



City of Tomball

2023 Water Wastewater and Gas Rate Study and Financial Forecast

Preliminary Rate Recommendations Council Workshop



November 2023

Water and Wastewater Utility Analysis and Recommendations

City of Tomball

Current Water and Wastewater Rates



Residential Water Monthly Rates

Base Rate

Small (0-10,000 Gallons)	\$	11.55
Medium (10,001-15,000 Gallons)		13.29
Large (15,001-Above Gallons)		15.29

Usage Charge (per 1,000 Gallons)

-	10,000	3.02
10,001	15,000	3.77
15,001	Above	4.72

Commercial Water Monthly Rates

Small (0-5,000 Gallons)	\$	19.56
Medium (5,001-51,000 Gallons)		31.48
Large (51,001-Above Gallons)		55.11

Usage Charge (per 1,000 Gallons)

-	5,000	3.66
5,001	51,000	4.58
51,001	Above	5.72

Bulk Water Sales

Base Rate	\$	92.27
Usage Charge (per 1,000 Gallons)		5.12

North Harris County Regional Water Authority Surcharge

The City collects additional surcharges, based on rates established by NHCRWA, adjusted as surcharge increases

10/1/2023 Surcharge (per 1,000 Gallons)	\$	3.60
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Customers Receiving Potable Water

Residential Rates

Base Rate	\$	10.23
Volume Rate (per 1,000 Gallons)		3.57

Commercial Rates

Base Rate	\$	24.91
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Usage Charge (per 1,000 Gallons)

Small (0-5,000 Gallons)	4.53
Medium (5,001-51,000 Gallons)	5.65
Large (51,001-Above Gallons)	7.07

Customers Not Receiving Potable Water

Residential Rates

Base Rate	\$	41.93
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Commercial Rates

Base Rate	\$	69.78
Drain Charge (in excess of 15)		2.78

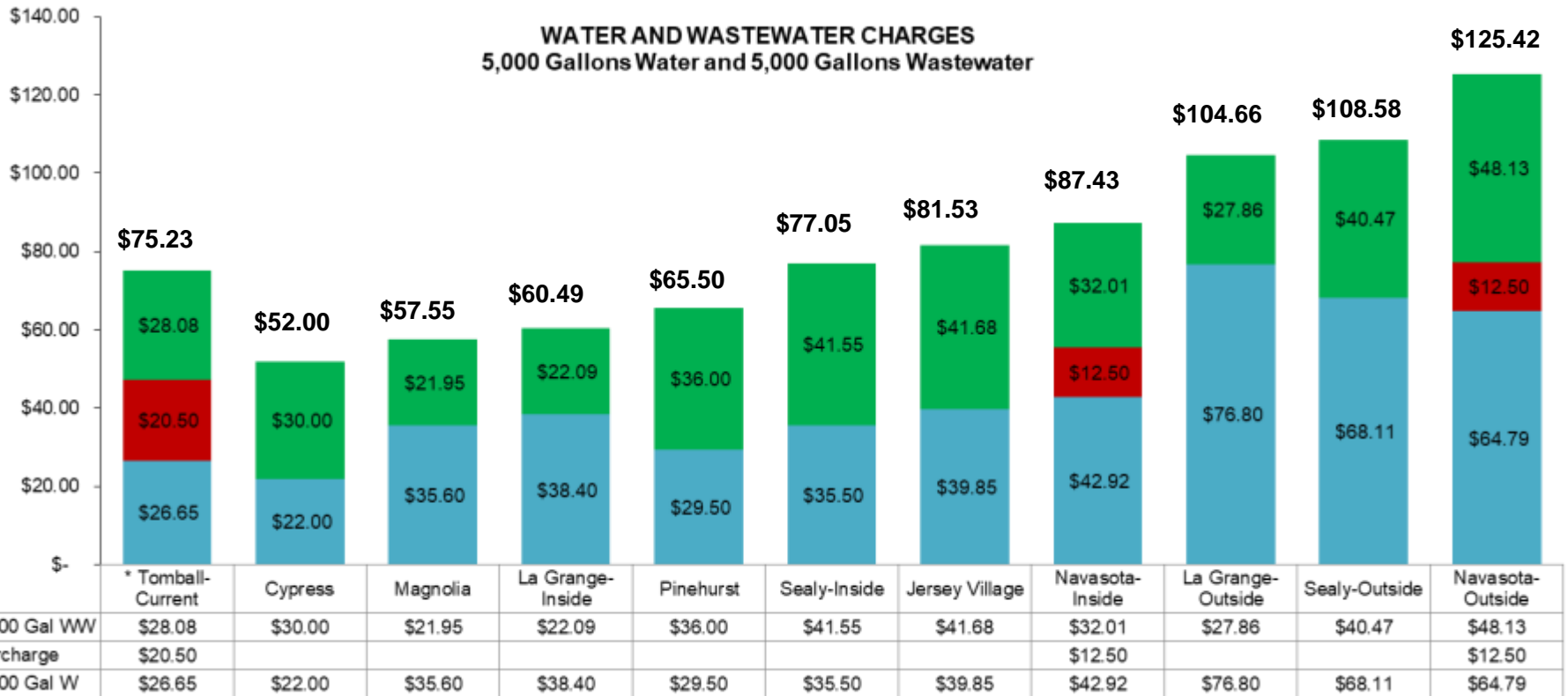
Note 1:

