ISLE OF PALMS WATER & SEWER COMMISSION

WATER AND SEWER RATE REPORT

June 26, 2023

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CONFLUENCE
Consulting, LLC

EXECUTIVE SUMMARY

As part of its annual financial and capital planning, the Isle of Palms of Palms Water and Sewer Commission (Commission) asked Confluence Consulting, Inc. (Confluence) to update its five-year financial forecast (Financial Forecast) and evaluate the financial and customer impacts of its on-going operations and financial plan. The Commission's multi-year capital improvements plan (CIP) includes the completion of a plan to consolidate its treatment capacity at the Forest Trails Wastewater Treatment Plant (WWTP) and serve all existing and future sewer customer demands at that facility. Over the past three years, the Commission has experienced capital costs increases after receiving construction bids on several significant utility projects including the Forest Trails WWTP expansion project. Despite issuing $16.1 million through the Series 2020 Water & Sewer Revenue Bonds (Series 2020 Bonds), construction cost increases will require the Commission to utilize available cash balances to fund the incremental construction cost increases for projects included in the five-year CIP. The increased construction bid costs reflect an inflationary trend in the economy and the utility industry that result from labor shortages, wage pressures, and supply chain disruptions.

This water and sewer rate report (Rate Report) summarizes the Commission's existing utility rate structures, provides a five-year forecast of utility rate adjustments, and recommends water and sewer rates for the Commissioners to consider for implementation in fiscal year (FY) 2024.

1. Existing Water & Sewer Rate Structures

The current water and sewer rate structures have been in place for many years and the billing system segregates the approximately 4,699 water and 2,753 sewer accounts into 116 different rate codes. The water and sewer rate structures are similar as both consist of three basic charge components which include 1) fixed monthly basic facility charges (BFCs), tiered volumetric charges that increase as the customer's consumption increases, and tiered surcharges that increase as the customer's consumption increases.

A. Basic Facilities Charges (BFCs)

Table E-1 below presents the current FY 2023 water and sewer BFCs assessed to the various rate codes based on billing groups which are defined based on equivalent residential units (ERU), customer class, and/or meter size. It should be noted that the rate structure assesses BFCs to the pool rate codes and master metered (multi-family/resorts) residential rate codes based on the number of ERU assigned to an individual account, as determined by Commission staff and based on South Carolina Department of Health and Environmental Control (DHEC) wastewater contributory loading standards.[1]

[1] The existing billing codes and rate structures refer to pool and multifamily equivalent residential units (ERU) as equivalent living units (ELU). To be consistent with DHEC and accepted industry terminology, this Rate Report will use the term ERU.

Table E-1: Water and Sewer Basic Facilities Charges

Billing Group (2)	Category	Water Monthly Charge	Sewer Monthly Charge	Charge Ratio (1)
1	Residential and <1-inch meters	$ 16.50	$ 36.50	1.00
2	1-inch	$ 33.30	$ 70.00	2.02
3	1.5-inch	$ 61.40	$ 128.00	3.72
4	2-inch	$ 111.30	$ 232.00	6.75
5	3-inch	$ 207.00	$ 433.00	12.56
6	4-inch	$ 333.00	$ 694.00	20.20
7	6-inch	$ 637.00	$ 1,310.00	38.65

(1) The BFC for the residential and less than 1-inch meter assumes the base level of capacity required to serve one (1) ERU. For pools and master metered residential customers which are included in Billing Group 1, the BFC assessed per account is based on the number of ERUs assigned to that account multiplied by the BFC for one ERU, or $16.50 for water.

(2) Charge ratios presented in this table reflect the proposed water basic facilities charges. Charges for meter sizes greater than 6-inch have been negotiated.

B. Volumetric Charges and Penalty Surcharges

The Commission also assesses volumetric charges and penalty surcharges to customers based on the monthly amount of metered water use per units of 1,000 gallons. Both the volumetric charges and penalty surcharges are tiered block rates that price water and sewer at increasingly higher per unit charges as the customer's usage increases. Increasing tier volumetric charges are considered conservation rates that encourage efficient use of water resources as they focus on discouraging wasteful and inefficient use.

The water and sewer volumetric charge structures include five (5) increasing block volumetric charges assessed to customers based on water and sewer usage intervals and the demand characteristics of the six different billing group categories. The lowest tier one volumetric charge is assessed to the different billing groups based on increasingly higher tier one usage intervals that reflect higher base demands for higher use commercial customers with larger meters. Each subsequent tier (2 through 5) interval reflects the next 9,000 gallons of water and sewer usage for that billing group. The additional penalty surcharges are assessed for customer water usage above the tier one usage intervals.

Table E-2 summarizes the current increasing water tier block volumetric charges and penalty surcharges assessed based on usage interval for each of the water billing groups.

Table E-2: Water Volumetric Charges and Penalty Surcharges by Usage Interval

Usage	Volume Charges	Surcharges	Consumption in 1,000 gallons					
			Billing Groups					
			1	2	3	4	5	6
Tier 1	**$ 3.75**	**$ 0.00**	0-9	0-18	0-54	0-80	0-193-	0-326-
Tier 2	**$ 4.50**	**$ 2.10**	10-18	19-27	55-63	81-89	194-202	327-335
Tier 3	**$ 5.20**	**$ 2.60**	19-27	28-36	64-72	90-98	203-211	336-344
Tier 4	**$ 5.70**	**$ 3.10**	28-36	37-45	73-81	99-107	212-220	345-353
Tier 5	**$ 7.50**	**$ 4.70**	>36	>45	>81	>107	>220	>353

Table E-3 summarizes the current increasing sewer tier block volumetric charges and penalty surcharges assessed based on usage interval for each of the sewer billing groups.

Table E-3: Sewer Volumetric Charges and Penalty Surcharges by Usage Interval

Usage	Volume Charges	Surcharges	Consumption in 1,000 gallons					
			Billing Groups					
			1	2	3	4	5	6
Tier 1	**$ 6.75**	**$ 0.00**	0-9	0-18	0-54	0-80	0-193	0-326
Tier 2	**$ 8.30**	**$ 2.60**	10-18	19-27	55-63	81-89	194-202	327-335
Tier 3	**$ 9.40**	**$ 3.10**	19-27	28-36	64-72	90-98	203-211	336-344
Tier 4	**$ 11.50**	**$ 4.20**	28-36	37-45	73-81	99-107	212-220	345-353
Tier 5	**$ 14.60**	**$ 5.20**	>36	>45	>81	>107	>220	>353

2. Annual Revenue Requirements Forecast

The total annual costs for a water and sewer utility to provide services to its customers are referred to as the utility's annual revenue requirements. Revenue requirements include the utilities annual operating and maintenance (O&M) expenses and its annual capital expenditures. It is typical practice for government-owned utilities to recover revenue requirements that are determined on a cash-needs approach, with an objective to provide revenues sufficient to recover the total cash requirements during an annual period.

A. Operating and Maintenance

The forecast of water and sewer O&M during the five-year forecast period is based on the approved FY 2024 Operating Budget, which serves as the base year of the forecast. The FY 2024 O&M expenses are forecasted to escalate based on anticipated annual increases in personal costs (salaries and benefits) of 5.0%, power and chemicals of 5.0%, anticipated water purchases from Charleston Water System (CWS) of 2.5%, and inflation of 2.5% for all other recurring O&M expenses. The Commission categorizes its O&M expenses into nine (9) operating departments which include the following:

- Billing & Collection – Water
- Administration & General – Water
- Water Treatment – Water
- Transmission & Distribution – Water
- Source of Supply – Water
- Billing & Collection – Sewer
- Administration & General – Sewer
- Wastewater Treatment – Sewer
- Collection – Sewer

The annual O&M expenses are forecasted to range from the $3.7 million budgeted in FY 2024 to $4.2 million in FY 2028. Table E-4 presents the annual forecast of water and sewer O&M expenses during the five-year planning period.

Table E-4: Forecasted Annual Utility Operating & Maintenance Expenses

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water	$ 1,995,588	$ 2,049,800	$ 2,124,311	$ 2,201,847	$ 2,282,543
Sewer O&M	1,677,229	1,744,750	1,815,238	1,888,832	1,965,676
Total O&M	**$ 3,672,817**	**$ 3,794,550**	**$ 3,939,549**	**$ 4,090,679**	**$ 4,248,220**

B. Capital Expenditures

Because the Commission faces capital improvements that will require a significant use of available unrestricted cash balances, one of the objectives of the rate analysis is to integrate capital planning needs into the process of developing an appropriate five-year program of utility rates and charges, and to assess the impact of the capital needs over the five-year planning period.

Water Capital Improvements

The Commission is required to make total capital payments of nearly $1.5 million during the planning period for its portion of the annual improvements for its contract capacity with the Charleston Water System (CWS). The water CIP also includes several improvements to the Commission's distribution system, including hydrants, water line improvements for looping and increased capacity, extension of the discharge line at the Reverse Osmosis WTP, and replacing smaller diameter lines with larger lines. The total costs of the five-year water CIP are approximately **$13.3 million**.

Sewer Capital Improvements

To increase wastewater treatment efficiencies and consolidate all its treatment services at the newer Forest Trails WWTP, the Commission is in the process of expanding the capacity of the Forest Trails WWTP to 1.4 MGD and construct a new pumping station at the Wild Dunes WWTP to divert existing flows to the expanded Forest Trails WWTP. The expansion to the Forest Trails WWTP was originally anticipated to cost an estimated $16.0 million, but construction bids received in October 2021 resulted in a revised cost for

the expansion project of $26.2 million.[2] The new Wild Dunes pumping station project has been completed but the actual cost was $2.8 million instead of the original estimate of $1.3 million. These projects allow for the decommission of the old Wild Dunes WWTP and a consolidation of treatment operations at the Forest Trails WWTP. The sewer CIP also includes annual improvements to the Commission's collection system, including extending the lift station 20 force main and upgrading electrical systems. The total costs of the five-year sewer CIP are approximately **$19.2 million**.

Financing Plan

Generally, the Commission utilizes four different financing methods which includes cash from rates, impact fee funds, debt, and grant funded capital. Cash from rates includes the accumulated operating reserves and annual cash reserves generated through monthly rates and charges while impact fee funds represent annual and accumulated balances of impact fee collections. Debt financing, which generally includes revenue bonds and/or SRF Loans for water and sewer, are typically limited to the larger and more expensive projects such as treatment capacity and major infrastructure needs to be met immediately, while spreading out costs over 20 years. The City and Commission issued the 20-year revenue bonds to finance capital improvement costs for the Forest Trails WWTP expansions, with $4.4 million available through Federal Emergency Management Agency (FEMA) grant funds and $4.9 million available through the American Rescue Plan Act (ARPA). The remaining sewer capital improvements will be funded through a combination of cash from rates ($9.6 million) and impact fee funds ($570,000). Approximately $12.8 million in water capital improvements will be funded through a combination of cash from rates ($12.4 million) and impact fee funds ($416,000), and approximately $475,000 available through the ARPA.

Since the Commission issued debt to fund a significant portion of the Sewer CIP, annual debt service is incorporated as part of the analysis based on actual scheduled debt service payments on the $16.1 million 2020 Series Revenue Bonds. The recently issued Series 2020 Revenue Bonds have a 20-year term and an annual interest rate of 1.72%.[3]

Table E-5 provides the forecast of existing annual debt service requirements for the Commission's utility debt issues. At this time, no additional debt is anticipated to be issued during the five-year forecast period. Since the proceeds from the existing and proposed bonds fund improvements to the Forest Trails WWTP, all the debt service payments are included in the sewer revenue requirements.

[2] While the total estimated cost of the Forest Trails WWTP expansion is $26.2 million, the project began engineering and construction prior to FY 2024 and the remaining estimated cost for the project included in the current five-year CIP is $10,815,181.

[3] The interest rate represents the True Interest Cost.

