
13 Subtotal	\$ 16,297,328	\$ 16,268,461	\$ 17,908,040	\$ 16,824,610	\$ 17,908,040	\$ -
14 Allocation to Water Distribution <sup>(5)</sup>	60.39%	60.39%	60.39%	60.39%	60.39%	60.39%
15 Subtotal	\$ 9,842,545	\$ 9,825,111	\$ 10,815,312	\$ 10,160,989	\$ 10,815,312	\$ -
16 Data Processing Costs	-	8,090	-	2,697	-	-
17 <b>TOTAL GENERAL &amp; ADMINISTRATIVE EXPENSES</b>	<b>\$ 9,842,545</b>	<b>\$ 9,833,201</b>	<b>\$ 10,815,312</b>	<b>\$ 10,163,686</b>	<b>\$ 10,815,312</b>	<b>\$ -</b>
<b>RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES:</b>						
18 Water Distribution <sup>(6)</sup>	-	\$ 16,573,538	\$ 19,445,273	\$ 18,009,405	\$ 19,445,273	\$ -
19 <b>TOTAL RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES</b>	<b>\$ -</b>	<b>\$ 16,573,538</b>	<b>\$ 19,445,273</b>	<b>\$ 12,006,270</b>	<b>\$ 19,445,273</b>	<b>\$ -</b>
<b>IN-HOUSE COST CENTER EXPENSES:</b>						
20 431130 Water & Sewer Administration	\$ -	\$ 56,000	\$ -	\$ 18,667	\$ -	\$ -
21 Subtotal	\$ -	\$ 56,000	\$ -	\$ 18,667	\$ -	\$ -
22 Allocation to Water Distribution <sup>(7)</sup>	60.39%	60.39%	60.39%	60.39%	60.39%	60.39%
23 Total Admin & Business Support Cost Centers	\$ -	\$ 33,820	\$ -	\$ 11,273	\$ -	\$ -
24 431250 Maintenance North & South	\$ -	\$ 385,370	\$ -	\$ 128,457	\$ -	\$ -
25 Total Water & Sewer Cost Centers	\$ -	\$ 385,370	\$ -	\$ 128,457	\$ -	\$ -
26 <b>TOTAL IN-HOUSE COST CENTER EXPENSES</b>	<b>\$ -</b>	<b>\$ 419,190</b>	<b>\$ -</b>	<b>\$ 139,730</b>	<b>\$ -</b>	<b>\$ -</b>
<b>CAPITAL EQUIPMENT EXPENSES:</b>						
27 431085 - Customer Service	\$ -	\$ 209,491	\$ 123,130	\$ 110,874	\$ 123,130	\$ -
28 431130 Water & Sewer Administration	-	1,208	5,200	2,136	5,200	-
29 Subtotal	\$ -	\$ 210,699	\$ 128,330	\$ 113,010	\$ 128,330	\$ -
30 Allocation to Water Distribution <sup>(7)</sup>	60.39%	60.39%	60.39%	60.39%	60.39%	60.39%
31 Total Admin & Business Support Cost Centers	\$ -	\$ 127,249	\$ 77,503	\$ 68,251	\$ 77,503	\$ -
<b>Water &amp; Sewer Cost Centers</b>						
32 431070 - Field Services	\$ 16,212	\$ 50,984	\$ 152,400	\$ 73,199	\$ 152,400	\$ -
33 431240 Technical Services	7,370	84,753	200,710	97,611	200,710	-
34 431250 Maintenance North & South	290,213	121,259	45,220	152,231	45,220	-
35 431330 - Supervisory Control and Data Acquisition (SCADA) <sup>(3)</sup>	5,163	9,647	3,000	5,937	3,000	-
36 431350 - Water Quality - Monitoring <sup>(4)</sup>	-	-	171,800	57,267	171,800	-
37 431335 Utilities Data Management	-	-	4,825	1,608	4,825	-
38 Incremental AML Costs	-	-	78,555	26,185	78,555	-
39 Total Water & Sewer Cost Centers	\$ 318,957	\$ 266,644	\$ 656,510	\$ 414,037	\$ 656,510	\$ -
<b>Engineering &amp; Technical Support Cost Centers</b>						
40 431050 - Utilities Engineering	\$ 374	\$ 635	\$ -	\$ 252	\$ -	\$ -
41 Subtotal	\$ 374	\$ 635	\$ -	\$ 336	\$ -	\$ -
42 Allocation to Water Distribution <sup>(8)</sup>	53.24%	53.24%	53.24%	53.24%	53.24%	53.24%
43 Total Engineering & Technical Support Cost Centers	\$ 199	\$ 338	\$ -	\$ 179	\$ -	\$ -
44 <b>TOTAL CAPITAL EQUIPMENT EXPENSES</b>	<b>\$ 319,156</b>	<b>\$ 394,231</b>	<b>\$ 734,013</b>	<b>\$ 482,467</b>	<b>\$ 734,013</b>	<b>\$ -</b>
45 <b>TOTAL EXPENSES - WATER DISTRIBUTION <sup>(9)</sup></b>	<b>\$ 19,971,195</b>	<b>\$ 38,346,372</b>	<b>\$ 44,105,490</b>	<b>\$ 41,225,931</b>	<b>\$ 41,706,424</b>	<b>\$ 2,399,066</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Budget and adjustments included in the Revenue Sufficiency Analysis. Personnel expenses are executed at 95%, while O&M and Capital Outlay costs are executed at a 100%.

(2) Electric power portion of costs (7%) assumed to be variable.

(3) Costs assumed to be 50% allocable to Water Supply and 50% allocable to Water Distribution based on County staff direction. Costs assumed to be 75% fixed and 25% variable based on County staff direction.

(4) Costs assumed to be 50% allocable to Water Supply and 50% allocable to Water Distribution based on County staff direction.

(5) Based upon the 3-year average of Operating & Maintenance Expenses and In-House Cost Center Expenses directly assignable to Water Distribution.

(6) Based upon allocation of capital expenditures by function as provided by County staff. FY 2021 not provided.

(7) Based upon the annual allocations of General & Administrative Expenses to Water Distribution.

(8) Based upon the 3-year average of Renewal, Replacement, & Improvement Project Expenses directly assignable to Water Distribution.

(9) Total FY 2021 expenses excludes RR&I projects (allocations not provided).



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix C – Water System Cost of Service

**OFF-SETTING REVENUES: WATER SUPPLY & WATER DISTRIBUTION**

**Schedule 6**

	<b>FY 2021 ACTUAL</b>	<b>FY 2022 ACTUAL</b>	<b>FY 2023 TEST YEAR</b>	<b>3-YEAR AVERAGE</b>	
<b>OFF-SETTING REVENUES - WATER SUPPLY:</b>					
<u>Interest Income - O &amp; M and R &amp; R</u>					
1	3611210 Interest-Cash Pools	3,848	-	-	\$1,283
2	3611991 Other Interest Earnings	118,131	-	-	39,377
3	3611700 Interest - LGIP & Public Funds D	35,619	-	-	11,873
4	3611800 Interest-Securities	857,173	-	-	285,724
5	Interest - Unrestricted Funds	-	785,903	406,559	533,405
6	Subtotal	\$ 226,966	785,903	406,559	\$ 473,143
7	Allocation to Water Supply <sup>(1)</sup>	60.99%	60.99%	60.99%	60.99%
8	Total Interest Income - O & M and R & R	\$ 138,422	479,306	247,952	\$ 288,560
9	3650001 Forestry Operations - Sales	\$ 811,294	\$ 567,200	\$ 597,053	\$ 658,515
10	3433122 Wholesale Water Meter SC	19,272	19,000	20,000	19,424
11	Total Other Operating Revenue	\$ 830,566	586,200	617,053	\$ 677,939
12	<b>TOTAL OFF-SETTING REVENUES - WATER SUPPLY</b>	<b>\$ 968,988</b>	<b>1,065,506</b>	<b>865,004</b>	<b>\$ 966,499</b>
<b>OFF-SETTING REVENUES - WATER DISTRIBUTION:</b>					
13	Allocation to Water Distribution <sup>(2)</sup>	39.01%	39.01%	39.01%	39.01%
14	Total Interest Income - O & M and R & R	\$ 88,544	306,597	158,607	\$ 184,583
15	3433120 Service Charges	\$ 1,072,451	\$ 997,500	\$ 1,060,505	\$ 1,043,485
16	3433121 Water - Late Payment Fee	623,239	570,000	600,000	597,746
17	3433123 Backflow Maint Fee-Sap	703,096	712,500	750,000	721,865
18	3433130 Fireline Payments	201,913	209,000	220,000	210,304
19	3433150 Contractual Billing Svc	406,626	408,500	430,000	415,042
20	3433302 Water Conservation	451,101	342,000	385,000	392,700
21	3433501 Wellhead Protection	450	380	400	410
22	3490010 Chg For Sv-Bad Dbt Ex(Dr)	146,928	-	-	48,976
23	3621008 Rents - Bldg/Space	355,101	351,500	370,000	358,867
24	3644100 Sale Of Surplus Equipment	86,817	57,000	57,000	66,939
25	3644200 Ins Proceeds-Furn/Fxtr/Eq	15,896	9,500	16,000	13,799
26	3650003 Sale-Scrap	1,877	-	-	626
27	3699213 ISI-CC Trans Rev-SAP	49,593	42,750	45,000	45,781
28	3699350 Refund Of Prior Yrs Exp	2,531	-	-	844
29	3699991 Miscellaneous Revenue	46,277	28,500	30,000	34,926
30	3699001 Records Request Reimbursement	15	-	-	5
31	3313901 Fed Grant-Other Physical Environ	-	33,000	35,000	22,667
32	3815001 Transfer from BTS	-	7,830	-	2,610
33	3898331 Cap Con-Pvt-Wtr Back Flow	123,570	125,334	130,000	126,301
34	3898332 Cap Con-Pvt-Wtr Connectn	601,532	580,080	550,000	577,204
35	3699324 Reimb Other Govt Agencies	29,700	-	-	7,425
36	Total Other Operating Revenue	\$ 4,769,883	4,475,374	4,678,905	\$ 4,641,388
37	<b>TOTAL OFF-SETTING REVENUES - WATER DISTRIBUTION</b>	<b>\$ 4,858,427</b>	<b>4,781,972</b>	<b>4,837,512</b>	<b>\$ 4,825,970</b>
38	<b>TOTAL OFF-SETTING REVENUES - COMBINED WATER SYSTEM</b>	<b>\$ 5,827,415</b>	<b>5,847,477</b>	<b>5,702,517</b>	<b>\$ 5,792,470</b>
39	<b>USE OF FUND BALANCE</b>				

(1) Based upon the 3-year average of total expenses allocated to Water Supply.

(2) Based upon the 3-year average of total expenses allocated to Water Distribution.