Residential Volumetric Charges are based on the average of water usage in the winter months of November - February

Note 2:

The City does not assess different rates for accounts of any rate class outside of City limits

Total Monthly Residential Charge 5,000 Gallons Water & 5,000 Gallons WW



FY 2023 (Test Year) Water and Wastewater Accounts

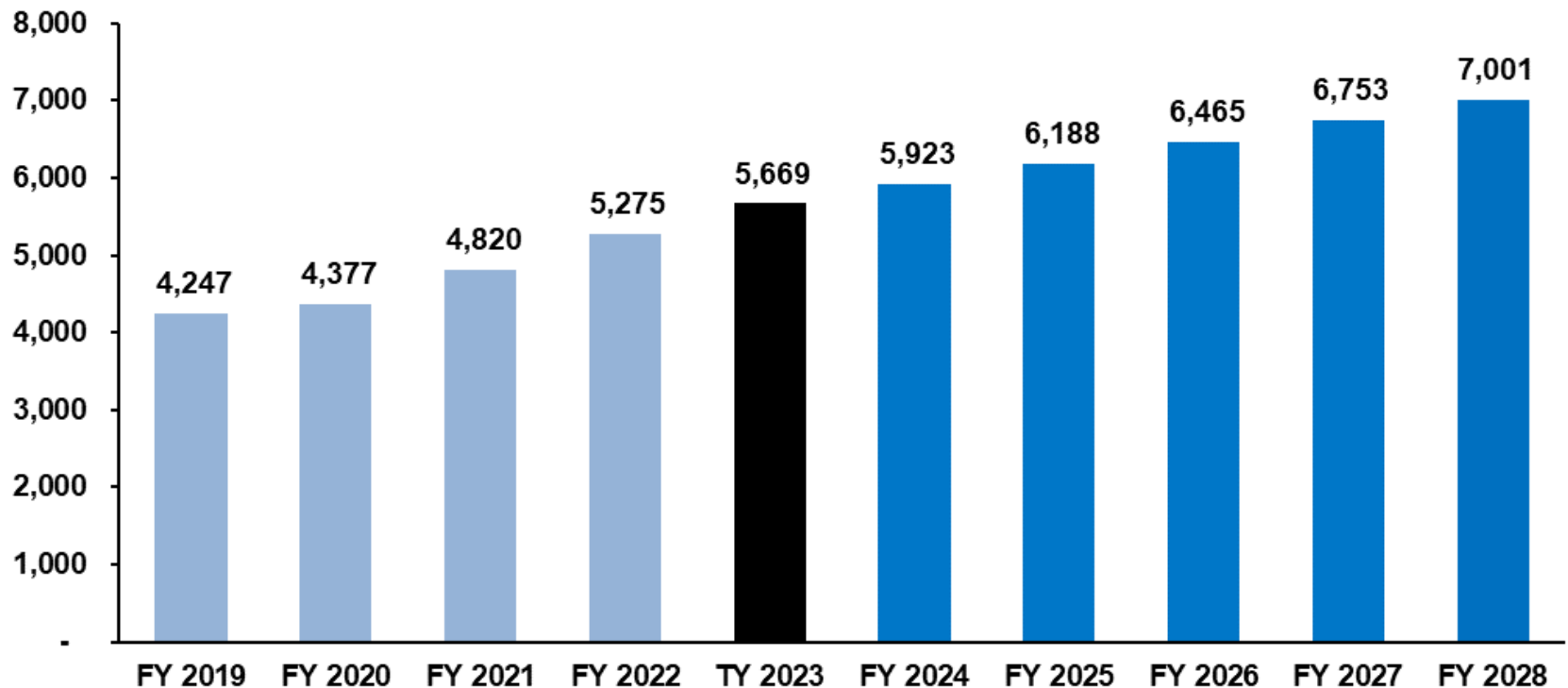


WATER Customers		WASTEWATER Customers	
