SMITHVILLE STAFF

REPORT

Date:	June 21, 2022
Prepared By:	Stephen Larson, Finance Director
Subject:	Raftelis Utility Rate Study

On April 4, 2022, the Board of Aldermen approved Resolution 1041 to hire Raftelis Financial Consultants for the completion of a long-range utility rate study. Staff provided Raftelis Financial Consultants with current and past utility consumption data, current/and past budget and financial data, the City's CWWS reserve policy, and current/past user fees and charges.

Following the first visit with Raftelis, staff continued to sharpen budgets and evaluate expenses. Staff made the determination to utilize more wastewater impact fees on plant expansion engineering to mitigate the projected increases in wastewater rates. Personnel expenses in the fund will grow as the proposed FY2023 budget for the CWWS Fund includes the addition of a crew leader at the water plant which is a necessary addition for the sake of maintaining a safe environment in case of incident. The operating budget also continues to increase with inflation as items such as chemical costs for treating water and wastewater and fuel have skyrocketed. Raftelis covers these inflationary trends in the presentation.

For the FY2023 fiscal year, Raftelis has recommended an **8.5%** increase in the water fixed and volume charge and a **15%** increase in wastewater fixed and volume charge. The 5 Year CIP is a major factor in the ongoing projected annual rate increases. The City is planning to replace aging, corroded waterlines which are scheduled in the CIP for FY2023. Inflation has driven projects costs even higher than before. Water and wastewater plant expansion projects are in the City's horizon and the ability to afford debt financing for these projects hinges on having sufficient revenues. In addition, Raftelis has a 25% reserve target recommendation which can be discussed (current CWWS policy is to hold 20% of budgeted expenditures in reserves).

Raftelis also made recommendations to finance debt on a 30-year schedule. This schedule helps with capital improvement project financing and affordability. In addition, water and wastewater infrastructure assets have an expected depreciable life of 30+ years.

Raftelis has provided this 5 Year Operating Reserve graph to indicating the projected pattern of fund balance and target reserves. This rate model reflects ongoing 9.5% increases in water rates and 15% increases in wastewater rates. From FY2023 through FY2023, the rate model indicates sufficient target reserves in the CWWS Fund, with some variation as larger infrastructure projects are completed.



The cash flow forecast indicates that if utility rates did not change over the next 10 years, revenues would only be sufficient to pay for Operations/Maintenance and existing debt service and rate funded capital/newly financed projects could not be afforded. Rate increases are necessary to make system wide improvements.



Raftelis has also provided a 5,000 gallon monthly water and wastewater bill comparison. (actual monthly water and wastewater average usage is slightly lower in the City of Smithville than 5,000 gallons). Currently (2022 column below), the average bill (without trash) is about \$103 for the 5,000 gallon user. This amount grows \$12 to a total of \$115 in 2023 with the proposed water and wastewater rates. Smithville continues to remain



competitive to surrounding cities even with theses rate increases and this graphic does not depict any potential rate increases these surrounding cities may also approve.

Raftelis has also provided recommendations for impact fees. Raftelis determined the need to increase impact fees based upon the cost to add capacity for each type of meter size (buy-in approach). There is a methodology for calculating how much water and wastewater capacity a 1" Meter, 2" Meter, 3" Meter, 4" Meter, and 6" Meter will add to the utility system. The fees are based on the meter size since potential capacity is proportional to the flow through each meter. The proposed impact fees are designed to pay for and accommodate that capacity based upon the expected cost of system/plant expansion projects and the cost of providing a unit of capacity.

Staff is continuing to submit and apply for a variety of grant opportunities to fund both water and wastewater infrastructure projects. When/if grant opportunities are approved/received, staff will update the utility rate study to include this influx of grant revenue into the fund rate model. Each year, during the budget process, staff will update the rate model so these future projected utility rates are evaluated against the actual financial activity that occurred.