## **Appendix D SEWER SYSTEM COST OF SERVICE**

- Schedule 1 Retail & Wholesale Cost of Service Analysis Results: Sewer System**
- Schedule 2 Cost Allocation by Customer Class & Cost Type**
- Schedule 3 Debt Service: Sewer Treatment & Disposal and Sewer Collection & Transmission**
- Schedule 4 Operating, Administrative & Capital Expenses: Sewer Treatment & Disposal**
- Schedule 5 Operating, Administrative & Capital Expenses: Sewer Collection & Transmission**
- Schedule 6 Off-setting Revenues: Sewer Treatment & Disposal and Sewer Collection & Transmission**

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**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix D – Sewer System Cost of Service

**RETAIL VS. WHOLESALE COST OF SERVICE ANALYSIS: SEWER SYSTEM**

**Schedule 1**

		<b>FY 2023 TEST YEAR</b>		<b>FY 2019 TEST YEAR</b>	
<b>SEWER TREATMENT &amp; DISPOSAL:</b>					
1	Operating, Administrative & Capital Expenses	\$ 43,681,876		\$ 43,852,638	
2	Debt Service	6,355,069		7,264,998	
3	Subtotal Revenue Requirement	\$ 50,036,946		\$ 51,117,636	
4	Off-Setting Revenues	(5,504,257)		(4,931,105)	
5	Use of Reserve Funds <sup>(1)</sup>	941,223		(10,976,426)	
6	<b>Total Revenue Requirement - Sewer Treatment &amp; Disposal</b>	<b>\$ 45,473,911</b>		<b>\$ 35,210,105</b>	
<b>SEWER COLLECTION &amp; TRANSMISSION:</b>					
7	Operating, Administrative & Capital Expenses	\$ 58,190,790		\$ 49,330,639	
8	Debt Service	7,676,644		9,141,567	
9	Subtotal Revenue Requirement	\$ 65,867,434		\$ 58,472,206	
10	Off-Setting Revenues	(7,467,060)		(5,718,970)	
11	Use of Reserve Funds <sup>(2)</sup>	826,347		(16,685,308)	
12	<b>Total Revenue Requirement - Sewer Collection &amp; Transmission</b>	<b>\$ 59,226,721</b>		<b>\$ 36,067,928</b>	
<b>COMBINED SEWER SYSTEM:</b>					
13	Operating, Administrative & Capital Expenses	\$ 101,872,666		\$ 93,183,277	
14	Debt Service	14,031,714		16,406,565	
15	Subtotal Revenue Requirement	\$ 115,904,380		\$ 109,589,842	
16	Off-Setting Revenues	(12,971,317)		(10,650,075)	
17	Use of Reserve Funds	1,767,569		(27,661,734)	
18	<b>Total Revenue Requirement - Combined Sewer System</b>	<b>\$ 104,700,632</b>		<b>\$ 71,278,033</b>	
<b>Reallocation of Sewer C&amp;T Revenue Requirement:</b>					
19	% of Below Ground Assets Required to Serve Wholesale <sup>(3)</sup>	20.72%		19.49%	
20	Allocation to Sewer T&D <sup>(4)</sup>	7,154,176		2,441,208	
<b>Billed Sewer Flows (In 1,000 gallons):</b>					
21	Wholesale	21.9%	1,944,207	20.6%	2,027,675
22	Retail	78.1%	6,951,643	79.4%	7,825,403
23	<b>FY 2022 Cost of Service Allocations:</b>		<b>\$ 104,700,632</b>		<b>\$ 71,278,033</b>
24	Wholesale	11.0%	\$ 11,501,979	10.9%	\$ 7,748,302
25	Retail	89.0%	\$ 93,198,653	89.1%	\$ 63,529,732
26	<b>FY 2022 Rate Revenues (Per FAMS):</b>		<b>\$ 104,700,632</b>		<b>\$ 71,278,037</b>
27	Wholesale	12.8%	\$ 13,447,629	12.3%	\$ 8,737,700
28	Retail	87.2%	\$ 91,253,004	87.7%	\$ 62,540,337
-					
<b>FY 2022 Rate Revenues per FY 2022 Cost of Service Analysis:</b>					
	Wholesale		\$ 11,501,979		\$ 7,748,302
	Retail		\$ 93,198,653		\$ 63,529,732
<b>FY 2022 Revenue Adjustments Per Cost of Service Analysis:</b>					
	Wholesale		\$ (1,945,649)		\$ (989,398)
	Retail		\$ 1,945,649		\$ 989,394
<b>FY 2022 Rate Adjustments to Align with Cost of Service Analysis:</b>					
	Wholesale		-16.92%		-12.77%
	Retail		2.09%		1.56%

(1) Reflects the portion of unrestricted reserves necessary to fund the annual Renewal & Replacement Fund transfer allocable to Sewer Treatment & Disposal.

(2) Reflects the portion of unrestricted reserves necessary to fund the annual Renewal & Replacement Fund transfer allocable to Sewer Collection &

(3) Wholesale allocation based on linear footage of sewer lines greater than 12" as a percentage of total linear footage of sewer lines.

(4) Not applicable to Renewal, Replacement, & Improvement Expenses, as the allocation of capital expenditures already included the allocation of below ground assets to Sewer Treatment & Disposal.



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix D – Sewer System Cost of Service

### RETAIL COST ALLOCATION BY CUSTOMER CLASS: SEWER SYSTEM

Schedule 2

	FY 2023 TEST YEAR <sup>(1)</sup>	WHOLESALE VS. RETAIL ALLOCATION				RETAIL FIXED VS. VARIABLE ALLOCATION		
		RETAIL	WHOLESALE	RETAIL	WHOLESALE	TOTAL RETAIL <sup>(3)</sup>		
						FIXED	VARIABLE	
<b>SEWER TREATMENT &amp; DISPOSAL:</b>								
1	Operating, Administrative & Capital Expenses <sup>(1)</sup>	\$ 43,681,876	78.14%	21.86%	\$ 34,135,110	9,546,766	\$ 24,022,296	10,112,814
2	Debt Service <sup>(1)</sup>	6,355,069	78.14%	21.86%	4,966,156	1,388,914	3,494,890	1,471,265
3	Subtotal Revenue Requirement	\$ 50,036,946						
4	Off-Setting Revenues <sup>(1)</sup>	(5,504,257)	78.14%	21.86%	(4,301,290)	(1,202,967)	(3,026,997)	(1,274,294)
5	Use of Reserve Funds <sup>(1)</sup>	941,223	78.14%	21.86%	735,516	205,706	517,614	217,903
6	<b>Total Revenue Requirement - Sewer Treatment &amp; Disposal</b>	<b>\$ 45,473,911</b>			<b>\$ 35,535,492</b>	<b>9,938,419</b>	<b>\$ 25,007,803</b>	<b>10,527,689</b>
<b>SEWER COLLECTION &amp; TRANSMISSION:</b>								
7	Operating, Administrative & Capital Expenses <sup>(2)</sup>	\$ 58,190,790	97.36%	2.64%	\$ 56,654,578	1,536,212	\$ 39,870,181	16,784,397
8	Debt Service <sup>(2)</sup>	7,676,644	97.36%	2.64%	7,473,984	202,660	5,259,753	2,214,231
9	Subtotal Revenue Requirement	\$ 65,867,434						
10	Off-Setting Revenues <sup>(2)</sup>	(7,467,060)	97.36%	2.64%	(7,269,932)	(197,127)	(5,116,154)	(2,153,779)
11	Use of Reserve Funds <sup>(2)</sup>	826,347	97.36%	2.64%	804,532	21,815	566,182	238,349
12	<b>Total Revenue Requirement - Sewer Collection &amp; Transmission</b>	<b>\$ 59,226,721</b>			<b>\$ 57,663,161</b>	<b>1,563,560</b>	<b>\$ 40,579,963</b>	<b>17,083,198</b>
<b>COMBINED SEWER SYSTEM:</b>								
13	Operating, Administrative & Capital Expenses	\$ 101,872,666			\$ 90,789,688	\$ 11,082,978	\$ 63,892,477	26,897,211
14	Debt Service	14,031,714			12,440,140	1,591,574	8,754,643	3,685,496
15	Subtotal Revenue Requirement	\$ 115,904,380			\$ 103,229,828	\$ 12,674,552	\$ 72,647,120	30,582,708
16	Off-Setting Revenues	(12,971,317)			(11,571,223)	(1,400,094)	(8,143,150)	(3,428,072)
17	Use of Reserve Funds	1,767,569			1,540,048	227,521	1,083,796	456,252
18	<b>Total Revenue Requirement - Combined Sewer System</b>	<b>\$ 104,700,632</b>			<b>\$ 93,198,653</b>	<b>\$ 11,501,979</b>	<b>\$ 65,587,766</b>	<b>27,610,887</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Proposed Budget. Personnel Services are executed at 95% while Capital Outlay and Fixed Operating and Maintenance expenses are executed at 100%.

(2) Retail and wholesale allocation of Sewer Treatment & Disposal expenses is based upon projected FY 2023 billed volume shown in Schedule 1.

(3) \$6.4M of Sewer Collection & Transmission expense is part of the wholesale system, which is allocated to retail and wholesale based on projected FY 2023 billed volume shown in Schedule 1.

(4) Retail allocation of fixed and variable costs are based upon costs of each cost center, shown in Schedules 4 and 5.

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**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix D – Sewer System Cost of Service

**DEBT SERVICE: SEWER T&D AND SEWER C&T**

**Schedule 3**

		<b>FY 2021 ACTUAL</b>	<b>FY 2022 ACTUAL</b>	<b>FY 2023 TEST YEAR</b>	<b>3-YEAR AVERAGE</b>		
<b>1</b>	<b>TOTAL DEBT SERVICE - COMBINED SEWER SYSTEM</b>	<b>\$ 10,137,570</b>	<b>14,110,350</b>	<b>14,031,714</b>	<b>\$ 12,759,878</b>		
	<u>Debt Service by Issue:</u>						
		<b>T&amp;D <sup>(1)</sup></b>	<b>C&amp;T <sup>(1)</sup></b>				
2	Series 2008A	39.0%	61.0%	2,187,634	2,194,160	2,189,345	\$ 2,190,380
3	Series 2008B	39.0%	61.0%	5,395,274	5,389,245	5,390,048	5,391,522
4	Series 2016	100.0%	0.0%	2,031,092	2,026,128	2,027,372	2,028,197
5	Series 2021A	31.0%	69.0%	445,776	447,847	-	297,874
6	Series 2021B	31.0%	69.0%	77,794	111,760	111,640	100,398
7	Series 2022	31.0%	69.0%	-	3,941,209	4,313,310	2,751,506
8	Projected Future Debt Service	26.0%	74.0%	\$ -	-	-	\$ -
9	Senior Lien Debt Service - Sewer Treatment & Disposal			\$ 5,150,733	6,378,909	6,355,069	\$ 5,961,570
10	Coverage Requirement		1.00	\$ -	-	-	\$ -
11	Senior Lien Debt Service - Sewer Collection & Transmission			\$ 4,986,837	7,731,441	7,676,644	\$ 6,798,307
12	Coverage Requirement		1.00	\$ -	-	-	\$ -
13	<b>Total Debt on Bonds</b>			<b>\$ 10,137,570</b>	<b>14,110,350</b>	<b>14,031,714</b>	<b>\$ 12,759,878</b>
14	<b>Coverage Requirement</b>		1.00	<b>\$ -</b>	<b>-</b>	<b>-</b>	<b>\$ -</b>

(1) Allocation based upon the portion of the system that received the direct benefit from the proceeds of each issuance.

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# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix D – Sewer System Cost of Service