Residential	4,268	Residential	3,558
Commercial	1,326	Commercial	819
Municipal	74	Municipal	23
ResidentialOutside	-	Residential Sewer Only	20
CommericalOutside	-	Commercial Sewer Only	<u>5</u>
HMW SUD Wholesale	<u>1</u>		
Total	5,669	Total	4,425

Historical and Forecast Total Water Accounts Through FY 2028



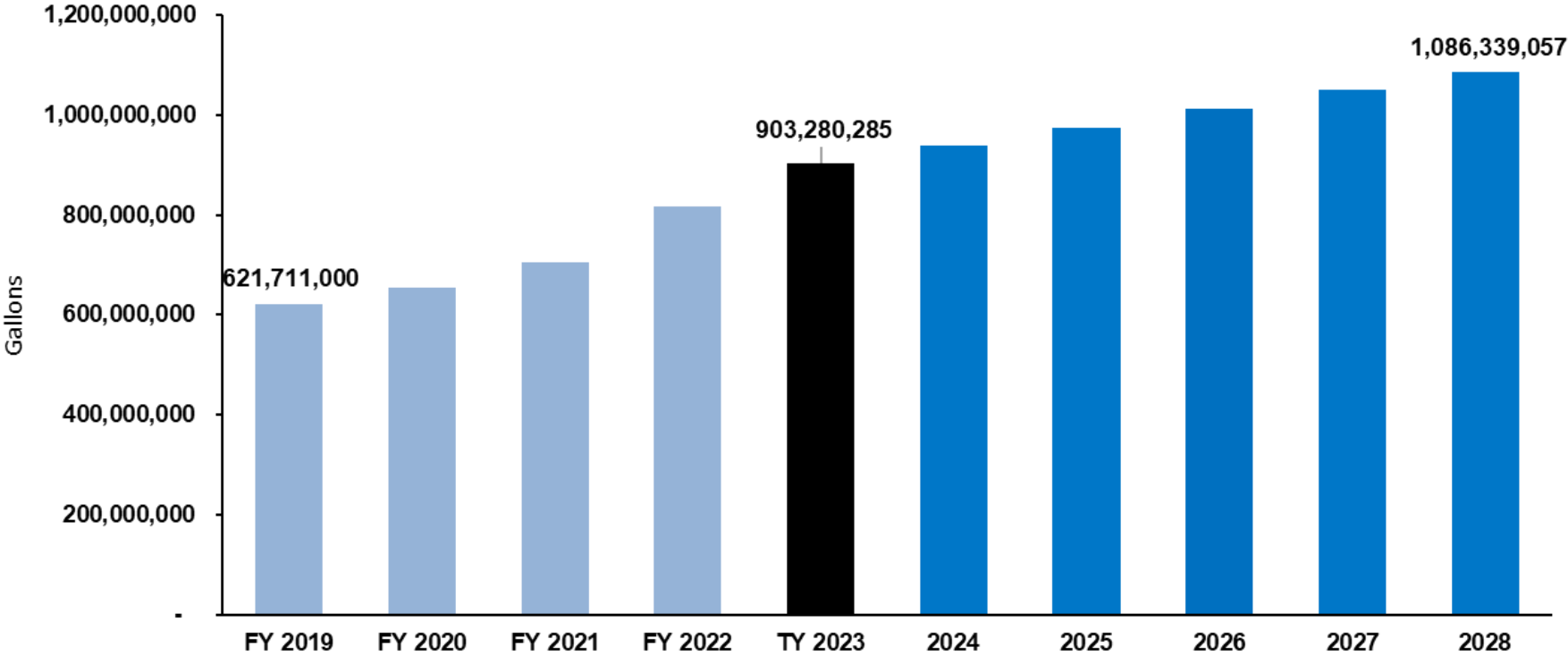
Average Annual Growth Rate FY2023 thru FY2028 = 3.6%



