FRIPP ISLAND PUBLIC SERVICE DISTRICT

Tuesday, February 8, 2022
Electronic Meeting Via Zoom
9:30 a.m.

Zoom Info:
Join from PC, Mac, Linux, iOS or Android:
https://us02web.zoom.us/j/86565978745
Or iPhone one-tap (US Toll): +19292056099,,86565978745#
+13017158592,,86565978745#
Or Telephone:
Dial: +1 301 715 8592 (US Toll) or +1 312 626 6799 (US Toll)
Meeting ID: 865 6597 8745

AGENDA

1. Call to Order
   - Confirmation of the presence of a quorum
   - Confirmation of public meeting notice, as required by the SC Code of Laws *30-4-80(A).*

2. Pledge of Allegiance

3. Approval of January Commission Meeting Minutes

4. Reports
   - Manager's Report for January 2022
     December 31, 2021 Unaudited Financial Statements
   - Fire Department Report for January 2022
   - Other

5. Old Business
   - Cost of Service & Rate Study Conceptual Rate Design Discussion

6. New Business

7. Questions and Comments from Visitors
   - FIPOA Representative

8. Executive Session
   - Legal and Contractual Matters Related to District/County Agreements

9. Adjourn

FRIPP ISLAND PUBLIC SERVICE DISTRICT

Minutes:	Commission Meeting on February 8, 2022 – electronically via ZOOM
Present:	Dan H. McCormick, Dennis Perrone, John F. King, Edward D. Wetzel, Michael J. Wilt, Rick E. Keup
Absent:	
Staff:	Angie Hughes, District Manager; Joshua Horton, Fire Chief; Yvonne Fireall, Office Manager
Guests:	Frank Davis (Confluence Consulting LLC), John Derrick, Patricia Lawton, Mark Draves, Jeff Pinckney, Kevin Lashley

1. Chairman Wilt called the meeting to order at 9:34 a.m., confirmed the presence of a quorum and confirmed that all requirements of the SC Code of Laws, Section 30-4-80, pertaining to the notice of meetings of public bodies, have been met for this meeting.

2. Chairman Wilt led the Commission in the Pledge of Allegiance.

3. The Commission approved the minutes for the January 2022 regular Commission meeting, upon a motion by Mr. Wetzel (Vote: unanimous).

4. Reports
   a) The Commission reviewed the Manager's Report for January 2022 and the December 31, 2021 unaudited financial statements. *(Att A)*
   b) The Commission reviewed the Fire Department Report for January 2022. *(Att B)*

5. Old Business
   a) The Commission entertained Frank Davis, of Confluence Consulting LLC, who presented conceptual rate design alternatives and received suggestions and guidance from the Commission. *(Att C)*

6. New Business

7. The Commission entertained questions and comments from John Derrick regarding possible funding sources for the Fripp Inlet bridge, and from Jeff Pinckney and Kevin Lashley regarding ocean water intrusion through the revetment on Porpoise Drive, the amount of wastewater effluent required to be disposed of on the golf course, the feasibility of installing an overflow between the effluent holding pond and the lagoon, and the size of the pipe between the effluent storage tank and the golf course irrigation pumps. The Commission direct the District Manager to research and provide information regarding the questions raised at the next Commission meeting.

8. The Commission entered executive session to discuss legal and contractual matters related to District/Beaufort County Agreements at 11:58 a.m., upon a motion by Mr. McCormick (Vote: unanimous). The Commission resumed open session at 12:23 p.m., upon a motion by Mr. McCormick (Vote: unanimous).

9. There being no further business, the meeting adjourned at 12:24 p.m., upon a motion by Mr. McCormick (Vote: Unanimous).

Michael J. Wilt
Chairman

Angel L. Hughes
Secretary

FRIPP ISLAND PUBLIC SERVICE DISTRICT
MANAGER'S REPORT FOR JANUARY 2022

I. Tap-Ins

	FY 2022		FY 2021		FY 2020	
Category	Jan	YTD	Jan	YTD	Jan	YTD
Water customers	11	21	3	5	-	3
Sewer customers						
a. Gravity	6	13	2	3	-	2
b. Vacuum	4	7	1	2	-	1

Total vacuum sewer customers: 586 of 726

II. Routine Operations

1. Butcher's Island and Hunting Island Booster Pumps Average Daily Run Time for Jan

	2022	Diff	2021	Diff	2020	Diff	2019
Butcher's Isl Pumps Hrs/Day	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Hunting Isl Pumps Hrs/Day	0.4	0.4	0.0	0.0	0.0	0.0	0.0
Total Hrs/Day	0.6	0.6	0.0	0.0	0.0	0.0	0.0

2. Fripp Island Master Metered Water Use for Jan, Average Gallons per Day

	2022	% Change	2021	% Change	2020	% Change	2019
BJW&SA	348,000	7.2	324,742	(6.0)	345,613	17.5	294,125
Harbor Island	41,218	1.4	40,635	(18.6)	49,939	46.2	34,163
Hunt Island	8,229	17.6	7,000	11.9	6,255	(18.5)	7,675
Fripp Island	291,964	8.5	269,000	(8.6)	294,419	13.2	260,063
Accountability,%	98.1	N/A	97.5	N/A	101.4	N/A	102.6
Rainfall, Inches	2.5		2.7		2.1		1.8

3. Fripp Island Water Consumption – Recorded vs. Billed (in 1,000 gals.)

	Annual Total	Qtr 4 2021	Qtr 3 2021	Qtr 2 2021	Qtr 1 2021
Fripp Master Meter	168,602	33,108	59,221	50,892	25,381
Billed Water	154,737	31,283	53,521	46,755	23,178
Total Unbilled Water	13,865	1,825	5,700	4,137	2,203
Unbilled Water Percent	8%	6%	10%	8%	9%
Flushing/Unbilled Accts	1,739	490	668	376	204
Unaccounted for Water	12,125	1,335	5,032	3,760	1,999
Unaccounted for Percent	7%	4%	8%	7%	8%

4. The water tank levels and water line pressures were normal for Jan.

5. Wastewater Treatment Plant Flow for Jan, Gallons per Day

	2022	% Change	2021	% Change	2020	% Change	2019
Average Daily Flow	147,266	(9.0)	161,888	7.8	150,171	5.9	141,842
Weekly Max Flow	185,000	(6.1)	197,000	(6.2)	210,000	18.6	177,000
Peak Daily Flow	296,012	(4.4)	309,760	12.5	275,397	16.7	235,961

Peak daily flow of 296,012 occurred on Sat., 1/1/22 (New Year's Day), without rain. For Jan. 2021, peak daily flow occurred on Fri., 1/1/21 (New Year's Day), with 0.1" of rain. For Jan. 2020, peak daily flow occurred on Wed., 1/1/20 (New Year's Day), without rain. For Jan. 2019, peak daily flow occurred on Tues., 1/1/19, without rain.

6. The water system and wastewater treatment plant samples were satisfactory for Jan.

III. Emergencies, Special Field Work and Activities

1. Water System
   a) Some parts of Beaufort County were downgraded to Abnormally Dry status during January, but most of the state is now at Normal status.
   b) District field operators performed miscellaneous water system maintenance consisting of water line and meter repairs, water taps and meter installations during the month of January.
   c) The field operations supervisor coordinated with Dominion Energy on replacement of lighting arresters, fuses and wiring at the service for the Hunting Island Booster Pump Station on January 6th.
   d) Replacement of the two expansion joints on the waterline suspended from the Fripp Inlet bridge is planned for the first week in February. Final cost will be about $11,000 under budget.

2. Wastewater System
   a) On January 4th, the battery on the backup generator at the WWTP was replaced.
   b) On January 10th, two battery backups, one power supply and a panel were replaced on the CPUs running the PLCs. The old battery backups were no longer functioning properly, which caused the alarm callout system to malfunction in November.
   c) On January 27th, the #1 pump at the Ocean Point lift station was removed and transported for rebuild.

3. Hunting Island Booster Pump Station Rehab – On January 25th, the State Fiscal Accountability Authority approved the District's easement application. The project schedule appears below:

Invitation to Bid	January 10
Bid Opening	February 22
Commission Approval of Procurement	March 8
Notice of Intent to Award	March 8
Contract Execution	March 23
Construction	April 1 – December 31
Pump Station Manufacture	December 2021 – Mar 2022
Project Close-out	January 2 – 23, 2023

4. Cost of Service & Rate Study – The consultant continues to work on the project and is scheduled to present an update at the February Commission meeting. Further work on the model will be completed in February and a final report and recommendation will be made at the March Commission meeting.

5. Fripp Inlet Bridge –
   a) GO bond funds remaining in the bridge construction fund total $263,980 and can be used for bridge-related capital outlay. The District's financial advisors do not recommend refunding the bonds or restructuring the loan since the level of savings would be negligible.
   b) The payment was made for the bridge insurance on January 14th and coverage bound during the last week in January.
   c) JMT Inc. postponed the annual bridge inspection to the week of February 7th due to scheduling conflicts. This is a full inspection consisting of an above-water inspection with a snooper truck, underwater inspection, and a hydrographic survey. The inspection report should be available in April.
   d) Inquiries are being made into whether the District could qualify for funding for the bridge through the Bipartisan Infrastructure Law's Bridge Formula Program, which allocates $274 million in funds to South Carolina over the next five years.

6. Field Operator Search –Ads were posted to the WEASC/SCAWWA and SCRWA website job boards in January. No further viable candidates have applied for the open position.

7. Cybersecurity & IT Support
   a) A Windows 10 laptop is now functioning as the main workstation for the office manager, replacing the Windows 7 workstation that was previously used. The District's main accounting software and databases will remain on a Windows 7 PC until the migration to cloud-based accounting software is completed during the first quarter of 2022. The Windows 7 PC cannot be upgraded to Windows 10 at this time, due to possible instabilities that could cause data loss. Locally stored documents and folders will be moved to the cloud in February. Multifactor authentication is in use for sensitive systems and will be implemented for WWTP operators after the PLC and software upgrades. A quote for the upgrade of both PLCs and associated software at the wastewater treatment plant was approved and a PO issued on January 20th. Equipment lead time could delay installation until April.
   b) Cyber Liability Insurance – application for cyber liability insurance has been deferred until after the computer upgrades and multifactor authentication are fully implemented, since insurance companies will not provide quotes for coverage without these security measures in place. Management is working with CRAG to implement the security measures as quickly as possible.

8. Regulatory
   a) The EPA's lead and copper rule revisions call for new regulations to include a complete lead service line inventory (both utility and customer), sampling requirements and a lead service line replacement plan. Additional guidance and a final regulation from DHEC is expected over the next couple of months. The line inventory requirement is due in 2024, with further requirements to follow. Implementation of the new regulations could prove costly, but there may be some federal funding available under the American Rescue Plan Act or the Infrastructure Investment & Jobs Act.
   b) The District is subject to the requirements of the EPA's Unregulated Contaminants Monitoring Rule 5, published December 27, 2021, requiring certain public water systems to collect drinking water samples for 29 per- and polyfluoroalkyl substances (PFAS) and lithium analysis during a 12-month period between 2023 and 2025. Because of the Districts size, the cost of shipping and analyses will be paid by the EPA, dependent upon funding appropriations. Further information will be provided as it becomes available.

9. Erosion – Some subsidence of the revetment along Porpoise Drive and possible damage to the toe near the High Dunes intersection has been noted. The annual survey of the revetment will be conducted in the next two months, with a review and recommendations from the revetment engineer.

10. The PSD joined the new SC chapter of the WateReuse Association as a founding member in November 2021. Annual dues are $850 and give the District's employees access to training and CEU opportunities at reduced costs. Information on the work and mission of the WRA can be found at https://watereuse.org. The inaugural meeting of the SC chapter was held in Charleston on January 28th. The District Manager attended and was elected Treasurer for the chapter.

11. Statement of Economic Interests Form – All elected officials are required to file their 2022 SEI Form with the State Ethics Commission no later than March 30, 2022.

12. Election of Commissioners – Two Commission seats will be up for election in the November 2022 general election. In the coming months, notices regarding the election will be published in the Trawler and on the District's website and posted in the District's administrative office.

FRIPP ISLAND PUBLIC SERVICE DISTRICT
July 1, 2021 through December 31, 2021
Statement of Revenues & Expenses
Water & Wastewater Operations

	Actual	Budget	Variance Favorable (Unfavorable)	Variance Comments
Operating revenues				
Water operations	561,104	534,530	26,574	Water consumption, new taps
Water Tank Leases	176,396	172,255	4,141	
Wastewater operations	390,331	373,785	16,546	Sewer usage, new taps
Total operating revenues	1,127,831	1,080,570	47,261	
Cost of sales	(282,922)	(268,935)	(13,987)	
Gross profit from operations	844,909	811,635	33,274	
Operating expenses				
General & administrative	339,325	386,155	46,830	Salaries & legal
Water system expenses	41,923	43,665	1,742	
Wastewater expenses	128,405	194,165	65,760	wwtp, force mains, pumps
Total operating expenses	509,653	623,985	114,332	
Earnings (loss) from operations	335,256	187,650	147,606	
Nonoperating income (expenses)				
Interest earned	31,483	31,375	108	
Taxes & assessments collected	508,311	525,410	(17,099)	vs assmts-being researched
Capital & Unrealized Inv Gain (Loss)	(46,494)	-	(46,494)	unrealized investment losses
Interfund Transfers (Out)	(2,606)	-	(2,606)	reallocated surplus to FD
Bond interest & expenses	(76,364)	(77,580)	1,216	
Net nonoperating income (expenses)	414,330	479,205	(64,875)	
Earnings (loss) before depreciation	749,586	666,855	82,731	
Depreciation/Loss on disposal	297,143	303,835	6,692	
Net earnings (loss)	452,443	363,020	89,423	
Cash available on July 1, 2021			7,053,906	
Earnings (loss) before depreciation & debt amortization			749,586	
Changes in assets & liabilities				
(Increase) decrease in accounts receivable			81,981	
(Increase) decrease in inventory			(6,079)	
(Increase) decrease in prepaid expenses			30,763	
(Decrease) increase in accounts payable & transfers			(76,700)	
(Decrease) increase unrealized gains			-	
Net cash provided (used)			29,964	
Cash flow from capital & financing activities				
Asset additions/deletions & construction in progress			(3,693)	
Principal payments on bonds & deferred debt			(568,770)	GO bonds (WWTP & WL) & Rev bond
Bond proceeds & contributed capital			-	
Net cash provided (used)			(572,463)	
Cash available on December 31, 2021			7,260,992	

Available cash includes following balance sheet accounts:	Beginning	Ending	Change Pos. (Neg.)
Cash (gross revenue, petty cash & contingency fund)	3,055,582	3,439,461	383,880
Due from Beaufort County Treasurer (Vac sewer assessments)	374,195	237,856	(136,339)
Investments & restricted cash (Sewer const fund, DS, invest.)	3,624,129	3,583,674	(40,455)
Total	7,053,906	7,260,991	207,085

FRIPP ISLAND PUBLIC SERVICE DISTRICT
July 1, 2021 through December 31, 2021
Statement of Revenues & Expenses
Fire Department & Erosion Operations

	Fire Department Fund			Erosion & Bridge Operations Fund		
	Actual	Budget	Variance Favorable (Unfavorable)	Actual	Budget	Variance Favorable (Unfavorable)
Revenues						
Taxes & penalties	323,457	273,300	50,157	111,612	95,200	16,412
Assessments, donations & FIPOA	4,100	600	3,500	-	-	-
Utility attachment fees	-	-	-	-	-	-
*Interest, cap gain (loss) & miscellaneous	2,795	-	2,795	482	1,920	(1,438)
Total Revenues	330,352	273,900	56,452	112,094	97,120	14,974
Expenditures						
Employee expenses	234,170	265,485	31,315	-	-	-
General & Administrative	28,543	42,305	13,762	3,591	1,550	(2,041)
Operations	10,199	16,675	6,476	1,281	150	(1,131)
Total Operating Expenses	272,912	324,465	51,553	4,872	1,700	(3,172)
Bond Interest & expenses	-					-
Capital outlay	2,205	5,500	3,295	-	-	-
Total Expenditures	275,117	329,965	54,848	4,872	1,700	(3,172)
Revenues over (under) expenditures	55,235	(56,065)	111,300	107,222	95,420	11,802
Cash available July 1, 2021	658,535	471,756	186,779	730,932	724,720	6,212
Revenues over (under) expenditures	55,235	(56,065)	111,300	107,222	95,420	11,802
Increase (decrease) payables & transfers	(188,600)	-	(188,600)	(147)	(3,630)	3,483
Cash available December 31, 2021	525,170	415,691	109,479	838,007	816,510	21,497

*Includes interfund transfers from General Fund to cover additional capital costs from FY2021

CAPITAL PROJECT ACTIVITIES SUMMARY

	Bridge	Revetment	Totals
Cash available July 1, 2021	267,683	92,497	360,180
Revenues (bank interest/FEMA funds)	-	-	-
Less admin exp (bank chgs)	-	-	-
Less operations fund reimbursements	-	-	-
Less bond-related expenses (P&I, misc)	-	-	-
Less capital outlay	(3,703)	-	(3,703)
Cash available December 31, 2021	263,980	92,497	356,477

FRIPP ISLAND PUBLIC SERVICE DISTRICT
July 1, 2021 through December 31, 2021
Statement of Revenues & Expenses
Debt Service Fund

	Actual	Budget	Variance Favorable (Unfavorable)	Comments
Revenues				
Tax levies-wwtp, waterline, bridge, revetment	449,693	387,360	62,333	late pymts
Service assessments	-	-	-	
Interest, penalties & misc	1,051	-	1,051	pen & interest
Total Revenues	450,744	387,360	63,384	
Expenditures				
Interfund Transfers (wwtp & wtrline GO bond P&I)	305,197	305,220	23	
Governmental bonds (revtmt & bridge P&I)	47,868	47,880	12	
Bond payment fees	-	-	-	
Total Expenditures	353,065	353,100	35	
Revenues over (under) expenditures	97,678	34,260	63,418	
Cash available July 1, 2021	409,194	548,600	(139,406)	pen, int & higher mill value
Revenues over (under) expenditures	97,678	34,260	63,418	
Increase (decrease) payables & transfers	-	-	-	
Cash available December 31, 2021	506,872	582,860	(75,988)	pen, int & higher mill value

For 1st quarter budget, assume zero tax revenue. Actual taxes collected during 1st quarter are delinquent taxes for prior fiscal year. Budget assumes 50% collection in 2nd quarter & 50% collection in 3rd quarter.