### OPERATING, ADMINISTRATIVE & CAPITAL EXPENSES: SEWER TREATMENT & DISPOSAL

Schedule 4

	FY 2021 ACTUAL	FY 2022 ACTUAL	FY 2023 TEST YEAR <sup>(1)</sup>	3-YEAR AVERAGE	FIXED VS. VARIABLE ALLOCATION: FY 2023 TEST YEAR	
					\$ FIXED	\$ VAR
<b>OPERATING &amp; MAINTENANCE EXPENSES</b>						
1 431330 SCADA <sup>(2)</sup>	\$ 356,510	\$ 433,491	\$ 501,939	\$ 430,647	\$ 376,454	\$ 125,485
2 431340 Laboratories <sup>(3)</sup>	1,676,035	1,742,021	1,841,802	1,753,286	1,665,535	176,267
3 431350 Monitoring <sup>(4)</sup>	531,816	487,768	990,323	669,969	-	990,323
4 431360 South Operations (South Cross) <sup>(5)</sup>	9,980,176	10,480,117	13,002,435	11,154,243	5,531,235	7,471,200
5 435110 Wholesale Wastewater	1,150,595	1,438,403	1,789,000	1,459,332	-	1,789,000
6 435120 North Operations (Dunn) <sup>(6)</sup>	3,719,901	4,093,945	4,878,759	4,230,868	2,489,909	2,388,850
7 435130 Purchase of Reclaim (Water)	17,819	36,807	30,000	28,209	30,000	-
8 431335 Utilities Data Management	-	(186)	243,019	80,944	243,019	-
9 <b>TOTAL OPERATING &amp; MAINTENANCE EXPENSES</b>	<b>\$ 17,432,853</b>	<b>\$ 18,712,365</b>	<b>\$ 23,277,277</b>	<b>\$ 19,807,498</b>	<b>\$ 10,336,153</b>	<b>\$ 12,941,124</b>
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>						
10 431040 Warehouse Support	\$ 703,558	\$ 666,404	\$ 583,925	\$ 651,296	\$ 583,925	\$ -
11 431130 Water & Sewer Administration	6,479,157	6,629,357	7,209,302	6,772,605	7,209,302	-
12 431050 Utilities Engineering	4,976,138	6,580,919	11,333,583	7,630,213	11,333,583	-
13 431085 Customer Service	3,589,413	3,324,135	3,855,923	3,589,824	3,855,923	-
14 Data Processing Costs	(1,408)	-	-	(469)	-	-
15 Subtotal	\$ 15,746,857	\$ 17,200,815	\$ 22,982,733	\$ 18,643,468	\$ 22,982,733	\$ -
16 Allocation to Sewer Treatment & Disposal <sup>(6)</sup>	53.25%	53.25%	53.25%	53.25%	53.25%	53.25%
17 <b>TOTAL GENERAL &amp; ADMINISTRATIVE EXPENSES</b>	<b>\$ 8,385,130</b>	<b>\$ 9,159,356</b>	<b>\$ 12,238,201</b>	<b>\$ 9,927,562</b>	<b>\$ 12,238,201</b>	<b>\$ -</b>
<b>RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES:</b>						
18 Sewer Treatment & Disposal <sup>(7)</sup>	-	\$ 8,873,569	\$ 4,942,896	\$ 6,908,232	\$ 4,942,896	\$ -
19 Reclaimed <sup>(7)</sup>	-	2,041,347	2,511,025	2,276,186	2,511,025	-
20 <b>TOTAL RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES</b>	<b>\$ -</b>	<b>\$ 10,914,916</b>	<b>\$ 7,453,921</b>	<b>\$ 6,122,945</b>	<b>\$ 7,453,921</b>	<b>\$ -</b>
<b>CAPITAL EQUIPMENT EXPENSES:</b>						
<u>Admin &amp; Business Support Cost Centers</u>						
21 431085 Customer Service	\$ -	\$ 177,099	\$ 111,350	\$ 96,150	\$ 111,350	\$ -
22 Subtotal	\$ -	\$ 177,099	\$ 111,350	\$ 96,150	\$ 111,350	\$ -
23 Allocation to Sewer Treatment & Disposal <sup>(8)</sup>	53.25%	53.25%	53.25%	53.25%	53.25%	53.25%
24 Total Admin & Business Support Cost Centers	\$ -	\$ 94,304	\$ 59,293	\$ 51,199	\$ 59,293	\$ -
<u>Water &amp; Sewer Cost Centers</u>						
25 431335 Utilities Data Management	\$ -	\$ -	\$ 4,825	\$ 1,608	\$ 4,825	\$ -
26 431330 SCADA <sup>(2)</sup>	-	7,431	-	2,477	-	-
27 431340 Laboratories	-	22,029	-	7,343	-	-
28 431350 Monitoring <sup>(4)</sup>	2,971	-	35,000	12,657	35,000	-
29 431360 South Operations (South Cross) <sup>(5)</sup>	13,785	199,276	206,547	139,869	206,547	-
30 435120 North Operations (Dunn) <sup>(5)</sup>	85,516	133,292	406,813	208,540	406,813	-
31 Total Water & Sewer Cost Centers	\$ 102,271	\$ 362,028	\$ 653,184	\$ 372,495	\$ 653,184	\$ -
<u>Engineering &amp; Technical Support Cost Centers</u>						
32 431470 CIP Planning & Design	\$ 44,646	\$ 50,840	\$ -	\$ 31,829	\$ -	\$ -
33 431471 Construction Management	\$ 17,069	\$ 19,528	\$ -	\$ 12,199	\$ -	\$ -
34 Subtotal	\$ 61,716	\$ 70,368	\$ -	\$ 44,028	\$ -	\$ -
35 Allocation to Sewer Treatment & Disposal <sup>(9)</sup>	28.01%	28.01%	28.01%	28.01%	28.01%	28.01%
36 Total Engineering & Technical Support Cost Centers	\$ 17,287	\$ 19,710	\$ -	\$ 12,332	\$ -	\$ -
37 <b>TOTAL CAPITAL EQUIPMENT EXPENSES</b>	<b>\$ 119,558</b>	<b>\$ 476,043</b>	<b>\$ 712,478</b>	<b>\$ 436,026</b>	<b>\$ 712,478</b>	<b>\$ -</b>
38 <b>TOTAL EXPENSES - SEWER TREATMENT &amp; DISPOSAL <sup>(10)</sup></b>	<b>\$ 25,937,541</b>	<b>\$ 39,262,679</b>	<b>\$ 43,681,876</b>	<b>\$ 36,294,032</b>	<b>\$ 30,740,752</b>	<b>\$ 12,941,124</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Proposed Budget. Personnel Services are executed at 95% while Capital Outlay and Fixed Operating and Maintenance expenses are executed at 100% per staff direction.

(2) Costs assumed to be 50% allocable to sewer Treatment & Disposal and 50% allocable to sewer Collection & Transmission based on County staff direction. Costs assumed to be 75% fixed and 25% variable

(3) Electric power portion of costs (10%) assumed to be variable.

(4) Costs assumed to be 50% allocable to sewer Treatment & Disposal and 50% allocable to sewer Collection & Transmission based on County staff direction.

(5) Represents non-Pump Station portion of cost center assignable to sewer Treatment & Disposal.

(6) Based upon the 3-year average of Operating & Maintenance Expenses directly assignable to sewer Treatment & Disposal.

(7) Based upon allocation of capital expenditures by function. FY 2021 not provided.

(8) Based upon the annual allocations of General & Administrative Expenses to sewer Treatment & Disposal.

(9) Based upon the 3-year average of Renewal, Replacement, & Improvement Project expenses directly assignable to sewer Treatment & Disposal.

(10) Total FY 2021 expenses excludes RR&I projects (allocations not provided).



# WATER, SEWER RECLAIMED WATER RATE STUDY

## Appendix D – Sewer System Cost of Service

### OPERATING, ADMINISTRATIVE & CAPITAL EXPENSES: SEWER COLLECTION & TRANSMISSION

Schedule 5

	FY 2021 ACTUAL	FY 2022 ACTUAL	FY 2023 TEST YEAR <sup>(1)</sup>	3-YEAR AVERAGE	FIXED VS. VARIABLE ALLOCATION: FY 2023 TEST YEAR	
					\$ FIXED	\$ VAR
<b>OPERATING &amp; MAINTENANCE EXPENSES</b>						
1 431240 Technical Services	\$ 15,680	\$ 107,590	\$ 180,582	\$ 101,284	\$ 180,582	\$ -
2 431250 Maintenance North & South <sup>(2)</sup>	7,482,205	6,649,521	7,840,081	7,323,936	7,789,667	50,414
3 431330 SCADA <sup>(3)</sup>	356,510	433,491	501,939	430,647	376,454	125,485
4 431350 Monitoring	531,816	487,768	990,323	669,969	-	990,323
5 431370 Code Enforcement	17,862	24,943	46,747	29,851	46,747	-
6 431070 Field Services	714,658	745,492	979,820	813,323	-	979,820
7 Pump Station Costs (North & South) <sup>(4)</sup>	7,067,706	7,526,390	9,226,041	7,940,046	4,316,666	4,909,375
8 431335 Utilities Data Management	-	(186)	243,019	80,944	243,019	-
9 <b>TOTAL OPERATING &amp; MAINTENANCE EXPENSES</b>	<b>\$ 16,186,438</b>	<b>\$ 15,975,009</b>	<b>\$ 20,008,551</b>	<b>\$ 17,389,999</b>	<b>\$ 12,953,135</b>	<b>\$ 7,055,416</b>
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>						
10 431040 Warehouse Support	\$ 703,558	\$ 666,404	\$ 583,925	\$ 651,296	\$ 583,925	\$ -
11 431130 Water & Sewer Administration	6,479,157	6,629,357	7,209,302	6,772,605	7,209,302	-
12 431050 Utilities Engineering	4,976,138	6,580,919	11,333,583	7,630,213	11,333,583	-
13 431085 Customer Service	3,589,413	3,324,135	3,855,923	3,589,824	3,855,923	-
14 Data Processing Costs	(1,408)	-	-	(469)	-	-
15 Subtotal	\$ 15,746,857	\$ 17,200,815	\$ 22,982,733	\$ 18,643,468	\$ 22,982,733	\$ -
16 Allocation to Sewer Collection & Transmission <sup>(5)</sup>	46.75%	46.75%	46.75%	46.75%	46.75%	46.75%
17 Subtotal	\$ 7,361,727	\$ 8,041,459	\$ 10,744,532	\$ 8,715,906	\$ 10,744,532	\$ -
18 Data Processing Costs	1,408	-	-	469	-	-
19 <b>TOTAL GENERAL &amp; ADMINISTRATIVE EXPENSES</b>	<b>\$ 7,363,136</b>	<b>\$ 8,041,459</b>	<b>\$ 10,744,532</b>	<b>\$ 8,716,376</b>	<b>\$ 10,744,532</b>	<b>\$ -</b>
<b>RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES:</b>						
20 Sewer Collection <sup>(6)</sup>	-	\$ 22,517,514	\$ 24,693,375	\$ 23,605,445	\$ 24,693,375	\$ -
21 <b>TOTAL RENEWAL, REPLACEMENT, &amp; IMPROVEMENT PROJECT EXPENSES</b>	<b>\$ -</b>	<b>\$ 22,517,514</b>	<b>\$ 24,693,375</b>	<b>\$ 15,736,963</b>	<b>\$ 24,693,375</b>	<b>\$ -</b>
<b>CAPITAL EQUIPMENT EXPENSES:</b>						
<u>Admin &amp; Business Support Cost Centers</u>						
22 431085 Customer Service	\$ -	\$ 177,099	\$ 111,350	\$ 96,150	\$ 111,350	\$ -
23 Subtotal	\$ -	\$ 177,099	\$ 111,350	\$ 96,150	\$ 111,350	\$ -
24 Allocation to Sewer Collection & Transmission <sup>(7)</sup>	46.75%	46.75%	46.75%	46.75%	46.75%	46.75%
25 <b>Total Admin &amp; Business Support Cost Centers</b>	<b>\$ -</b>	<b>\$ 82,795</b>	<b>\$ 52,057</b>	<b>\$ 44,950</b>	<b>\$ 52,057</b>	<b>\$ -</b>
<u>Water &amp; Sewer Cost Centers</u>						
26 431335 Utilities Data Management	\$ -	\$ -	\$ 4,825	\$ 1,608	\$ 4,825	\$ -
27 431250 Maintenance North & South	433,057	1,776,135	2,322,310	1,510,501	2,322,310	-
28 431330 SCADA	-	7,431	-	2,477	-	-
29 431350 Monitoring	2,971	-	35,000	12,657	35,000	-
30 431360 South Operations (South Cross)	6,898	99,715	103,353	69,989	103,353	-
31 435120 North Operations (Dunn)	47,673	74,307	226,787	116,255	226,787.08	-
32 <b>Total Water &amp; Sewer Cost Centers</b>	<b>\$ 490,598</b>	<b>\$ 1,957,588</b>	<b>\$ 2,692,276</b>	<b>\$ 1,713,487</b>	<b>\$ 2,692,276</b>	<b>\$ -</b>
<u>Engineering &amp; Technical Support Cost Centers</u>						
34 431470 CIP Planning & Design	\$ 44,646	\$ 50,840	\$ -	\$ 31,829	\$ -	\$ -
35 431471 Construction Management	17,069	19,528	-	12,199	-	-
36 Subtotal	\$ 61,716	\$ 70,369	\$ -	\$ 44,028	\$ -	\$ -
37 Allocation to Sewer Collection & Transmission <sup>(8)</sup>	71.99%	71.99%	71.99%	71.99%	71.99%	71.99%
38 <b>Total Engineering &amp; Technical Support Cost Centers</b>	<b>\$ 44,429</b>	<b>\$ 50,658</b>	<b>\$ -</b>	<b>\$ 31,696</b>	<b>\$ -</b>	<b>\$ -</b>
39 <b>TOTAL CAPITAL EQUIPMENT EXPENSES</b>	<b>\$ 535,027</b>	<b>\$ 2,091,041</b>	<b>\$ 2,744,332</b>	<b>\$ 1,790,134</b>	<b>\$ 2,744,332</b>	<b>\$ -</b>
40 <b>TOTAL EXPENSES - SEWER COLLECTION &amp; TRANSMISSION <sup>(9)</sup></b>	<b>\$ 24,084,601</b>	<b>\$ 48,625,023</b>	<b>\$ 58,190,790</b>	<b>\$ 43,633,471</b>	<b>\$ 51,135,374</b>	<b>\$ 7,055,416</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Proposed Budget, executed at 100%.  
 (2) Electric power portion of costs (1%) assumed to be variable.  
 (3) Costs assumed to be 50% allocable to Sewer Treatment & Disposal and 50% allocable to Sewer Collection & Transmission based on County staff direction. Costs assumed to be 75% fixed and 25% variable  
 (4) Represents Pump Station portion of cost center assignable to Sewer Collection & Transmission (32%).  
 (5) Based upon the 3-year average of Operating & Maintenance Expenses directly assignable to Sewer Collection & Transmission.  
 (6) Based upon allocation of capital expenditures by function as provided by County staff. FY 2021 not provided.  
 (7) Based upon the annual allocations of General & Administrative expenses to Sewer Collection & Transmission.  
 (8) Based upon the 3-year average of Renewal, Replacement, & Improvement project expenses directly assignable to Sewer Collection & Transmission.  
 (9) Total FY 2021 expenses excludes RR&I projects (allocations not provided).