Table E-5: Forecast of Annual Debt Service Requirements

Annual Debt Service Payments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Series 2020 Revenue Bonds - Proposed	976,000	977,250	977,000	975,250	976,875
TOTAL DEBT SERVICE PAYMENTS	**$ 976,000**	**$ 977,250**	**$ 977,000**	**$ 975,250**	**$ 976,875**

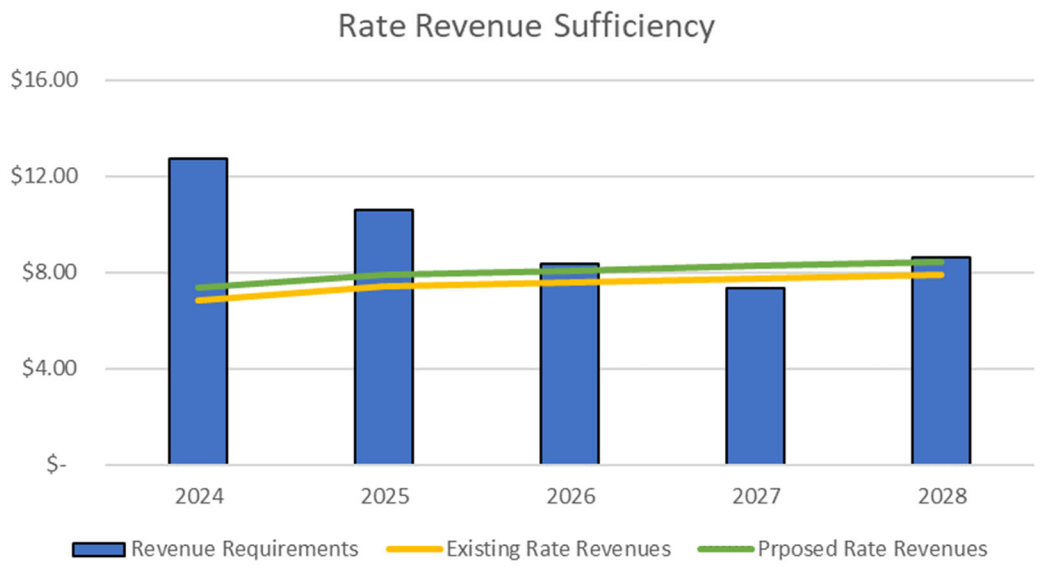
C. Revenue Sufficiency and Recommended Rate Revenue Adjustments

To evaluate whether revenues under existing rates would be adequate, or sufficient to recover the projected revenue requirements over the five-year planning period, revenues were estimated under the existing FY 2023 water and sewer user rates and charges assuming annual growth in new accounts and projected metered water use. (For more information on anticipated customer growth and demand, see Tables 5 and 6 on page 9.)

Forecasted revenue are then compared to the annual revenue requirements of the water and sewer systems. This analysis indicates that with the annual debt service and rate funded capital projects, customer demand and existing user rates and charges are not sufficient to recover the annual revenue requirements for the water and/or sewer system during the planning period. This revenue deficiency is expected as the Commission draws from its unrestricted cash balances to fund significant capital projects in FY 2024 and FY 2025, including the completion of the Forest Trails WWTP upgrade. This requires rate increases to maintain minimum unrestricted cash balances during the planning period. Specifically, water and sewer rates are anticipated to need annual increases to provide approximately 8.0% for both water and sewer in FY 2024 and FY 2025, and 2.0% rate increases to both water and sewer in each subsequent year in the forecast.

The estimated annual revenue sufficiency/deficiency under the existing water and sewer rates and the proposed five-year program of sewer rate adjustments to address projected revenue deficiencies are shown in Chart E-1 below.

Chart E-1: Utility Revenue Sufficiency Under Recommended Rate Adjustments ($ in millions)



Annual Rate Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Rate Revenues	8.16%	8.01%	2.01%	2.04%	2.04%
Sewer Rate Revenues	8.09%	8.02%	2.02%	2.03%	2.03%
Combined Rate Revenues	8.13%	8.02%	2.02%	2.03%	2.03%
Forecasted Debt Coverage	**4.26x**	**4.73x**	**4.76x**	**4.80x**	**4.82x**

D. Debt Coverage and Unrestricted Cash Reserves

Two key measures of a utility's financial strength are its debt service coverage ratio and its cash liquidity, or available cash on hand. The debt service coverage ratio measures the utility's performance in generating sufficient operating revenues to cover its debt service obligations. The second key measure of a utility's financial health, cash liquidity provides a measure of the utility's available reserves to maintain operations, fund ongoing investments, and to respond to fiscal uncertainties, should they arise. Based on its Financial Policies Document, the Commission has a debt coverage target of 2.0x and an unrestricted cash reserves on hand target equal to at least 360 days of annual O&M expenses.

Revenue surpluses and less significant capital project needs over previous years have provided the Commission with cash reserves representing over 1,000 days of its current O&M expenses, which is over three times the recommended 360 days cash on hand minimum target. The Commission will now utilize these cash reserves to fund rate and cash funded capital projects while still maintaining the 2.0X debt coverage target during the five-year forecast period. This will allow the Commission to meet its operating and capital needs while mitigating the impact of the Forest Trails WWTP expansion on customer rates.

3. Proposed FY 2023 User Rates & Charges

Based on projected revenue requirements, rate increases of approximately 8.0% for both water and sewer are needed in FY 2024 and FY 2025, and 2.0% rate increases for both water and sewer are needed in each subsequent year in the forecast. The increases to the water and sewer rates are recommended to generate approximately $270,000 and $265,000 in additional water and sewer user rate revenues respectively in FY 2024.

Table E-6 presents the current FY 2023 and proposed FY 2024 monthly water BFCs for the various billing groups which generally reflect customers with different meter sizes.

Table E-6: Current and Proposed FY 2024 Water Basic Facilities Charges

Billing Group	Meter Size	Current 2023	Proposed 2024	Increase
1	3/4" (1)	$ 16.50	$ 17.80	$ 1.30
2	1"	$ 33.30	$ 36.00	$ 2.70
3	1.5"	$ 61.40	$ 66.30	$ 4.90
4	2"	$ 111.30	$ 120.20	$ 8.90
5	3"	$ 207.00	$ 223.60	$ 16.60
6	4"	$ 333.00	$ 359.60	$ 26.60
7	6"	$ 637.00	$ 688.00	$ 51.00

(1) The BFC for Billing Group 1 is also applied for to each ERU assigned to a customer. Pools and multi-family residential (hotels, condominiums, resorts, etc.) are assigned ERUs and are included in Billing Group 1.

Table E-7 presents the current FY 2023 and proposed FY 2024 water volumetric charges and penalty surcharges assessed per 1,000 gallons of monthly water use. While these volumetric charges and surcharges are assessed to all billing groups, the increment or usage tier a particular customer is assessed these charges depends on the billing group to which that customer belongs.

Table E-7: Current and Proposed FY 2024 Water Volumetric and Penalty Surcharges (per 1,000 gallons)

	Current FY 2023		Proposed FY 2024		Increase	
Usage Tier	Volumetric Charges	Penalty Surcharges	Volumetric Charges	Penalty Surcharges	Volumetric	Surcharge
Tier 1	$ 3.75	N/A	$ 4.05	N/A	$ 0.30	$ -
Tier 2	$ 4.50	$ 2.10	$ 4.90	$ 2.30	$ 0.40	$ 0.20
Tier 3	$ 5.20	$ 2.60	$ 5.65	$ 2.80	$ 0.45	$ 0.20
Tier 4	$ 5.70	$ 3.10	$ 6.20	$ 3.40	$ 0.50	$ 0.30
Tier 5	$ 7.50	$ 4.70	$ 8.10	$ 5.10	$ 0.60	$ 0.40

Table E-8 presents the current FY 2023 and proposed FY 2024 monthly sewer BFCs for the various billing groups which generally reflect customers with different meter sizes.

Table E-8: Current and Proposed FY 2024 Sewer Basic Facilities Charges

Billing Group	Meter Size	Current 2023	Proposed 2024	Increase
1	3/4" (1)	$ 36.50	$ 39.45	$ 2.95
2	1"	$ 70.00	$ 75.60	$ 5.60
3	1.5"	$ 128.00	$ 138.20	$ 10.20
4	2"	$ 232.00	$ 250.60	$ 18.60
5	3"	$ 433.00	$ 467.65	$ 34.65
6	4"	$ 694.00	$ 749.50	$ 55.50
7	6”	$ 1,310.00	$ 1,414.80	$ 104.80

(1) The BFC for Billing Group 1 is also applied for to each ERU assigned to a customer. Pools and multi-family residential (hotels, condominiums, resorts, etc.) are assigned ERUs and are included in Billing Group 1.

Table E-9 presents the current FY 2023 and proposed FY 2024 sewer volume charge and penalty surcharges assessed per 1,000 gallons of monthly sewer use. While these charges and surcharges are assessed to all billing groups, the increment or usage tier that a specific customer is assessed these charges depends on the billing group to which that customer belongs.

Table E-9: Current and Proposed FY 2024 Sewer Volumetric and Surcharges (per 1,000 gallons)

	Current FY 2023		Proposed FY 2024		Increase	
Usage Tier	Volumetric Charges	Penalty Surcharges	Volumetric Charges	Penalty Surcharges	Volumetric	Surcharge
Tier 1	$ 6.75	N/A	$ 7.30	N/A	$ 0.55	N/A
Tier 2	$ 8.30	$ 2.60	$ 8.95	$ 2.80	$ 0.65	$ 0.20
Tier 3	$ 9.40	$ 3.10	$ 10.15	$ 3.35	$ 0.75	$ 0.25
Tier 4	$ 11.50	$ 4.20	$ 12.40	$ 4.55	$ 0.90	$ 0.35
Tier 5	$ 14.60	$ 5.20	$ 15.80	$ 5.60	$ 1.20	$ 0.40

A. Typical Bill Comparison With Local Communities

To demonstrate the impact and local competitiveness of the proposed FY 2024 user rates a charges, a comparison of the monthly bills for the typical residential customer (Billing Group 1) under the current FY 2023 and proposed FY 2024 user rates and charges to the monthly bills assessed to similar customers of other local utilities provides a benchmark when considering the impact of the proposed rate increases.

Table E-10 provides a comparison of a typical utility customer with average monthly water use of 6,000 gallons per month for the Commission and nine (9) other utilities in coastal South Carolina.

Table E-10: Comparison of Typical Monthly Customer Bills with Local Communities

	User Rates and Charges (6,000 gal/month)		
Utility/Community	**Water**	**Sewer**	**Total**
Sullivan's Island	$45.93	$93.73	$ 139.66
IOPWSC - Proposed	**42.10**	**83.25**	**125.35**
Charleston Water System	27.38	92.38	119.76
IOPWSC - Current	**39.00**	**77.00**	**116.00**
MPW - Approved FY 2024	46.34	67.82	114.16
Seabrook Island	57.55	49.70	107.25
MPW - Current	42.86	62.78	105.64
Dorchester County	$46.99	$56.20	103.19
Average (Excluding IOPWSC)	$38.45	$59.47	$97.91
Beaufort-Jasper	$31.51	$55.56	87.07
Berkeley County	$37.36	$44.00	81.36
Summerville Public Works	$23.23	$42.00	65.23
Hilton Head Island PSD	$25.32	$30.50	55.82

As the comparison demonstrates, even before the proposed FY 2024 rate adjustments the Commission is above the average of the comparison group. While the water rates are more in line with the comparison group average, the Commission's sewer rates are among the highest of the group. The higher sewer rates result as the Commission serves a very small sewer customer base and must recover the costs of wastewater treatment facilities from fewer customers, thus limiting its ability to achieve economies of scale through a larger customers base. Additionally, the Commission must pay annual debt service on the Series 2020 Bonds issued to fund the expansion of capacity at the Forest Trails WWTP which will serve as the lone wastewater treatment facility serving Isle of Palms.

It should also be noted that the bills calculated for the comparison group are based on the utilities' current FY 2023 rates, proposed FY 2024 rates, and/or published rates for FY 2024. It is likely that some of the comparison utilities will also be faced with FY 2024 rate increases that are not reflected in this comparison. Furthermore, it should be noted that many of the comparison utilities have recently adopted significant water and sewer rate increases. These utility rate increases most likely reflect the same recent inflationary trends that the Commission is facing resulting from labor shortages, wage pressures, and supply chain disruptions.