Expenditures include interfund transfers of quarterly SRF (wwtp & wl) & biannual BB&T (revetment & bridge) debt payments.

Available cash on July 1, 2021 needs to be sufficient to cover Sept. 1, 2021 revetment biannual debt payment of $7,780, Oct 1 & Dec 1, 2021 wwtp & wl quarterly debt payments totalling $305,220, and Oct. 1, 2021 bridge biannual debt payment of $40,100 (Grand Total - $353,100)

FRIPP ISLAND PUBLIC SERVICE DISTRICT
Combined Balance Sheet
All Fund Types and Account Groups
December 31, 2021

	Proprietary Fund Type	Governmental Fund Types				Totals
	Wtr & Sew Dept.	Erosion & Bridge	Fire Dept.	Debt Service	Capital Projects	March 2021
ASSETS						
Available Cash	3,439,461	162,749	25,595			3,627,805
Due from Beaufort County Treasurer	237,856	550,244	499,574	506,872		1,794,546
Accounts receivable water & sewer system	388,160					388,160
Accounts receivable-other	7,387					7,387
Interfund receivable / transfer accounts						-
Inventory	28,829					28,829
Prepaid expenses	4,977					4,977
Restricted cash, debt service funds & investments	3,583,674	125,014			356,477	4,065,165
Fixed assets (net of accumulated depreciation)	12,952,210					12,952,210
Unamortized debt acquisition costs	-					-
Deferred Outflows-Pension & OPEB	190,339					190,339
Amount provided for retirement of long term debt	-					-
Total Assets	20,832,892	838,007	525,169	506,872	356,477	23,059,418
LIABILITIES						
Vouchers & accounts payable	56,679		2,745			59,424
Accrued employee expenses	13,742					13,742
Payable from restricted assets (accrued bond int.)	39,228					39,228
Deferred revenue & receivable clearing accounts	(3,642)					(3,642)
General obligation & revenue bonds payable	6,772,297					6,772,297
Pension & OPEB liability & deferred inflows	1,247,947					1,247,947
Interfund payable / transfer accounts	900		(1,200)			(300)
Total liabilities	8,127,151	-	1,545	-	-	8,128,696
FUND EQUITY						
Beginning Fund Balance/Net Position	12,253,300	730,785	468,390	409,194	360,180	14,221,849
Fund Balance/Net Position YTD increase (decrease)	452,441	107,222	55,234	97,678	(3,703)	708,872
Total fund equity	12,705,741	838,007	523,624	506,872	356,477	14,930,721
Total liabilities & fund equity	20,832,892	838,007	525,169	506,872	356,477	23,059,417

Fripp Island Fire Department
Monthly Report Summary
January 2022

Response Activities:

Total emergency responses for January, 7

	Jan 2022	Jan 2021	YTD CY22	YTD CY21
• Structure Fires	00	00	00	00
• Vehicle Fire	00	00	00	00
• Medical Emergencies	07	02	07	02
• Brush Fires	00	00	00	00
• Misc. Fire	00	01	00	01
• Service Calls	00	01	00	01
• Mutual Aid	00	00	00	00
• Auto Accident	00	01	00	01
• Water Emergencies	00	00	00	00
	---	---	---	---
	07	05	07	05

Average emergency response time:

3 minutes 52 seconds.

Inspections:

Jan 2022	Jan 2021	YTD CY22	YTD CY21
0	0	0	0

Training Activities:

No training for January.

Roster:

Total personnel active for January, 21

Vol.-01
Paid-20

FRIPP ISLAND PUBLIC SERVICE DISTRICT

WATER AND WASTEWATER UTILITY RATE REPORT

February 3, 2022

DRAFT

CONFLUENCE
Consulting, LLC

EXECUTIVE SUMMARY

Confluence Consulting, LLC (Confluence) is pleased to submit this draft water and wastewater rate report (Draft Report) documenting the results of the Fripp Island Public Service District (FIPSD) cost of service and rate study (Rate Study). In October 2021, FIPSD engaged Confluence to evaluate its current water and wastewater rate structures and identify potential modifications that could improve customer equity and to develop a five-year financial forecast and program of annual water and wastewater user rates and charges to fund operations, maintain adequate cash reserves, and meet debt coverage requirements.

As a barrier island located 20 miles southeast of Beaufort, Fripp Island is a resort-based destination in the Low Country of South Carolina that experiences significant population increases during the seasonal summer months. This seasonality results in substantial increases in demands for water and wastewater services which requires FIPSD to provide adequate water and wastewater capacity that is not fully utilized during the off-season months. The FIPSD currently assesses its retail water and wastewater rates and charges on a quarterly basis and its current water rate structure consists of quarterly base charges that increase based on meter size for commercial customers, and four-tiered consumption rates per 1,000 gallons applied to all customers that increase with the customer's quarterly metered water usage. The wastewater rate structure consists of flat quarterly rates only for residential customers while commercial customers are assessed both a flat quarterly minimum charge per quarter plus a per 1,000 gallons volume rate for all metered water usage greater than 22,500 gallons per quarter.

This Draft Report presents three alternative rate structures and recommends a five-year program of water and wastewater utility rate adjustments for the Commissioners to consider for implementation.

1. Existing Rate Structure Observations

One of primary objectives of FIPSD's Rate Study objectives is to evaluate the existing water and wastewater rate structures and identify potential rate design modifications that would enhance customer equity and fairness while maintaining revenue stability. In particular FIPSD is interested in evaluating the implementation of a wastewater volume rate for residential customers to recognize that residential customers discharge varying amounts of wastewater into the FIPSD wastewater system depending on the amount of their indoor water use. Based on Confluence's evaluation of the existing water and wastewater rate structures, FIPSD should consider:

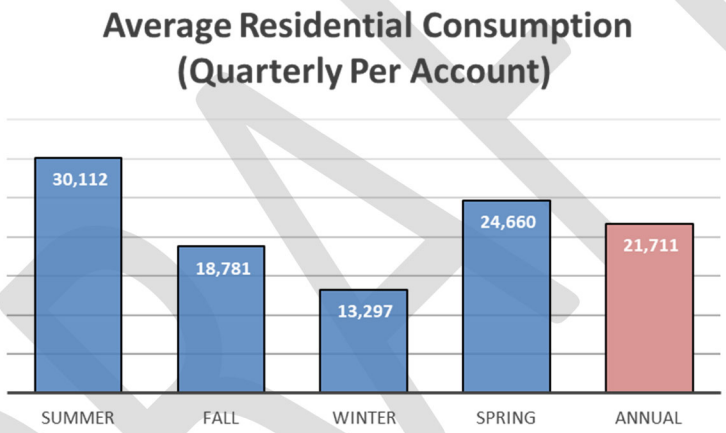
- Modifying the tiered water consumption tiers and/or rate differentials to enhance water conservation and improve customer equity; and
- Incorporating wastewater consumption charges assessed per 1,000 gallons of metered water use for residential and resort hotel accounts.

2. Customer Demand Patterns

To determine customer demand patters, a bill frequency distribution analysis was performed on detailed quarterly billing data provided for the three most recent fiscal years. The bill frequency analysis demonstrated consistent annual usage patterns during the three-year period but confirmed the peak seasonal demand patterns that one would expect in a resort-based destination with significant population increases during the seasonal summer months. Because residential customers represent such a significant portion of the FIPSD's customer base, the evaluation of usage patterns focuses on the residential customers.

Chart ES-1 presents average water use per residential account during the four billing quarters during FY 2021, which demonstrates how customer demands and usage patterns vary on Fripp Island between the off-season winter months and the seasonal summer months.

Chart ES-1: Average Water Use Per Residential Account for FY 2021



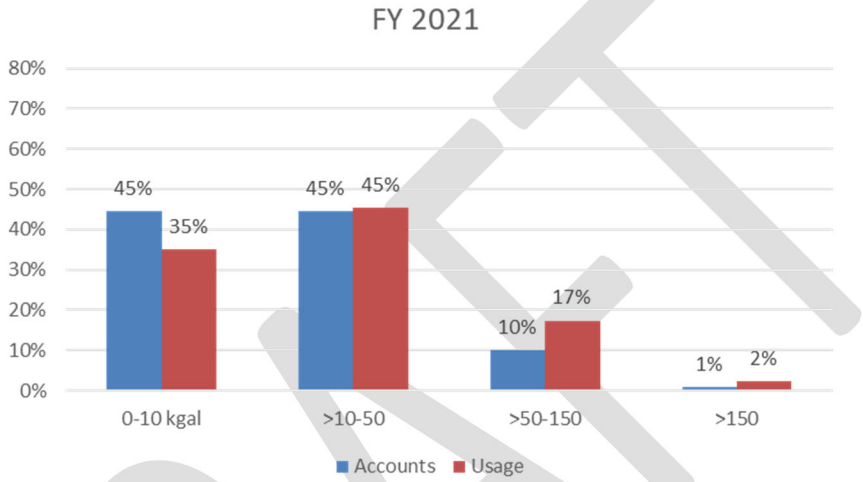
The bill frequency analysis during the winter period demonstrates that a very large portion of the residential customers have low water use and are billed within the tier 1 usage interval during the winter off-season months. Some of this lower average water use per customer can be contributed to less discretionary outdoor water use during the winter months by the full-time residents. However, the primary factor is the large number of vacant vacation homes during the winter off-season and the lower water usage pattern of the full-time residents that tend to have a smaller number of occupants per home than the seasonal vacation homes. The lower occupancy full-time residences typically use less water on average than the vacation homes that tend to have more occupants during the seasonal summer months.

The bill frequency analysis observed during the seasonal summer quarter demonstrates how the usage patterns for the residential customers base increases with the substantial increases in occupancy for the seasonal vacation homes and more discretionary outdoor summer water use. These increased demands for water and wastewater services during the seasonal summer months require FIPSD to provide incremental water and wastewater capacity that is are fully utilized during the off-season months.

The annual FY 2021 bill frequency analysis allow us to evaluate the effectiveness of the current four-tiered water usage intervals in recovering the incremental costs of providing additional capacity and serving higher water use seasonal customers.

Chart ES-2 presents the bill frequency analysis for residential customers from July 1, 2020, to September 30, 2020.

Chart ES-2: Residential Bill Frequency for FY 2021 (July 2020 through June 2021)



The annual bill frequency analysis demonstrates that only 11% of residential customers had metered water usage that occurred above the tier 2 quarterly usage threshold of 50,000 gallons during FY 2021.[1] Based on the current quarterly water usage intervals, 89% of residential customer bills and 81% of residential customer water use was billed at the tier 1 rate ($3.65 per 1,000 gallons) and/or tier 2 rate ($3.85 per 1,000 gallons). This suggests that the current the current four-tiered water usage intervals are not necessarily set at appropriate thresholds to effectively encourage efficient water use or to recover FIPSD's incremental cost to serve increased demands. Section III: Customer Demand Patterns and Growth provides more information on the seasonal bill frequency distribution analysis.

3. Revenue Requirements and Revenue Sufficiency

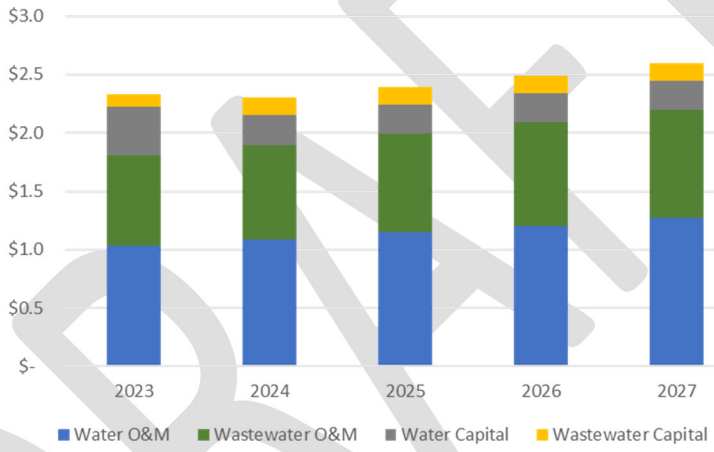
Revenue requirements include a utility's annual operating expenses, its annual capital expenditures, and intergovernmental transfers. It is typical practice for government-owned utilities to recover revenue requirements that are determined on a cash-needs approach, with an objective to provide revenues sufficient to recover the total cash requirements during an annual period.

[1] Customer billing data for fiscal years 2019, 2020, and 2021 demonstrated consistent customer usage patterns during the three-year 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. Since wholesale water costs represent a significant portion of the FIPSD's annual operating expenses, anticipated wholesale water rate increases by BJWSA have been incorporated into the forecast. Because all FIPSD water and wastewater debt is repaid through local ad valorem taxes, annual debt service is not included in the forecast of annual revenue requirements. Finally, while FIPSD does not have a formally adopted five-year capital improvements plan (CIP), our forecast does include estimated annual water and wastewater rate funded capital expenditures which are determined based on the marginal revenue needed to meet FIPSD's annual 1.40x policy goal for its bond coverage revenue test.

Chart ES-3 presents the annual water and wastewater revenue requirements during the five-year forecast.

Chart ES-3: Forecast of Annual Revenue Requirements ($ in millions)



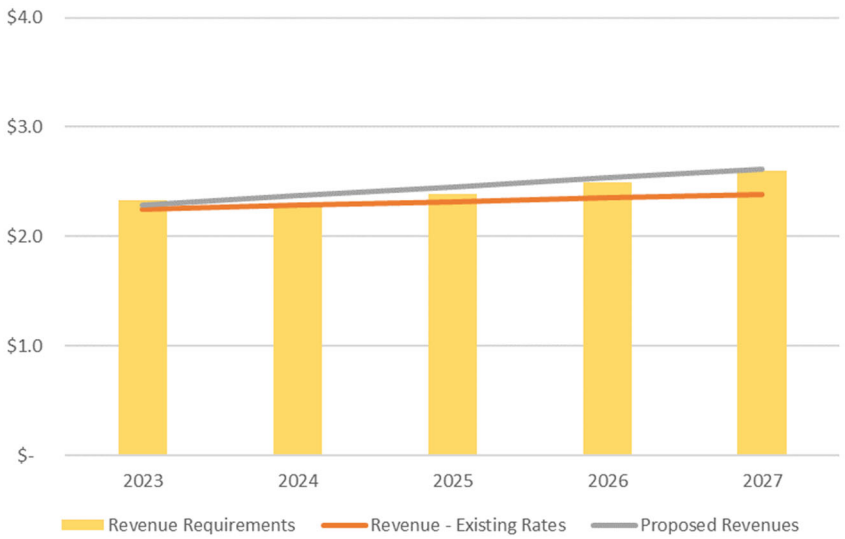
As Chart ES-3 demonstrates, the forecasted annual water and wastewater revenue requirements increase from approximately $2.3 million in FY 2023 to approximately $2.6 million in FY 2027.

Next revenues under existing rates are evaluated to determine whether existing rates would be adequate, or sufficient to recover the projected revenue requirements over the five-year planning period. Revenues were estimated under existing FY 2022 water and wastewater user rates and charges assuming annual growth in new accounts and projected metered water use and are compared to the annual revenue requirements of the water and wastewater systems. This analysis indicates that with inflationary cost increases, rate funded capital expenditures, and debt service coverage policy goals; anticipated customer demand and the existing user rates and charges are not sufficient to recover the annual revenue requirements for the water system or the wastewater system during the planning period.

To address projected revenue deficiencies and meet the FIPSD operating costs and financial policy targets during the five-year rate forecast period, Confluence recommends annual water rate increases of 2.0% and annual wastewater rate increases of 3.0% during each of the five-year rate forecast period.

The estimated annual revenue sufficiency/deficiency under the existing water and wastewater rates and the projected forecast of water and wastewater rate adjustments to address the projected deficiencies are shown over a five-year planning period in Chart ES-4 below.

Chart ES-4: Revenue Sufficiency Under Recommended Rate Adjustments ($ in millions)



4. Costs of Service Analysis and Alternative Rate Structures

To determine the alternative water and wastewater rate designs, Confluence conducted a costs of service analysis to allocate the estimated FY 2023 revenue requirements to the water and wastewater systems, the functional cost categories, and among units of service related to the customer classes and demands. First, the total utility costs of service are allocated among water and wastewater. Next, the water and wastewater costs of service are allocated to functional cost categories and then among the variable and fixed components of the water and wastewater user rate and charge structure.

The allocation of water costs to the volume and base user rate and charge categories is provided in Table ES-1 below.

Table ES-1: Allocation of Water Costs to User Charge and Rate Categories

		User Rate and Charge Category	
Cost Category	**Total**	**Volume**	**Customer**
General & Administrative	$ 375,081	$ -	$ 375,081
Source of Supply/Treatment	570,794	570,794	-
Pumping	14,817	14,817	-
Transmission & Distribution	11,124	11,124	-
Storage	48,080	48,080	-
Meters	12,624	-	12,624
Hydrants	3,090	-	3,090
Debt Service[1]	167,462	167,462	-
Rate Funded Capital	416,000	331,000	85,000
Total Water Costs	**$ 1,619,072**	$ 1,143,278	$ 475,794
Less Other Revenue	(548,984)	(487,508)	(61,476)
Net Cost to Recover Through Rates	**$ 1,070,088**	**$ 655,770**	**$ 414,318**

Units of Service		
Annual Metered Water Use	**161,065**	
Equivalent Meter Units (Annual)		**8,262**
Per Unit Rates	**$ 3.95**	**$ 50.10**

The costs of service for each of the water rate alternatives are then determined in order to recover the variable costs that are allocated to the consumption rate component categories. The three consumption rates are determined to reflect the cost to serve essential water use, average water use, and discretionary water use. Furthermore, the three consumption rates are determined to provide price differentials among the rates that are closely aligned with the seasonal peak demand patterns of the FIPSD residential customer base. Table ES-2 presents the costs of service recovered through the three consumption rates under each of the water rate alternatives.