**WATER, SEWER RECLAIMED WATER RATE STUDY**

Appendix D – Sewer System Cost of Service

**OFF-SETTING REVENUES: SEWER T&D AND SEWER C&T**

**Schedule 6**

	<b>FY 2021 ACTUAL</b>	<b>FY 2022 ACTUAL</b>	<b>FY 2023 BUDGET</b>	<b>3-YEAR AVERAGE</b>
<b>OFF-SETTING REVENUES - SEWER TREATMENT &amp; DISPOSAL:</b>				
1 Interest Income - O & M and R & R				
2 3611210 Interest-Cash Pools	\$ 16,030	\$ -	\$ -	\$ 5,343
3 3611700 Interest - LGIP & Public Funds D	20,093	-	-	6,698
4 3611800 Interest-Securities	482,604	-	-	160,868
5 3611991 Other Interest Earnings	2,141	-	-	714
6 3613001 Net Inc/Dec In Fair Value	(377,896)	-	-	(125,965)
7 Interest - Unrestricted Funds	520,868	519,329	367,771	469,323
8 Interest - Restricted Funds	-	3,532	2,251	1,928
9 Subtotal	\$ 663,840	\$ 522,861	\$ 370,022	\$ 518,908
10 Allocation to Sewer Treatment & Disposal <sup>(1)</sup>	45.41%	45.41%	45.41%	45.41%
11 Total Interest Income - O & M and R & R	\$ 301,441	\$ 237,424	\$ 168,022	\$ 235,629
<b>Other Operating Revenue</b>				
12 3290006 Industri Wstewtr Dis Perm	\$ 38,000	\$ 49,850	\$ 72,000	\$ 53,283
13 3290007 Grease Permitting Fee	117,590	119,180	120,000	118,923
14 Reclaimed Meter Reimbursement Fees	-	-	992,213	330,738
15 Reclaimed Retail Rate Revenue	2,664,661	2,798,303	2,954,448	2,805,804
16 3435322 Ws Reclaimed Meter Sv Chr <sup>(2)</sup>	1,958	2,240	2,365	2,188
17 3435331 Reclaim Water-St Pete Bch <sup>(2)</sup>	130,626	149,482	157,823	145,977
18 3435332 Reclaim Water-So Pasadena <sup>(2)</sup>	28,549	32,670	34,493	31,904
19 3435333 Reclaim Wtr-Pinellas Park <sup>(2)</sup>	147,949	169,306	178,753	165,336
20 3435334 Reclaim Wtr-Belleair <sup>(2)</sup>	9,081	10,392	10,971	10,148
21 3435502 Laboratory Services	299,391	259,559	220,000	259,650
22 3435601 Fat/Oil/Grease Tip Fees	226,263	226,263	238,168	230,231
23 3435701 Pelletized Sludge Sales	191,963	189,559	190,000	190,507
24 3699305 Inter-Reimb-External-Other	144,536	126,425	165,000	145,320
25 Total Other Operating Revenue	\$ 4,000,566	\$ 4,133,228	\$ 5,336,235	\$ 4,490,010
<b>26 TOTAL OFF-SETTING REVENUES - SEWER TREATMENT &amp; DISPOSAL</b>	<b>\$ 4,302,007</b>	<b>\$ 4,370,652</b>	<b>\$ 5,504,257</b>	<b>\$ 4,725,639</b>
<b>OFF-SETTING REVENUES - SEWER COLLECTION &amp; TRANSMISSION:</b>				
27 Interest Income - O & M and R & R				
28 Allocation to Sewer Collection & Transmission <sup>(3)</sup>	\$ 362,399	\$ 285,437	\$ 202,000	\$ 283,279
<b>Other Operating Revenue</b>				
29 Reclaimed Meter Reimbursement Fees	-	-	1,306,126	435,375
30 Reclaimed Retail Rate Revenue	3,507,696	3,683,619	3,889,165	3,693,493
31 3435322 Ws Reclaimed Meter Sv Chr <sup>(2)</sup>	2,577	2,949	3,114	2,880
32 3435331 Reclaim Water-St Pete Bch <sup>(2)</sup>	171,952	196,774	207,754	192,160
33 3435332 Reclaim Water-So Pasadena <sup>(2)</sup>	37,581	43,006	45,405	41,997
34 3435333 Reclaim Wtr-Pinellas Park <sup>(2)</sup>	194,757	222,870	235,306	217,644
35 3435334 Reclaim Wtr-Belleair <sup>(2)</sup>	11,954	13,679	14,443	13,359
36 3435120 Tapping Fees	422,097	224,604	30,000	225,567
37 3435121 Sewer-Late Payment Fee	462,581	463,858	540,000	488,813
38 3435570 Miscellaneous Revenue	46,710	47,817	42,747	45,758
39 3490010 Chg For Sv-Bad Dbt Ex(DR)	107,530	(21,788)	-	28,581
40 3644100 Sale- Surplus Equipment	139,389	92,822	35,000	89,070
41 3644200 Ins Proceeds-Furn/Fxtr/Eq	3,024	15,877	20,000	12,967
42 3650003 Sale-Scrap	12,097	2,360	6,000	6,819
43 3699350 Refund Of Prior Yrs Exp	512	36,405	-	12,306
44 3699991 Other Miscellaneous Revenue	5,101	5,473	10,000	6,858
45 3898351 Cap Con-Pvt-Swr Connectn	739,254	545,041	682,000	655,432
46 3621008 Rent-Bldg/Space	188,650	193,772	198,000	193,474
47 3840000 Debt Proceeds Rev	151,265	-	-	50,422
48 3815001 Transfer from BTS	-	4,090	-	1,363
49 3313901 Fed Grant-Other Physical Environ	-	10,557	-	3,519
50 3693099 Miscellaneous Settlements	-	86,923	-	28,974
51 Total Other Operating Revenue	\$ 6,204,727	\$ 5,870,708	\$ 7,265,060	\$ 6,446,832
<b>52 TOTAL OFF-SETTING REVENUES - SEWER COLLECTION &amp; TRANSMISSION</b>	<b>\$ 6,567,126</b>	<b>\$ 6,156,145</b>	<b>\$ 7,467,060</b>	<b>\$ 6,730,110</b>
<b>53 TOTAL OFF-SETTING REVENUES - COMBINED SEWER SYSTEM</b>	<b>\$ 10,869,133</b>	<b>\$ 10,526,797</b>	<b>\$ 12,971,317</b>	<b>\$ 11,455,749</b>

(1) Based upon the 3-year average of total expenses allocated to Sewer Treatment & Disposal.

(2) Allocation between Sewer Treatment & Disposal and Sewer Collection & Transmission based on allocation of revenue requirement, shown in Schedule 1.

(3) Based upon the 3-year average of total expenses allocated to Sewer Collection & Transmission.



## **Appendix E RECLAIMED WATER COST OF SERVICE**

- Schedule 1 Allocation of Sewer System Operating & Administrative Expenses to Reclaimed Water**
- Schedule 2 Reclaimed Water Cost Allocation Factors**
- Schedule 3 Allocation of New Capital Costs to Reclaimed Water**
- Schedule 4 Historical Capital Investment in Reclaimed Water**
- Schedule 5 Reclaimed Water System Test Year Expense Allocation of Functional Components**
- Schedule 6 FY 2023 Cost Allocation Summary – Reclaimed Water System**

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**ALLOCATION OF SEWER SYSTEM OPERATING & ADMINISTRATIVE EXPENSES TO RECLAIMED WATER**

**Schedule 1**

OPERATING & MAINTENANCE EXPENSES											
	Maintenance North & South 431250	SCADA 431330	Laboratory 431340	Monitoring 431350	South Operations (South Cross) 431360	Code Enforcement 431370	Wholesale Wastewater 435110	North Operations (Dunn) 435120	Purchase of Reclaim (Water) 435130	Field Services 431070	Technical Services 431240
<b>FY 2023 TEST YEAR (1)</b>	\$ 7,840,081	\$ 1,003,878	\$ 1,841,802	\$ 1,980,646	\$ 19,508,701	\$ 46,747	\$ 1,789,000	\$ 7,598,535	\$ 30,000	\$ 979,820	\$ 180,582
Allocation Criteria	WTD	EST	EST	WTD	EST	RW	S	EST	RW	CUS	WTD
Sewer Allocation %	85.7%	90.0%	90.0%	85.7%	85.0%	0.0%	100.0%	85.0%	0.0%	75.5%	85.7%
Reclaimed Allocation %	14.3%	10.0%	10.0%	14.3%	15.0%	100.0%	0.0%	15.0%	100.0%	24.5%	14.3%
Sewer Costs	\$ 6,717,731	\$ 903,490	\$ 1,657,622	\$ 1,697,105	\$ 16,582,396	\$ -	\$ 1,789,000	\$ 6,458,754	\$ -	\$ 739,363	\$ 154,730
<b>Reclaimed Costs</b>	<b>\$ 1,122,350</b>	<b>\$ 100,388</b>	<b>\$ 184,180</b>	<b>\$ 283,540</b>	<b>\$ 2,926,305</b>	<b>\$ 46,747</b>	<b>\$ -</b>	<b>\$ 1,139,780</b>	<b>\$ 30,000</b>	<b>\$ 240,457</b>	<b>\$ 25,851</b>

(1) FY 2023 Test Year expenses are based on FY 2023 Proposed Budget. Personnel Services are executed at 95% while Capital Outlay and Fixed Operating and Maintenance expenses are executed at 100% per staff direction.

GENERAL & ADMINISTRATIVE EXPENSES						
	Warehouse Support 431040	Water & Sewer Administration 431130	Utilities Data Management 431335	Utilities Engineering 431050	Customer Service 431085	TOTAL O&M
<b>FY 2023 TEST YEAR (1)</b>	\$ 583,925	\$ 7,209,302	\$ 486,038	\$ 11,333,583	\$ 3,855,923	\$ 66,268,561
Allocation Criteria	FA	WTD	WTD	CIP	CUS	
Sewer Allocation %	82.1%	85.7%	85.7%	89.1%	75.5%	85.68%
Reclaimed Allocation %	17.9%	14.3%	14.3%	10.9%	24.5%	14.32%
Sewer Costs	\$ 479,447	\$ 6,177,251	\$ 416,459	\$ 10,098,861	\$ 2,909,645	\$ 56,781,854
<b>Reclaimed Costs</b>	<b>\$ 104,478</b>	<b>\$ 1,032,051</b>	<b>\$ 69,579</b>	<b>\$ 1,234,722</b>	<b>\$ 946,278</b>	<b>\$ 9,486,707</b>



**Reclaimed Water Cost Allocation Factors**

**Schedule 2**

Allocation Criteria	Code	Sewer	Reclaimed	Sewer %	Reclaimed %
FY 22 Revenues	REV	79,542,436	7,325,289	91.6%	8.4%
FY 22 Flows (in 1,000 gallons)	FLO	8,715,421	7,112,684	55.1%	44.9%
Customer Count	CUS	70,964	23,079	75.5%	24.5%
CIP	CIP	559,439,616	68,399,049	89.1%	10.9%
Fixed Assets	FA	871,207,870	189,847,255	82.1%	17.9%
Sewer Only	S			100.0%	0.0%
Reclaimed Only	RW			0.0%	100.0%
50% / 50%	50%			50.0%	50.0%
0% / 0%	0%			0.0%	0.0%
Weighted Average	WTD	41,618,578	6,953,335	85.7%	14.3%
Staff Estimate	EST			Input	Input