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I. INTRODUCTION

Confluence Consulting, LLC (Confluence) is pleased to submit this water and sewer rate report (Rate Report) documenting the recommended fiscal year (FY) 2024 water and sewer rates and an updated five-year financial planning and utility rate forecast (Financial Forecast) conducted for the Isle of Palms Water & Sewer Commission (Commission). The Commission asked Confluence to provide this Financial Forecast as part of its annual long-term financial planning process.

The Commission provides water and sewer service to Isle of Palms, a 6-mile barrier island located in Charleston County. The Commission is governed by a board of elected officials and provides service in areas that cannot be provided for by any other agency. The Commission was created in 1992 through an ordinance enacted by the City of Isle of Palms and Section 5-31-250, et. seq., of the Code of Laws of South Carolina 1976, as amended, to own, operate, and manage the water and sewer systems of the Isle of Palms. The Commission is governed by five Commissioners elected by the residents of the City of Isle of Palms and provides services to approximately 4,699 water accounts and 2,753 sewer accounts. While all current sewer customers also receive water service from the Commission, approximately 1,264 water customers on the island have individual septic systems.

In October 2020, the City of Isle of Palms (City) issued $16.1 million in Series 2020 Water and Sewer Revenue Bonds (Series 2020 Bonds) for the Commission to expand its Forest Trails Wastewater Treatment Plant (WWTP) and decommission its Wild Dunes WWTP to consolidate its treatment capacity at the Forest Trails WWTP to serve all existing and future customer demands.

The preliminary engineering estimate for the cost of the Forest Trails WWTP expansion project ($16.0 million) and the cost of the new pump station at Wild Dunes ($1.3 million) that will divert wastewater flows to the expanded Forest Trails WWTP totalled $17.3 million. However, when the Commission received bids for constructing the WWTP expansion project in October 2021, building materials and other construction related cost increases resulted in significantly higher anticipated combined costs for the WWTP expansion project and the new pump station project of $27.5 million. The Commission's pay as you go approach to funding most capital projects, along with recent wastewater rate increases in anticipation of the Forest Trails WWTP expansion, have generated strong current cash levels. The Commission decided to use available cash balances to fund the $10.2 million of incremental costs above the $16.1 million in proceeds from the Series 2020 Bonds and available FEMA grant funding. The Forest Trails WWTP expansion project began in January 2022 and is anticipated to be completed in February 2024. As of July 1, 2023 the Commission has used all available bond funds and will begin drawing down available cash on hand to fund the remaining costs until it receives the $4.4 million in approved FEMA funding.[4]

[4] Although the Commission was initially approved for $2.2 million in FEMA funding, the Commission re-applied for additional FEMA funding in 2023 and was awarded an additional $2.2 million for the Forest Trails WWTP expansion. The Commission expects to receive the entire amount of FEMA funding in FY 2024.

Since receiving the escalated bid cost for the Forest Trails WWTP expansion project, the Commission has continued to experience construction costs increases with higher than anticipated bid costs for several water and wastewater projects, including the Wild Dunes Pump Station and the Fairways Dunes Waterline Replacement (Phases 1 & 2). The increased bid costs reflect an inflationary trend in the economy and the utility industry that result from labor shortages, wage pressures, and supply chain disruptions. Additionally, the Commission was approved for $5.4 million American Rescue Plan Act grants in 2023 that will fund 67% of the costs for three additional projects that have been added to the CIP. These projects include an extension of the discharge line at the Reverse Osmosis WTP, installation of a gravity sewer in Basin N, and replacement of the effluent discharge line at the Forest Hills WWTP.

Because the Series 2020 Bonds are payable solely from the revenues derived from the operation of the Commission after first paying the costs and expenses of operating and maintaining the system, the Financial Forecast was developed to ensure that annual water and sewer user rates and charges are sufficient to fund operations, maintain adequate cash reserves, and meet debt coverage requirements during five-year forecast period. The Commission's approach to use available cash balances to fund the incremental costs of the Forest Trails WWTP expansion will continue to require close monitoring of the actual costs of the project and the annual available cash on hand during the next three to four fiscal years.

The purpose of this Rate Report is to summarize the analysis and recommendations of the Study. Specifically, the Rate Report is organized in the following sections:

I. Introduction;

II. Existing Rate Structures;

III. Customer Growth and Demand;

IV. Annual Revenue Requirements Forecast;

V. Proposed FY 2024 User Rates & Charges;

VI. Typical Customer Bill Impacts; and

VII. Comparison With Other Local Utilities.

II. EXISTING RATE STRUTURES

The current water and sewer rate structures have been in place for many years and the billing system segregates the approximately 4,699 water and 2,753 sewer accounts into 116 different rate codes. This Section describes the current water and sewer rate structures.

1. Existing Water Rate Structure

The water rate structure consists of three basic charge components which include 1) fixed monthly basic facility charges (BFCs), tiered volumetric charges that increase as the customer's consumption increases, and tiered surcharges that also increase as the customer's consumption increases. The water rate structure and billing system segregates water customers into seven (7) billing groups and 61 rate codes.

A. Basic Facilities Charges (BFCs)

Similar to most utilities, the Commission assesses a monthly fixed charge or BFC, to recover certain fixed costs that do not vary with the amount of water consumed by the customer. These fixed costs include (1) customer service and billing costs, (2) meter installation and maintenance costs, and (3) other costs associated with facilities the Commission has made available to provide basic water service to the customer. Many utilities use basic facilities charges to recover the rising costs of capital improvements, operations, and water resources and to provide revenue stability. Recovering more costs through monthly fixed charges provides greater revenue stability and certainty; and is viewed favorably by bond rating agencies since bond holders are protected against higher degrees of revenue fluctuations that can be influenced by wet weather, economic conditions, and peak use periods. The current water rate structure generates approximately 36% of the water rate revenues through the fixed monthly BFCs, which is close to average for similar utilities across the country. The intent of the BFC is to recover a portion of those costs necessary to service the customer account and a "readiness to serve" component related to providing the basic facilities needed to serve the customer, which is important in a seasonal community such as Isle of Palms which requires capacity to serve customers during peak use seasonal periods.

While the customer account and meter costs are typically distributed among customers on a per account basis, the readiness to serve capacity component varies by meter size. The readiness to serve facility related costs are distributed to customers based on the potential demand that different meter sizes can place on the system. For the Commission, these potential demands or capacity ratios for different meter sizes are based on historical BFC charge ratios.

Table 1 below presents the current fiscal year (FY) 2023 BFCs assessed to the various rate codes based on billing groups which are defined based on equivalent residential units (ERU), customer class, and/or meter size. It should be noted that the existing rate structure assesses BFCs to the pool rate codes and master metered (multi-family/resorts) residential rate codes based on the number of equivalent residential units

(ERUs) assigned to an individual account, as determined by Commission staff based on South Carolina Department of Health and Environmental Control (DHEC) wastewater contributory loading standards.[5]

Table 1: Current FY 2023 Water Basic Facilities Charges

Billing Group (2)	Category	Monthly Charge	Charge Ratio (1)
1	Residential and <1-inch meters	$ 16.50	**1.00**
2	1-inch	$ 33.30	**2.02**
3	1.5-inch	$ 61.40	**3.72**
4	2-inch	$ 111.30	**6.75**
5	3-inch	$ 207.00	**12.55**
6	4-inch	$ 333.00	**20.18**
7	6-inch	$ 637.00	**38.61**

(1) The BFC for the residential and less than 1-inch meter accounts assumes the base level of capacity required to serve one (1) ERU. For pools and master metered residential customers which are included in Billing Group 1, the BFC assessed per account is based on the number of ERUs assigned to that account multiplied by the BFC for one ERU, or $16.50.

(2) Charges for meter sizes greater than 6-inch have been negotiated in the past according to policy.

B. Water Volumetric Charges and Penalty Surcharges

The Commission also assesses volumetric charges and penalty surcharges to customers based on the monthly amount of metered water use per units of 1,000 gallons. Both the volumetric charges and penalty surcharges are tiered block rates that price water at increasingly higher per unit charges as the customer's consumption increases. Increasing tier volumetric charges are considered conservation rates that encourage efficient use of water resources as they focus on discouraging wasteful and inefficient use. By charging increasing volumetric charges and penalty surcharges, the Commission rewards efficient water users and surcharges those customers with nonessential or high seasonal consumption.

The volumetric charge structure includes five (5) increasing block volumetric charges assessed to customers based on water usage intervals and the demand characteristics of the seven different billing groups categories. The lowest tier one volumetric charge is assessed to the different billing groups based on increasingly higher tier one usage intervals that reflect higher base demands for higher use commercial and irrigation customers which utilize larger capacity meters. Each subsequent tier (2 through 5) interval reflects the next 9,000 gallons of water usage. The additional penalty surcharges are assessed for a customer's water usage that is above the tier one usage intervals.

[5] The existing billing codes and rates structure refers to pool and multifamily equivalent residential units (ERU) as equivalent living units (ELU). To be consistent with DHEC and accepted industry terminology, this Report will use the term ERU.

Table 2 summarizes the current FY 2023 increasing tier block volumetric charges and penalty surcharges assessed based on usage interval to each of the water billing group.

Table 2: Current FY 2023 Water Volumetric Charges and Penalty Surcharges by Usage Interval

Usage	Volume Charges	Surcharges	Consumption in 1,000 gallons					
			Billing Groups					
			1	2	3	4	5	6
Tier 1	**$ 3.75**	**$ 0.00**	0-9	0-18	0-54	0-80	0-193-	0-326-
Tier 2	**$ 4.50**	**$ 2.10**	10-18	19-27	55-63	81-89	194-202	327-335
Tier 3	**$ 5.20**	**$ 2.60**	19-27	28-36	64-72	90-98	203-211	336-344
Tier 4	**$ 5.70**	**$ 3.10**	28-36	37-45	73-81	99-107	212-220	345-353
Tier 5	**$ 7.50**	**$ 4.70**	>36	>45	>81	>107	>220	>353

2. Existing Sewer Rate Structure

Similar to water, the sewer rate structure consists of three basic charge components which include 1) fixed monthly BFCs, tiered volumetric charges that increase as the customer's consumption increases, and tiered surcharges that also increase as the customer's consumption increases. The sewer rate structure and billing system segregates sewer customers into seven (7) billing groups and 55 rate codes.

A. Basic Facilities Charges (BFCs)

As with water, the Commission assesses a monthly fixed charge or BFC, to recover certain fixed costs that do not vary with the amount of sewer discharged by the customer. These fixed costs include (1) customer service and billing costs, (2) water meter installation and maintenance costs, and (3) other costs associated with facilities the Commission has made available to provide basic sewer service to the customer. Many utilities use basic facilities charges to recover the rising costs of capital improvements, operations, and sewer treatment which provides revenue stability. Recovering more costs through monthly fixed charges provides greater revenue certainty and is viewed favorably by bond rating agencies since bond holders are protected against higher degrees of revenue fluctuations that can be influenced by wet weather, economic conditions, and peak use periods. The current sewer rate structure generates approximately 51% of the sewer rate revenues through the fixed monthly BFCs, which provides strong revenue stability. The intent of the BFC is recover a portion of those costs necessary to service the customer account and a "readiness to serve" component related to providing the basic facilities needed to serve the customer, which is important in a seasonal community such as the Isle of Palms which requires capacity to serve customers during peak use seasonal periods.[6]

While the customer account and meter costs are typically distributed among customers on a per account basis, the readiness to serve capacity component varies by meter size. The readiness to serve facility related costs are distributed to customers based on the potential demand that different meter sizes can

[6] Because it is not feasible to meter sewer discharges, the Commission and most utilities use metered water use as a proxy for the customer flows to the sewer system.

place on the system. For the Commission, these potential demands or capacity ratios for different meter sizes are based on historical BFC charge ratios.