Table ES-2: Cost of Service Recovered Through Three-Tiered Consumption Rates

Alternative 1	**Usage Interval (1,000 gals)**	**FY 2023 Cost of Service**	**FY 2023 Consumption**	**Consumption Rate**	**Price Differential**
Essential Use	0-12	$ 178,047	59,349	**$ 3.000**	1.00
Average Use	12-36	$ 176,190	44,605	**$ 3.950**	1.32
Discretionary Use	>36	$ 301,238	62,111	**$ 4.850**	1.62
		$ 655,475	**166,065**		
Alternative 2					
Essential Use	0-12	$ 179,091	59,697	**$ 3.000**	1.00
Average Use	12-45	$ 209,299	52,987	**$ 3.950**	1.32
Discretionary Use	>45	$ 267,439	53,381	**$ 5.010**	1.67
		$ 655,828	**166,065**		
Alternative 3					
Essential Use	0-15	$ 203,496	67,832	**$ 3.000**	1.00
Average Use	15-45	$ 177,205	44,862	**$ 3.950**	1.32
Discretionary Use	>45	$ 274,861	53,371	**$ 5.150**	1.72
		$ 655,562	**166,065**		

Because the water base charges are determined based on the same costs of service under each of the three alternatives, the water base charges are the same for each rate design alternative. Table ES-3 presents the costs of service recovered through the water base charges.

Table ES-3: Cost of Service Recovered Through Water Base Charges

Quarterly Base Charge Calculation	FY 2023 Cost of Service
Customer Costs	$ 413,832
Annual Equivalent Meter Units[1]	8,262
Quarterly Base Charge per Equivalent Residential Unit (ERU)	**$ 50.10**

[1] Annual equivalent meter units represents the number of customer account equivalents based on the number of multiple units served per meter and meter sizes. FIPSD's quarterly base charges are assessed based on the number of units served by a meter and charges higher base charges to commercial customers with larger meters that require more system capacity. The annual equivalent meter units represent the forecasted number of these equivalents that will be billed during FY 2023 (2,065 * 4 quarterly billings).

The wastewater costs of service are also allocated among the variable and fixed components of the wastewater user rate and charge structure.

The allocation of water costs to the volume and customer user rate and charge categories is provided in Table ES-4 below.

Table ES-4: Allocation of Wastewater Costs to User Charge and Rate Categories

		User Rate and Charge Category	
Cost Category	Total	Volume	Customer
General & Administrative	$ 375,081	$ -	$ 375,081
Treatment Costs	196,626	196,626	-
Sludge Disposal	84,000	84,000	-
Vaccum System	39,433	39,433	-
Collection Lines	37,185	37,185	-
Lift Stations/Electrictiy	32,540	32,540	-
Other	9,880	-	9,880
Debt Service[1]	806,899	-	806,899
Rate Funded Capital	100,000	32,000	68,000
Total Wastewater Costs	**$ 1,681,643**	**$ 421,784**	**$ 1,259,859**
Less Other Revenue	(882,390)	(75,491)	(806,899)
Less Commercial Revenue	(28,902)	(14,622)	(14,280)
Net Cost to Recover Through Rates	**$ 770,351**	**$ 331,671**	**$ 438,680**

Units of Service

Annual Billable Wastewater Flows	**100,796**	
Equivalent Meter Units (Annual)		**6,821**
Per Unit Rates and Charges	**$ 3.30**	**$ 50.10**

Because the residential wastewater consumption rates for each wastewater rate alternative are uniform rates assessed per 1,000 gallons for all customer wastewater usage up to the indoor water use cap, a single consumption rate is calculated for each alternative based on all FY 2023 variable wastewater costs. Table ES-5 presents the costs of service recovered through the residential consumption rate determined for each of the wastewater rate alternatives.

Table ES-5: Cost of Service Recovered Through Residential Wastewater Consumption Rate

	Indoor Water Use Cap	FY 2023 Cost of Service	FY 2023 Consumption	Consumption Rate
Alternative 1	36,000	$ 331,671	100,796	$ 3.300
Alternative 2	45,000	$ 331,671	102,487	$ 3.240

Because the residential wastewater base charges are determined based on the same costs of service and customer assumptions under each of the two wastewater alternatives, the base charges for each rate design alternative are the same.

Table ES-6 presents the costs of service recovered through the residential wastewater base charges under both wastewater rate alternatives.

Table ES-6: Cost of Service Recovered Through Residential Wastewater Base Charge

Quarterly Base Charge Calculation	FY 2023 Cost of Service
Customer Costs	$ 438,680
Annual Equivalent Meter Units[1]	6,821
Quarterly Base Charge per Equivalent Residential Unit (ERU)	**$ 64.40**

[1] Annual equivalent meter units represents the number of customer accounts equivalents based on the number of multiple units served per meter and meter size. FIPSD's quarterly base charges are assessed based on the number of units served by a meter and charges higher base charges to commercial customers with larger meters that require more system capacity. The annual equivalent meter units represents the forecasted number of these equivalents that will be billed during FY 2023 (2,065 * 4 quarterly billings).

Section V: Cost of Service Analysis of the Rate Report describes the costs of service analysis and cost allocation process in more detail.

5. Quarterly Residential Customer Bill Impacts

Whenever a utility implements a new or modified rate structure, there will be winners and losers depending on their quarterly usage and demand patterns. Therefore, it is important to assess how customers at varying quarterly usage levels will be impacted by the rate structure modifications being evaluated. Because the water and wastewater rate alternatives may impact the same customer differently depending on the customer's quarterly metered water usage, this Rate Report a variety of water,

wastewater, and combined utility bills. Residential customers with ¾-inch meters represent approximately 94% of the FIPSD's water customers. Based on historical billing data, the typical FIPSD residential customer uses approximately 7,000 gallons per month, or 21,000 gallons per quarter.

Table ES-5 presents the quarterly bills under the current FY 2022 rates and charges and the proposed FY 2023 rates and charges for a residential water customer under each water rate alterative at various levels of quarterly water usage.

Table ES-5: Residential Customer Impacts of Water Rate Alternatives

Residential Water Customer (¾-inch Meter) – Alternative 1 (12,000 and 36,000 gallon thresholds)				
Quarterly Usage	Current FY 2022	Proposed FY 2022 (Alternative 1)	Increase	
			($)	(%)
4,000	$ 60.60	$ 62.10	$ 1.50	2.5%
8,000	$ 75.20	$ 74.10	$ (1.10)	-1.5%
16,000	$ 105.60	$ 101.90	$ (3.70)	-3.5%
21,000	$ 124.85	$ 121.65	$ (3.20)	-2.6%
32,000	$ 167.20	$ 165.10	$ (2.10)	-1.3%
50,000	$ 236.50	$ 248.80	$ 12.30	5.2%
100,000	$ 449.00	$ 491.30	$ 42.30	9.4%

Residential Water Customer (¾-inch Meter) – Alternative 2 (12,000 and 45,000 gallon thresholds)				
Quarterly Usage	Current FY 2022	Proposed FY 2022 (Alternative 1)	Increase	
			($)	(%)
4,000	$ 60.60	$ 62.10	$ 1.50	2.5%
8,000	$ 75.20	$ 74.10	$ (1.10)	-1.5%
16,000	$ 105.60	$ 101.90	$ (3.70)	-3.5%
21,000	$ 124.85	$ 121.65	$ (3.20)	-2.6%
32,000	$ 167.20	$ 165.10	$ (2.10)	-1.3%
50,000	$ 236.50	$ 241.50	$ 5.00	2.1%
100,000	$ 449.00	$ 492.00	$ 43.00	9.6%

Residential Water Customer (¾-inch Meter) – Alternative 2 (12,000 and 45,000 gallon thresholds)				
Quarterly Usage	Current FY 2022	Proposed FY 2022 (Alternative 1)	Increase	
			($)	(%)
4,000	$ 60.60	$ 62.10	$ 1.50	2.5%
8,000	$ 75.20	$ 74.10	$ (1.10)	-1.5%
16,000	$ 105.60	$ 99.05	$ (6.55)	-6.2%
21,000	$ 124.85	$ 118.80	$ (6.05)	-4.8%
32,000	$ 167.20	$ 162.25	$ (4.95)	-3.0%
50,000	$ 236.50	$ 239.35	$ 2.85	1.2%
100,000	$ 449.00	$ 496.85	$ 47.85	10.7%

The water rates under each of the alternatives are designed to encourage efficient water use by recovering more costs from seasonal residents that use more water use to meet outside water and higher occupancy demands.

Table ES-6 presents the quarterly bills under the current FY 2022 rates and charges and the proposed FY 2023 rates and charges for a residential wastewater customer under each wastewater rate alterative at various levels of quarterly water usage.

Table ES-6: Residential Customer Impacts of Wastewater Rate Alternatives

Residential Sewer Customer With ¾-inch Meter – Alternative 1 (36,000 gallons indoor use cap)				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 105.00	$ 77.60	$ (27.40)	-26.1%
8,000	$ 105.00	$ 90.80	$ (14.20)	-13.5%
16,000	$ 105.00	$ 117.20	$ 12.20	11.6%
21,000	$ 105.00	$ 133.70	$ 28.70	27.3%
32,000	$ 105.00	$ 170.00	$ 65.00	61.9%
50,000	$ 105.00	$ 183.20	$ 78.20	74.5%
100,000	$ 105.00	$ 183.20	$ 78.20	74.5%

Residential Sewer Customer With ¾-inch Meter– Alternative 2 (45,000 gallons indoor use cap)				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 105.00	$ 77.36	$ (27.64)	-26.3%
8,000	$ 105.00	$ 90.32	$ (14.68)	-14.0%
16,000	$ 105.00	$ 116.24	$ 11.24	10.7%
21,000	$ 105.00	$ 132.44	$ 27.44	26.1%
32,000	$ 105.00	$ 168.08	$ 63.08	60.1%
50,000	$ 105.00	$ 210.20	$ 105.20	100.2%
100,000	$ 105.00	$ 210.20	$ 105.20	100.2%

The wastewater rates under both alternatives are designed to encourage efficient water use by recovering more costs from high water users that typically have large vacation occupancies and more discretionary water use. However, wise water users and lower occupancy full-time residents are rewarded under both wastewater rate alternatives that provide lower quarterly base charges and consumption rates when compared to the current wastewater rate structure that assesses all customers a flat fee of $105.00 regardless of quarterly water use.

Table ES-7 presents the combined bill for residential utility customers under each of the rate alternatives.

Table ES-7: Combined Residential Customer Impacts for Rate Alternatives

Residential Water & Sewer Customer With ¾-inch Meter – Alternative 1				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 165.60	$ 139.70	$ (25.90)	-15.6%
8,000	$ 180.20	$ 164.90	$ (15.30)	-8.5%
16,000	$ 210.60	$ 219.10	$ 8.50	4.0%
21,000	$ 229.85	$ 255.35	$ 25.50	11.1%
32,000	$ 272.20	$ 335.10	$ 62.90	23.1%
50,000	$ 341.50	$ 432.00	$ 90.50	26.5%
100,000	$ 554.00	$ 674.50	$ 120.50	21.8%

Residential Water & Sewer Customer With ¾-inch Meter				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 165.60	$ 139.46	$ (26.14)	-15.8%
8,000	$ 180.20	$ 164.42	$ (15.78)	-8.8%
16,000	$ 210.60	$ 218.14	$ 7.54	3.6%
21,000	$ 229.85	$ 254.09	$ 24.24	10.5%
32,000	$ 272.20	$ 333.18	$ 60.98	22.4%
50,000	$ 341.50	$ 451.70	$ 110.20	32.3%
100,000	$ 554.00	$ 702.20	$ 148.20	26.8%

Residential Water & Sewer Customer With ¾-inch Meter – Alternative 3				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 165.60	$ 139.46	$ (26.14)	-15.8%
8,000	$ 180.20	$ 164.42	$ (15.78)	-8.8%
16,000	$ 210.60	$ 215.29	$ 4.69	2.2%
21,000	$ 229.85	$ 251.24	$ 21.39	9.3%
32,000	$ 272.20	$ 330.33	$ 58.13	21.4%
50,000	$ 341.50	$ 449.55	$ 108.05	31.6%
100,000	$ 554.00	$ 707.05	$ 153.05	27.6%

Based on the modifications to the water and wastewater rate structures each of the rate alternatives, the typical residential customer with 21,000 gallons of metered water per quarter will experience more than a $20.00, or 9.0% increase in their quarterly utility bill. It should be noted that the quarterly increase to the average residential customer relates entirely to the implementation of the residential wastewater consumption rate structure, as this customer receives a reduced quarterly water bill. The impact to the average customer demonstrates the inequity of the current flat rate wastewater charge assessed to all wastewater customers regardless of their quarterly water use. Furthermore, the 21,000 gallons per quarter represents average annual water use per customer which includes the higher seasonal summer demands which reflect the higher occupancies of vacation residents. As mentioned later in Section III, the demand patterns by full-time residents tend to average around 13,000 gallons per quarter and the quarterly bills for these customers will result in a slight decrease in their combined utility bill under all rate alternatives.

THIS PAGE INTENTIONALLY BLANK

I. INTRODUCTION

Confluence Consulting, LLC (Confluence) is pleased to submit this draft water and wastewater rate report (Draft Report) documenting the results of the Fripp Island Public Service District (FIPSD) cost of service and rate study (Rate Study). In October 2021, FIPSD engaged Confluence to evaluate its current water and wastewater rate structures and identify potential modifications that could improve customer equity and to develop a five-year financial forecast and program of annual water and wastewater user rates to fund operations, maintain adequate cash reserves, and meet debt coverage requirements. Although FIPSD also provides fire-fighting services, controls beach erosion, and maintains the Fripp Inlet Bridge, the focus and purpose of this Rate Study is limited to the water and wastewater services.

1. Background

The FIPSD was created by the South Carolina legislature in 1962 when development of the island was just beginning. Services provided originally included water supply, fire protection, and erosion control. In 1993, with the acquisition of the island's sewer system from the Fripp Company, FIPSD's authority was expanded to include wastewater collection and treatment. In 2003, FIPSD assumed responsibility for the operation and maintenance of the Fripp Inlet Bridge when ownership of the bridge was transferred from the Fripp Island Property Owners Association (POA) to FIPSD. The FIPSD is governed by the Fripp Island Public Service District Commission (Commission), originally composed of three members appointed by the Beaufort County legislative delegation. In 1974, FIPSD's enabling legislation was amended to increase the number of Commissioners to six and with the successful passage of a referendum by Fripp Island voters in 2000, the Commission became an elected body. Commissioners are elected to 4-year terms, and elections are held in even-numbered years.

As a barrier island located 20 miles southeast of Beaufort, Fripp Island is a resort-based destination in the Low Country of South Carolina that experiences significant population increases during the seasonal summer months. This seasonality results in substantial increases in demands for water and wastewater services which requires FIPSD to provide adequate water and wastewater capacity that is not fully utilized during the off-season months. For water, FIPSD distributes potable water purchased from the Beaufort-Jasper Water and Sewer Authority (BJWSA) at a wholesale unit rate of $2.97 per 1,000 gallons that is billed monthly. In addition to its approximately 1,790 residential, resort hotel, commercial, and irrigation customers the FIPSD also provides wholesale water service to Hunting Island State Park, retail service to select customers on Harbor Island, and water transportation services to the Harbor Island gated community. For wastewater, FIPSD serves its 1,730 residential, resort hotel, and commercial customers through an on-island 750,000 gallon per day (gpd) treatment plant and collection system. Treated wastewater is disposed of as reclaimed water used for irrigation purposes.

2. Purpose of Report

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

I. Introduction;

II. Evaluate Existing Rate Structures;

III. Customer Demand Patterns and Growth;

IV. Revenue Requirements;

V. Customer Service Analysis

VI. Alternative Rate Structure to Consider;

VII. Compare Customer Bill Impacts of Alternative Rate Structures; and

VIII. Comparison With Other Local Utilities.

This Draft Report presents three alternative rate structures and recommends a five-year program of water and wastewater utility rate adjustments for the Commissioners to consider for implementation.

II. EVALUATE EXISTING RATE STRUCTURES

A primary objective for this Rate Study is an evaluation of FIPSD'S existing water and sewer rate structures to identify opportunities that will improve customer equity and fairness. The FIPSD currently assesses its retail water and wastewater rates and charges on a quarterly basis and although FIPSD has made increases to the utility rates over the years, the current water and wastewater rate and cost structures have been in place for years. This section describes the current water and wastewater rates and charges currently assessed to the FIPSD utility customers.

1. Existing Water Rates and Charges

The current water rate structure consists of quarterly base charges that increase based on meter size for commercial customers, and tiered consumption rates per 1,000 gallons applied to all customers that increase with the customer's quarterly metered water usage. Hotel resorts (Sunsuites) are assessed similar water consumption charges, but the quarterly base charges and tiered water usage intervals are unique and assessed on a per room basis.