**REUSE FLOW AND CUSTOMER COUNT CALCULATION**

Customer	Flows (kgals)	Customers
Belleair	159,288	1
Pinellas Park	930,281	1
S. Pasadena	1,386,037	1
St. Pete Beach	940,244	1
Total Wholesale	3,415,850	4
Retail	3,696,834	23,075
Total	7,112,684	23,079
Retail Monthly Use / Account (kgals)	13,351	

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**ALLOCATION OF NEW CAPITAL COSTS TO RECLAIMED WATER**

**Schedule 3**

		TOTAL	% Sewer	% Reuse
<b>CAPITAL PROJECT</b>				
1	000744A-Facility Miscellaneous Improvements	\$ 1,693,000	100%	0%
2	000847A-South Cross Bayou Wastewater Treatment Facility Upgrades and Replacement	3,418,000	100%	0%
3	001057A-General Upgrades to Supervisory Control and Data Acquisition (SCADA)	5,082,000	100%	0%
4	002149A-Logan Laboratory Improvements	814,870	100%	0%
5	002149A-Logan Laboratory Improvements	3,514,130	100%	0%
6	002166A-South Cross Bayou Dewatering Improvements	10,090,000	100%	0%
7	002937A-South Cross Bayou Aeration Improvements	7,665,000	100%	0%
8	002938A-South Cross Bayou Bio Solids Process Train Improvements	9,450,000	100%	0%
9	002941A-South Cross Bayou High Service Pump Improvements	6,950,000	0%	100%
10	002944A-South Cross Bayou Grit Facility Improvements	8,054,000	100%	0%
11	003407A-South Cross Bayou Pavement Rehabilitation	750,000	100%	0%
12	003408A-South Cross Bayou Denitrification Filter Rehab	10,040,000	100%	0%
13	003408A-South Cross Bayou Denitrification Filter Rehab	216,000	100%	0%
14	003756A-SCB Plant Lighting Upgrades	1,502,000	100%	0%
15	003758A-South Cross Bayou Influent Pump Station Improvements	3,000,000	100%	0%
16	003759A-South Cross Bayou Operations and Control Building Improvements	600,000	100%	0%
17	003763A-Utilities Facilities Security	546,000	100%	0%
18	003765A-Programmable Logic Controller Upgrades	5,511,100	100%	0%
19	004143B-Regional Resource Recovery Facility	7,000,000	100%	0%
20	004358A-South Cross Bayou Digester Gas Flowmeter Installation	1,618,000	100%	0%
21	004359A-South Cross Bayou North and South Train Primary Clarifier Improvements	1,665,000	100%	0%
22	004360A-Pump Station 016 Improvements	5,550,000	100%	0%
23	004368A-South Cross UV Disinfection System Replacement	5,500,000	100%	0%
24	004489A-SCB Roofing replacements-Multiple Buildings	550,000	100%	0%
25	004574A-FDOT Utility Relocation US 19 From CR 95 to Pine	870,500	100%	0%
26	004575A-FDOT Utility Relocation US 19 from Nebraska Av to Timberlane Rd 433797-1	607,500	100%	0%
27	004576A-FDOT Utility Relocation US 19 from Timberlane Rd. to Lake St. 433796-1	7,500	100%	0%
28	004903A-South Cross Bayou Fiber Optic Upgrades	632,000	100%	0%
29	004904A-South Cross Bayou Pelletizer Dust Hazard Mitigation	1,640,000	100%	0%
30	004905A-South Cross Bayou Reclaim Water Storage Tanks Rehabilitation	640,000	100%	0%
31	004906A-South Cross Bayou Electrical Switchgear Replacement	6,110,000	100%	0%
32	005220A-Utilities Generator Buildings Sprinkler Installations	188,000	100%	0%
33	005221A-Pump Station 182 Rehabilitation	2,915,000	100%	0%
34	005222A-Logan Utilities Operations Center Building	4,117,000	100%	0%
35	005226A-South Cross Bayou Building Hardenings for the Operations Support Center and Dewatering Building	361,250	100%	0%
36	005226A-South Cross Bayou Building Hardenings for the Operations Support Center and Dewatering Building	738,750	100%	0%
37	000700B-Westwinds Dr. Bridge Replacement-Utility Relocations	55,000	100%	0%
38	000702B-Crosswinds Dr. Bridge Replacement-Utility Relocations	24,000	100%	0%
39	000791A-FDOT Relocation Projects Miscellaneous	700,000	100%	0%
40	000831A-Water, Sewer and Reclaimed Water Relocation Projects	700,000	0%	100%
41	000852A-W.E. Dunn Wastewater Treatment Facility Upgrades and Repair and Replacement	4,028,000	100%	0%
42	000964A-Sanitary Sewer Pump Station Rehabilitation & Improvements	16,873,000	100%	0%
43	001035B-Oakwood Dr. Bridge Replacement Utility Relocations	133,000	100%	0%
44	001177D-Lakeshore Estates Road and Drainage Improvements Phase II Utilities Relocations	211,000	100%	0%
45	001333B-North Highland Avenue Water and Sewer Improvements Phase I	552,000	100%	0%
46	001523A-FDOT US19 Northside to CR95	100,000	100%	0%
47	001814A-Sanitary Sewer Manhole Rehab Project	2,500,000	100%	0%
48	001814C-Sanitary Sewer Manhole Rehabilitation FY22-23	640,000	100%	0%
49	001817B-Crystal Beach Water, Sewer and Reclaim Water Relocations Along Grace St., Seafford Ave., Disston St.	223,000	100%	0%
50	001933A-Sanitary Sewer Cured In Place Pipe Lining	12,350,000	100%	0%
51	001933D-Annual Sewer CIPP-Tarpon Springs, Palm Harbor, Curlew City	2,700,000	100%	0%
52	001933E-Annual Sewer CIPP-Bardmoor, Kenneth City	980,000	100%	0%
53	001933F-Annual Sewer CIPP-Belleair, Belleair Bluffs	2,505,000	100%	0%
54	001933G-Annual Sewer CIPP-Ridgewood, Oakhurst, Belleair Beach, N. Lake Seminole	5,183,000	100%	0%
55	002063B-Starkey Road Utility Relocation from Flame Vine Ave to Bryan Dairy Road	3,170,000	100%	0%
56	002069F-62nd Ave N & 25 St N. Intersection and Sidewalk Improvements Utility Relocations	57,000	100%	0%
57	002131B-46th Ave N Sidewalk Improvements from 49th St to 37th St Utility Relocation	110,000	100%	0%
58	002160A-Pump Station 016/Park Blvd Force Main to South Cross Bayou Replacement	3,696,000	100%	0%
59	002232B-Indian Rocks Road Sidewalk Improvements Phase 2B From Church Creek to 8th Avenue SW-Utilities Relo	60,000	100%	0%
60	002346B-Indian Rocks Sewer CIPP-Phase 1	1,600,000	100%	0%
61	002690B-Utility Relocation for 62nd St @ 142nd Ave Intersection Improvements	32,000	100%	0%
62	002747C-Sewer Interceptor Rehabilitation 94th Ave to 86th Ave	200,000	100%	0%
63	002747F-Sanitary Sewer Interceptor Pipe Rehabilitation-Bee Pond Road	1,355,800	100%	0%
64	002747G-Sanitary Sewer Interceptor Pipe Rehabilitation-109th St.	1,321,000	100%	0%
65	002747H-Sanitary Sewer Interceptor Pipe Rehabilitation -74th Ave	590,000	100%	0%
66	002747I-Sanitary Sewer Interceptor Pipe Rehabilitation -Lealman	2,028,000	100%	0%
67	002747J-Sanitary Sewer Interceptor Pipe Rehabilitation-Hamlin Blvd and 46th Ave	1,489,800	100%	0%
68	002747K-Sanitary Sewer Pipe Rehabilitation-Seminole By-Pass Canal 10"	1,313,000	100%	0%
69	002927B-46th Avenue North Utility Relocation Sidewalk Design & Roadway Improvements From West Drainage Outfa	610,000	100%	0%
70	002936B-Corey Causeway Bridge 20 Inch Reclaimed Water Main Replacement	167,000	0%	100%
71	003122B-Dunn Filtration and Disinfection Improvements	16,080,000	100%	0%
72	003123J-ARV Hamlin Road and Nearby Design	2,175,000	100%	0%
73	003123L-ARV Highland Ave	150,000	100%	0%
74	003142A-Pump Station No. 357 Upgrades and Force Main Improvements	44,000	100%	0%



**ALLOCATION OF NEW CAPITAL COSTS TO RECLAIMED WATER**

**Schedule 3**

		TOTAL	% Sewer	% Reuse
<b>CAPITAL PROJECT</b>				
75	003147A-Pinellas Park Interceptor Collection System Improvements	8,772,000	100%	0%
76	003204I-Ridgewood Sewer Improvements	2,531,000	100%	0%
77	003205A-Pump Station 079 Improvements (North Redington Beach)	5,770,000	100%	0%
78	003210H-Force main and ARV Replacement-Klosterman Road and Disston	708,000	100%	0%
79	003239A-Pump Station and Collection System Odor Control Equipment	1,514,000	100%	0%
80	003409A-Dunn Electrical Upgrades	12,300,000	100%	0%
81	003430A-Dunn Dewatering Improvements	6,600,000	100%	0%
82	003431A-Dunn Pond Liner Replacement	6,100,000	0%	100%
83	003432A-Dunn Odor Control System	300,000	100%	0%
84	003605A-Gravity Sewer Ductal Iron Pipe Rehab Program throughout the County	69,500,000	100%	0%
85	003605B-Gravity Sewer Ductile Iron Pipe Rehabilitation Lansbrook	900,000	100%	0%
86	003746A-WED Grit Capture System Improvements	5,800,000	100%	0%
87	003747A-WE Dunn Offsite Reclaim Pump Station Improvements	7,542,000	0%	100%
88	003748A-Gulf Blvd. Relocations @ the Narrows	234,000	50%	50%
89	003750A-WE Dunn Internal Recycle Pump Station Rehabilitation	9,440,000	100%	0%
90	003760A-North County Force Main Improvements	7,950,000	100%	0%
91	003761A-Force Main Capacity Improvements-Highland Lakes FM	7,600,000	100%	0%
92	003762A-Pump Stations Generator Improvements	7,483,000	100%	0%
93	003769A-Advanced Metering Infrastructure (AMI) Reclaimed Water Meters	12,993,000	0%	100%
94	003896B-Crystal Beach Utility Relocation and Replacement Associated with Drainage and Roadway Improvements	550,000	100%	0%
95	004354A-Pinellas Trail Loop North Segment Utility Relocations	120,000	100%	0%
96	004361A-WE Dunn Fall Protection Installation	1,602,000	100%	0%
97	004362A-WED Operations Building Modifications	2,000,000	100%	0%
98	004363A-Chesnut Park Managed Aquifer Recharge Project	1,100,000	0%	100%
99	004364A-Chesnut Park Aquifer Storage and Recovery System Project	2,680,000	100%	0%
100	004364A-Chesnut Park Aquifer Storage and Recovery System Project	12,938,000	0%	100%
101	004365A-Dunn Exploratory Well	7,100,000	100%	0%
102	004478F-Bryan Dairy at Lake Seminole Bypass Canal 8-Inch F.M. Replacement	89,000	100%	0%
103	004478G-3343 Crescent Oaks Blvd Gravity Sewer Main Replacement	1,301,000	100%	0%
104	004495A-72nd Terrace Gravity Sewer and 72nd Avenue Gravity Interceptor Upgrade	5,175,000	100%	0%
105	004532A-CR 95 Force Main Replacement/Relocation	999,000	100%	0%
106	004540B-West Bay Drive Utility Relocation and Replacement	406,000	100%	0%
107	004572A-Marlin Drive Utility Relocation for City of Belleair Bluffs Roadway Improvements	738,000	100%	0%
108	004578A-Building Hardening-General Maintenance Building South	182,660	100%	0%
109	004578A-Building Hardening-General Maintenance Building South	311,340	100%	0%
110	004907A-Force Main and ARV Replacements- 20\201D Force Main Camelot Court	2,490,000	100%	0%
111	004908A-Force Main and ARV Replacements-30\201D Force Main Pinellas Trail and Klosterman	8,250,000	100%	0%
112	004909A-62nd Street North Force Main Extension and Gravity Main Capacity Improvement	1,160,000	100%	0%
113	004911A-Bear Creek 14\201D Force Main Replacement Project	1,840,000	100%	0%
114	005015A-Manufactured Home Communities Wastewater Collection System Improvements	26,954,000	100%	0%
115	005015C-Manufactured Home Communities Wastewater Collection System Imp-Canal Crossings	1,900,000	100%	0%
116	005217A-North County Supplemental Reclaim Water Supply	5,690,000	0%	100%
117	005219A-Forelock/Mistwood Force Main Replacement from Lift Station 387	2,140,000	100%	0%
118	005225A-Find and Fix Pipe Lining and Private Sewer Laterals	25,500,000	100%	0%
119	005229A-Pump Station 327 Rehabilitation	2,330,000	100%	0%
120	005582A-24 in Force Main Replacement at 53rd Avenue and Duhme Rd.	2,750,000	100%	0%
121	005584A-Countywide Concrete Force Main Replacement	9,125,000	100%	0%
122	006052A-Septic to Sewer Program Phase 1	10,000,000	100%	0%
123	WW Collection System	-	100%	0%
124	Unspecified Upcoming Projects	68,236,000	88%	12%
125	Capital Outlay	41,832,465	86%	14%
126	<b>Total Capital Improvement Plan (Current \$)</b>	<b>\$ 627,838,665</b>		
127	Capital Improvement Plan Total	\$ 586,006,200		
128	Capital Outlay Total	\$ 41,832,465		
129	Sewer Project Costs	\$ 559,439,616		
130	Reclaimed Projects Costs	\$ 68,399,049		
131	<b>Total</b>	<b>\$ 627,838,665</b>		
Portion Attributed to Reclaimed:		10.89%		