Table 3 below presents the current FY 2023 BFCs assessed to the various rate codes based on billing groups which are defined based on equivalent residential units (ERU), customer class, and/or meter size. It should be noted that the existing rate structure assesses BFCs to the pool and multi-family rate codes based on the number of equivalent residential units (ERUs) assigned to an individual account, which were determined by Commission staff.[7]

Table 3: Current FY 2023 Sewer Basic Facilities Charges

Billing Group (2)	Category	Monthly Charge	Charge Ratio (1)
1	Residential and <1-inch meters	$ 36.50	**1.00**
2	1-inch	$ 70.00	**1.92**
3	1.5-inch	$ 128.00	**3.51**
4	2-inch	$ 232.00	**6.36**
5	3-inch	$ 433.00	**11.86**
6	4-inch	$ 694.00	**19.01**
7	6-inch	$ 1,310.00	**35.89**

(1) The BFC for the residential and less than 1-inch meter assumes the base level of capacity required to serve one (1) ERU. For pools and master metered residential customers, the BFC assessed per account is based on the number of ERUs assigned to that account multiplied by the BFC for one ERU, or $35.50.

(2) Charges for meter sizes greater than 6-inch have been negotiated in the past according to policy.

B. Sewer Volumetric Charges and Penalty Surcharges

The Commission also assesses sewer volumetric charges and penalty surcharges to customers based on the monthly amount of metered water use per units of 1,000 gallons. Both the volumetric charges and penalty surcharges are tiered block rates that price sewer at increasingly higher per unit charges as the customer's consumption increases. Increasing tier volumetric charges are considered conservation rates that encourage efficient use of water resources as they focus on discouraging wasteful and inefficient use. By charging increasing volumetric charges and penalty surcharges, the Commission rewards efficient water users and surcharges those customers with nonessential or high seasonal consumption.

The volumetric charge structure includes five (5) increasing block volumetric charges assessed to customers based on sewer usage intervals and the demand characteristics of the seven different billing groups categories. The lowest tier one volumetric charge is assessed to the different billing groups based

[7] The existing billing codes and rate structure refers to pool and multifamily equivalent residential units (ERU) as equivalent living units (ELU). To be consistent with South Carolina Department of Health and Environmental Control (DHEC) and accepted industry terminology, this report will use the term ERU.

on increasingly higher tier one usage intervals that reflect higher base demands for higher use commercial customers with larger meters. Each subsequent tier (2 through 5) interval reflects the next 9,000 gallons of water usage. The additional penalty surcharges are assessed for usage for customer water usage above the tier one usage intervals.

Table 4 summarizes the current FY 2023 increasing sewer tier block volumetric charges and penalty surcharges assessed based on usage interval to each of the sewer billing groups.

Table 4: Current FY 2023 Sewer Volumetric Charges and Penalty Surcharges by Usage Interval

Usage	Volume Charges	Surcharges	Consumption in 1,000 gallons					
			Billing Groups					
			1	2	3	4	5	6
Tier 1	**$ 6.75**	**$ 0.00**	0-9	0-18	0-54	0-80	0-193	0-326
Tier 2	**$ 8.30**	**$ 2.60**	10-18	19-27	55-63	81-89	194-202	327-335
Tier 3	**$ 9.40**	**$ 3.10**	19-27	28-36	64-72	90-98	203-211	336-344
Tier 4	**$ 11.50**	**$ 4.20**	28-36	37-45	73-81	99-107	212-220	345-353
Tier 5	**$ 14.60**	**$ 5.20**	>36	>45	>81	>107	>220	>353

III. CUSTOMER GROWTH AND DEMANDS

The Commission currently provides services to approximately 4,699 water accounts and 2,753 sewer accounts (exclusive of the 200 grinder pump accounts). While all current sewer customers also receive water service from the Commission, there are approximately 1,264 water customers on the island that have individual septic systems. Properties served by individual septic systems are located in areas that do not currently have access or proximity to the Commission's wastewater collection infrastructure.

Based on a historical analysis of customer account growth and billed demands for water and sewer (customer meter readings), the Commission has added approximately 122 new water (including 53 irrigation accounts) and 137 new sewer accounts since July 2016. Billing data provided for fiscal years 2017, 2018, 2019, 2020, 2021, 2022, and 2023 indicated annual growth in customer accounts has been less than 1.0% annually for both water and sewer. The analysis of metered usage by water and sewer accounts during that same period indicates that metered usage has fluctuated according to weather patterns with little to no relationship with growth in accounts. Based on this historical analysis of customer growth and demands and the limited area for growth through developing vacant lots, minimal growth in new customer and metered usage are projected during the five-year planning period. Specifically, annual growth projections assume 5 new water residential accounts (less than 1-inch meter), 10 new irrigation accounts, and 10 new sewer residential accounts (less than 1-inch meter) each year of the five-year planning period. Because metered usage has fluctuated with no relationship to residential account growth, no growth in metered usage is assumed as part of this forecast.

Table 5 summarizes the recent historical customer account and demand growth and a five-year projection of the water accounts and metered water use (in 1,000 gallons) from FY 20 through FY 28.

Table 5: Historical and Projected Water Customers and Demand (FY 20 through FY 28)

	Historical			Projected					
Accounts	**FY 20**	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**	**FY 26**	**FY 27**	**FY 28**
Residential	3,794	3,817	3,818	3,831	3,836	3,841	3,846	3,851	3,856
Commercial	120	121	122	121	121	121	121	121	121
Pools/Multi-fam	36	36	36	36	36	36	36	36	36
Irrigation	684	694	697	711	721	731	741	752	763
Total Water Accounts	4,634	4,668	4,673	4,699	4,714	4,729	4,731	4,747	4,763

Metered (kgal)	**FY 20**	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**	**FY 26**	**FY 27**	**FY 28**
Residential	252,762	264,932	265,491	265,491	265,491	265,491	265,491	265,491	265,491
Commercial	22,955	27,646	29,482	29,482	29,482	29,482	29,482	29,482	29,482
Pools	15,222	5,931	5,877	5,877	5,877	5,877	5,877	5,877	5,877
Irrigation	113,772	100,316	103,754	103,754	103,754	103,754	103,754	103,754	103,754
Total Water Metered Usage	404,711	398,825	404,604	404,604	404,604	404,604	404,604	404,604	404,604

Table 6 summarizes the recent historical customer account and demand growth and a five-year projection of the sewer accounts and metered sewer flows (in 1,000 gallons) from FY 20 through FY 28.

Table 6: Historical and Projected Sewer Customers and Demand (FY 20 through FY 28)

	Historical			Projected					
Accounts	**FY 20**	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**	**FY 26**	**FY 27**	**FY 28**
Residential	2,566	2,603	2,617	2,655	2,665	2,675	2,685	2,695	2,705
Commercial	86	88	87	87	87	87	87	87	87
Pools/Multi-fam	21	22	22	22	22	22	22	22	22
Total Water Accounts	2,662	2,702	2,715	2,753	2,763	2,773	2,783	2,793	2,803

Metered (kgal)	**FY 20**	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**	**FY 26**	**FY 27**	**FY 28**
Residential	158,515	168,825	172,147	172,147	172,147	172,147	172,147	172,147	172,147
Commercial	30,406	22,880	27,169	27,169	27,169	27,169	27,169	27,169	27,169
Pools	14,269	1,516	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Total Water Metered Usage	203,190	193,221	203,316	203,316	203,316	203,316	203,316	203,316	203,316

IV. ANNUAL REVENUE REQUIREMENTS FORECAST

The total annual costs for a water and sewer utility to provide services to its customers are referred to as the utility's annual revenue requirements. Revenue requirements include the utilities annual operating and maintenance (O&M) expenses and its annual capital expenditures. It is typical practice for government-owned utilities to recover revenue requirements that are determined on a cash-needs approach, with an objective to provide revenues sufficient to recover the total cash requirements during an annual period. Under the cash-needs approach, operating expenses are based on the utilities budgeted operating expenses for the initial test-year with anticipated inflationary and other demand related adjustments applied to project the operating expenses in the remaining forecast years. Annual capital expenditures include annual debt service (principal and interest) payments, cash funded capital expenditures, and funding of debt and other reserves which typically provide net revenues sufficient to meet annual debt service coverage requirements. Non-cash expenditures, such as depreciation are excluded from the revenue requirements determined under the cash-needs approach.

This section of the Rate Report provides a discussion of the projected annual O&M expenses and capital expenditures (revenue requirements) of the Commission's enterprise fund.

1. Operating and Maintenance

The first step in determining the program of water and sewer user rates and charges is to develop the forecast of annual O&M expenses for the water and sewer utilities. The forecast of water and sewer O&M during the five-year forecast period is based on the FY 2024 Operating Budget, approved on May 17, 2023 which serves as the base year of the forecast. The FY 2024 O&M expenses are forecasted to escalate based on anticipated annual increases in personal costs (salaries and benefits) of 5.0%, power and chemicals of 5.0%, anticipated water purchases from CWS of 2.5%, and inflation of 2.5% for all other recurring O&M expenses. The Commission categorizes its O&M expenses into nine (9) operating departments identified in Table 7 below.

Table 7: IOPWSC Water & Sewer Operating Departments

Isle of Palms Water & Sewer Commission Operating Departments	
Water Departments	**Sewer Departments**
Billing & Collection – Water	Billing & Collection – Sewer
Administration & General – Water	Administration & General – Sewer
Water Treatment	Wastewater Treatment
Transmission & Distribution	Collection
Source of Supply	

Billing & collection and administrative costs are shared expenditures that are allocated among water and sewer by the Commission as part of their annual budgeting process.

2. Capital Expenditures

One of the objectives of the rate analysis is to integrate capital planning needs into the process of developing an appropriate five-year program of utility rates and charges, and to assess the impact of the capital needs over the five-year planning period. Generally, the Commission utilizes four different financing methods which includes cash from rates, impact fee funds, debt, and grant funded capital.

A. Water Capital Improvements

The Commission does not have any planned expansions to its Reverse Osmosis WTP or Contract Capacity with CWS. However, the Commission is required to make total capital payments of nearly $1.5 million during the planning period for its portion of the annual improvements to the CWS water system. The water CIP also includes several improvements to the Commission's distribution system, including hydrants, water line improvements for looping and increased capacity, extension of the discharge line at the Reverse Osmosis WTP, and replacing smaller diameter lines with larger lines. As mentioned previously, the Commission received bids in October 2022 to construct the planned Fairways Dunes Waterline Replacement (Phases 1 & 2) that came in approximately $900,000 higher than original engineering estimates. The increased bid costs for this project reflect the recent inflationary trend in the economy and the utility industry resulting from labor shortages, wage pressures, and supply chain disruptions. Because the Commission faces significant cash funded capital expenditures in the next two fiscal years, the Commission delayed the start of the Fairway Dunes projects by a year to mitigate the impact on unrestricted cash balances.

Because these water improvements benefit both existing and new customers, impact fee funds are used to fund a portion of the annual capital projects. The total costs of the five-year water CIP are approximately $13.3 million.

Table 8 provides a summary of the five-year water capital projects and the anticipated funding sources in the water CIP.