A. Water Base Charges

A $46.00 quarterly base charge is assessed to residential customers and commercial customers are assessed according to meter size. Base charges are typically designed to recover costs associated with customer service, billing and collection, meter repair and maintenance, and a portion of fixed capital costs associated with the capacity required to meet non-peak seasonal demand for water services. For commercial customers, the base charges vary by meter size according to the potential demands of different meter sizes based on the meter capacity standards for each meter size in relation to the capacity standard for the ¾-inch meter. Hotel resorts are assessed a lower $25.00 quarterly base charge that recognizes a lower occupancy, no outdoor water use, and thus a lower quarterly water use than the typical single-family residential customer.

B. Water Consumption Rates

The water volume charges are assessed per 1,000 gallons of metered quarterly water use and incorporate the increasing four-tier consumption rate structure. The four-tiered rates are assessed to all customers per 1,000 gallons of water usage within the four usage intervals. The usage intervals include the first 10,000 gallons of water usage per quarter for the tier 1 rate, water usage between 10,000 gallons and 50,000 gallons per quarter for the tier 2 rate, water usage between 50,000 gallons and 150,000 gallons per quarter for the tier 3 rate, and all usage above 150,000 gallons per quarter for the tier 4 rate. This tiered conservation volume structure promotes more efficient use of water by high use water customers while rewarding low volume water users which tend to be residential customers that live in Fripp Island full time. Additionally, increasing tiered (block) rate structures allow utilities that must provide additional system capacity to serve increased demands during peak seasonal periods to recover these additional costs from the higher use customers that require the additional capacity.

Table 1 presents the current FY 2022 water rates.

Table 1: Current FY 2022 Water User Rates and Charges

	Current FY 2022	
Quarterly Base Charges	**Ratio[1]**	**Rate**
Residential (Single & Multi-family)	1.00	$ 46.00
Hotel Room[2]	0.54	$ 25.00
Off-Island[3]	1.40	$ 64.60
Commercial/Irrigation		
3/4" and 5/8"	1.00	$ 46.00
1"	1.70	$ 78.20
1.5"	3.30	$ 151.80
2"	5.30	$ 243.80
3"	10.08	$ 463.80
Consumption Rates (per 1,000 gallons)		
Quarterly Usage Intervals		
0 to 10,000	1.00	$ 3.65
10,000 to 50,000	1.05	$ 3.85
50,000 to 150,000	1.16	$ 4.25
Above 150,000	1.25	$ 4.55

2. Existing Wastewater Rates and Charges

The wastewater rate structure consists of flat quarterly rates only for residential (per unit) and resort hotels (per room) accounts. Commercial accounts are assessed both the flat quarterly minimum charge per quarter plus a per 1,000 gallons volume rate for all metered water usage greater than 22,500 gallons per quarter.

A. Wastewater Base Charges

For all residential customers, FIPSD currently assesses a $105.00 quarterly flat rate. Hotel rooms are assessed a reduced quarterly flat rate of $56.50 which recognizes a lower occupancy and a lower quarterly wastewater discharge than the typical single-family residential customer. Commercial customers are charged a $105.00 minimum quarterly base charge that does not vary according to meter size and includes a minimum wastewater discharge allowance of 22,500 gallons per quarter.

B. Wastewater Consumption Rates

Currently, there is no wastewater consumption or flow rate for residential and hotel room customers since these customers are charged a quarterly flat rate regardless of quarterly water use. However, commercial wastewater customers are assessed a single uniform wastewater volume rate of $6.30 per 1,000 gallons for all quarterly metered water consumption above the 22,500 minimum quarterly discharge allowance.

Table 2 presents the current wastewater rate structure for residential and commercial customers.

Table 2: Current FY 2022 Wastewater User Rates and Charges

	Current FY 2022	
Quarterly Flat/Minimum Charges	**Ratio[1]**	**Rate**
Residential (Single & Multi-family)	1.00	$ 105.00
Hotel Room	0.54	$ 56.50
Commercial	1.00	$ 105.00
Volume Rates (gallons)		
Commercial (Above 22,500 gallons)	N/A	$ 6.30

3. Existing Rate Structure Observations

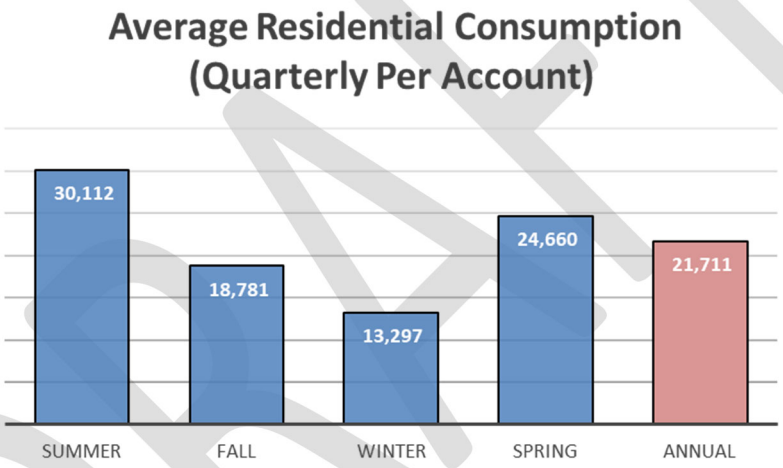
One of primary objectives of FIPSD's Rate Study objectives is to evaluate the existing water and wastewater rate structures and identify potential rate design modifications that would enhance customer equity and fairness while maintaining revenue stability. In particular FIPSD is interested in evaluating the implementation of a wastewater volume rate for residential customers to recognize that residential customers discharge varying amounts of wastewater into the FIPSD wastewater system depending on the amount of their indoor water use. Below, Confluence provides a summary of the potential modifications we believe FIPSD may want to consider as part of this Rate Study and in the future. Specially, FIPSD should consider:

- Modifying the tiered water consumption tiers and/or rate differentials to enhance water conservation and improve customer equity;
- Incorporating wastewater consumption charges assessed per 1,000 gallons of metered water use for residential and resort hotel accounts; and
- Implementing a rate structure based on a monthly billing cycle to enhance customer communication and financial security.

Incorporate Wastewater Volume Rates: While recovering a majority of wastewater revenues through flat rates does enhance revenue stability and predictability for FIPSD, this type of rate structure is less equitable than a structure that also recovers at least some portion of the customer's bill based on metered water use. A bill frequency analysis of FIPSD's customer billing data during the most recent three fiscal years indicates that quarterly water consumption per account increases significantly during the seasonal summer months, so a flat rate charged to all residential customers may impact full-time and low water use residents more than the larger occupancy vacation and rental homes that tend to use more water and return more wastewater to the wastewater collection system. Implementing a wastewater rate structure that assesses all residential customers a quarterly base charge plus a consumption rate for usage up to a quarterly consumption threshold (or usage cap) would be more equitable to lower use customers, while further promoting water conservation. Implementing a residential wastewater rate structure to incorporate consumption rates would have initial impacts on customer bills, so care would need to be given to establish the appropriate usage cap, and consumption rate per 1,000 gallons to strike the appropriate balance with the current flat rate structure.

Modifying Tiered Water Consumption Rate Structure: The current water rate structure provides a conservation incentive through increasing tiered consumption rates. However, the existing tiered rates and usage thresholds are not as equitable as they could be in recovering the higher costs of providing additional capacity to higher use seasonal residents and commercial customers. The bill frequency analysis of FIPSD's customer billing data demonstrated that the average quarterly water usage per residential account varied widely between the seasonal summer quarter (July through September) and the off-season winter quarter (January through March). Specifically, in Fiscal Year (FY) 2021, average water use per residential account during the summer quarter was 30,000 gallons, while average water use per residential account during the winter quarter was 13,000 gallons. This type of usage pattern reflects a seasonal peaking factor of 2.26x. Table 3 presents average water use per residential account during the four billing quarters during FY 2021. For more detail on the bill frequency analysis, see Section III: Customer Demand Patterns and Growth.

Chart 1: Average Water Use Per Residential Account for FY 2021



With a differential between the Tier 1 ($3.65) and Tier 4 ($4.55) consumption rates of 1.25x, the existing four-tiered volumetric water rate structure does not appropriately reflect the seasonality usage patterns and/or cost of service differences between lower and higher water use residential customers. The consumption rates and usage tier intervals could be modified to shift more cost to the higher use seasonal residential and commercial customers that require a significant amount of system capacity that is not utilized by the lower use full-time residents. Furthermore, FIPSD may consider implementing a less complex three-tiered volumetric rate structure that would continue to promote conservation while further enhancing customer equity. An appropriately designed three-tiered rate structure could mitigate the impacts on the full-time residential customers while recovering a greater portion of costs from those higher use customers that require the incremental costs of additional system capacity during the seasonal months.

Monthly Billing Cycle: Over the past decade there has been an increase in the number of utilities utilizing more frequent billing cycles to improve customer budgeting, enhance communication between utilities

and their customers, and improve the utility's financial security. Monthly billing helps customers establish a payment rhythm as many customers operate on a month-by-month basis for most other bills such as cell phones, electricity, rent, etc. Some customers may not have the budgetary discipline to save a little each month for quarterly billing expenses and would appreciate smaller, more regularly scheduled utility bills. More frequent billing would also allow for greater communication between FIPSD and their customers which results in fewer surprises. More frequent billing could help detect water leaks sooner which benefits customers by likely reducing the amount of unused water customers pay for and by reducing the potential costs of water damage in the home. Earlier water loss detection could also improve FIPSD's water loss and identify broken or slow meters which would allow FIPSD to address potential lost revenue more quickly. Finally, longer billing cycles (quarterly) may make it necessary for utilities to maintain increased days cash on hand to ensure financial security. When utilities bill less frequently, there is less regularity in when they receive revenue which makes cash management more challenging if there are unexpected expenses or revenue shortfalls.[1]

After discussing the current meter reading technology capabilities and staffing limitations, implementation of a monthly billing cycle is not feasible at this time and should only be considered when a remote meter reading system can be implemented.

[1] *Does How Often You Pay for it Matter? The Impacts of Billing Frequency* Stephen Lapp, UNC Environmental Finance Center Blog.

III. CUSTOMER DEMAND PATTERNS AND GROWTH

This section discusses the seasonal customer demand patterns of the FIPSD's customers as determined based on a bill frequency analysis performed on detailed quarterly billing data provided for the three most recent fiscal years. The bill frequency analysis distributes customer accounts and quarterly usage occurring within FIPSD's existing four-tiered water usage intervals and demonstrates the seasonality of residential water demand patterns. As part of this analysis, Confluence presents alternative three-tiered water usage intervals that would provide more appropriate usage thresholds for encouraging efficient water use and in recovering the incremental of costs of the additional capacity required to serve high seasonal water use customers. This section also documents our growth assumptions and the five-year forecast of water and wastewater customer accounts and demands. The forecast of customer accounts and demands are important as they are used to project future user rate and charge revenues and rate adjustments.

1. Customer Demand Patterns

When evaluating and/or determining increasing block conservation rate structures, it is important to review and analyze historical water billing records to determine customer class demand characteristics. This type of analysis is called a bill frequency distribution analysis, or bill tabulation, which allows us to evaluate the consumption of the FIPSD's different customer classes and gain a better understanding of the consumption patterns and cost of service for each type of customer. This analysis provides important insights for identifying potential adjustments to the usage interval cut-offs, setting the consumption charges, and analyzing customer impacts.

This historical billing analysis serves as the basis for long-term projections of water consumption, estimated sewer flows, and revenue generation. Most importantly, the bill frequency distribution analysis allows to assess the revenue impact of any potential modifications to the tiered water rate structure, and in determining the appropriate balance between fixed and consumption charges should FIPSD decide to implement volume rates for the residential and resort hotel wastewater customers. Because FIPSD's customer base in almost entirely residential (94%), our bill frequency analysis focuses primarily on the residential customers.

FIPSD provided Confluence with quarterly billing data for the three most recent fiscal years (FY 2019, FY 2020, and FY 2021) to determine the quarterly usage patterns of the FIPSD customer base. While total consumption and usage patterns do tend to fluctuate from year-to-year due to changing economic and weather conditions, the bill frequency analysis demonstrated consistent usage patterns during the three-year period. As such, our bill frequency discussion will be limited to FY 2021 which is the most recently completed fiscal year for which we have billing data. Below we compare the bill frequency analysis during

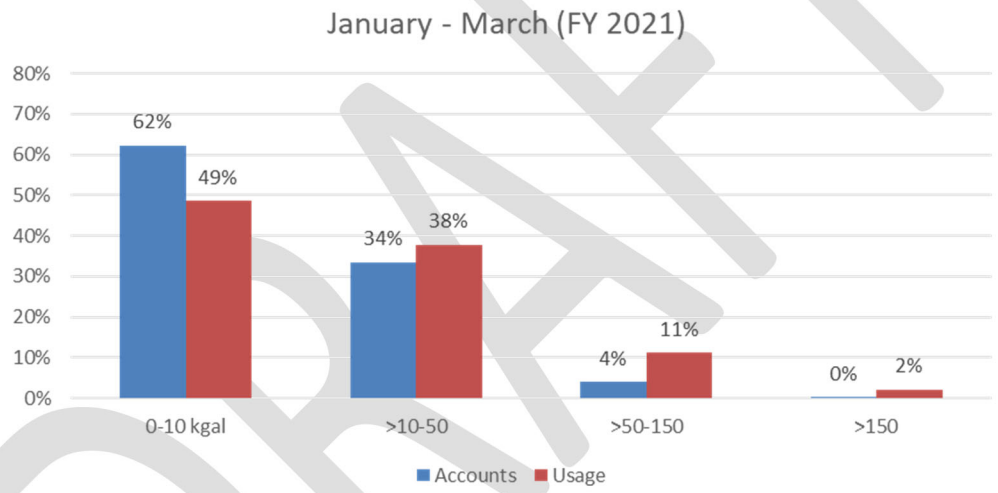
the winter and summer quarterly billing periods to demonstrate the seasonal nature of residential customer water usage patterns.

A. Off-Season Winter Quarter Bill Frequency

As discussed previously, Fripp Island is a resort-based destination that experiences significant population increases during the seasonal summer months. To demonstrate how customer demands and usage patterns vary on Fripp Island between the off-season winter months and the seasonal summer months, we will first discuss the bill frequency analysis observed during the off-season winter quarter when the island is populated primarily by the full-time residents only.

Chart 2 presents the bill frequency analysis for residential customers from January 1, 2021, to March 31, 2021.

Chart 2: Residential Bill Frequency for Winter Quarter FY 2021 (January through March)



It should be noted that the blue bars in the chart represent the percentages of residential account customers that have quarterly metered water usage that ends within each of the four usage tier intervals, while the red bars represent the cumulative amount of metered water usage that occurs and is billed within each of the current four water usage intervals.[2] For example, while 62% of the residential accounts had quarterly metered water use of 10,000 gallons or less during the quarter, 49% of the total residential metered water use during the winter quarter was billed for usage within the tier 1 usage interval. As such, the 49% of usage billed within the tier 1 usage interval (0 to 10,000 gallons) includes all of the usage for the 62% of the residential accounts with metered usage of 10,000 gallons or less during the quarter; plus the first 10,000 gallons of metered water use for the remaining 38% of residential accounts during the quarter.

[2] For more information on the four water usage intervals, see Table 1.

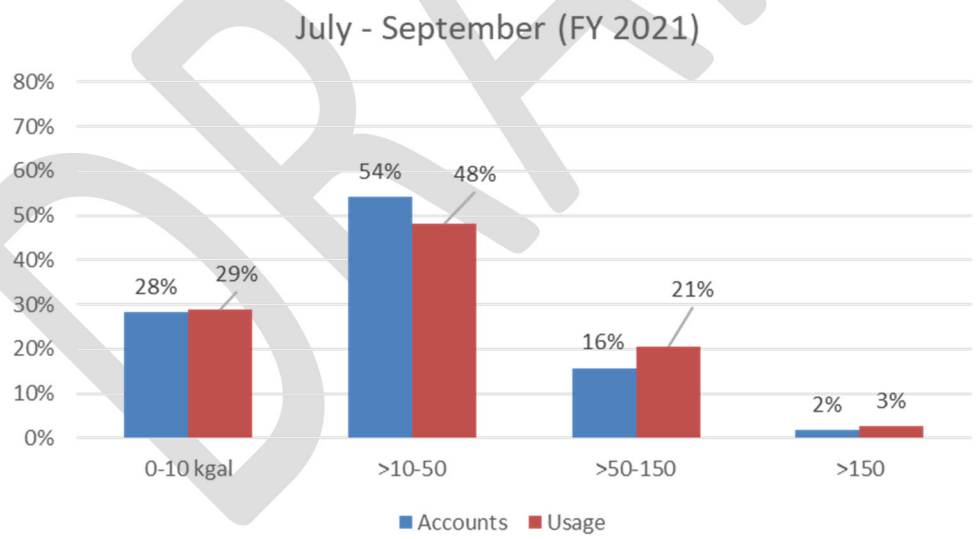
This winter period bill frequency demonstrates that a very large portion of the residential customers have low water use and are billed within the tier 1 usage interval during the winter off-season months. Some of this lower average water use per customer can be contributed to less discretionary outdoor water use during the winter months by the full-time residents. However, the primary factor is the large number of vacant vacation homes during the winter off-season and the lower water usage pattern of the full-time residents that tend to have a smaller number of occupants per home than the seasonal vacation homes. The lower occupancy full-time residences typically use less water on average than the vacation homes that tend to have more occupants during the seasonal summer months.

B. Seasonal Summer Quarter Bill Frequency

The bill frequency analysis observed during the seasonal summer quarter demonstrates how the usage patterns for the residential customers base increases with the substantial increases in occupancy for the seasonal vacation homes and more discretionary outdoor summer water use. These increased demands for water and wastewater services during the seasonal summer months require FIPSD to provide incremental water and wastewater capacity that is are fully utilized during the off-season months.

Chart 3 presents the bill frequency analysis for residential customers from July 1, 2020, to September 30, 2020.