Forecast Water Consumption



Average Annual Growth Rate FY2023 thru FY2027 = 3.1%



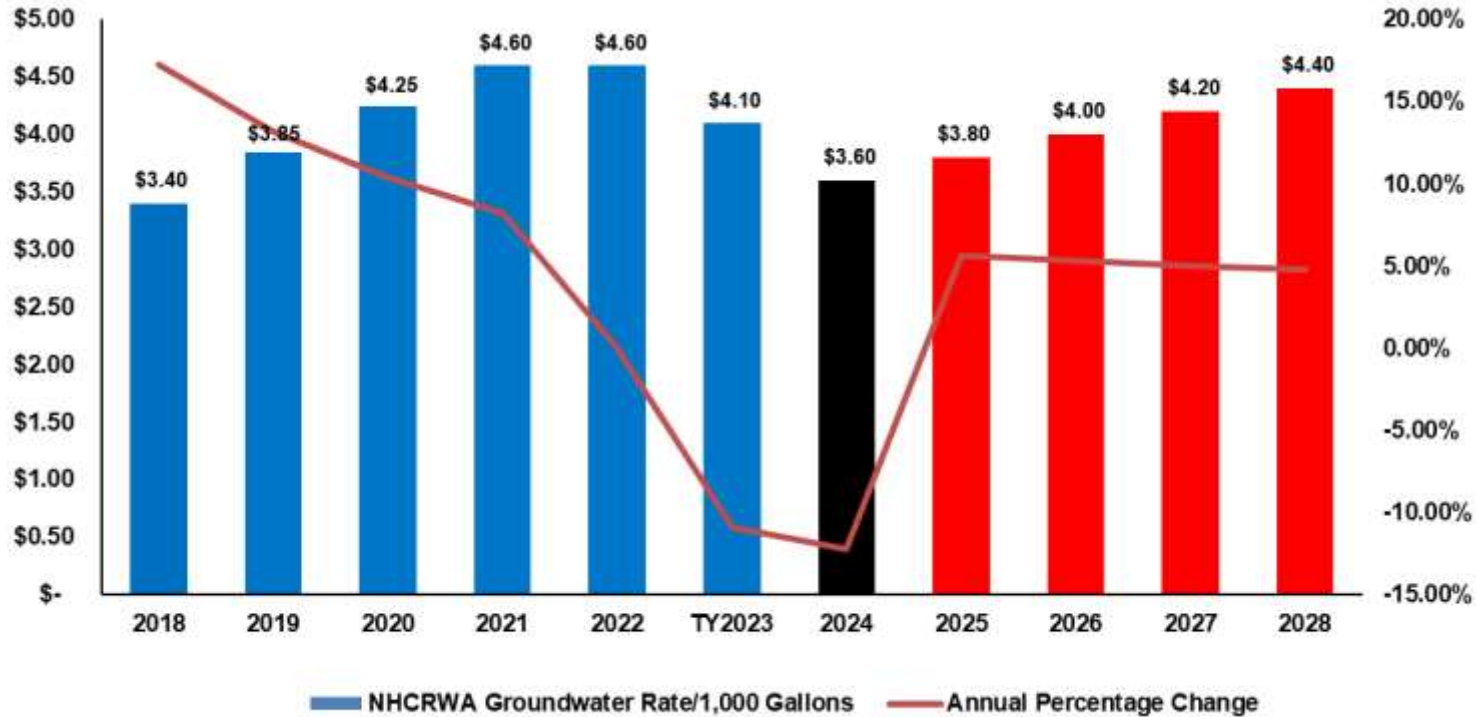
Key Assumptions Driving Financial Forecast and Rate Plan