Table 8: Five-Year Total for Water Capital Improvements Plan (FY 2023 through FY 2028)

Water Capital Improvements	Total
CCPW Capital Improvement Program	$ 1,453,063
Pelican Bay-Replace existing 4" w/l with 8" and hydrants	676,000
Pelican Bay-Engineering	56,322
Fairway Dunes/Duneridge-replace existing w/8" (phase 1)	1,825,177
Fairway Dunes/Duneridge-10"- loop across golf course (Phase 2)	2,284,000
Beach Club Villas Project-Engineering	110,000
Beach Club Villas North water line replacement	985,000
Twin Oaks Water Line Replacement	1,458,000
Beachwood East/Dunecrest Lane w/l replacement	1,770,000
Beachwood East/Dunecrest Project-Engineering	85,617
Video Inspection Deep Well #4	23,000
RO Concentrate Discharge Line Extension	710,000
Replace VFD's at WTP 1 & Deep Well 2	220,000
Twin Oaks - Replace existing 2" w/l with 1400 lf of 8" PVC w/l	1,457,805
Joint Project Allocated to Water	189,069
TOTAL WATER CAPITAL PROJECTS	**$ 13,303,053**

Funding Sources	
Annual Rate/Cash Funded	$ 12,411,030
Impact Fees	416,323
Grant Funding (ARPA)	475,700
TOTAL FUNDING SOURCES	**$ 13,303,053**

B. Sewer Capital Improvements

To increase treatment efficiencies and consolidate all its treatment services at the newer Forest Trails WWTP, the Commission is scheduled to complete the expansion of the Forest Trails WWTP to 1.4 MGD and the new pumping station at the Wild Dunes WWTP to divert existing flows to the expanded Forest Trails WWTP in February 2024. These projects will allow for the decommission of the old Wild Dunes WWTP and a consolidation of treatment operations at the Forest Trails WWTP. As mentioned previously, the preliminary engineering estimate for the cost of the Forest Trails WWTP project was $16.0 million but when the Commission received bids for constructing the project in October 2021, building materials and other construction related costs increases led to significantly higher anticipated project costs of $26.2 million.

The Commission's pay as you go funding approach and recent wastewater rate increases in anticipation of the Forest Trails WWTP expansion have generated strong current cash levels. The Commission will use

available cash balances to fund the $10.2 million of incremental costs that will not be funded through the $16.1 million in proceeds from the Series 2020 Bonds. Further reflecting recent inflationary trends, the bid for the estimated $1.3 million project to construct the new Wild Dunes pumping station came in at $2.8 million. Although the Commission was able to gain approval for additional FEMA grant funding, from $2.2 million to $4.4 million, the incremental increases in construction costs will be funded through available cash.

The Commission also added two significant sewer projects to install a gravity sewer in Basin N and replace the effluent discharge line at the Forest Hills WWTP after it was approved for additional grant funding available through the ARPA. The sewer CIP also includes annual improvements to the Commission's collection system, including gravity sewer cleaning, inspections, and repairs; and upgrading the existing electrical systems. These improvements benefit both existing and new customers and impact fee funds are used to fund a portion of the annual capital projects. The total costs of the five-year sewer CIP are $19.2 million.

Table 9 provides a summary of the sewer capital projects and the anticipated funded sources in the sewer CIP.

Table 9: Five-Year Total for Sewer Capital Improvements Plan (FY 2024 through FY 2028)

Sewer Capital Improvements Plan	Total
Upgrade Existing Electrical Systems & Equip.	$ 40,082
Upgrade Forest Trails WWTP to 1.4 MGD	10,815,181
Install Gravity Sewer Basin N (ARPA)	5,872,643
Shelving for New FTWWTP	4,440
Spare Submersible Pumps LS 10,19, and 22	81,000
Replace Effluent Discharge Line FTWWTP (ARPA)	1,410,000
Gravity Sewer Cleaning/Inspection	175,750
Deep Sewer point repair	140,000
Raven Coat manholes	30,000
Demo Wild Dunes WWTP	375,000
Spare Grinder Pumps	55,000
Install Underground Electrical New WD Pump Station	90,000
New YSI DO Meter	1,250
Joint Project Allocated to Sewer	126,046
TOTAL SEWER CAPITAL PROJECTS	**$ 19,216,392**

Funding Sources	
Annual Rate/Cash Funded	$ 9,606,333
Impact Fees	572,444
Grant Funding	9,236,871
Debt Funding	41,602
TOTAL FUNDING SOURCES	**$ 19,457,250**

(1) The total estimated cost of the Upgrade to Forest Trails WWTP is $26,178,000. However, initial engineering and construction began in FY 2022 and it is estimated that by July 1, 2023 the Commission will have already expended approximately $16.6 million on the WWTP upgrade. The costs for the Forest Trail WWTP included in this rate analysis may differ from the costs included in the Commission's approved CIP due to differences in the estimated progress and invoices paid on the project at the time of this analysis.

C. Financing Plan

In the project summaries in Appendix A, Schedule 2-A and Schedule 2-B, there are four different financing methods used. These methods include cash from rates, impact fee funds, debt, and grant funded capital. Cash from rates includes the accumulated operating reserves and annual cash reserves generated through monthly rates and charges. These funds are available after all annual O&M expenses have been funded.

Impact fee funds represent annual and accumulated balances of impact fee collections. [8] In anticipation of the Forest Trails WWTP expansion and annual debt service associated with the Series 2020 Bonds the Commission implemented wastewater rate increases in each of the past four fiscal years (FY 2020, FY 2021, FY 2022, and FY 2023). These rate increases were designed to ensure revenue self-sufficiency for the wastewater system and provide adequate debt service coverage for the Series 2020 Bonds. These wastewater rate increases helped the Commission generated strong current cash levels that can be used to fund the $9.6 million of capital project costs not funded through the bond proceeds and the remaining $4.4 million in FEMA grant funding.

The remaining sewer capital improvements will be funded through a combination of cash from rates ($9.6 million), ARPA grand funding ($4.9 million), and impact fee funds ($570,000). All $13.3 million in water capital improvements will be funded through a combination of cash from rates ($12.4 million), ARPA grant funding ($476,000), and impact fee funds ($375,000).

The CIP is a multi-year schedule that lays out a series of water and sewer capital projects and costs over a five-year capital planning period (FY 2024 through FY 2028). The CIP provides a specific plan for how the Commission expects to expand or construct its facilities and services to meet the demands of existing and/or new population and businesses. The Commission has designed a CIP to coordinate the financing and timing of capital improvements in a way that maximizes the benefits to the Commission and its water and sewer customers.

Since the Commission recently issued debt to fund a significant portion of the sewer CIP, annual debt service payments are an important part of the analysis based on actual scheduled debt service payments on currently outstanding debt. The Commission issued 10-year Revenue Bonds in 2012 to fund initial construction of Forest Trails WWTP and the final debt service payment on this bond series was made in FY 2022. The recently issued Series 2020 Revenue Bonds have a 20-year term and an annual interest rate of 1.72%.[9]

Table 10 provides the forecast of existing annual debt service requirements for the Commission's utility debt issues. Since the proceeds from the existing and proposed bonds fund improvements to the Forest Trails WWTP, all the debt service payments are included in the sewer revenue requirements.

[8] The Commission's long-term practice in funding its capital improvements is to use annual rate revenues and accumulated operating reserves. In those years where rate revenues are in excess of annual cash funded capital needs, the Commission builds up cash reserves. The accumulated unrestricted cash reserves as of June 30, 2023 are estimated to be approximately $11.0 million providing the Commission with the ability to fund capital projects during the five-year planning period. Utilizing these cash reserves to fund capital projects allows the Commission to mitigate annual user rate increases during the five-year planning period.

[9] The interest rate represents the True Interest Cost.

Table 10: Forecast of Annual Debt Service Requirements

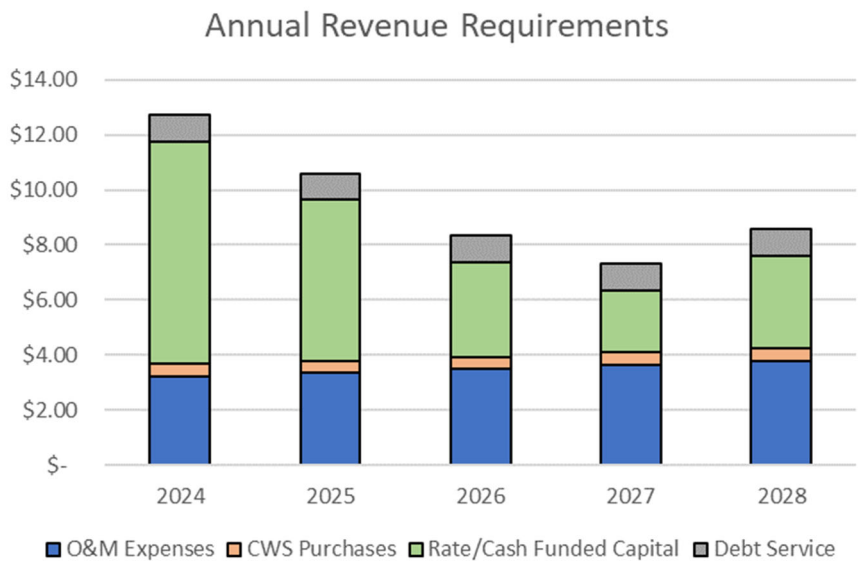
Annual Debt Service Payments	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Series 2020 Revenue Bonds - Proposed	976,000	977,250	977,000	975,250	976,875
TOTAL DEBT SERVICE PAYMENTS	**$ 976,000**	**$ 977,250**	**$ 977,000**	**$ 975,250**	**$ 976,875**

3. Annual Revenue Requirements

The annual revenue requirements include the five-year forecast of O&M expenses, wholesale water purchases, annual capital costs based on the Commission's five-year financial plan, and debt service on existing revenue bond issues. As Chart 1 demonstrates, the revenue requirements in FY 2024 and FY 2025 include significant cash funded capital that will be funded primarily through available unrestricted cash balances.

Chart 1 presents the annual water and wastewater revenue requirements during the five-year forecast.

Chart 1: Forecast of Annual Revenue Requirements ($ in millions)



A. Revenue Sufficiency and Recommended Rate Revenue Adjustments

The next step of the rate analysis is to evaluate whether revenues under existing rates would be adequate, or sufficient to recover the projected revenue requirements over the five-year planning period. First, revenues were estimated under current FY 2023 water and sewer user rates and charges assuming annual growth in new accounts and projected metered water use from Section III. Forecasted revenue were then compared to the annual revenue requirements of the water and sewer systems. This analysis indicates that with the debt service and rate funded capital projects, customer demand and existing user rates and charges are not sufficient to recover the annual revenue requirements for the water system and/or the

sewer system during the planning period. To maintain the Commission's minimum unrestricted cash balance target of at least 360 days of annual operating expenses, and its debt service coverage ratio of at least 2.0x; the Commission will need to implement a program of minor annual adjustments to its water and sewer rates.

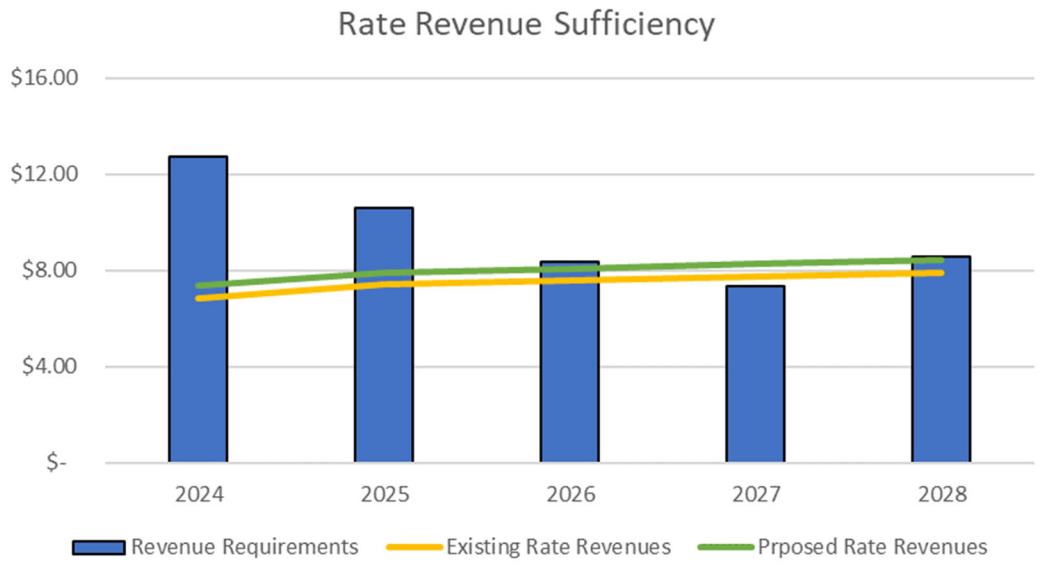
Specifically, water and sewer rates are anticipated to need annual increases to provide approximately 8.0% in additional water and sewer user rate revenues in both FY 2024 and FY 2025, and 2.0% rate increases for both water and sewer in each remaining year of the forecast period to ensure long-term revenue sufficiency. [10] The anticipated rate increases in FY 2024 and FY 2025 are more significant than the 4.0% annual increases projected in those years in previous five-year rate forecasts. The additional increases are necessary to maintain unrestricted cash balances due to increased construction costs for the Forest Trails WWTP upgrade and several other water and sewer projects that reflect the recent inflationary trend in the economy and the utility industry resulting from labor shortages, wage pressures, and supply chain disruptions. The Commission could consider issuing debt to fund the planned Fairways Dunes Waterline Replacement (Phases 1 & 2) which would spread the $4.1 million capital costs over a 20-year repayment period. This would improve annual unrestricted cash balances and reduce the need for the 8.0% FY 2025 water and sewer rate increases.