Chart 3: Residential Bill Frequency for Summer Quarter FY 2021 (July through September)



Again, the blue bars in the chart represent the percentages of residential account customers that have quarterly metered water usage that ends within each of the four usage tier intervals and the red bars represent the cumulative amount of water usage that occurs and is billed within each of the four usage intervals. While a much higher portion of residential accounts had metered water use of 10,000 gallons or less during the winter quarter, only 28% of the residential accounts had quarterly metered water use of 10,000 gallons or less during the summer quarter. Similarly, a much lower percentage (29%) of the total

residential metered water use was billed for usage within the tier 1 usage interval during the summer quarter as compared to the 49% of the total metered water use during the winter quarter. Again, the 29% of usage billed within the tier 1 usage interval includes all of the usage for the 28% of the residential accounts with metered usage of 10,000 gallons or less during the quarter; plus the first 10,000 gallons of metered water use for the remaining 72% of residential accounts during the quarter. This demonstrates that 72% of the residential accounts exhibited quarterly water usage that occurred above the tier 1 usage interval and that 71% of the residential usage was billed at the tiers 2, 3, and 4 consumption rates.

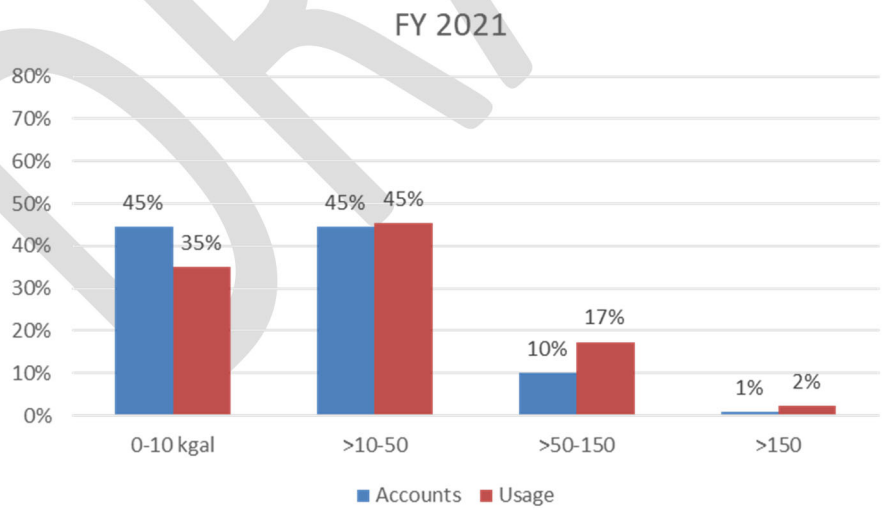
In summary, comparing the winter and summer quarterly bill frequency analyses demonstrates the significant increase in demands for water and wastewater services that occurs during the seasonal summer months when residential occupancies are higher, and a greater portion of residential accounts and metered water use are billed within the higher usage intervals.

C. FY 2021 Annual Bill Frequency Analysis

While the comparison of the winter and summer bill frequency analysis demonstrates the seasonal nature of the FIPSD customer demand patterns, a review of the annual FY 2021 bill frequency analysis allow us to evaluate the effectiveness of the current four-tiered water usage intervals in recovering the incremental costs of providing additional capacity and serving higher water use seasonal customers.

Chart 4 presents the bill frequency analysis for residential customers from July 1, 2020, to September 30, 2020.

Chart 4: Residential Bill Frequency for FY 2021 (July 2020 through June 2021)



The annual bill frequency analysis demonstrates that only 11% of residential customers had metered water usage that occurred above the tier 2 quarterly usage threshold of 50,000 gallons during FY 2021.[3] Based on the current quarterly water usage intervals, 89% of residential customer bills and 81% of residential customer water use was billed at the tier 1 rate ($3.65 per 1,000 gallons) and/or tier 2 rate ($3.85 per 1,000 gallons). This suggests that the current the current four-tiered water usage intervals are not necessarily set at appropriate thresholds to effectively encourage efficient water use or to recover FIPSD's additional cost to serve increased demands.

D. Alternative Three-Tiered Water Usage Intervals

An alternative rate design featuring three water usage intervals set with different tier 1 and tier 2 quarterly usage thresholds could enhance efficient water use by residential customers and be more effective in recovering the additional costs of serving higher use seasonal customers with more discretionary water use. Setting the tier 2 quarterly usage threshold below FIPSD's current tier 2 threshold and developing tiered consumption rates with a greater pricing differential between the essential use (tier 1) rate and the discretionary use (tier 3) rate would enhance the reward for wise water use, while recovering more cost of service from discretionary water use.

Although three alternative rate designs with varying three-tier usage intervals are evaluated as part of this Rate Study, the proposed usage intervals for alternative 1 are discussed in this section and are presented in Table 3 below.

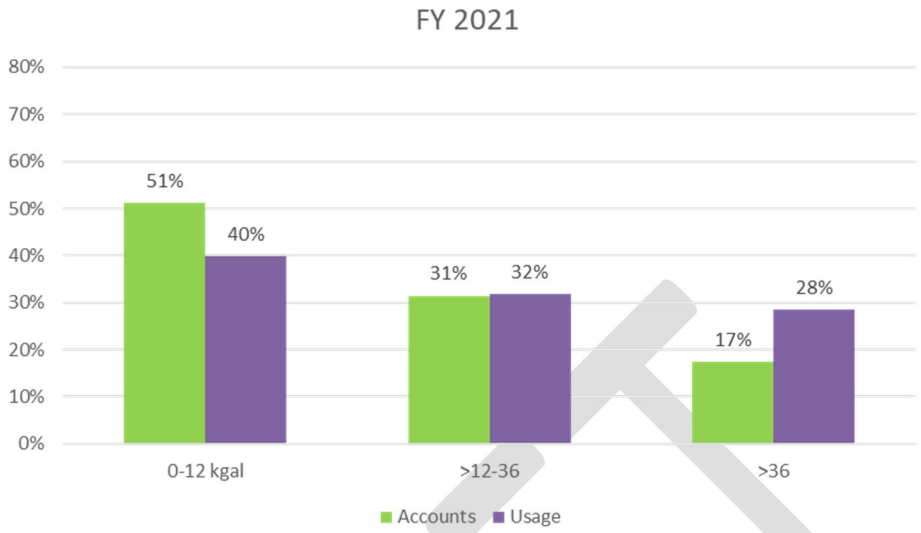
Table 3: Proposed Three-Tiered Water Usage Intervals for Rate Alternative 1

Consumption Rate Tiers	Proposed Usage Intervals (gallons/quarter/unit)
Tier 1 – Essential Use	0 to 12,000
Tier 2 – Average Use	12,001 to 36,000
Tier 3 – Discretionary Use	All Above 36,000

Chart 5 presents the bill frequency for residential customers for FY 2021 under the three-tiered water usage intervals for water rate alternative 1.

[3] Customer billing data for fiscal years 2019, 2020, and 2021 demonstrated consistent customer usage patterns during the three-year period.

Chart 5: Residential Bill Frequency for Alternative Three-Tiered Water Usage Intervals



Similar to the earlier charts, the green bars represent the percentages of residential account customers that have quarterly metered water usage that ends within each of the three usage intervals and the purple bars represent the cumulative amount of water usage that occurs and is billed within each of the three usage intervals. Increasing the tier 1 usage threshold from 10,000 to 12,000 gallons per quarter would allow a larger percentage (51%) of residential customers and water consumption (40%) to fall within the essential usage interval and be charged at the discounted essential use rate. Reducing the tier 2 usage threshold from 50,000 to 36,000 gallons per quarter would reduce the percentage of (31%) of residential customers and water consumption (32%) within the average usage interval and be charged at the average use rate. Finally, by eliminating the fourth tier and reducing the tier 2 usage threshold to 36,000 gallons per quarter will capture a much larger percentage of (17%) residential customer and water consumption (28%) within the discretionary usage interval and more seasonal water use will be charged at the highest discretionary use rate.

It should be noted that while only 17% of residential consumption is forecasted to be captured within the discretionary usage interval, a higher portion of irrigation and commercial customer use occurs above the 36,000 gallon per quarter threshold. Thus, a greater portion and amount of commercial water usage, particularly irrigation and restaurant customers, will be charged at the highest discretionary use rate. For more information on the usage patterns of irrigation and restaurant customers, see the bill frequency analysis charts for these customer groups in Appendix B.

Finally, FIPSD is interested in implementing a residential wastewater consumption rate structure and would like to recognize that a portion of residential water use relates to outdoor water use that is not returned to the wastewater system. For this reason, Confluence recommends implementing a residential indoor water use cap of 36,000 gallons of meter water use per quarter to be consistent with the average usage interval threshold under rate alternative 1. The residential indoor water use cap for the other

wastewater rate alternatives would be consistent with the average usage interval thresholds of those rate alternatives.

E. Forecast of Water and Wastewater Customers and Demands

As a 6.5 square mile barrier island that began development in 1962, Fripp Island has limited area for continued growth. According to FIPSD management, growth in recent years on the island averaged around 8 new homes per year. Growth in the current 2022 fiscal year however has been more significant with 18 new homes already added as Fripp Island and South Carolina have become popular destinations for people that can work remotely or seek lower housing costs. Based on this recent growth history, residential water and wastewater customer growth will be based on recent trends and anticipated future development based on discussions with FIPSD management. This growth is based on an assumed number of new homes in each year of the five-year forecast period, and all new homes are assumed to receive both water and wastewater services. As a private island community, commercial growth on Fripp Island is limited to amenities provided by the Fripp Island Golf and Beach Resort. For this reason, no growth in commercial water and wastewater accounts is anticipated during the five-year forecast period.

The analysis of metered usage by water and wastewater customers during the most recent three fiscal years indicates that metered usage has increased minimally on an annual basis. Metered usage and wastewater flows are projected during the five-year rate forecast period to increase at a 3.0% annual rate of growth.

Table 4 summarizes the actual FY 2021 and estimated FY 2022 customer account and demand growth and a five-year projection of the water accounts and metered water use (including irrigation) from FY 2023 through FY 2027.

Table 4: Current and Projected Water Customers and Demand (FY 2021 through FY 2021)

	Actual	Projected					
Units	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**	**FY 26**	**FY 27**
Residential[1]	1,725	1,725	1,750	1,765	1,775	1,785	1,795
Commercial[2]	64	64	64	64	64	64	64
Other[3]	2	2	2	2	2	2	2
Total	1,791	1,791	1,816	1,831	1,841	1,851	1,861
Metered Water Use (kgal)							
Residential[1]	130,868	131,920	135,883	139,947	144,127	148,433	152,866
Commercial[2]	29,056	29,295	30,182	31,086	32,020	32,983	33,974
Other[3]	3,926	4,434	4,568	4,706	4,848	4,994	5,144
Total	163,850	165,649	170,633	175,739	180,995	186,410	191,984

[1] The residential class includes Sunsuites and Off-Island (Harbor Island) units and water consumption.

[2] Commercial class includes irrigation units and water consumption.

[3] Other includes Hunting Island State Park and Fishing Pier which are assessed separate rates.

Table 5 summarizes the actual FY 2021 and estimated FY 2022 customer account and demand growth, and a five-year projection of the wastewater accounts and metered sewer flows for from FY 2023 through FY 2027.

Table 5: Current and Projected Wastewater Customers and Demand (FY 2021 through FY 2027)

	Actual	Projected					
Accounts	**FY 21**	**FY 22**	**FY 23**	**FY 24**	**FY 25**	**FY 26**	**FY 27**
Residential[1]	1,695	1,695	1,720	1,735	1,745	1,755	1,765
Commercial[2]	34	34	34	34	34	34	34
Total	1,729	1,729	1,754	1,769	1,779	1,789	1,799
Metered Water Use (kgal)							
Residential[1]	129,020	132,893	136,882	140,992	145,223	149,583	154,073
Commercial[2]	6,074	5,852	6,031	6,217	6,409	6,606	6,809
Total	135,094	138,745	142,913	147,209	151,632	156,189	160,882

[1] The residential class includes Sunsuites, but FIPSD does not provide sewer service to Off-Island (Harbor Island) customers. Residential customers are not currently assessed wastewater charges for metered water use. However, should FIPSD decide to implement a wastewater volume charge for residential customers, the portion of metered water use below the sewer use cap would be charged. Total water use by residential wastewater customers is presented in Table 5.

[2] Irrigation units are not charged for wastewater services. The table presents the total metered water use by the commercial wastewater customers, but the wastewater consumption rates are limited to metered usage above the minimum allowance of 22,500 gallons per quarter.

IV. REVENUE REQUIREMENTS

Evaluating the ability of the existing FY 2022 rates and charges to fund the forecast of annual revenue requirements is a crucial initial step in the rate-setting process. The total annual costs for a water and wastewater utility to provide services to its customers are referred to as the utility's annual revenue requirements. Revenue requirements include the utility's annual operating expenses, its annual capital expenditures, and intergovernmental transfers. 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 pay-as-you-go (paygo) 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 report provides a discussion of the projected annual operating and capital expenditures (revenue requirements) of the FIPSD's utility enterprise fund.

1. Operating Expenses

The first step in determining the program of water and wastewater user rates and charges is to develop the forecast of annual operating expenses for the water and wastewater utilities. The forecast of water and wastewater operating expenses during the five-year forecast period is based on the ***estimated*** FY 2023 Operating Budget, which serves as the base year of the forecast.[4] The FY 2023 operating expenses are forecasted to escalate based on anticipated annual increases in salaries of 5.0%, health insurance of 5.0%, retirement contributions of 5.0%, services and materials of 3.0%, and power and chemicals of 5.0%.

Since wholesale water costs represent a significant portion of the FIPSD's annual operating expenses, anticipated wholesale water rate increases by BJWSA have been incorporated into the forecast. These costs are forecasted based on anticipated wholesale unit rates per 1,000 gallons and projected demands for treated water delivered through a master meter located at just north of the Harbor River Bridge on St. Helena Island. The current wholesale rate of $2.97 per 1,000 gallons is billed monthly and the forecast assumes annual wholesale rate increases of 3.0% and annual growth in FIPSD water purchases of 3.0% during the five-year forecast period.

[4] At the time of this Draft Report, FIPSD has not adopted its FY 2023 Operating Budget. The proposed revenue requirements and costs of service analysis are based on an estimated budget which serves as the base year of the forecast. Once FIPSD has a proposed Operating Budget, Confluence recommends that FIPSD management update the revenue requirements and related analyses to reflect FIPSD's proposed budget as the base year of the forecast.

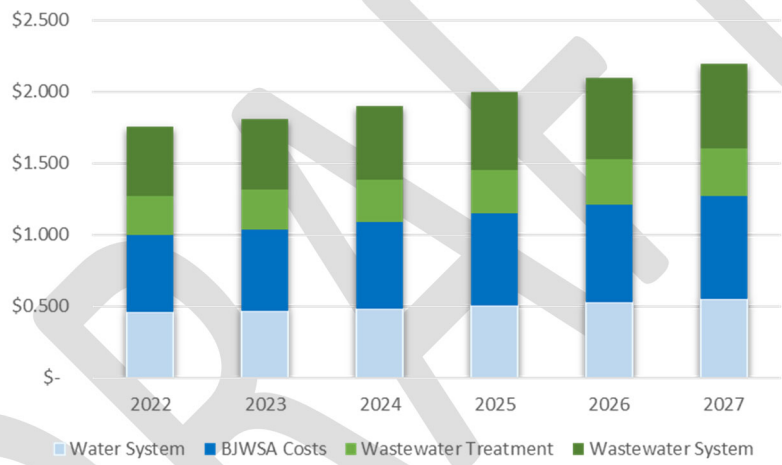
The current and projected wholesale water unit rates and projected annual water purchases and water purchase costs are presented in Table 6.

Table 6: Projected BJWSA Wholesale Water Unit Rates and Demands (per 1,000 gallons)

Projected Water Costs	2022	2023	2024	2025	2026	2027
BJWSA Wholesale Rate	$2.97	$3.06	$3.15	$3.24	$3.34	$3.44
Annual Purchases (1,000 gallons)	181,101	186,534	192,130	197,894	203,831	209,946
Estimated Annual Water Costs	**$537,870**	**$570,794**	**$605,210**	**$641,176**	**$680,795**	**$722,213**

The five-year projection of water and wastewater utility operating expenses are presented in Chart 5 below.

Chart 6: Projected Operating Expenses ($millions)



As Chart 6 demonstrates, the BJWSA wholesale water costs represent a significant portion of FIPSD's projected operating expenses (over 30%) during the five-year forecast. These water purchase costs are largely out of FIPSD'S control and represent a key driver for the water rate forecast.

2. Capital Expenditures

Generally, utilities utilize four different financing methods which includes rate funded capital, impact fee funds, debt, and grant funded capital when available. FIPSD has historically used rate funded capital for less significant and routine types of repairs and improvements, and debt funding to finance major system improvements. For debt, FIPSD has used State Revolving Fund (SRF) Loans repaid through the collection of ad valorem tax proceeds assessed against properties located within the FIPSD service area. While annual water and wastewater debt service is paid through tax proceeds as opposed to through the user charge revenues, FIPSD still must meet a 1.20x bond coverage revenue test on the bonds and has a policy goal of meeting a 1.40x revenue test.

A. Annual Cash Funded Capital Expenditures

While FIPSD does not have a formally adopted five-year capital improvements plan (CIP), our forecast includes estimated annual water and wastewater rate funded capital expenditures. These estimated capital costs are determined based on the marginal revenue needed to meet FIPSD's annual 1.40x policy goal for its bond coverage revenue test.

Table 7 provides a summary of the current FY 2022 capital expenditures and the five-year water and wastewater capital expenditures.