The projected water and wastewater rates, given the current rate model, is presented below:

Water Dates	FY 2022		F	Y 2023	FY 2024 Forecast		F	Y 2025	F	Y 2026	F	Y 2027	
water Rates	A	Actual		orecast			Forecast		Forecast		Fo	orecast	
Service Charge													
1" or Smaller	\$	11.77	\$	12.89	\$	14.12	\$	15.47	\$	16.94	\$	18.55	
2"		55.62		60.91		66.70		73.04		79.98		87.58	
3"		109.15		119.52		130.88		143.32		156.94		171.85	
4"		170.29		186.47		204.19		223.59		244.84		268.10	
6"		339.92		372.22		407.59		446.32		488.73		535.16	
Volume Rate (1,000 Gal.)													
Retail	\$	8.33	\$	9.13	\$	10.00	\$	10.95	\$	12.00	\$	13.14	
Wholesale		4.98		5.46		5.98		6.55		7.18		7.87	
Course Dates	F	(2022	FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		
Sewer Rates	A	Actual		Forecast		Forecast		Forecast		Forecast		Forecast	
Service Charge													
1" or Smaller	Ś	16.02	Ś	18.43	Ś	21.20	Ś	24.38	Ś	28.04	Ś	32.25	
2"		77.46		89.08		102.45		117.82		135.50		155.83	
3"		164.52		189.20		217.58		250.22		287.76		330.93	
4"		238.13		273.85		314.93		362.17		416.50		478.98	
6"		474.42		545.59		627.43		721.55		829.79		954.26	
Volume Rate (1,000 Gal.)	\$	6.68	\$	7.69	\$	8.85	\$	10.18	\$	11.71	\$	13.47	

City of Smithville

Water and Sewer Rate Study

June 2022





- **1.** Rate Study Process
- 2. Proposed Financial Plan
- 3. Impact Fees
- 4. Discussion and Questions

Financial Planning Process

FINANCIAL PLAN ELEMENTS

CAPITAL PROJECT FUNDING Funding Mix Debt (Cash/Debt) **Covenants FINANCIAL PLAN INPUTS** • Customer accounts **ANNUAL REVENUE** • Billed consumption **ANNUAL CASH FLOW** REQUIREMENTS • Revenues • Operating expenses • Capital plan Beginning cash position **FISCAL POLICIES AND TARGETS** Cash **Debt Service**

Coverage

Reserves

3

Current Rates

- Fixed monthly charge based on meter size.
- Volume charge per 1,000 gallons of water used

Current Rates	Water	Sewer
Service Charge	\$ 11 77	\$ 16.02
2" 3"	55.62 109.15	77.46 164.52
4" 6"	170.29 339.92	238.13 474.42
Volume Rate (1,000 Gal.) Retail Wholesale	8.33 4.98	6.68

Financial Plan Assumptions

Demand

- > 350 total new accounts from 2023 to 2025, then 25 per year
- > -1.5% water use per retail account each year
- Demand elasticity of .25 for every 10% rate increase, customers will reduce their water use by 2.5%
- Inflation
 - 5% in 2024 and 2025, then 3% annual increases for salaries and general expenses
 - > 8% benefits each year

Reserve target of 25% of O&M and debt service

Capital Improvement Plan

- Water Treatment Plant
 - > \$1 million improvement project in 2023
 - > \$16 million expansion in 2028
- Distribution System
 - > Miscellaneous projects identified through 2024
 - > Forecasted \$1.5 million per year from 2025 2032 for additional projects

Capital Improvement Plan

- Wastewater Treatment Plant
 - > \$6.9 million expansion in 2026
- Collection System
 - > \$4.2 million for 144th Street and West Bypass Lift Stations
 - > \$5.3 million Owens Branch Gravity Lines
 - > \$500 thousand per year ongoing for future projects

Rate and Financing Recommendations

- Increase water rates by 8.5% each year from 2023 to 2032
- Increase sewer rates by 15% each year from 2023 to 2028, then 5%
 - > Combined water and sewer bill increase of about 12% per year
- Issue bonds for:
 - > 144th Street and West Bypass Lift Stations in 2023
 - > Wastewater Treatment Plant engineering and construction in 2024
 - > Owens Branch Gravity Line 1 in 2024
 - > Owens Branch Gravity Line 2 in 2025
 - > Water Treatment Plant Expansion engineering and construction in 2026
- Total bond issues of \$34 million
- Total annual debt service of \$2.7 million in 2029