It should be noted that the projected annual adjustments to user rates and charges are designed to fully recover the anticipating O&M water and sewer expenses and fund capital expenditures during the five-year forecast period. Should operating conditions or capital needs change during the later years of the financial forecast period, the annual rate adjustments may need to be re-evaluated.

The estimated annual revenue sufficiency/deficiency under the existing water and sewer rates and the proposed five-year program of sewer rate adjustments to address projected revenue deficiencies are shown in Chart 2 below.

[10] Increases to user charge revenues represent the additional revenues estimated to be generated by increases to Commission's various rates. The annual increases to user charge revenues do not necessarily equate to the recommended increase to the user rates, as certain rates (i.e. BFCs, volumetric charges, penalty surcharges) may be increased more than others to meet the Commission's rate objectives. Similarly, the impact on a particular customer's bill may not necessarily reflect the annual increase to user charges revenues.

Chart 2: Water Revenue Sufficiency Under Recommended Rate Adjustments ($ in millions)



Annual Rate Revenue Adjustments	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Rate Revenues	8.16%	8.01%	2.01%	2.04%	2.04%
Sewer Rate Revenues	8.09%	8.02%	2.02%	2.03%	2.03%
Combined Rate Revenues	8.13%	8.02%	2.02%	2.03%	2.03%
Forecasted Debt Coverage	**4.26x**	**4.73x**	**4.76x**	**4.80x**	**4.82x**

While the proposed five-year program of rate adjustments do not achieve revenue sufficiency in the first three years of the five-year planning period, available cash balances and grant funding allow the Commission to mitigate rate increases without the issuance of additional debt to fund capital improvements. The Commission will draw down available cash balances in FY 2024 and FY 2025 to fund significant capital projects and begin to build up cash balances in FY 2026, FY 2027, and FY 2028. Debt coverage and cash reserves are discussed below.

B. Debt Coverage and Unrestricted Cash Reserves

Two key measures of a utility's financial strength are its debt service coverage ratio and its cash liquidity, or available cash on hand. The debt service coverage ratio measures the utility's performance in generating sufficient operating revenues to cover its debt service obligations. Bond rating agencies give this metric significant weight when evaluating utility enterprise systems. Based on discussions with First Tryon Advisors, it is recommended that the Commission adopt a debt coverage target of at least 2.0x. This level is consistent with the expectation of Aa2-rated utilities and the Commission has maintained debt coverages well above this target over the past five-years. The recommended rate adjustment

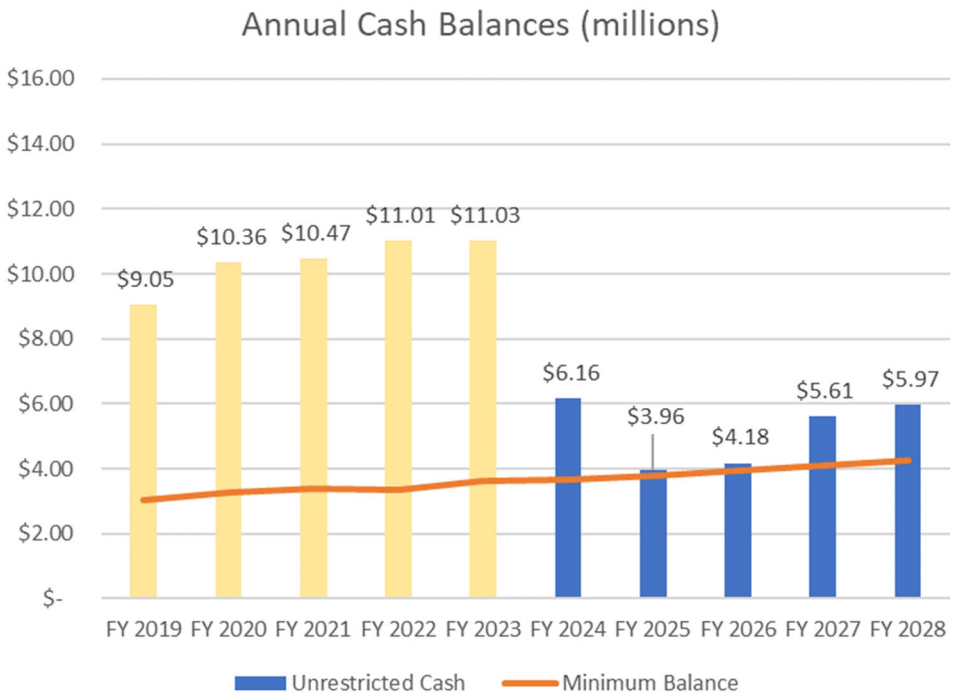
program is expected to help the Commission maintain this measure throughout the five-year planning period as demonstrated in Chart 2 on the previous page.

The second key measure of a utility's financial health, cash liquidity provides a measure of the utility's available reserves to maintain operations, fund ongoing investments and to respond to fiscal uncertainties, should they arise. Annual revenue surpluses and less significant capital project needs over the previous five years have provided the Commission with current cash reserves representing over 1,000 days of its current O&M expenses, which is three times the recommended 360 days minimum target. The Commission can now utilize these cash reserves to fund rate and cash funded capital projects while still maintaining the 2.0X debt coverage target during the five-year forecast period. For example, the Commission is projected to begin drawing down the cash balances in FY 2024 to cash fund the incremental Forest Trails WWTP project costs and other capital projects. This will allow the Commission to meet its operating and capital needs while mitigating the impact of the Forest Trails WWTP expansion on customer rates. The Commission will draw down available cash balances in FY 2024 and FY 2025 to fund significant capital projects and begin to build up cash balances again in FY 2026, FY 2027, and FY 2028.

However, using currently available cash balances to fund the incremental costs of the Forest Trails WWTP expansion will require Commission management to continue to closely monitor the actual costs of the project; and the annual available cash on hand during the next three to four fiscal years. Should actual project costs increase above the currently estimated $26.2 million, or if actual cash balances drop below the levels projected during the forecast period; the Commission may need to consider larger water and sewer rate increases.

Chart 3 provides a history and projection of end of each fiscal year unrestricted cash reserves during the five-year planning period.

Chart 3: Historical and Projected Debt Coverage Ratios and Unrestricted Cash Reserves ($ in millions)



As Chart 3 indicates, the Commission has steadily accumulated unrestricted cash reserves over the past five years which provides additional liquidity and flexibility to fund those planned water and sewer projects that are not funded through the Series 2020 Bond Issue. It is the Commission's practice and goal to fund the majority of its capital projects through pay-as-you-go revenues and available cash reserves; and to limit debt issues for funding major projects like the Forest Trails WWTP. While the projected end of year unrestricted cash reserves are forecasted fall to the 360 days of O&M expenses minimum target in FY 2025 and FY 2026 we feel this temporary level of unrestricted cash is acceptable considering the projected increases in the unrestricted cash balances the subsequent two fiscal years.

V. PROPOSED FY 2023 USER RATES & CHARGES

The FY 2024 water and sewer rate recommendations in this section are limited to increases to the existing fiscal year (FY) 2023 rates, charges, and/or surcharges. As mentioned in the previous section, based on projected revenue requirements rates increases of approximately 8.0% for both water and sewer are needed in FY 2024 and FY 2025, and 2.0% rate increases to both water and sewer in each subsequent year in the forecast. The increases to the water and sewer rates are recommended to generate approximately $270,000 and $265,000 in additional water and sewer user rate revenues respectively in FY 2024.

The proposed FY 2024 user rates and charges represent increases to the Commission's current rate structure and do not include any recommended changes to the rate structures, customer classes, and/or rate codes. The current structures and rate codes have evolved over the years to incorporate the Wild Dunes customers and in some cases accommodate customers with unique circumstances and use characteristics.

1. FY 2024 Water Rate Recommendations

Due to anticipated increases in the costs of certain water capital projects; and the addition of water capital projects to increase water distribution capacity, 8.0% rate increases are needed in FY 2024 for water rates followed by a similar 8.0% rate increase in FY 2025 and less significant 2.0% rate increases in each of the subsequent years of the forecast.

Based on projections of the FY 2024 rate revenues, the current water rate structure generates approximately 36% of the water rate revenues through the fixed monthly BFCs which is close to the national average for smaller utilities.

A. FY 2024 Water Basic Facilities Charges

Table 11 presents the current FY 2023 and proposed FY 2024 monthly water BFCs for the various billing groups which generally reflect customers with different meter sizes.

Table 11: Current and Proposed FY 2024 Water Basic Facilities Charges

Billing Group	Meter Size	Current 2023	Proposed 2024	Increase
1	3/4" (1)	$ 16.50	$ 17.80	$ 1.30
2	1"	$ 33.30	$ 36.00	$ 2.70
3	1.5"	$ 61.40	$ 66.30	$ 4.90
4	2"	$ 111.30	$ 120.20	$ 8.90
5	3"	$ 207.00	$ 223.60	$ 16.60
6	4"	$ 333.00	$ 359.60	$ 26.60
7	6"	$ 637.00	$ 688.00	$ 51.00

(1) The BFC for Billing Group 1 is also applied for to each ERU assigned to a customer. Pools and multi-family residential (hotels, condominiums, resorts, etc.) are assigned ERUs and are included in Billing Group 1.

B. FY 2024 Water Volumetric Charges and Penalty Surcharges

Table 12 presents the current FY 2023 and proposed FY 2024 water volumetric charges and penalty surcharges assessed per 1,000 gallons of monthly water use. While these volumetric charges and surcharges are assessed to all billing groups, the increment or usage tier a particular customer is assessed these charges depends on the billing group to which that customer belongs.

Table 12: Current and Proposed FY 2024 Water Volumetric and Penalty Surcharges (per 1,000 gallons)

	Current FY 2023		Proposed FY 2024		Increase	
Usage Tier	Volumetric Charges	Penalty Surcharges	Volumetric Charges	Penalty Surcharges	Volumetric	Surcharge
Tier 1	$ 3.75	N/A	$ 4.05	$ -	$ 0.30	$ -
Tier 2	$ 4.50	$ 2.10	$ 4.90	$ 2.30	$ 0.40	$ 0.20
Tier 3	$ 5.20	$ 2.60	$ 5.65	$ 2.80	$ 0.45	$ 0.20
Tier 4	$ 5.70	$ 3.10	$ 6.20	$ 3.40	$ 0.50	$ 0.30
Tier 5	$ 7.50	$ 4.70	$ 8.10	$ 5.10	$ 0.60	$ 0.40

Again, the volumetric charge structure includes five (5) increasing block volumetric charges assessed to customers based on water usage intervals and the demand characteristics of the seven (7) different billing group categories. The lowest Tier 1 volumetric charge is assessed to the different billing groups based on increasingly higher tier one usage intervals that reflect typical base demands for higher use commercial and irrigation customers with larger meters. Each subsequent tier (2 through 5) interval reflects the next 9,000 gallons of water usage. The additive penalty surcharges are assessed for customer water usage above the tier one usage intervals.