Table 7: Estimated Annual Rate Funded Capital Expenditures (FY 2022 through FY 2026)

Annual Rate Funded Capital	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Total
Water System	$60,000	$166,000	$250,000	$250,000	$250,000	$250,000	$1,226,000
Wells & Pumping	250,000	250,000	-	-	-	-	500,000
Sewer Lift Stations	-	-	50,000	50,000	50,000	50,000	250,000
Wastewater Treatment	-	100,000	100,000	100,000	100,000	100,000	500,000
Other Improvements	33,600	-	-	-	-	-	30,000
Total Water Capital Projects	**$343,600**	**$516,000**	**$400,000**	**$400,000**	**$400,000**	**$400,000**	**$2,459,600**

As Table 8 demonstrates, the estimated annual capital expenditures for water and wastewater during the five-year forecast period (FY 2023 through FY 2027) averages approximately $425,000 per year. Again, these capital expenditures are forecasted based on FIPSD's annual 1.40x policy goal for its bond coverage revenue test. The annual rate capital expenditures provide FIPSD with flexibility to perform repairs and replacements on its existing infrastructure. Should FIPSD not require capital expenditures in the amounts estimated in a given year, the user charge revenues should generate additional cash balances which can be accumulated to provide funds for capital expenditures in later years.

B. Annual Debt Service

Because FIPSD does not anticipate any major water or wastewater capital improvements during the five-year forecast period that would require additional debt issues, the only debt service related to the water and wastewater systems are the four debt issues currently outstanding. These include the 2004 SRF Loan, the 2014 SRF Loan, the 2014 Refunding Bonds (Vacuum Sewer), and the 2018 SRF Loan. All of these debt issues related to the wastewater system except the 2018 SRF Loan which was used to construct the Harbor River Water Line Replacement.

Table 8 presents the annual debt service on FIPSD's currently outstanding debt during the five-year planning period. Because all of the water and wastewater debt is repaid through millage assessed as part of the local ad valorem taxes, this annual debt service is not included in the annual revenue requirements that are recovered through annual water and wastewater user rates and charges.

Table 8: Forecast of Annual Debt Service Requirements (millions)

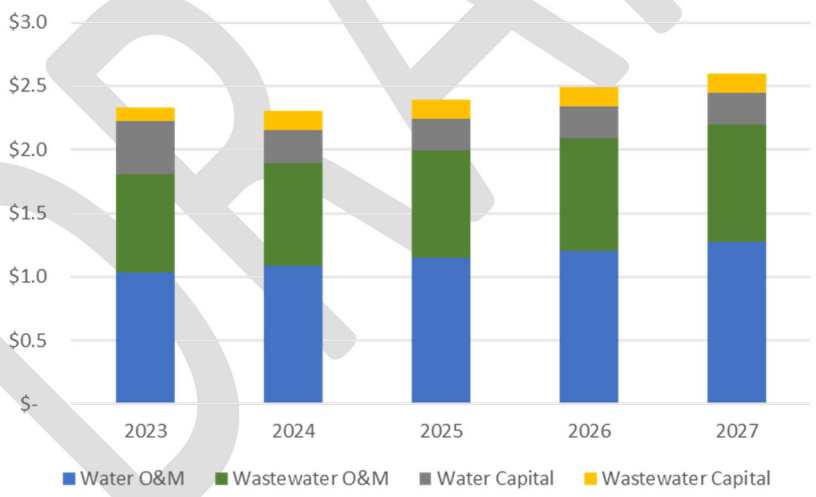
2004 G.O. Bond (WWTP)	2014 G.O. Bond (WWTP)	2014 Refunding - Vaccum Sewer	2018 SRF - Harbor River WL	Total Utility Debt Service
FY 2023	$ 382,156	$ 60,776	$ 363,967	$ 974,361
FY 2024	$ 382,156	$ 60,776	$ 363,902	$ 974,296
FY 2025	$ 382,155	$ 60,776	$ 363,835	$ 974,228
FY 2026	$ 382,155	$ 60,776	$ 363,767	$ 974,160
FY 2027	$ -	$ 60,776	$ 363,697	$ 591,935

3. Annual Revenue Requirements

The annual revenue requirements include the five-year forecast of operating expenses, wholesale water purchases, and the annual rate funded capital expenditures included in FIPSD's five-year financial plan. Because ad valorem taxes and vacuum sewer assessments are assessed on Fripp Island properties with the specific purpose of funding the annual debt service on the water and wastewater debt issues, the projection of annual revenue requirements excludes the debt service on the four debt issues related to water and wastewater. Each year, FIPSD makes an interfund transfers from its debt service fund to the water and wastewater fund in the appropriate amounts to fund general obligation debt.

Chart 7 presents the annual water and wastewater revenue requirements during the five-year forecast.

Chart 7: Forecast of Annual Revenue Requirements ($ in millions)



As Chart 7 demonstrates, the forecasted annual water and wastewater revenue requirements increase from approximately $2.3 million in FY 2023 to approximately $2.6 million in FY 2027.

A. Revenue Sufficiency and Recommended Rate Revenue Adjustments

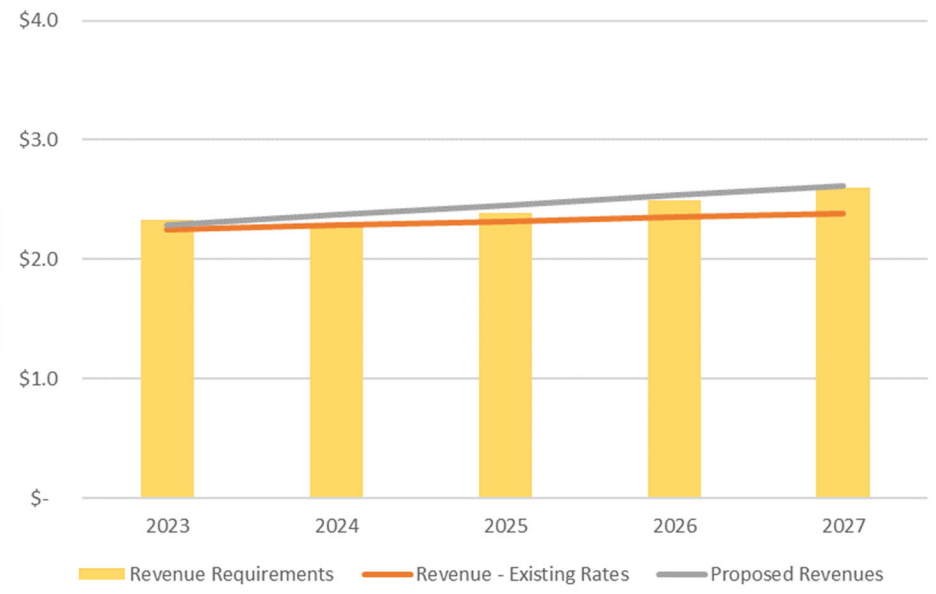
The next step of the Rate Study is to evaluate whether revenues under existing rates would be adequate, or sufficient to recover the projected revenue requirements over the five-year planning period. First, revenues were estimated under existing FY 2022 water and wastewater user rates and charges assuming

annual growth in new accounts and projected metered water use. Forecasted revenue under the current rates and charges were then compared to the annual revenue requirements of the water and wastewater systems. This analysis indicates that with inflationary cost increases, rate funded capital expenditures, and debt service coverage policy goals; anticipated customer demand and the existing user rates and charges are not sufficient to recover the annual revenue requirements for the water system or the wastewater system during the planning period. To maintain the FIPSD's minimum debt service coverage ratio of at least 1.40x; FIPSD will need to implement a program of annual adjustments to its water and wastewater rates.

To address projected revenue deficiencies and meet the FIPSD operating costs and financial policy targets during the five-year rate forecast period, Confluence recommends annual water rate increases of 2.0% and annual wastewater rate increases of 3.0% during each of the five-year rate forecast period. These recommended rate increases are consistent with anticipated annual inflation.

The estimated annual revenue sufficiency/deficiency under the existing water and wastewater rates and the projected forecast of water and wastewater rate adjustments to address the projected deficiencies are shown over a five-year planning period in Chart 8 below.

Chart 8: Revenue Sufficiency Under Recommended Rate Adjustments ($ in millions)



A key measure of a utility's financial strength is its debt service coverage ratio. The debt service coverage ratio measures the utility's performance in generating sufficient operating revenues to cover its debt service obligations. While the FIPSD's rate covenant requires a minimum debt coverage of 1.2x, FIPSD has established a debt coverage revenue test target policy of 1.4x for its water and wastewater system debt. As Table 9 demonstrates, the recommended rate adjustment program is expected to help FIPSD maintain this measure throughout the five-year rate forecast period.

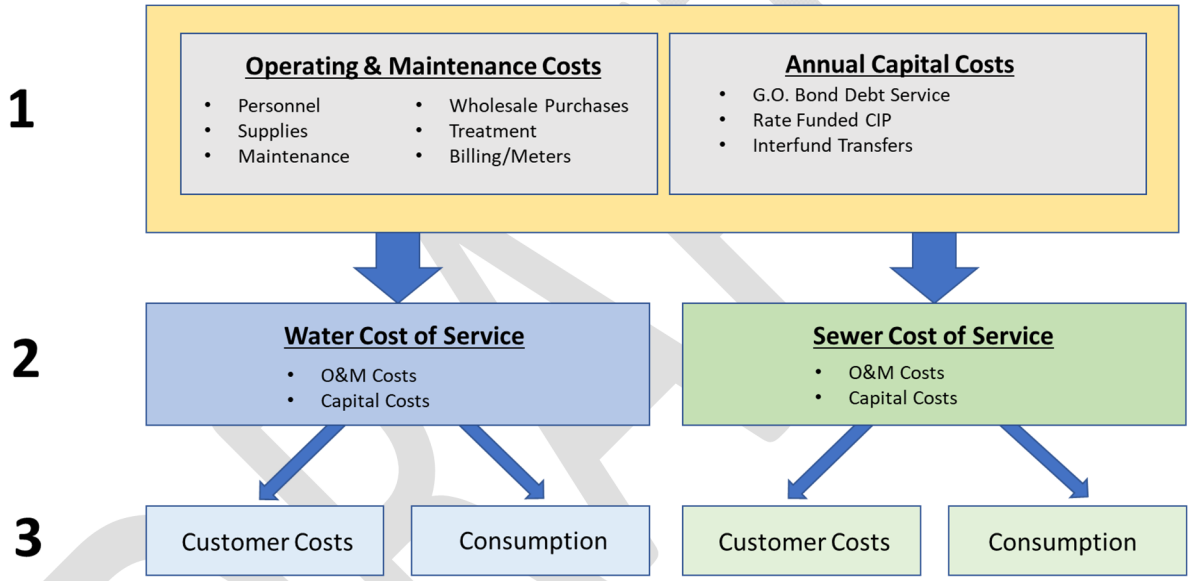
Table 9: Rate Adjustments and Debt Coverage During 10-Year Projection Period

	Recommended				
Rate Revenue Increases	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Water Rates	**2.00%**	**2.00%**	**2.00%**	**2.00%**	**2.00%**
Sewer Rates	**3.00%**	**3.00%**	**3.00%**	**3.00%**	**3.00%**
Combined Rates	**2.42%**	**2.36%**	**2.30%**	**2.24%**	**2.19%**
Debt Coverage	**1.47x**	**1.46x**	**1.45x**	**1.43x**	**1.66x**

V. COST OF SERVICE ANALYSIS

The previous section presented the forecast of annual revenue requirements and annual rate adjustment needed to fund operations and meet annual debt coverage goals. This Section describes the process and results of our analyses to allocate the estimated FY 2023 revenue requirements among the water and wastewater systems, functional cost categories, and the units of service related to the customer classes and demands. Chart 9 provides a diagram illustrating the process used to perform the costs of service analysis for the FIPSD.

Chart 9: Cost of Service Process



1. Determining Water and Sewer Cost of Service

FIPSD's estimated operating costs include on-going expenses related to general & administrative, water purchases from BJWSA, water system operations, wastewater treatment, lift stations, collection mains, and vacuum sewer system operations. Although many of these costs are segregated among water and wastewater within the utility budget, the general & administrative expenses are related to personnel and other costs to operate and support both the water and wastewater system. Based on conversations with FIPSD management, the time and costs of personnel is generally split equally among water and wastewater and the general & administrative operating costs are most appropriately allocated 50/50 among water and wastewater.

Table 10 summarizes the forecasted FY 2023 revenue requirements into broader expenditure categories and summarizes the allocation of the expenditures among water and sewer.

Table 10: Allocation of FY 2023 Utility Budget to Water and Sewer

Operating expenses	Utility	Water	Sewer
General & Administration	$ 750,161	$ 375,081	$ 375,081
Source of Supply/Treatment	570,794	570,794	
Pumping	14,817	14,817	
Transmission & Distribution	11,124	11,124	
Storage	48,080	48,080	
Meters	12,624	12,624	
Hydrants	3,090	3,090	
Treatment Costs	196,626		196,626
Sludge Disposal	84,000		84,000
Vaccum System	39,433		39,433
Collection Lines	37,185		37,185
Lift Stations/Electrictiy	32,540		32,540
Other	9,880		9,880
Subtotal Operating expenses	**$ 1,810,353**	**$ 1,035,609**	**$ 774,744**
Capital Expenditures			
Rate Funded Capital	$ 650,000	$ 400,000	$ 150,000
Annual Debt Service[1]	974,361	167,462	806,899
Subtotal Capital Expenditures	**$ 1,524,361**	**$ 567,462**	**$ 956,899**
TOTAL REVENUE REQUIREMENTS	**$ 3,334,715**	**$ 1,603,072**	**$ 1,731,643**

[1] Since all of FIPSD's utility debt is repaid through ad valorem taxes, annual debt service is funded annually through an interfund transfer from the debt service fund as opposed to being recovered through user rates and charges.

As Table 4 demonstrate, the costs of service allocations result in approximately $1.6 million of the combined $3.3 million in utility revenue requirements allocated to water and approximately $1.7 million allocated to sewer. Although the allocation of utility costs of service includes annual debt service, all of FIPSD's utility debt is repaid through ad valorem taxes and is therefore not recovered through user rates and charges. For more detail on the specific allocation factors for each budgetary line items to water and sewer, see Supporting Schedule 1 in Appendix A.

2. Allocating Water Costs to Base Charges and Consumption Rates

The next step is to allocate the water costs of service among the variable and fixed components of the user rate and charge structure. Variable costs are those expenditures that tend to vary with the total quantity of water use and costs consists of both base variable costs that are associated with providing service to customer under average load conditions and extra-capacity costs which are associated with meeting the peak demand use requirements that are in excess of average use. Customer costs are those expenditures associated with serving customers regardless of the amount or rate of water use.

The allocation of water costs to the volume and base user rate and charge categories is provided in Table 11 below.

Table 11: Allocation of Water Costs to User Charge and Rate Categories

		User Rate and Charge Category	
Cost Category	**Total**	**Volume**	**Customer**
General & Administrative	$ 375,081	$ -	$ 375,081
Source of Supply/Treatment	570,794	570,794	-
Pumping	14,817	14,817	-
Transmission & Distribution	11,124	11,124	-
Storage	48,080	48,080	-
Meters	12,624	-	12,624
Hydrants	3,090	-	3,090
Debt Service[1]	167,462	167,462	-
Rate Funded Capital	416,000	331,000	85,000
Total Water Costs	**$ 1,619,072**	$ 1,143,278	$ 475,794
Less Other Revenue[1]	(548,984)	(487,508)	(61,476)
Net Cost to Recover Through Rates	**$ 1,070,088**	**$ 655,770**	**$ 414,318**

Units of Service		
Annual Metered Water Use	**161,065**	
Equivalent Meter Units (Annual)		**8,262**
Per Unit Rates	**$ 3.95**	**$ 50.10**

[1] Annual water debt service is funded annually through an interfund transfer from the debt service fund. The interfund transfers equals the annual water debt service and is included in the other revenue that is offset against the volume costs.

A. Consumption Rate Calculations

The three consumption rates for each of the water rate alternatives are then determined in order to recover the variable costs that are allocated to the consumption rate component categories. The three consumption rates are determined to reflect the cost to serve essential water use, average water use, and discretionary water use.

- The essential use rate is set rate below the average water use rate as a discounted rate that provides an incentive for efficient water use and to recover costs associated with essential indoor water use. This rate is discounted because providing water for essential uses requires a minimal amount of system capacity under less than average load conditions.
- The average use rate represents the $3.95 per 1,000 gallons average unit rate for the total annual consumption of the system. The average use rate represents the unit rate to provide water under average load conditions.
- The discretionary use rate is set to recover extra capacity costs associated with providing water during peak demands and is determined based on recovering the variable costs not recovered through the essential use and average use rates. This rate is set at a premium as it recovers the marginal costs of providing extra capacity and purchasing additional water to serve peak periods.

The three consumption rates are determined to provide pricing differentials among the rates that are more closely aligned with the seasonal peak demand patterns of the FIPSD customer base. Table 12 presents the costs of service recovered through the three consumption rates under each of the water rate alternatives.

Table 12: Cost of Service Recovered Through Three-Tiered Consumption Rates

Alternative 1	Usage Interval (1,000 gals)	FY 2023 Cost of Service	FY 2023 Consumption	Consumption Rate	Price Differential
Essential Use	0-12	$ 178,047	59,349	$ 3.000	1.00
Average Use	12-36	$ 176,190	44,605	$ 3.950	1.32
Discretionary Use	>36	$ 301,238	62,111	$ 4.850	1.62
		$ 655,475	**166,065**		
Alternative 2					
Essential Use	0-12	$ 179,091	59,697	$ 3.000	1.00
Average Use	12-45	$ 209,299	52,987	$ 3.950	1.32
Discretionary Use	>45	$ 267,439	53,381	$ 5.010	1.67
		$ 655,828	**166,065**		
Alternative 3					
Essential Use	0-15	$ 203,496	67,832	$ 3.000	1.00
Average Use	15-45	$ 177,205	44,862	$ 3.950	1.32
Discretionary Use	>45	$ 274,861	53,371	$ 5.150	1.72
		$ 655,562	**166,065**		

The essential use costs of service are determined based on an essential use rate set at $3.00 per 1,000 gallons for each of the alternatives. This rate is discounted below the average use rate to encourage and reward wise water use and is multiplied by the consumption within the essential usage interval for each alternative.