**HISTORICAL CAPITAL INVESTMENT IN RECLAIMED WATER**

	As of 9/30/2017	
Fixed Assets	189,847,255	
Less: Estimated Grant Funding/Contributed Capital <sup>(1)</sup>	\$ (29,030,703)	
<b>Total Historical Investment</b>	<b>160,816,552</b>	
	<u>% Bond Funded</u>	<u>% Cash Funded</u>
Allocation %	80.0%	20.0%
Assumed Term of the Debt (Years)	30	50
Assumed Interest Rate	3.00%	N/A
Annual Debt Service	\$ 6,563,793	N/A
Annual Depreciation	N/A	\$ 643,266
<b>Total Annual Amortization</b>	<b>\$ 7,207,059</b>	

(1) Represents reimbursements from Southwest Florida Water Management District, Indian Rocks Beach, Bay Pines, and estimated contributed capital.

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**RECLAIMED WATER SYSTEM TEST YEAR EXPENSE ALLOCATION TO FUNCTIONAL COMPONENTS**

**Schedule 5**

	<u>FY 2023 Test Year</u>	<u>Allocation Factor</u>	<u>Customer</u>	<u>Treatment/Production</u>	<u>Transmission</u>	<u>Distribution</u>	<u>HSP &amp; Storage</u>	<u>Total Allocation</u>	<u>\$ Customers</u>	<u>\$ Treatment/Production</u>	<u>\$ Transmission</u>	<u>\$ Distribution</u>	<u>\$ HSP &amp; Storage</u>
<b>OPERATING &amp; MAINTENANCE EXPENSES:</b>													
431250 Maintenance North & South	\$ 1,122,350	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	\$ -	841,763	-	-	280,588
431330 SCADA	100,388	LF of Pipe	0.0%	0.0%	30.3%	69.7%	0.0%	100.0%	-	-	30,395	69,992	-
431340 Laboratory	184,180	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	-	138,135	-	-	46,045
431350 Monitoring	283,540	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	-	212,655	-	-	70,885
431360 South Operations (South Cross)	2,926,305	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	-	2,194,729	-	-	731,576
431370 Code Enforcement	46,747	Customer	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	46,747	-	-	-	-
435110 Wholesale Wastewater	-	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	-	-	-	-	-
435120 North Operations (Dunn)	1,139,780	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	-	854,835	-	-	284,945
435130 Purchase of Reclaim (Water)	30,000	Production	0.0%	75.0%	0.0%	0.0%	25.0%	100.0%	-	22,500	-	-	7,500
431070 Field Services	240,457	LF of Pipe	0.0%	0.0%	30.3%	69.7%	0.0%	100.0%	-	-	72,805	167,651	-
431240 Technical Services	25,851	LF of Pipe	0.0%	0.0%	30.3%	69.7%	0.0%	100.0%	-	-	7,827	18,024	-
<b>TOTAL RECLAIMED O&amp;M EXPENSES</b>	<b>\$ 6,099,599</b>								<b>\$ 46,747</b>	<b>\$ 4,264,617</b>	<b>\$ 111,028</b>	<b>\$ 255,668</b>	<b>\$ 1,421,539</b>
									0.8%	69.9%	1.8%	4.2%	23.3%
<b>GENERAL &amp; ADMINISTRATIVE EXPENSES:</b>													
431040 Warehouse Support	\$ 104,478	Weighted	13.5%	32.8%	15.9%	17.1%	20.7%	100.0%	\$ 14,073	34,235	16,658	17,905	21,605
431130 Water & Sewer Administration	1,032,051	Weighted	13.5%	32.8%	15.9%	17.1%	20.7%	100.0%	139,019	338,184	164,556	176,871	213,421
431335 Utilities Data Management	69,579	Weighted	13.5%	32.8%	15.9%	17.1%	20.7%	100.0%	9,372	22,800	11,094	11,924	14,388
431050 Utilities Engineering	1,234,722	CIP	28.7%	31.2%	0.0%	1.4%	38.8%	100.0%	354,037	384,851	-	16,974	478,860
431085 Customer Service	946,278	Customer	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	946,278	-	-	-	-
<b>TOTAL GENERAL &amp; ADMIN EXPENSES</b>	<b>\$ 3,387,108</b>								<b>\$ 1,462,780</b>	<b>\$ 780,071</b>	<b>\$ 192,308</b>	<b>\$ 223,674</b>	<b>\$ 728,275</b>
<b>CAPITAL COSTS:</b>													
New Capital	\$ 4,861,861	CIP	28.7%	31.2%	0.0%	1.4%	38.8%	100.0%	\$ 1,394,061	1,515,395	-	66,837	1,885,568
Historical Capital	7,207,059	Fixed Assets	0.0%	7.0%	43.5%	43.7%	5.9%	100.0%	-	503,304	3,133,606	3,147,979	422,171
<b>TOTAL CAPITAL COSTS</b>	<b>\$ 12,068,921</b>								<b>\$ 1,394,061</b>	<b>\$ 2,018,699</b>	<b>\$ 3,133,606</b>	<b>\$ 3,214,815</b>	<b>\$ 2,307,739</b>
<b>Total Expenditures</b>	<b>\$ 21,555,627</b>								<b>\$ 2,903,588</b>	<b>\$ 7,063,387</b>	<b>\$ 3,436,942</b>	<b>\$ 3,694,157</b>	<b>\$ 4,457,554</b>
% Allocation by Function									13.5%	32.8%	15.9%	17.1%	20.7%

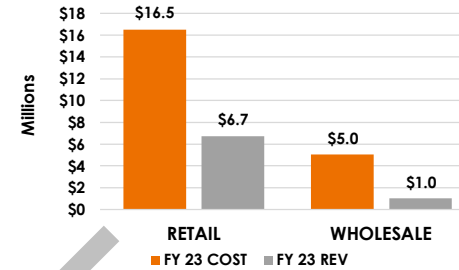


**FY 2023 Cost Allocation Summary - Reclaimed Water System**

Schedule 6

FY 23 Revenue vs Expenses	Revenues	Expenses	% Recovery
Reclaimed Water	\$ 7,734,040	\$ 21,555,627	35.9%
<b>Total</b>	<b>\$ 7,734,040</b>	<b>\$ 21,555,627</b>	

RECLAIMED COST ALLOCATION	O&M	Capital	Total	COS %
Customer	\$ 1,509,527	1,394,061	\$ 2,903,588	13.5%
Treatment/ Production	5,044,688	2,018,699	7,063,387	32.8%
Transmission	303,336	3,133,606	3,436,942	15.9%
Distribution	479,342	3,214,815	3,694,157	17.1%
HSP & Storage	2,149,814	2,307,739	4,457,554	20.7%
<b>Total Cost Allocation</b>	<b>\$ 9,486,707</b>	<b>12,068,921</b>	<b>\$ 21,555,627</b>	<b>100.0%</b>



Units of Service	UNITS OF SERVICE					TOTAL
	TREATMENT 1,000 gals	TRANSMISSION 1,000 gals	DISTRIBUTION 1,000 gals	HSP & STORAGE 1,000 gals	CUSTOMER Bills	
Retail	3,696,834	3,696,834	3,696,834	3,696,834	138,450	
Wholesale	3,415,850	3,415,850			24	
<b>Retail Allocation</b>	\$ 3,671,212	\$ 1,786,358	\$ 3,694,157	\$ 4,457,554	\$ 2,903,085	\$ 16,512,366
<b>Wholesale Allocation</b>	\$ 3,392,175	\$ 1,650,583	\$ -	\$ -	\$ 503	\$ 5,043,262
<b>Total Allocation</b>	<b>\$ 7,063,387</b>	<b>\$ 3,436,942</b>	<b>\$ 3,694,157</b>	<b>\$ 4,457,554</b>	<b>\$ 2,903,588</b>	<b>\$ 21,555,627</b>
<b>Unit Cost of Service (COS)</b>	<b>per kgal \$0.99</b>	<b>per kgal \$0.48</b>	<b>per kgal \$1.00</b>	<b>per kgal \$1.21</b>	<b>per bi-monthly bill \$20.97</b>	



## **Appendix F PROPOSED RATES AND CUSTOMER BILL IMPACTS**

- Schedule 1 Proposed Water and Sewer Rates: FY 2024 – FY 2027**
- Schedule 2 Proposed Reclaimed Water Rates: FY 2024 – FY 2027**
- Schedule 3 FY 2024 Residential Customer Water & Sewer Bill Impacts**
- Schedule 4 FY 2024 Commercial Customer Water & Sewer Bill Impacts**
- Schedule 5 Reclaimed Water Customer Bill Impacts**

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**Proposed Water and Sewer Rate Schedules: FY 2024- 2027**

**Schedule 1**

<b>Proposed Water Rates</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>
<b>Retail Water Rates</b>				
Base Rate (per customer per month):				
3/4"	\$ 8.05	\$ 9.30	\$ 10.55	\$ 11.80
1"	\$ 20.13	\$ 23.25	\$ 26.38	\$ 29.50
1 1/2"	\$ 40.25	\$ 46.50	\$ 52.75	\$ 59.00
2"	\$ 64.40	\$ 74.40	\$ 84.40	\$ 94.40
3"	\$ 128.80	\$ 148.80	\$ 168.80	\$ 188.80
4"	\$ 201.25	\$ 232.50	\$ 263.75	\$ 295.00
6"	\$ 402.50	\$ 465.00	\$ 527.50	\$ 590.00
8"	\$ 644.00	\$ 744.00	\$ 844.00	\$ 944.00
<b>Residential/Multi-Family</b>				
Volumetric Rates (per 1,000 Gallons) <sup>3</sup>				
Block 1 (0 - 4,000 Gallons)	\$ 3.83	\$ 3.93	\$ 4.05	\$ 4.18
Block 2 (4,000+ Gallons)	\$ 8.69	\$ 8.94	\$ 9.21	\$ 9.51
<b>Non-Residential</b>				
Volumetric Rate (per 1,000 Gallons)				
	\$ 5.26	\$ 5.41	\$ 5.57	\$ 5.76
<b>Wholesale</b>				
Volumetric Rate (per 1,000 Gallons)				
	\$ 4.5157	\$ 4.7415	\$ 4.9786	\$ 5.2275
<b>Proposed Sewer Rates</b>				
<b>Retail Sewer Rates</b>				
Base Rate (per month) <sup>1</sup>				
	\$20.43	\$21.25	\$22.10	\$22.98
Volumetric Rate (per 1,000 Gallons) <sup>2</sup>				
	\$7.46	\$7.76	\$8.07	\$8.39
<b>Wholesale Sewer Rates</b>				
Volumetric Rate (per 1,000 Gallons)				
	\$6.1890	\$6.1890	\$6.1890	\$6.1890

<sup>1</sup> Per Customer per month for residential customers, and per 5,000 gallons per month for commercial accounts.