Table 13 summarizes the increasing water usage intervals at which each of the water billing groups are assessed the tiered block volumetric charges and penalty surcharges.

Table 13: Usage Intervals for Each Billing Group

Usage Tier	Consumption in 1,000 gallons Billing Groups						
	1	2	3	4	5	6	7
Tier 1	0-9	0-18	0-54	0-80	0-193-	0-326	0-723
Tier 2	10-18	19-27	55-63	81-89	194-202	327-335	724-732
Tier 3	19-27	28-36	64-72	90-98	203-211	336-344	733-741
Tier 4	28-36	37-45	73-81	99-107	212-220	345-353	742-750
Tier 5	>36	>45	>81	>107	>220	>353	>750

2. FY 2024 Sewer Rate Recommendations

Because of the increase in anticipated capital costs to construct the Forest Trails WWTP expansion and the debt service associated with the recently issued Series 2020 Revenue Bonds to fund the majority of the costs for the Forest Trails WWTP expansion, Confluence recommends sewer rate increases of 8.0% in FY 2024, followed by a similar 8.0% sewer rate increase in FY 2025 less significant 2.0% rate increases in each of the subsequent years of the forecast.

Based on projections of the FY 2024 rate revenues, the current sewer rate structure generates approximately 51% of the sewer rate revenues through the fixed monthly BFCs which is above to the national average for smaller utilities. These fixed monthly revenues provide the Commission with significant revenue stability as these revenues are more certain than the volumetric rates which tend to vary with the customer demands. This revenue stability is viewed favorably by rate agencies and bond investors.

A. FY 2024 Sewer Basic Facilities Charges

Table 14 presents the current FY 2023 and proposed FY 2024 monthly sewer BFCs for the various billing groups which generally reflect customers with different meter sizes.

Table 14: Current and Proposed FY 2024 Sewer Basic Facilities Charges

Billing Group	Meter Size	Current 2024	Proposed 2024	Increase
1	3/4" (1)	$ 36.50	$ 39.45	$ 2.95
2	1"	$ 70.00	$ 75.60	$ 5.60
3	1.5"	$ 128.00	$ 138.20	$ 10.20
4	2"	$ 232.00	$ 250.60	$ 18.60
5	3"	$ 433.00	$ 467.65	$ 34.65
6	4"	$ 694.00	$ 749.50	$ 55.50
7	6”	$ 1,310.00	$ 1,414.80	$ 104.80

(1) The BFC for Billing Group 1 is also applied for to each ERU assigned to a customer. Pools and multi-family residential (hotels, condominiums, resorts, etc.) are assigned ERUs and are included in Billing Group 1.

B. FY 2024 Sewer Volumetric Charges and Penalty Surcharges

Table 15 presents the current FY 2023 and proposed FY 2024 sewer volume charge and penalty surcharges assessed per 1,000 gallons of monthly sewer use. While these charges and surcharges are assessed to all billing groups, the increment or usage tier that a specific customer is assessed these charges depends on the billing group to which that customer belongs.

Table 15: Current and Proposed FY 2024 Sewer Volumetric Surcharges (per 1,000 gallons)

	Current FY 2023		Proposed FY 2024		Increase	
Usage Tier	Volumetric Charges	Penalty Surcharges	Volumetric Charges	Penalty Surcharges	Volumetric	Surcharge
Tier 1	$ 6.75	N/A	$ 7.30	$ -	$ 0.55	$ -
Tier 2	$ 8.30	$ 2.60	$ 8.95	$ 2.80	$ 0.65	$ 0.20
Tier 3	$ 9.40	$ 3.10	$ 10.15	$ 3.35	$ 0.75	$ 0.25
Tier 4	$ 11.50	$ 4.20	$ 12.40	$ 4.55	$ 0.90	$ 0.35
Tier 5	$ 14.60	$ 5.20	$ 15.80	$ 5.60	$ 1.20	$ 0.40

Table 16 summarizes the increasing sewer usage intervals at which each of the sewer billing groups are assessed the tiered block volumetric charges and penalty surcharges.

Table 16: Usage Intervals for Each Billing Group

Usage Tier	Consumption in 1,000 gallons Billing Groups						
	1	2	3	4	5	6	7
Tier 1	0-9	0-18	0-54	0-80	0-193	0-326	0-723
Tier 2	10-18	19-27	55-63	81-89	194-202	327-335	724-732
Tier 3	19-27	28-36	64-72	90-98	203-211	336-344	733-741
Tier 4	28-36	37-45	73-81	99-107	212-220	345-353	742-750
Tier 5	>36	>45	>81	>107	>220	>353	>750

VI. CUSTOMER BILL IMPACTS

Section V presented the proposed user charge and rate increases for FY 2024 based on specific increases to the monthly water and sewer BFCs and tiered volumetric charges per 1,000 gallons. This section compares the impacts of the proposed FY 2024 rate adjustments on typical residential water and sewer customers to provide additional information for policy makers. For comparison purposes, the typical residential customer of the Commission has a ¾-inch water meter and is included in Billing Group 1.

1. Water Residential Customer Bill Impacts

Residential customers with ¾-inch meters represent approximately 80% of the Commission's water accounts. Based on detailed billing data, the yearly residential customers use approximately 6,000 gallons per month.

Table 17 demonstrates how residential water customers (Billing Group 1) at different amounts of monthly water use will be impacted by the proposed FY 2024 water user rates.

Table 17: ¾-Inch Meter Residential Customer Impacts Under Proposed FY 2023 Water Rates

Residential Water Customer With ¾-inch Meter				
Monthly Usage	Current FY 2023	Proposed FY 2024	Increase	
			($)	(%)
0	$ 16.50	$ 17.80	$ 1.30	7.9%
4,000	$ 31.50	$ 34.00	$ 2.50	7.9%
6,000	**$ 39.00**	**$ 42.10**	**$ 3.10**	**7.9%**
10,000	$ 56.85	$ 61.45	$ 4.60	8.1%
18,000	$ 109.65	$ 119.05	$ 9.40	8.6%
20,000	$ 125.25	$ 135.95	$ 10.70	8.5%

Residential water customers with a ¾-inch water meter (Billing Group 1) will experience between 7.9% and 8.6% increases to their monthly bill depending of monthly water use. The typical residential water customer with 6,000 gallons of water use per month will experience a monthly increase of $3.10, or 7.9%. The impacts for customers with larger meters within other billing groups differs from Billing Group 1 based on higher BFCs and usage tiers which provide larger usage increments in the initial tier for larger meter customers (See Table 14 for tier usage increments for all billing groups).

2. Sewer Residential Customer Bill Impacts

Residential customers with ¾-inch meters represent approximately 94% of the Commission's sewer accounts.

Table 18 demonstrates how residential sewer customers (Billing Group 1) at different levels of monthly sewer use will be impacted by the proposed FY 2024 sewer user rates.

Table 18: ¾-Inch Meter Residential Customer Impacts Under Proposed FY 2024 Sewer Rates

Residential Sewer Customer With ¾-inch Meter				
Monthly Usage	Current FY 2023	Proposed FY 2024	Increase	
			($)	(%)
0	$ 36.50	$ 39.45	$ 2.95	8.1%
4,000	$ 63.50	$ 68.65	$ 5.15	8.1%
6,000	**$ 77.00**	**$ 83.25**	**$ 6.25**	**8.1%**
10,000	$ 108.15	$ 116.70	$ 8.55	7.9%
18,000	$ 195.35	$ 209.10	$ 13.75	7.0%
20,000	$ 220.35	$ 235.60	$ 15.25	6.9%

Residential water customers with a ¾-inch water meter (Billing Group 1) will experience between 7.0% and 8.1% increases to their monthly bill depending of monthly water use. The typical residential sewer customer with 6,000 gallons of monthly water use will experience a $6.25, or 8.1% bill increase per month. The impacts for customers with larger meters within other billing groups differs from Billing Group 1 based on higher BFCs and usage tiers which provide larger usage increments in the initial tier for larger meter customers (See Table 16 for tier usage increments for all billing groups).

3. Combined Residential Customer Bill Impacts

All of the approximately 2,666 residential sewer customers receive water service from the Commission while approximately 1,264 residential water customers on the island that have individual septic systems. So, approximately 68% of the Commission's residential customers with ¾-inch meters will receive a bill for both water and sewer services.

Table 19 demonstrates how residential customers (Billing Group 1) receiving both water and sewer services at different amounts of monthly water use will be impacted by the proposed FY 2024 water and sewer user rates.

Table 19: ¾-Inch Meter Residential Customer Impacts Under Proposed FY 2024 Water and Sewer Rates

Residential Water & Sewer Customer With ¾-inch Meter				
Monthly Usage	**Current FY 2023**	**Proposed FY 2024**	**Increase**	
			($)	**(%)**
0	$ 53.00	$ 57.25	$ 4.25	8.0%
4,000	$ 95.00	$ 102.65	$ 7.65	8.1%
6,000	**$ 116.00**	**$ 125.35**	**$ 9.35**	**8.1%**
10,000	$ 165.00	$ 178.15	$ 13.15	8.0%
18,000	$ 305.00	$ 328.15	$ 23.15	7.6%
20,000	$ 345.60	$ 371.55	$ 25.95	7.5%

Residential customers with a ¾-inch water meter (Billing Group 1) receiving both water and sewer services from the Commission will experience similar impacts to their monthly bill depending of monthly water use. The typical residential sewer customer with 6,000 gallons of monthly water use will experience a $9.35, or 8.1% bill increase. The impacts for customers receiving both water and sewer with larger meters within other billing groups differs from Billing Group 1 based on higher BFCs and usage tiers which provide larger usage increments in the initial tier for larger meter customers (See Table 14 for tier usage increments for all billing groups).

VII. COMPARISON WITH LOCAL UTILITIES

One of the Commission's objectives is determining a rate structure that maintains competitive water and sewer rates in comparison to similar customers in other coastal communities in South Carolina. Therefore, a comparison of the monthly bills for the typical residential customer (Billing Group 1) under the current FY 2023 and proposed FY 2024 user rates and charges to the monthly bills assessed to similar customers served by other local utilities provides a benchmark when considering the impact of the proposed rate increases.

Table 20 provides a comparison of the typical monthly combined water and sewer bills for the Commission and nine (9) other utilities in coastal South Carolina. Again, for comparison purposes a typical customer is assumed to use 6,000 gallons per the average month.

Table 20: Comparison of Typical Monthly Customer Bills with Local Communities

	User Rates and Charges (6,000 gal/month)		
Utility/Community	**Water**	**Sewer**	**Total**
Sullivan's Island	$45.93	$93.73	$ 139.66
IOPWSC - Proposed	**42.10**	**83.25**	**125.35**
Charleston Water System	27.38	92.38	119.76
IOPWSC - Current	**39.00**	**77.00**	**116.00**
MPW - Approved FY 2024	46.34	67.82	114.16
Seabrook Island	57.55	49.70	107.25
MPW - Current	42.86	62.78	105.64
Dorchester County	$46.99	$56.20	103.19
Average (Excluding IOPWSC)	$38.45	$59.47	$97.91
Beaufort-Jasper	$31.51	$55.56	87.07
Berkeley County	$37.36	$44.00	81.36
Summerville Public Works	$23.23	$42.00	65.23
Hilton Head Island PSD	$25.32	$30.50	55.82

As the comparison demonstrates, even before the proposed FY 2024 rate adjustments the Commission is above the average of the comparison group. While the water rates are more in line with the comparison group average, the Commission's sewer rates are among the highest of the group. The higher sewer rates result as the Commission serves a very small sewer customer base and must recover the costs of wastewater treatment facilities from fewer customers, thus limiting its ability to achieve economies of scale through a larger customers base. Additionally, the Commission must pay annual debt service on the Series 2020 Bonds issued to fund the expansion of capacity at the Forest Trails WWTP which will serve as the lone wastewater treatment facility serving Isle of Palms.