The average use costs of service are determined based on the average use rate of $3.95 per 1,000 gallons multiplied by the consumption within the average usage interval for each alternative. This results in a price differential of 1.32x when compared to the essential use rate for each alternative.

The discretionary use costs of service represent the remaining variable costs of service for each alternative. The discretionary use rates are determined by dividing the essential use costs of service for each alternative by the consumption within the discretionary use interval for each alternative.

Because annual consumption within each of the usage intervals varies among the three alternatives, the discretionary use rate and resulting price differential varies under each alternative. Because increasingly more consumption occurs within the essential and average usage intervals under each alternative, the discretionary use rate and resulting price differentials are increasingly higher with each alternative. The price differentials for the discretionary use rate when compared to the essential use rate range from 1.62x to 1.72x. The greater the differential, the greater the pricing incentive for wise water use.

B. Base Charge Calculations

Customer costs tend to vary less with customer usage than the variable costs are recovered through the quarterly base charges. The customer costs include general & administrative costs associated with customer service and personnel costs that tend to remain more consistent during the year and on an annual basis. For this reason, these costs are typically recovered through fixed quarterly base charges. Because the water base charges are determined based on the same costs of service under each of the three alternatives, the water base charges are the same for each rate design alternative.

Table 13 presents the costs of service recovered through the water base charges under each of the water rate alternatives.

Table 13: Cost of Service Recovered Through Water Base Charges

Quarterly Base Charge Calculation	FY 2023 Cost of Service
Customer Costs	$ 413,832
Annual Equivalent Meter Units[1]	8,262
Quarterly Base Charge per Equivalent Residential Unit (ERU)	**$ 50.10**

[1] Annual equivalent meter units represents the number of customer account equivalents based on the number of multiple units served per meter and meter sizes. FIPSD's quarterly base charges are assessed based on the number of units served by a meter and charges higher base charges to commercial customers with larger meters that require more system capacity. The annual equivalent meter units represent the forecasted number of these equivalents that will be billed during FY 2023 (2,065 * 4 quarterly billings).

The quarterly water base charge calculated in Table 14 represents the base charge for an equivalent residential unit, or ERU. The ERU represents the typical single-family residential customer with a ¾-inch meter. This quarterly base charge per ERU is determined by applying capacity ratios to units and meter sizes that require varying amounts of water system capacity. These capacity ratios are applied to the $50.10 quarterly base charge per ERU to determine the various base charges assessed to larger meter commercial customers and customers with different capacity requirements such as hotel rooms. Table 17 presents the capacity ratios and updated quarterly base charges for the various FIPSD customers.

3. Allocating Wastewater Costs to Base Charges and Consumption Rates

Similar to water, the wastewater costs of service are allocated among the variable and fixed components of the wastewater user rate and charge structure. Variable costs are those expenditures that tend to vary with the total quantity and strength loads of wastewater that are discharged into the FIPSD wastewater system. Similar to water the customer costs are those expenditures associated with serving customers regardless of the amount or strength load of wastewater discharge are the customer costs.

The allocation of water costs to the volume and customer user rate and charge categories is provided in Table 14 below.

Table 14: Allocation of Wastewater Costs to User Charge and Rate Categories

		User Rate and Charge Category	
Cost Category	**Total**	**Volume**	**Customer**
General & Administrative	$ 375,081	$ -	$ 375,081
Treatment Costs	196,626	196,626	-
Sludge Disposal	84,000	84,000	-
Vaccum System	39,433	39,433	-
Collection Lines	37,185	37,185	-
Lift Stations/Electrictiy	32,540	32,540	-
Other	9,880	-	9,880
Debt Service[1]	806,899	-	806,899
Rate Funded Capital	100,000	32,000	68,000
Total Wastewater Costs	**$ 1,681,643**	**$ 421,784**	**$ 1,259,859**
Less Other Revenue[1]	(882,390)	(75,491)	(806,899)
Less Commercial Revenue[2]	(28,902)	(14,622)	(14,280)
Net Cost to Recover Through Rates	**$ 770,351**	**$ 331,671**	**$ 438,680**

Units of Service		
Annual Billable Wastewater Flows	**100,796**	
Equivalent Meter Units (Annual)		**6,821**
Per Unit Rates and Charges[3]	**$ 3.30**	**$ 50.10**

[1] Annual wastewater debt service is funded annually through an interfund transfer from the debt service fund and vacuum sewer assessments collected specifically to repay the 2014 Refunding Bonds. The interfund transfer and annual assessments equal the annual wastewater debt service and is included in the other revenue that is offset against the customer costs.

[2] Both wastewater rate design alternatives are designed to maintain the current FY 2022 commercial wastewater rates. For this reason, an offset for the estimated FY 2023 commercial consumption rate revenue is provided against the volume costs and an offset for the estimated FY 2023 commercial minimum charge revenue is provided against the customer costs.

[3] The $3.30 per 1,000 gallon consumption rate represents the consumption charge for wastewater rate design alternative 1, which incorporates a 36,000 gallon per quarter indoor water use cap. The per unit consumption rate for wastewater rate alternative 2 is $3.24 per 1,000 gallons as determined based on a 45,000 gallon per quarter indoor water use cap.

A. Residential Consumption Rate Calculations

Because the residential wastewater consumption rates for each wastewater rate alternative are uniform rates assessed per 1,000 gallons for all customer wastewater usage up to the indoor water use cap, a single consumption rate is calculated for each alternative based on all FY 2023 variable wastewater costs. Table 15 presents the costs of service recovered through the residential consumption rate determined for each of the wastewater rate alternatives.

Table 15: Cost of Service Recovered Through Residential Wastewater Consumption Rate

	Indoor Water Use Cap	FY 2023 Cost of Service	FY 2023 Consumption	Consumption Rate
Alternative 1	36,000	$ 331,671	100,796	$ 3.300
Alternative 2	45,000	$ 331,671	102,487	$ 3.240

Because alternative 1 has a lower indoor water cap of 36,000 gallons per quarter, the residential consumption rate for alternative 1 is slightly higher than the same rate determined for the higher 45,000 gallon per quarter indoor water use cap assumed for alternative 2.

B. Residential Base Charge Calculations

As with water, the customer costs that tend to vary less with customer usage than the variable costs are recovered through the quarterly residential base charges. The customer costs include general & administrative costs associated with customer service and personnel costs that tend to remain more consistent during the year and on an annual basis. For this reason, these costs are typically recovered through fixed quarterly base charges. Because the residential wastewater base charges are determined based on the same costs of service and customer assumptions under each of the two wastewater alternatives, the base charges for each rate design alternative are the same.

Table 16 presents the costs of service recovered through the residential wastewater base charges under both wastewater rate alternatives.

Table 16: Cost of Service Recovered Through Residential Wastewater Base Charge

Quarterly Base Charge Calculation	FY 2023 Cost of Service
Customer Costs	$ 438,680
Annual Equivalent Meter Units[1]	6,821
Quarterly Base Charge per Equivalent Residential Unit (ERU)	**$ 64.40**

[1] Annual equivalent meter units represents the number of customer accounts equivalents based on the number of multiple units served per meter and meter size. FIPSD's quarterly base charges are assessed based on the number of units served by a meter and charges higher base charges to commercial customers with larger meters that require more system capacity. The annual equivalent meter units represents the forecasted number of these equivalents that will be billed during FY 2023 (2,065 * 4 quarterly billings).

The quarterly residential wastewater base charge calculated in Table 17 represents the base charge for an equivalent residential unit, or ERU. The ERU represents the typical residential customer with a ¾-inch meter. Table 20 presents the updated quarterly base and minimum charges for the various FIPSD customers.

VI. ALTERNATIVE RATE STRUCTURES TO CONSIDER

A primary objective for this Rate Study is to identify opportunities to improve the customer equity and fairness of FIPSD's water and wastewater rate structures. The water and wastewater rate structure recommendations in this section are limited to modifications to the existing rate structures and are designed to recover the estimated FY 2023 costs of service for water and wastewater as discussed in Section V: Costs of Service Analysis. The rate structure alternatives are developed based on discussions with FIPSD management and rate design workshops with the Commissioners to identify the pricing objectives for developing potential rate modifications. Based on these discussions, Confluence developed three alternative water rate designs and two alternative wastewater rate designs.

The three water rate alternatives are similar as they each involve moving from the current four-tiered conservation rate structure to a more simplified three-tiered conservation rate structure. However, the three water alternatives each include:

- Modifying the current usage intervals to enhance water conservation incentives, and
- Determining consumption rates designed to recover a greater proportion of costs from discretionary water users during the seasonal summer months when residential occupancies and demand for water increase substantially.[5]

For wastewater, the alternative rate designs include developing a quarterly base charge and uniform wastewater consumption rate that can be applied to residential water use that is returned to the FIPSD wastewater collection system. Since outdoor and irrigation water use is not returned to the collection system, both alternatives incorporate a quarterly sewer usage cap set to be consistent with the average water usage threshold of the alternative water rate designs.

1. Water Rate Structure Alternatives

As part of the FY 2023 water cost of service analysis, Confluence calculated updated quarterly base charges assessed per unit and meter size for commercial customers with larger meters. Because they provide for higher water consumption, larger meters are typically charged higher base charges to recover the higher costs of system capacity they require. The updated quarterly base charges are the same under each of the water rate alternative and represent an increase when compared to the current quarterly base charges.

Table 17 presents the quarterly base charges under the current FY 2022 rate structure and the three alternative water rate designs.

[5] For more information on the seasonal water usage patterns, see Section III: Customer Demand Patterns and Growth.

Table 17: Quarterly Water Base Charges

Customer Class/Meter Size	Capacity Ratio[1]	FY 2022 Base Charge	FY 2023 Base Charge[2]
Residential	1.00	$ 46.00	$ 50.10
Hotel Room/Sunsuits	0.54	$ 25.00	$ 27.23
Off-Island[3]	1.40	$ 64.60	$ 70.36
Commercial/Irrigation			
¾" Meter	1.00	$ 46.00	$ 50.10
1" Meter	1.70	$ 78.20	$ 85.17
1.5" Meter	3.30	$ 151.80	$ 165.33
2" Meter	5.30	$ 243.80	$ 265.53
3" Meter	10.08	$ 463.80	$ 505.14
Hunting Island Fishing Pier	3.79	$ 174.20	$ 189.73
Hunting Island State Park	192.04	$ 8,833.83	$ 9,621.20

[1] The capacity ratio represents the potential capacity that different meter sizes can use in relation to the typical residential meter, or a ¾" meter. The updated FY 2023 base charges maintain the same capacity ratios used to determine the current quarterly base charges.

[2] The FY 2023 quarterly base charges are updated to recover fixed customer and meter reading costs.

[3] Off-Island includes those customers located on Harbor Island that receive water service from FIPSD.

The existing tiered rates and usage thresholds are not as equitable as they could be in recovering the higher costs of providing additional capacity to higher use seasonal residents and commercial customers. The seasonal usage patterns of FIPSD's residential customer base produces a seasonal peaking factor of approximately 2.25x when compared to average winter usage patterns, and an annual peaking factor of approximately 1.40x when compared to the average annual usage patterns. To improve customer equity and recover more of the costs of service from higher use customers that require extra capacity, the three water rate alternatives focus on modifying the usage interval thresholds to capture a greater portion of total water usage within the discretionary water usage interval. The three-tiered consumption rates under each alternative are determined based on the water revenue requirements and costs of service for FY 2023, as discussed in Section V: Costs of Service Analysis.

The consumption usage intervals for the three water rate designs and the FY 2023 annual water consumption forecasted to be captured within each of the usage intervals are presented in Table 18.[6]

[6] The annual water consumption estimated to be captured within the usage intervals is based on historical customer usage patterns and the estimated metered water use for the entire FIPSD customer base in FY 2023.

Table 18: Consumption Usage Intervals and Consumption for Alternative Water Rate Designs

	Conservation Usage Intervals (gallons)			
Rate Tier	**Current**	**Alternative 1**	**Alternative 2**	**Alternative 3**
Block 1	0 – 10,000	0 – 12,000	0 – 12,000	0 – 15,000
Block 2	10,001 – 50,000	12,001 – 36,000	12,001 – 45,000	15,001 – 45,000
Block 3	50,001 – 150,000	> 36,000	> 45,000	> 45,000
Block 4	> 150,000			

Rate Tier	**Estimated FY 2023 Consumption (1,000 gallons)**			
Block 1	53,132	59,349	59,697	67,832
Block 2	63,525	44,605	52,987	44,852
Block 3	29,394	62,111	53,381	53,381
Block 4	20,014			
Total Consumption	**166,065**	**166,065**	**166,065**	**166,065**

The three-tiered conservation rates in each alternative are also designed to provide a greater price differential for the average use and discretionary use consumption rates. The current consumption rate structure, while providing 4 usage intervals and consumption rates, only provides a $0.90 price differential between the tier 1 and tier 4 rates. This represents a differential between the lowest and highest consumption rate of only 1.25x, while the seasonal (2.25x) and annual (1.40x) peaking factors for the residential customer classes are much greater.

Table 19 presents the current and alternative consumption rates and the rate differentials among the various consumption rates in relation to the tier 1 consumption rates for each alternative.

Table 19: Consumption Rates and Rate Differentials of Alternative Water Rate Designs

	Consumption Rates (per 1,000 gallons of quarterly water use)			
Rate Tier	Current FY 2022	Alternative 1	Alternative 2	Alternative 3
Block 1	$ 3.65	$ 3.000	$ 3.000	$ 3.000
Block 2	$ 3.85	$ 3.950	$ 3.950	$ 3.950
Block 3	$ 4.25	$ 4.850	$ 5.010	$ 5.150
Block 4	$ 4.55			

Rate Tier	Consumption Rate Differentials			
Block 1	1.00	1.00	1.00	1.00
Block 2	1.05	1.32	1.32	1.32
Block 3	1.16	1.62	1.67	1.72
Block 4	1.25			

Again, it should be noted that the three-tiered consumption rates are determined based on the variable water costs of service for FY 2023. The essential use rate is set at $3.00 per 1,000 gallons for each of the alternatives to provide a discounted rate to encourage efficient water use.

The average use rate of $3.95 per 1,000 gallons is based on total variable costs divided by total system consumption and thus is the same for each of the alternatives. The average use rate results in a price differential of 1.32x when compared to the essential use rate.

The discretionary use rate for each alternative is calculated to recover the remaining variable costs of service in each alternative. Because annual consumption within each of the usage intervals varies among the three alternatives, the discretionary use rate and resulting price differential varies under each alternative. Because increasingly more consumption occurs within the essential and average usage intervals under each alternative, the discretionary use rate and pricing differentials are increasingly higher with each alternative, ranging from 1.62x to 1.72x.

For more detail on the water costs of service analysis, see Section V: Costs of Service Analysis.

2. Wastewater Rate Structure Alternatives

As part of the FY 2023 wastewater cost of service analysis, Confluence calculated a new residential quarterly base charge assessed per unit and a consumption charge per 1,000 gallons of indoor water use up to a quarterly cap. Under the two alternatives, the indoor water use cap is assumed to equal the average rate usage thresholds of the water alternatives, which is either 36,000 or 45,000 gallons per quarter. Confluence recommends maintaining the current commercial wastewater rate structure which includes a quarter minimum charge of $105.00 to all commercial customers, regardless of meter size, that includes a usage allowance for up to 22,500 gallons per quarter of commercial water use. All commercial water use above 22,000 gallons per quarter is charged the $6.30 per 1,000 gallons commercial consumption charge.

Table 20 presents the current and alternative wastewater rate structures.

Table 20: Quarterly Base Charges and Consumption Rates for Wastewater Rate Alternatives

Customer Category	Current FY 2022	Alternative 1	Alternative 2
Quarterly Flat/Base/Minimum Charge[1]			
Residential	$ 105.00	$ 64.40	$ 64.40
Commercial	$ 105.00	$ 105.00	$ 105.00
Hotel Room/Sunsuites	$ 56.00	$ 34.66	$ 34.66
Consumption Charges (per 1,000 gals)		*(36,000 cap)[2]*	*(45,000 cap)[2]*
Residential (For usage up to cap)	N/A	$ 3.30	$ 3.24
Commercial (above 22,500 gallons)	$ 6.30	$ 6.30	$ 6.30

1 Where a single water meter serves more than one unit, the base charge and minimum charge are multiplied by the number of units served.

2 The Hotel Room and Sunsuites units would not be provided a usage cap as all water use in these units is indoor water use.

The current rate structure recovers all of the residential wastewater costs of service through a $105.00 flat quarterly fee. Under this flat fee residential structure, all customers pay the same quarterly fee regardless of how much indoor water use is returned to the collection system.

Since outdoor and irrigation water use is not returned to the collection system, both alternatives incorporate a quarterly indoor water use cap set to be consistent with the average rate usage threshold for the comparable water rate alternatives. Because wastewater alternative 2 provides a larger indoor water use cap, the calculated rate per 1,000 gallons of quarterly water use is lower than the calculated rate for alternative 1.

For more detail on the water costs of service analysis, see Section V: Costs of Service Analysis. When evaluating alternative water and wastewater rate designs, it is crucial to consider the quarterly bill impacts on customers with varying levels of quarterly water consumption. The quarterly bill impacts are presented and discussed in the following section.