<sup>2</sup> Residential billed volume is capped at 10,000 gallons per month

<sup>3</sup> Blocks are scaled by the number of units



**Reclaimed Water Rate Schedule: FY 2024 - FY 2027**

**Schedule 2**

Description		Rate Types	FY 2024	FY 2025	FY 2026	FY 2027
			Rates	Rates	Rates	Rates
<b>Retail</b>			<b>Proposed</b>			
<b>Funded/Un-Metered</b>	Monthly User Fee		\$ 23.00	\$ 24.00	\$ 25.00	\$ 26.00
	Bi-Monthly Billing Charge		\$ 3.75	\$ 3.75	\$ 3.75	\$ 3.75
<b>Unfunded/Un-Metered</b>	Monthly User Fee		\$ 23.00	\$ 24.00	\$ 25.00	\$ 26.00
	Monthly Availability Charge		\$ 7.00	\$ 7.00	\$ 7.00	\$ 7.00
	Bi-Monthly Billing Charge		\$ 3.75	\$ 3.75	\$ 3.75	\$ 3.75
<b>Funded/Metered</b>	Volumetric Rate (per KGAL) > 20 kgal per month		\$ 1.69	\$ 1.94	\$ 2.23	\$ 2.56
	Monthly Base Charge		\$ 23.00	\$ 24.00	\$ 25.00	\$ 26.00
	Usage Allowance Included in Base Charge (Gal.)		20,000	18,000	16,000	15,000
	Bi-Monthly Billing Charge		\$ 4.50	\$ 4.50	\$ 4.50	\$ 4.50
	Metered Interruptible		\$ 0.24	\$ 0.28	\$ 0.32	\$ 0.37
<b>Unfunded/Metered</b>	Volumetric Rate (per KGAL) > 20 kgal per month		\$ 1.69	\$ 1.94	\$ 2.23	\$ 2.56
	Monthly Base Charge		\$ 23.00	\$ 24.00	\$ 25.00	\$ 26.00
	Usage Allowance Included in Base Charge (Gal.)		20,000	18,000	16,000	15,000
	Bi-Monthly Billing Charge		\$ 4.50	\$ 4.50	\$ 4.50	\$ 4.50
	Monthly Availability Charge		\$ 7.00	\$ 7.00	\$ 7.00	\$ 7.00
<b>Wholesale</b>						
<b>Belleair</b>	Metered Interruptible		\$ 0.2433	\$ 0.2798	\$ 0.3218	\$ 0.3701
<b>Pinellas Park</b>	Volumetric Rate (per KGAL)		\$ 0.5750	\$ 0.6613	\$ 0.7604	\$ 0.8745
<b>South Pasadena</b>	Volumetric Rate (per KGAL)		\$ 0.5750	\$ 0.6613	\$ 0.7604	\$ 0.8745
<b>St. Pete Beach</b>	Volumetric Rate (per KGAL)		\$ 0.5750	\$ 0.6613	\$ 0.7604	\$ 0.8745



**FY 2024 Residential Customer Water & Sewer Bill Impacts**

**Schedule 3**

**3/4" Meter Water and Sewer Bill Calculations**

Monthly Use (Kgal)	FY 2023 Rates	Proposed FY 2024 Rates	\$ Chg.	% Chg.
0	\$26.44	\$28.48	\$2.04	7.7%
1	\$38.74	\$39.77	\$1.03	2.7%
2	\$51.04	\$51.06	\$0.02	0.0%
3	\$63.34	\$62.35	-\$0.99	-1.6%
4	\$75.64	\$73.64	-\$2.00	-2.6%
<b>5</b>	<b>\$87.94</b>	<b>\$89.79</b>	<b>\$1.85</b>	<b>2.1%</b>
6	\$100.24	\$105.94	\$5.70	5.7%
7	\$112.54	\$122.09	\$9.55	8.5%
8	\$124.84	\$138.24	\$13.40	10.7%
9	\$137.14	\$154.39	\$17.25	12.6%
10	\$149.44	\$170.54	\$21.10	14.1%
11	\$154.57	\$179.23	\$24.66	16.0%
12	\$159.70	\$187.92	\$28.22	17.7%
13	\$164.83	\$196.61	\$31.78	19.3%
14	\$169.96	\$205.30	\$35.34	20.8%
15	\$175.09	\$213.99	\$38.90	22.2%
16	\$180.22	\$222.68	\$42.46	23.6%
17	\$185.35	\$231.37	\$46.02	24.8%
18	\$190.48	\$240.06	\$49.58	26.0%
19	\$195.61	\$248.75	\$53.14	27.2%
20	\$200.74	\$257.44	\$56.70	28.2%
21	\$205.87	\$266.13	\$60.26	29.3%
22	\$211.00	\$274.82	\$63.82	30.2%
23	\$216.13	\$283.51	\$67.38	31.2%
24	\$221.26	\$292.20	\$70.94	32.1%
25	\$226.39	\$300.89	\$74.50	32.9%
26	\$231.52	\$309.58	\$78.06	33.7%
27	\$236.65	\$318.27	\$81.62	34.5%
28	\$241.78	\$326.96	\$85.18	35.2%
29	\$246.91	\$335.65	\$88.74	35.9%
30	\$252.04	\$344.34	\$92.30	36.6%



**FY 2024 Non-Residential Customer Water & Sewer Bill Impacts**

**Schedule 4**

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**3/4" Meter Customer**

	Monthly Usage (Gallons)	FY 2023	FY 2024	% Change
Low Usage	2,000	51.04	53.92	6%
Medium Usage	5,000	87.94	92.09	5%
High Usage	10,000	169.08	176.12	4%

**1" Meter Customer**

	Monthly Usage (Gallons)	FY 2023	FY 2024	% Change
Low Usage	5,000	98.14	104.17	6%
Medium Usage	15,000	260.42	272.24	5%
High Usage	25,000	422.70	440.31	4%

**2" Meter Customer**

	Monthly Usage (Gallons)	FY 2023	FY 2024	% Change
Low Usage	20,000	378.96	400.55	6%
Medium Usage	50,000	865.80	904.76	5%
High Usage	100,000	1,677.20	1,745.13	4%

**6" Meter Customer**

	Monthly Usage (Gallons)	FY 2023	FY 2024	% Change
Low Usage	150,000	2,774.20	2,923.59	5%
Medium Usage	500,000	8,454.00	8,806.13	4%
High Usage	1,500,000	24,682.00	25,613.39	4%

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**Reclaimed Water Customer Bill Impacts**

**Schedule 5**

Bill Comparison Based on 20,000 Gallons per Month<sup>1</sup>

Customer Type	% of Customers	Description	FY 2023 (Adopted)	FY 2024 (Proposed)	FY 2025 (Proposed)	FY 2026 (Proposed)	FY 2027 (Proposed)
Funded/Un-Metered	5.2%	Monthly Bill	\$ 22.00	\$ 23.00	\$ 24.00	\$ 25.00	\$ 26.00
		\$ Change		\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
Funded/Metered <sup>2</sup>	0.4%	Monthly Bill	\$ 29.40	\$ 23.00	\$ 27.88	\$ 33.92	\$ 38.80
		\$ Change		\$ (6.40)	\$ 4.88	\$ 6.04	\$ 4.88
County Funded/Un-Metered <sup>3</sup>	91.5%	Monthly Bill	\$ 29.00	\$ 30.00	\$ 31.00	\$ 32.00	\$ 33.00
		\$ Change		\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
County Funded/Metered <sup>2,3</sup>	2.9%	Monthly Bill	\$ 36.40	\$ 30.00	\$ 34.88	\$ 40.92	\$ 45.80
		\$ Change		\$ (6.40)	\$ 4.88	\$ 6.04	\$ 4.88

<sup>1</sup>Assumes customer also has water/sewer service

<sup>2</sup>Proposed rate structure for metered customers includes a base charge inclusive of a monthly usage allowance

<sup>3</sup>Includes \$7.00 availability fee

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## **Appendix G LOCAL BILL COMPARISONS**

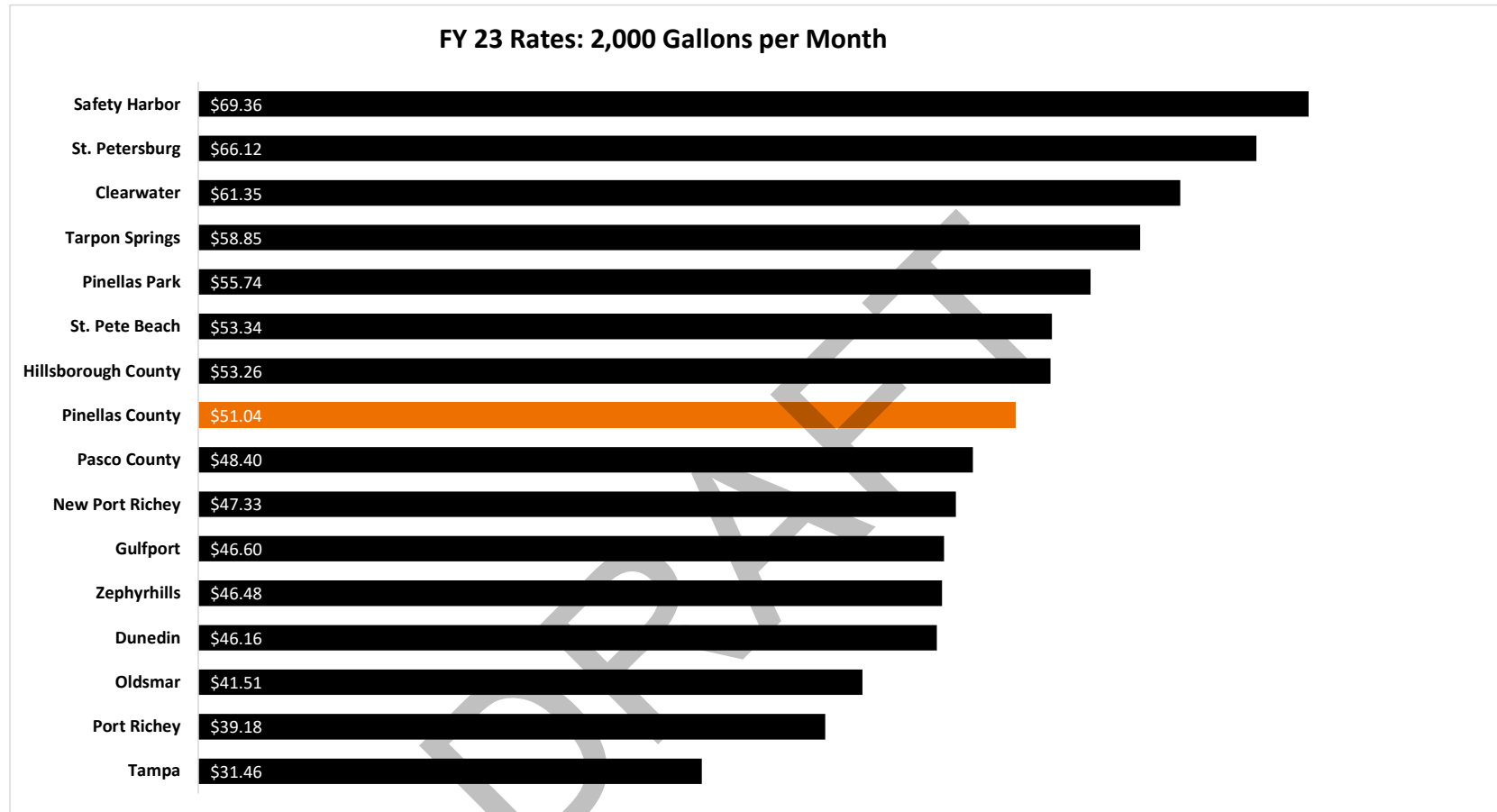
- Schedule 1      FY 2023 Monthly Residential Water & Sewer Bill: 2,000 Gallons**
- Schedule 2      FY 2023 Monthly Residential Water & Sewer Bill: 5,000 Gallons**
- Schedule 3      FY 2023 Monthly Residential Water & Sewer Bill: 10,000 Gallons**
- Schedule 4      FY 2023 Monthly Reclaimed Water Bill: Unmetered Service**
- Schedule 5      FY 2023 Monthly Reclaimed Water Bill: Metered Service @ 20,000 Gallons**