Cash Flow Forecast



Operating Reserve



Water and Sewer Bill Comparison – 5,000 Gallons



Water Sewer

Customer Impacts

Combined Bills		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
		Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Meter Size	Volume						
1" or Smaller	3	\$ 72.82	\$ 81.40	\$ 91.05	\$ 101.92	\$ 114.18	\$ 128.03
1" or Smaller	5	102.84	114.86	128.37	143.58	160.72	180.07
1" or Smaller	10	177.89	198.51	221.67	247.73	277.07	310.17
2"	20	433.28	484.03	541.13	605.47	677.99	759.88
2"	50	883.58	985.93	1,100.93	1,230.37	1,376.09	1,540.48
4"	100	1,909.42	2,131.62	2,381.41	2,662.70	2,979.53	3,337.08
4"	1,000	15,418.42	17,188.62	19,175.41	21,409.70	23,922.53	26,755.08
6"	10,000	150,914.34	168,214.41	187,627.60	209,455.74	234,000.89	261,665.41
Combined Annu	ual Increase	2	11.69%	11.76%	11.85%	11.94%	12.04%
Cumulative Combined Increase		11.69%	24.82%	39.61%	56.28%	75.10%	

Proposed Rates

Water Pates		FY 2022		FY 2023		FY 2024		FY 2025		FY 2026		FY 2027	
water Rates	Actual		Fo	orecast	Fo	orecast	Fo	orecast	Fo	orecast	Forecast		
Service Charge													
1" or Smaller	\$	11.77	\$	12.78	\$	13.87	\$	15.05	\$	16.33	\$	17.72	
2"		55.62		60.35		65.48		71.05		77.09		83.65	
3"		109.15		118.43		128.50		139.43		151.29		164.15	
4"		170.29		184.77		200.48		217.53		236.03		256.10	
6"		339.92	368.82		400.17		434.19		471.10			511.15	
Volume Rate (1,000 Gal.)													
Retail	\$	8.33	\$	9.04	\$	9.81	\$	10.65	\$	11.56	\$	12.55	
Wholesale		4.98		5.41		5.87		6.37		6.92		7.51	
	FY 2022		FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		
Sewer Rates	Actual		Fo	orecast	Forecast		Forecast		Forecast		Forecast		
Service Charge													
1" or Smaller	\$	16.02	\$	18.43	\$	21.20	\$	24.38	\$	28.04	\$	32.25	
2"		77.46		89.08		102.45		117.82		135.50		155.83	
3"		164.52		189.20		217.58		250.22		287.76		330.93	
4"		238.13		273.85		314.93		362.17		416.50		478.98	
6"		474.42		545.59		627.43		721.55		829.79		954.26	
Volume Rate (1,000 Gal.)	\$	6.68	\$	7.69	\$	8.85	\$	10.18	\$	11.71	\$	13.47	

13

Impact Fees



Impact Fee Overview

- Estimate of the cost of providing a unit of capacity
- Fees based on meter size, since potential capacity is proportional to the flow through each meter
- Ensure that new customers are on equal equity footing with existing customers

Impact Fee			С	Current		Proposed							
Schedule	Water		Sewer		Total		Water		Sewer		Total		
Meter Size													
1"	\$	2,400	\$	2,800	\$ 5,200	\$	3,100	\$	2,800	\$	5,900		
2"		4,800		5,600	10,400		9,900		8,960		18,860		
3"		7,200		8,400	15,600		21,660		19,600		41,260		
4"		9,600		11,200	20,800		38,980		35,280		74,260		
6"		14,400		16,800	31,200		86,610		78,400		165,010		

Impact Fee Comparison – Single Family Residential





Thank you!

Contact:

Tom Beckley 816-285-9024 / tbeckley@raftelis.com