VII. COMPARE CUSTOMER BILL IMPACTS OF ALTERNATIVE RATE STRUCTURES

Section V presented and evaluated the costs of service differences, assumptions, and rate calculations for three alternative water and two alternative wastewater rate structures. To provide additional information for the Commissioners in selecting the rate alternatives they feel best meets the FIPSD's utility rate objectives, this section compares the immediate FY 2023 residential customer bill impacts of each alternative. Whenever a utility implements a new or modified rate structure, there will be winners and losers depending on their quarterly usage and demand patterns. Therefore, it is important to assess how customers at varying quarterly usage levels will be impacted by the rate structure modifications being evaluated.

To demonstrate the variety of customer bill impacts for each of the rate alternatives, Confluence calculated quarterly bills under a range of quarterly water consumption levels for residential customers (¾-inch meter) under each alternative. The ¾-inch meter class represents all residential customers and the majority of commercial customers. Because the water and wastewater rate alternatives may impact the same customer differently depending on the customer's quarterly metered water usage, this section presents a variety of water, wastewater, and combined utility bills.

1. Water Residential Customer Bill Impacts

Residential customers with ¾-inch meters represent approximately 94% of the FIPSD's water customers. Based on historical billing data, the typical FIPSD residential customer uses approximately 7,000 gallons per month, or 21,000 gallons per quarter.

A. Water Customer Bill Impacts (Alternative 1)

Table 21 presents the quarterly bills under water rate alternative 1 at various levels of quarterly water usage. Water rate alternative 1 is based on an essential usage interval of 0 to 12,000 gallons, an average usage interval of 12,001 to 36,000 gallons, and discretionary usage interval of all usage above 36,000 gallons per quarter.

Table 21: Residential Water Customer Impacts Under Alternative 1

Residential Water Customer (¾-inch Meter)				
Quarterly Usage	Current FY 2022	Proposed FY 2022 (Alternative 1)	Increase ($)	Increase (%)
4,000	$ 60.60	$ 62.10	$ 1.50	2.5%
8,000	$ 75.20	$ 74.10	$ (1.10)	-1.5%
16,000	$ 105.60	$ 101.90	$ (3.70)	-3.5%
21,000	$ 124.85	$ 121.65	$ (3.20)	-2.6%
32,000	$ 167.20	$ 165.10	$ (2.10)	-1.3%
50,000	$ 236.50	$ 248.80	$ 12.30	5.2%
100,000	$ 449.00	$ 491.30	$ 42.30	9.4%

The typical residential customer with 21,000 gallons of metered water use per quarter will experience a $3.20 decrease in their quarterly water bill under alternative 1, while higher use seasonal residential customers will experience increases to their quarterly water bill. The water rates under each of the alternatives are designed to encourage efficient water use by recovering more costs from seasonal residents that use more water use to meet outside water and higher occupancy demands.

B. Water Customer Bill Impacts (Alternative 2)

Table 22 presents the quarterly bills under water rate alternative 2 at various levels of quarterly water usage. Water rate alternative 2 is based on an essential usage interval of 0 to 12,000 gallons, an average usage interval of 12,001 to 45,000 gallons, and discretionary usage interval of all usage above 45,000 gallons per quarter.

Table 22: Residential Water Customer Impacts Under Alternative 2

Residential Water Customer (¾-inch Meter)				
Quarterly Usage	Current FY 2022	Proposed FY 2022 (Alternative 1)	Increase ($)	Increase (%)
4,000	$ 60.60	$ 62.10	$ 1.50	2.5%
8,000	$ 75.20	$ 74.10	$ (1.10)	-1.5%
16,000	$ 105.60	$ 101.90	$ (3.70)	-3.5%
21,000	$ 124.85	$ 121.65	$ (3.20)	-2.6%
32,000	$ 167.20	$ 165.10	$ (2.10)	-1.3%
50,000	$ 236.50	$ 241.50	$ 5.00	2.1%
100,000	$ 449.00	$ 492.00	$ 43.00	9.6%

The typical residential customer with 21,000 gallons of metered water use per quarter will also experience a $3.20 decrease in their quarterly water bill under alternative 2, while higher use seasonal residential customers will experience increases to their quarterly water bill. Although the discretionary use rate is higher under alternative 2, customers do not reach the discretionary usage interval until they reach 45,000 gallons per quarter which results in varying impacts for the higher use customers. The water rates under each of the alternatives are designed to encourage efficient water use by recovering more costs from seasonal residents that use more water use to meet outside water and higher occupancy demands.

C. Water Customer Bill Impacts (Alternative 3)

Table 23 presents the quarterly bills under water rate alternative 3 at various levels of quarterly water usage. Water rate alternative 3 is based on an essential usage interval of 0 to 15,000 gallons, an average usage interval of 15,001 to 45,000 gallons, and discretionary usage interval of all usage above 45,000 gallons per quarter.

Table 23: ¾-Inch Meter Residential Water Customer Impacts Under Alternative 2

Residential Water Customer (¾-inch Meter)				
Quarterly Usage	Current FY 2022	Proposed FY 2022 (Alternative 1)	Increase	
			($)	(%)
4,000	$ 60.60	$ 62.10	$ 1.50	2.5%
8,000	$ 75.20	$ 74.10	$ (1.10)	-1.5%
16,000	$ 105.60	$ 99.05	$ (6.55)	-6.2%
21,000	$ 124.85	$ 118.80	$ (6.05)	-4.8%
32,000	$ 167.20	$ 162.25	$ (4.95)	-3.0%
50,000	$ 236.50	$ 239.35	$ 2.85	1.2%
100,000	$ 449.00	$ 496.85	$ 47.85	10.7%

The typical residential customer with 21,000 gallons of metered water use per quarter will experience a $6.05 decrease in their quarterly water bill under alternative 3, while higher use seasonal user will experience increases to their quarterly water bill under alternative 2. Although the discretionary use rate is the highest under alternative 3, higher use customers are charged the $3.00 essential rate for an additional 3,000 gallons per quarter which provides a greater savings to customers with average to moderate quarterly usage levels. Thus, alternative 3 provides the greatest quarterly bill savings for the average use residential customer. The water rates under each of the alternatives are designed to encourage efficient water use by recovering more costs from seasonal residents that use more water use to meet outside water and higher occupancy demands.

2. Wastewater Residential Customer Bill Impacts

Residential wastewater customers represent nearly 99% of the FIPSD's wastewater customers. Based on historical billing data, the typical FIPSD residential customer uses approximately 7,000 gallons per month, or 21,000 gallons per quarter.

A. Wastewater Customer Bill Impacts (Alternative 1)

Table 24 presents the quarterly bills under wastewater rate alternative 1 at various levels of quarterly water usage. Because residential customers do not have separate irrigation meters, wastewater rate alternative 1 is based on a quarterly indoor water usage cap of 36,000 gallons per quarter. Because the indoor water usage cap it set to equal the threshold for the average use water usage interval, wastewater rate alternative 1 would be implemented in conjunction with water rate alterative 1.

Table 24: Residential Wastewater Customer Impacts Under Alternative 1

Residential Sewer Customer With ¾-inch Meter				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 105.00	$ 77.60	$ (27.40)	-26.1%
8,000	$ 105.00	$ 90.80	$ (14.20)	-13.5%
16,000	$ 105.00	$ 117.20	$ 12.20	11.6%
21,000	$ 105.00	$ 133.70	$ 28.70	27.3%
32,000	$ 105.00	$ 170.00	$ 65.00	61.9%
50,000	$ 105.00	$ 183.20	$ 78.20	74.5%
100,000	$ 105.00	$ 183.20	$ 78.20	74.5%

The typical residential customer with 21,000 gallons of metered water use per quarter will experience a $28.70 increase in their quarterly water bill under alternative 1, while higher use seasonal residents will experience a maximum quarterly wastewater bill of $183.20 for quarterly water use of 36,000 gallons or more. Similar to water, the wastewater rates under both alternatives are designed to encourage efficient water use by recovering more costs from high water users that typically have large vacation occupancies and more discretionary water use. However, wise water users and lower occupancy full-time residents are rewarded under both wastewater rate alternatives that provide lower quarterly base charges and consumption rates when compared to the current wastewater rate structure that assesses all customers a flat fee of $105.00 regardless of quarterly water use.

B. Wastewater Customer Bill Impacts (Alternative 2)

Table 25 presents the quarterly bills under wastewater rate alternative 2 at various levels of quarterly water usage. Wastewater rate alternative 2 is based on a quarterly indoor water usage cap of 45,000 gallons per quarter. Because the indoor water usage cap it set to equal the threshold for the average use water usage interval, wastewater rate alternative 2 would be implemented in conjunction with water rate alternatives 2 and 3.

Table 25: ¾-Inch Meter Residential Wastewater Customer Impacts Under Alternative 2

Residential Sewer Customer With ¾-inch Meter				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 105.00	$ 77.36	$ (27.64)	-26.3%
8,000	$ 105.00	$ 90.32	$ (14.68)	-14.0%
16,000	$ 105.00	$ 116.24	$ 11.24	10.7%
21,000	$ 105.00	$ 132.44	$ 27.44	26.1%
32,000	$ 105.00	$ 168.08	$ 63.08	60.1%
50,000	$ 105.00	$ 210.20	$ 105.20	100.2%
100,000	$ 105.00	$ 210.20	$ 105.20	100.2%

The typical residential customer with 21,000 gallons of metered water use per quarter will experience a $27.44 increase in their quarterly water bill under alternative 2, while higher use seasonal residents will

experience a maximum quarterly wastewater bill of $210.20 for quarterly water use of 45,000 gallons or more.

3. Combined Utility Residential Customer Bill Impacts

The typical FIPSD residential customer uses approximately 7,000 gallons per month, or 21,000 gallons per quarter.

A. Combined Utility Customer Bill Impacts (Alternative 1)

Table 26 demonstrates how residential customers receiving both water and sewer services at different amounts of quarterly water use will be impacted by implementing the water and wastewater rates under rate alternative 1.

Table 26: ¾-Inch Meter Residential Combined Utility Customer Impacts Under Alternative 1

Residential Water & Sewer Customer With ¾-inch Meter				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 165.60	$ 139.70	$ (25.90)	-15.6%
8,000	$ 180.20	$ 164.90	$ (15.30)	-8.5%
16,000	$ 210.60	$ 219.10	$ 8.50	4.0%
21,000	$ 229.85	$ 255.35	$ 25.50	11.1%
32,000	$ 272.20	$ 335.10	$ 62.90	23.1%
50,000	$ 341.50	$ 432.00	$ 90.50	26.5%
100,000	$ 554.00	$ 674.50	$ 120.50	21.8%

Based on the modifications to the water and wastewater rate structures under rate alternative 1, the typical residential customer with 21,000 gallons of metered water per quarter will experience a $25.50, or 11.1% increase in their quarterly utility bill. It should be noted that the quarterly increase to the average residential customer relates entirely to the implementation of the residential wastewater consumption rate structure, as this customer receives a reduced quarterly water bill. The impact to the average customer demonstrates the inequity of the current flat rate wastewater charge assessed to all wastewater customers regardless of their quarterly water use.

Furthermore, the 21,000 gallons per quarter represents average annual water use per customer which includes the higher seasonal summer demands which reflect the higher occupancies of vacation residents. As mentioned in Section III, the demand patterns by full-time residents tend to average around 13,000 gallons per quarter and the quarterly bills for these customers will result in a slight decrease in their combined utility bill under all rate alternatives.

B. Combined Utility Customer Bill Impacts (Alternative 2)

Table 27 demonstrates how residential customers receiving both water and sewer services at different amounts of quarterly water use will be impacted by implementing the water and wastewater rates under rate alternative 2.

Table 27: ¾-Inch Meter Residential Combined Utility Customer Impacts Under Alternative 2

Residential Water & Sewer Customer With ¾-inch Meter				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 165.60	$ 139.46	$ (26.14)	-15.8%
8,000	$ 180.20	$ 164.42	$ (15.78)	-8.8%
16,000	$ 210.60	$ 218.14	$ 7.54	3.6%
21,000	$ 229.85	$ 254.09	$ 24.24	10.5%
32,000	$ 272.20	$ 333.18	$ 60.98	22.4%
50,000	$ 341.50	$ 451.70	$ 110.20	32.3%
100,000	$ 554.00	$ 702.20	$ 148.20	26.8%

Based on the modifications to the water and wastewater rate structures under rate alternative 2, the typical residential customer with 21,000 gallons of metered water per quarter will experience a $24.24, or 10.5% increase in their quarterly utility bill. It should be noted that the quarterly increase to the average residential customer relates entirely to the implementation of the residential wastewater consumption rate, as this customer receives a reduced quarterly water bill. The impact to the average customer demonstrates the inequity of the current flat rate wastewater charge assessed to all wastewater customers regardless of their quarterly water use.

Furthermore, the 21,000 gallons per quarter represents average annual water use per customer which includes the higher demands during the seasonal summer months which reflect the higher occupancies of vacation residents. As mentioned in Section III, the demand patterns by full-time residents tend to average around 13,000 gallons per quarter and the quarterly bills for these customers will result in a slight decrease in their combined utility bill under all of the rate alternatives.

C. Combined Utility Customer Bill Impacts (Alternative 3)

Table 28 demonstrates how residential customers receiving both water and sewer services at different amounts of quarterly water use will be impacted by implementing the water and wastewater rates under rate alternative 3.

Table 28: ¾-Inch Meter Residential Combined Utility Customer Impacts Under Alternative 3

Residential Water & Sewer Customer With ¾-inch Meter				
Quarterly Usage	Current FY 2021	Proposed FY 2022	Increase	
			($)	(%)
4,000	$ 165.60	$ 139.46	$ (26.14)	-15.8%
8,000	$ 180.20	$ 164.42	$ (15.78)	-8.8%
16,000	$ 210.60	$ 215.29	$ 4.69	2.2%
21,000	$ 229.85	$ 251.24	$ 21.39	9.3%
32,000	$ 272.20	$ 330.33	$ 58.13	21.4%
50,000	$ 341.50	$ 449.55	$ 108.05	31.6%
100,000	$ 554.00	$ 707.05	$ 153.05	27.6%

Based on the modifications to the water and wastewater rate structures under rate alternative 3, the typical residential customer with 21,000 gallons of metered water per quarter will experience a $21.39, or 9.3% increase in their quarterly utility bill. It should be noted that the quarterly increase to the average residential customer relates entirely to the implementation of the residential wastewater consumption rate, as this customer receives a reduced quarterly water bill. The impact to the average customer demonstrates the inequity of the current flat rate wastewater charge assessed to all wastewater customers regardless of their quarterly water use.

Furthermore, the 21,000 gallons per quarter represents average annual water use per customer which includes the higher demands during the seasonal summer months which reflect the higher occupancies of vacation residents. As mentioned in Section III, the demand patterns by full-time residents tend to average around 13,000 gallons per quarter and the quarterly bills for these customers will result in a slight decrease in their combined utility bill under all of the rate alternatives.

VIII. COMPARISON WITH OTHER LOCAL UTILITIES

One of the Commission's objectives is maintaining competitive water and wastewater rates for the typical residential customer in comparison to similar customers in other coastal utilities in the Low Country of South Carolina. Therefore, a comparison of the monthly bills for the typical residential customer under the proposed FY 2022 user rates and charges to the monthly bills assessed to similar customers in other local communities provides a benchmark when considering the impact of the proposed rate increases and rate structure alternatives.

Table 29 provides a comparison of the typical monthly combined water and wastewater bills for FIPSD and twelve (12) other utilities in South Carolina. Again, for comparison purposes a typical customer is assumed to use 21,000 gallons per quarter, or 7,000 gallons per month. Since all of the comparison utility's bill on a monthly basis, the comparison is based on a monthly usage of 7,000 gallons. The average FIPSD residential bill is based on the 21,000 gallon per quarter bill divided by three months.

Table 29: Comparison of Typical Monthly Customer Bills with Local Communities

	User Rates and Charges (7,000 gal/month)		
Utility/Community	**Water**	**Sewer**	**Total**
Sullivan's Island	$ 52.29	$ 99.57	$ 151.86
Isle of Palms	$ 41.20	$ 80.50	$ 121.70
Charleston Water System	$ 29.10	$ 91.09	$ 120.19
Mount Pleasant Waterworks	$ 44.37	$ 62.25	$ 106.62
Seabrook Island	$ 59.55	$ 45.60	$ 105.15
Dorchester County	$ 46.43	$ 50.20	$ 96.63
Beaufort-Jasper	$ 34.10	$ 59.00	$ 93.10
Average (Excluding FIPSD)	$ 36.63	$ 54.47	$ 91.09
Berkeley County	$ 42.17	$ 44.00	$ 86.17
Fripp Island (Alternative 1)	**$ 40.55**	**$ 44.57**	**$ 85.12**
Fripp Island (Alternative 2)	**$ 40.55**	**$ 44.15**	**$ 84.70**
Fripp Island (Alternative 3)	**$ 39.60**	**$ 44.15**	**$ 83.75**
Fripp Island (Current FY 2022) Rates	**$ 41.62**	**$ 35.00**	**$ 76.62**
Hilton Head Island PSD	$ 26.79	$ 32.50	$ 59.29
Broad Creek PSD	$ 16.38	$ 37.08	$ 53.46
South Island PSD	$ 21.81	$ 27.79	$ 49.60
Summerville Public Works	$ 25.31	$ 24.00	$ 49.31

As the comparison demonstrates, under its current FY 2022 water and wastewater rates, FIPSD is well below the average of the comparison group as FIPSD utility customers currently enjoy lower utility rates and charges among its local peer communities. Even under the three rate alternatives designed to recover the estimated FY 2023 costs of service, the typical FIPSD residential customer's utility bill rank in the bottom half of the peer communities and below the average of the comparison group. Because it is likely that many, if not all, of these communities will adopt water and wastewater rate increases for FY 2023 to

address rising costs associated with inflation and increased costs of capital construction, the FIPSD residential customer bills should remain well below the utility bills of similar residential customers in the Low Country region of South Carolina.

APPENDIX A