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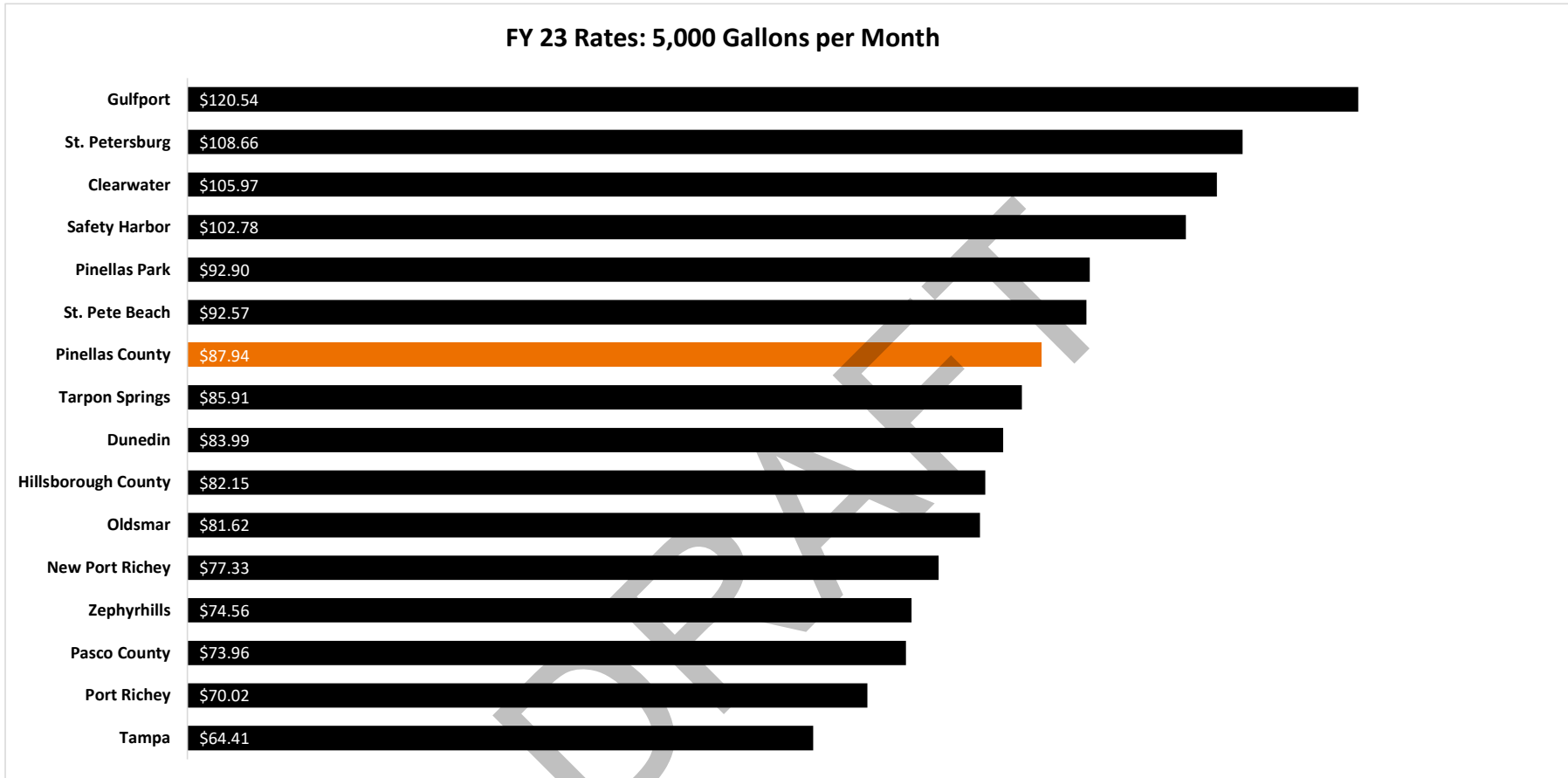


**FY 2023 Monthly Residential Water & Sewer Bill Survey for 2,000 Gallons**

**Schedule 1**



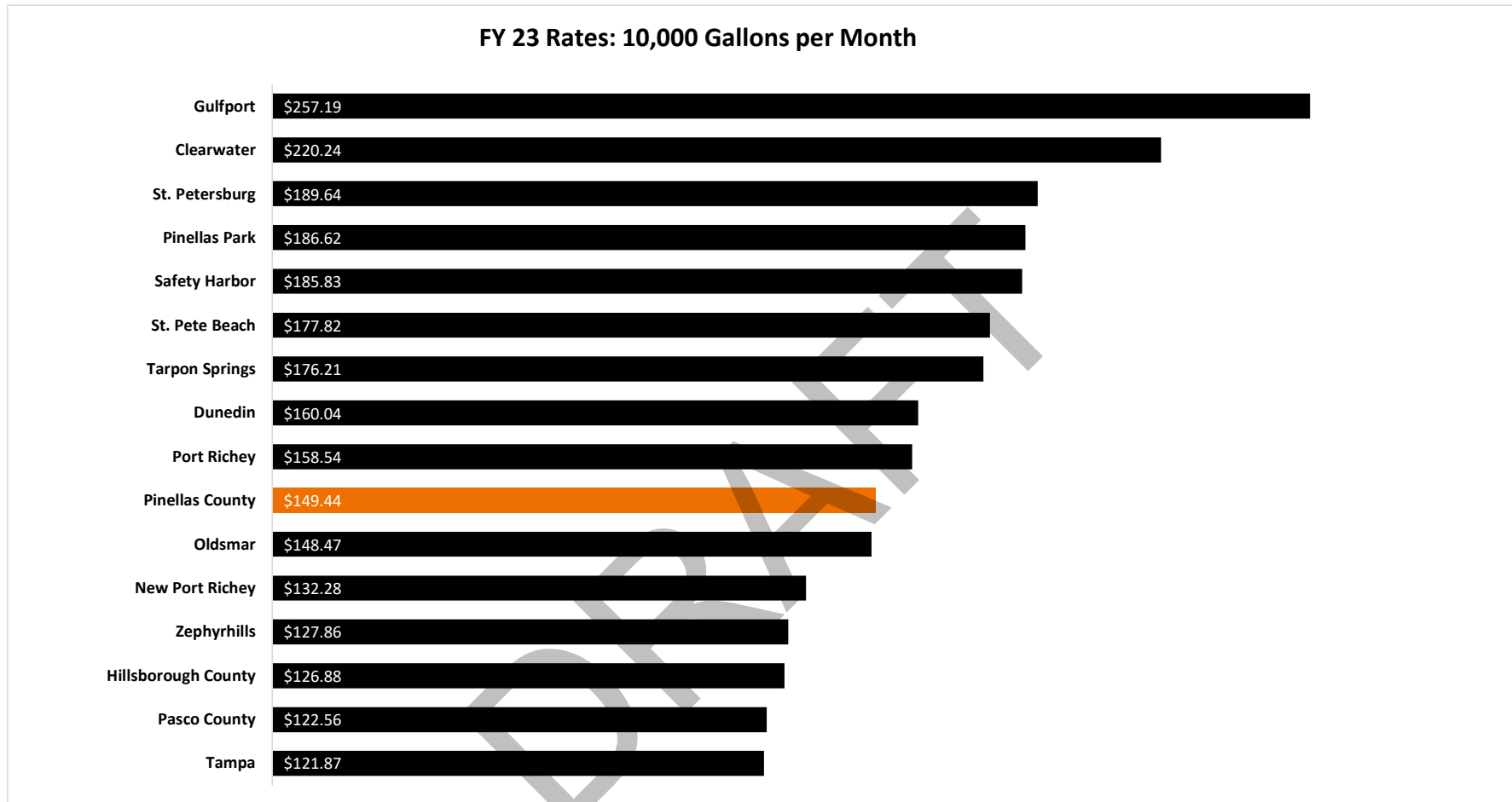
FY 2023 Monthly Residential Water & Sewer Bill Survey for 5,000 Gallons





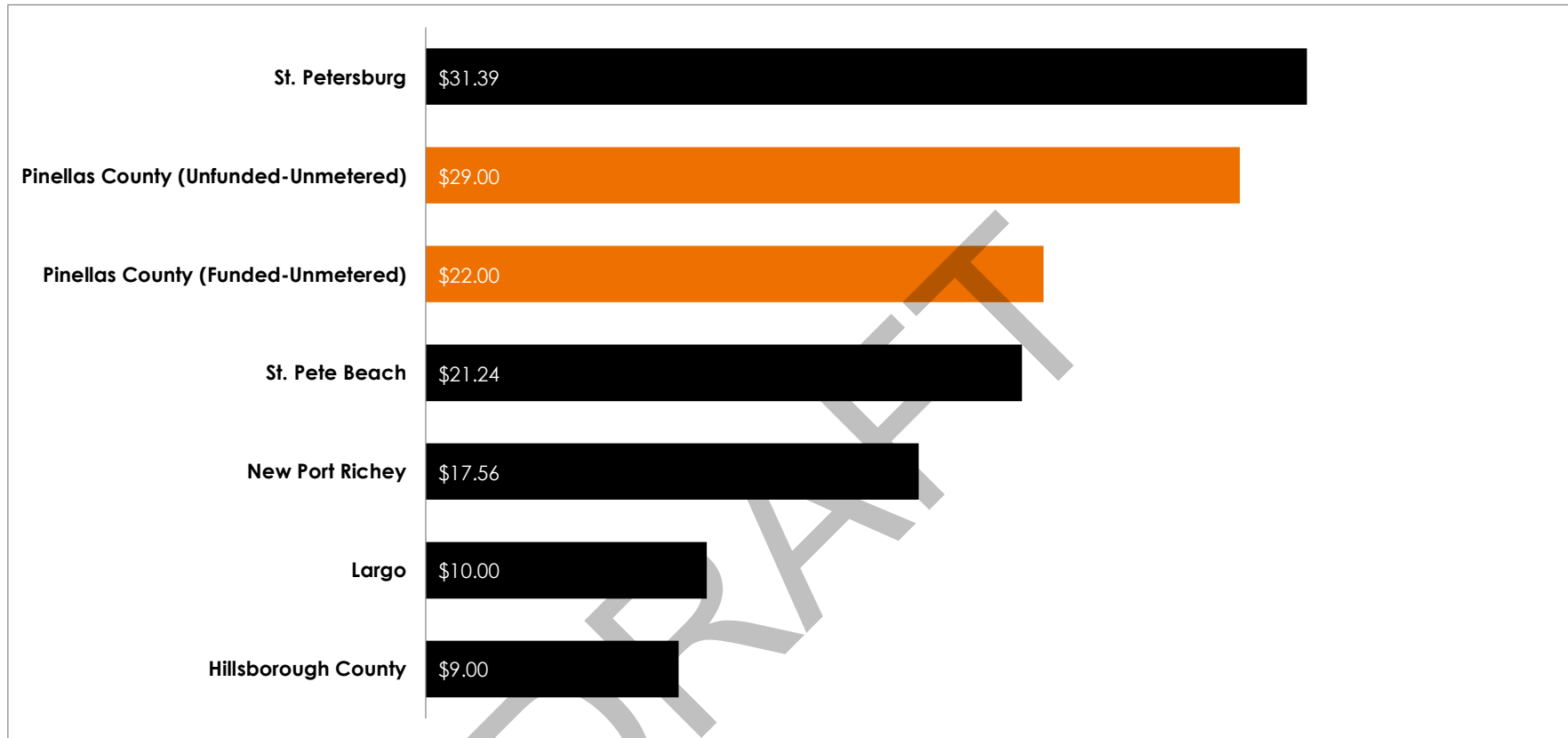
**FY 2023 Monthly Residential Water & Sewer Bill Survey for 10,000 Gallons**

**Schedule 3**



**FY 2023 Monthly Reclaimed Water Bill Survey for Unmetered Service**

**Schedule 4**



**FY 2023 Monthly Reclaimed Water Bill Survey for Metered Services @ 20,000 Gallons**

**Schedule 5**