It should also be noted that the bills calculated for the comparison group are based on the utilities' current FY 2023 rates, proposed FY 2024 rates, and/or published rates for FY 2024. It is likely that some of the comparison utilities will also be faced with FY 2024 rate increases that are not reflected in this comparison. Furthermore, it should be noted that many of the comparison utilities have recently adopted significant water and sewer rate increases. More specifically:

- Mount Pleasant Waterworks increased its rates by approximately 19% over the last two fiscal years;
- Charleston Water increased its rates by approximately 9.5% on January 1, 2023;
- Sullivan's Island increased its rates by 4% in FY 2023;
- Dorchester County increased its rates by approximately 11% in FY 2023; and
- Summerville Commission of Public Works increased its rates by over 50% in February 2023.

These utility rate increases most likely reflect the same recent inflationary trends in the economy and the utility industry that the Commission is facing resulting from labor shortages, wage pressures, and supply chain disruptions.

APPENDIX A

Schedule 1
Isle of Palms Water & Sewer Commission
Water and Sewer Financial Planning & Rate Model
Forecast for Water & Sewer Revenue Requirements

Annual Revenue Requirements	Fiscal Year Ending June 30				
	2024	2025	2026	2027	2028
Water Operating & Maintenance Expenese					
Source of Supply	$ 477,500	$ 490,155	$ 503,162	$ 516,532	$ 530,276
Water Treatment	163,225	170,193	177,480	185,100	193,070
Transmission & Distribution	555,927	576,760	598,461	621,068	644,623
Billing & Collection	182,900	191,513	200,542	210,010	219,937
Administrative & General	616,036	621,179	644,665	669,136	694,636
Subtotal Water O&M	$ 1,995,588	$ 2,049,800	$ 2,124,311	$ 2,201,847	$ 2,282,543
Annual Water Capital Expenditures					
Rate Funded	735,047	3,335,799	3,344,694	2,155,654	3,256,159
Existing Debt Service	-	-	-	-	-
Proposed Debt Service	-	-	-	-	-
Subtotal Water Capital	$ 735,047	$ 3,335,799	$ 3,344,694	$ 2,155,654	$ 3,256,159
TOTAL WATER REVENUE REQUIREMENTS	**$ 2,730,635**	**$ 5,385,599**	**$ 5,469,005**	**$ 4,357,501**	**$ 5,538,702**
Sewer Operating & Maintenance Expenese					
Wastewater Treatment	781,050	812,229	844,770	878,736	914,193
Collection	326,800	340,555	354,933	369,964	385,678
Billing & Collection	128,400	134,535	140,970	147,719	154,798
Administrative & General	440,979	457,431	474,566	492,414	511,007
Total Sewer O&M	$ 1,677,229	$ 1,744,750	$ 1,815,238	$ 1,888,832	$ 1,965,676
Annual Sewer Capital Expenditures					
Rate Funded	7,318,816	2,509,717	114,444	116,733	119,068
Existing Debt Service	-	-	-	-	-
Proposed Debt Service	976,000	977,250	977,000	975,250	976,875
Subtotal Sewer Capital	$ 8,294,816	$ 3,486,967	$ 1,091,444	$ 1,091,983	$ 1,095,943
TOTAL SEWER REVENUE REQUIREMENTS	**$ 9,972,045**	**$ 5,231,717**	**$ 2,906,682**	**$ 2,980,815**	**$ 3,061,619**
TOTAL UTILITY REVENUE REQUIREMENTS	**$ 12,702,680**	**$ 10,617,316**	**$ 8,375,687**	**$ 7,338,316**	**$ 8,600,321**

Schedule 2-A
Isle of Palms Water & Sewer Commission
Water and Sewer Financial Planning & Rate Model
Water Capital Improvements Plan (CIP)

			Fiscal Year Ending June 30					FY 2024 - 2028
Water Capital Improvements			2024	2025	2026	2027	2028	**Total**
W1	CCPW Capital Improvement Program		$ 91,947	$ 340,054	$ 340,354	$ 340,354	$ 340,354	$ 1,453,063
W2	Pelican Bay-Replace existing 4" w/l with 8" and hydrants				676,000			676,000
ENG	Pelican Bay-Engineering			56,322				56,322
W5a	Fairway Dunes/Duneridge-replace existing w/8" (phase 1)			1,825,177				1,825,177
W5b	Fairway Dunes/Duneridge-10"- loop across golf course (Phase 2)				2,284,000			2,284,000
ENG	Beach Club Villas Project-Engineering		110,000					110,000
W6	Beach Club Villas North water line replacement			985,000				985,000
W7	Twin Oaks Water Line Replacement						1,458,000	1,458,000
W8	Beachwood East/Dunecrest Lane w/l replacement					1,770,000		1,770,000
ENG	Beachwood East/Dunecrest Project-Engineering			85,617				85,617
W10	Video Inspection Deep Well #4		23,000					23,000
W13	RO Concentrate Discharge Line Extension		710,000					710,000
W14	Replace VFD's at WTP 1 & Deep Well 2		220,000					220,000
W36	Twin Oaks - Replace existing 2" w/l with 1400 lf of 8" PVC w/l						1,457,805	1,457,805
	Joint Project Allocated to Water		55,800	43,629	44,340	45,300		189,069
Total Water Capital Projects			**$ 1,210,747**	**$ 3,335,799**	**$ 3,344,694**	**$ 2,155,654**	**$ 3,256,159**	**$ 13,303,053**
Water Capital Funding Sources								
Annual Rate Funded			$ 655,047	$ 3,254,199	$ 3,261,462	$ 2,070,757	$ 3,169,564	$ 12,411,030
Impact Fees			80,000	81,600	83,232	84,897	86,595	416,323
Grant Funding (ARPA)		67%	475,700	-				475,700
Debt Funding								-
Total Funding Sources			$ 1,210,747	$ 3,335,799	$ 3,344,694	$ 2,155,654	$ 3,256,159	$ 13,303,053

Schedule 2 - B
Isle of Palms Water & Sewer Commission
Water and Sewer Financial Planning & Rate Model
Sewer Capital Improvements Plan (CIP)

			Fiscal Year Ending June 30					FY 2024 - 2028
			2024	2025	2026	2027	2028	**Total**
Sewer Capital Improvements								
S1	Upgrade Existing Electrical Systems & Equip.		$ 13,097	$ 13,359	$ 13,626			$ 40,082
S2	Upgrade Forest Trails WWTP to 1.4 MGD		10,815,181		-			10,815,181
S3	Install Gravity Sewer Basin N (ARPA)			5,872,643				5,872,643
ENG	Shelving for New FTWWTP		4,440					4,440
S5	Spare Submersible Pumps LS 10,19, and 22		81,000					81,000
S6	Replace Effluent Discharge Line FTWWTP (ARPA)			1,410,000				1,410,000
S8	Gravity Sewer Cleaning/Inspection		75,750	64,000	36,000			175,750
S9	Deep Sewer point repair		140,000					140,000
S10	Raven Coat manholes		30,000					30,000
S12	Demo Wild Dunes WWTP		375,000					375,000
S13	Spare Grinder Pumps		55,000					55,000
S14	Install Underground Electrical New WD Pump Station		90,000					90,000
S15	New YSI DO Meter		1,250					1,250
	Joint Project Allocated to Sewer		37,200	29,086	29,560	30,200		126,046
Total Sewer Capital Projects			**$ 11,717,918**	**$ 7,389,088**	**$ 79,186**	**$ 30,200**	**$ -**	**$ 19,216,392**
Sewer Capital Funding Sources								
Annual Rate Funded			$ 7,208,816	$ 2,397,517	$ -	$ -	$ -	$ 9,606,333
Impact Fees			110,000	112,200	114,444	116,733	119,068	572,444
Grant Funding (FEMA & ARPA)		67%	4,357,500	4,879,371	-	-		9,236,871
Debt Funding			41,602	-	-	-		41,602
Total Funding Sources			$ 11,717,918	$ 7,389,088	$ 114,444	$ 116,733	$ 119,068	$ 19,457,250

Schedule 3
Isle of Palms Water & Sewer Commission
Water and Sewer Financial Planning & Rate Model
Forecast for Debt Service Requirements

	Fiscal Year Ending, June 30				
Annual Debt Service Requirements	2024	2025	2026	2027	2028
Existing Debt Service Requirements					
Series 2012 Bonds	$ -	$ -	$ -	$ -	
Series 2020 Bonds	976,000	977,250	977,000	975,250	976,875
Total Proposed Debt Service	$ 976,000	$ 977,250	$ 977,000	$ 975,250	$ 976,875
Allocation of Debt Service					
Water Debt Service	$ -	$ -	$ -	$ -	$ -
Wastewater Debt Service	976,000	977,250	977,000	975,250	976,875
Total Utility Debt Service	$ 976,000	$ 977,250	$ 977,000	$ 975,250	$ 976,875

Schedule 4
Isle of Palms Water & Sewer Commission
Water and Sewer Financial Planning & Rate Model
Utility Revenue Sufficiency and Financial Strength

Annual Revenue and Expenses	Fiscal Year Ending, June 30				
	2024	2025	2026	2027	2028
Annual Operating Revenues					
Sale of Water	$ 3,185,540	$ 3,443,843	$ 3,516,250	$ 3,595,023	$ 3,675,542
Sale of Sewer	3,394,094	3,670,734	3,749,886	3,830,735	3,913,317
Other Revenues	280,912	285,997	291,185	296,476	301,873
Investment Income	240,000	240,000	240,000	240,000	240,000
Interest on Debt Service Fund	500	500	500	501	503
Total Operating Revenue	$ 7,101,046	$ 7,641,075	$ 7,797,820	$ 7,962,735	$ 8,131,235
Capital Revenues					
Impact Fees	190,000	193,800	197,676	201,630	205,662
Water Surcharges	415,158	448,371	457,338	466,485	475,814
Sewer Surcharges	126,806	136,950	139,689	142,483	145,333
Total Capital Revenue	$ 731,964	$ 779,121	$ 794,703	$ 810,597	$ 826,809
Total Revenue	$ 7,833,009	$ 8,420,196	$ 8,592,524	$ 8,773,333	$ 8,958,045
Revenue Requirements					
Operating & Maintenance Expense	3,672,817	3,794,550	3,939,549	4,090,679	4,248,220
Debt Service	976,000	977,250	977,000	975,250	976,875
Rate Funded Capital	8,053,863	5,845,516	3,459,138	2,272,387	3,375,227
Total Revenue Requirements	$ 12,702,680	$ 10,617,316	$ 8,375,687	$ 7,338,316	$ 8,600,321
Revenue Surplus/(Deficit)	$ (4,869,671)	$ (2,197,120)	$ 216,837	$ 1,435,017	$ 357,724
Debt Service Coverage					
Net Revenues	4,160,192	4,625,646	4,652,975	4,682,654	4,709,825
Debt Service	976,000	977,250	977,000	975,250	976,875
Coverage **1.2X**	**4.26**	**4.73**	**4.76**	**4.80**	**4.82**

Schedule 5
Isle of Palms Water & Sewer Commission
Water and Sewer Financial Planning & Rate Model
Forecast for Fund Balances

	Fiscal Year Ending, June 30				
Annual Fund Balances	2024	2025	2026	2027	2028
Combined Uility Operating Fund					
Beginning Fund Balance:	$ 11,029,235	$ 6,159,564	$ 3,962,444	$ 4,179,281	$ 5,614,298
Plus: Net Operating Income (1)	3,428,229	3,846,525	3,858,272	3,872,056	3,883,016
Plus: Transfer from Impact Fees	190,000	193,800	197,676	201,630	205,662
Plus: Surcharge Revenue	541,964	585,321	597,027	608,968	621,147
Less: Annual Debt Service	(976,000)	(977,250)	(977,000)	(975,250)	(976,875)
Less: Rate Funded Capital	(8,053,863)	(5,845,516)	(3,459,138)	(2,272,387)	(3,375,227)
Ending Fund Balance	$ 6,159,564	$ 3,962,444	$ 4,179,281	$ 5,614,298	$ 5,972,022
Assignment to Funds	$ (4,869,671)	$ (2,197,120)	$ 216,837	$ 1,435,017	$ 357,724