- Most personnel and operating expenses forecast to increase 3 - 4% per year
- Certain expenses projected to increase at higher rates due to growth -- meters, vehicle expense, chemicals, etc.
- **Biggest impacts on rate plan:**
 - NHCRWA costs
 - Debt required to fund CIP



NHCRWA Historical and Forecast Water Cost/1,000 Gal



Water Capital Projects



WATER

	<u>Total Cost</u>	<u>Timing</u>
<u>Projects Eligible to be Funded through Impact Fees</u>		
Grand Parkway EST	\$ 5,677,800	2023-2024
S. Persimmon Water Line	445,300	2023
Main St. Water Line	5,100,000	2025-2026
Medical Complex	1,673,000	2027-2028
Water Line S. Persimmon	1,618,000	2025-2026
16" W Hufsmith	2,517,000	2024-2025
Rudolph Road Utilities	65,500	2023-2024
SCADA	30,000	2023
Total Impact Fee Funded Projects - Water	\$ 17,126,600	
<u>Non Impact Fee Funded Projects</u>		
Pine Street EST	\$ 849,000	2023-2024
East Water Plant	19,541,000	2023-2026
East Water Plant Baker Drive	6,856,000	2023-2024
Oak & Clayton Water Line	1,147,000	2025
Rudolph Road Utilities	150,111	2023
SCADA	215,850	2023-2024
Telge Easement Acquisition	750,000	2023
Project	0	
Total Non Impact Fee Funded Projects - Water	\$ 29,508,961	
Total Water CIP	\$ 46,635,561	



Wastewater Capital Projects



WASTEWATER

Projects Eligible to be Funded through Impact Fees

FM 2920 Lift Station	\$	1,500,000	2024
Rudolph Road Utilities		157,088	2023
SCADA		30,000	2023
Hicks Lift Station Expansion		1,410,000	2025-2026
S. Persimmon Gravity Line		4,341,000	2025-2026
Total Impact Fee Funded Projects - WW	\$	7,438,088	

Non Impact Fee Funded Projects

Critical Needs	\$	5,400,900	2023
FM 2920 Lift Station		13,894,100	2023-2024
WWTP Expansion		69,870,022	2023-2027
SW Gravity Main - Telge		860,000	2028
Lutheran Church Rd/FM 2920 Gravity Line		976,000	2028
Sanitary Sewer Alma-James		3,970,000	2025-2026
N. Willow St.		2,474,000	2027-2028
SSES Phase I		4,317,000	2024-2025
SSES Phase 2		8,310,000	20226-2027
Rudolph Road Utilities		150,111	2023
SCADA		215,850	2023-2024
Telge Easement Acquisition		750,000	2023
Total Non Impact Fee Funded Projects - WW	\$	111,187,983	

Total Wastewater CIP **\$ 118,626,071**



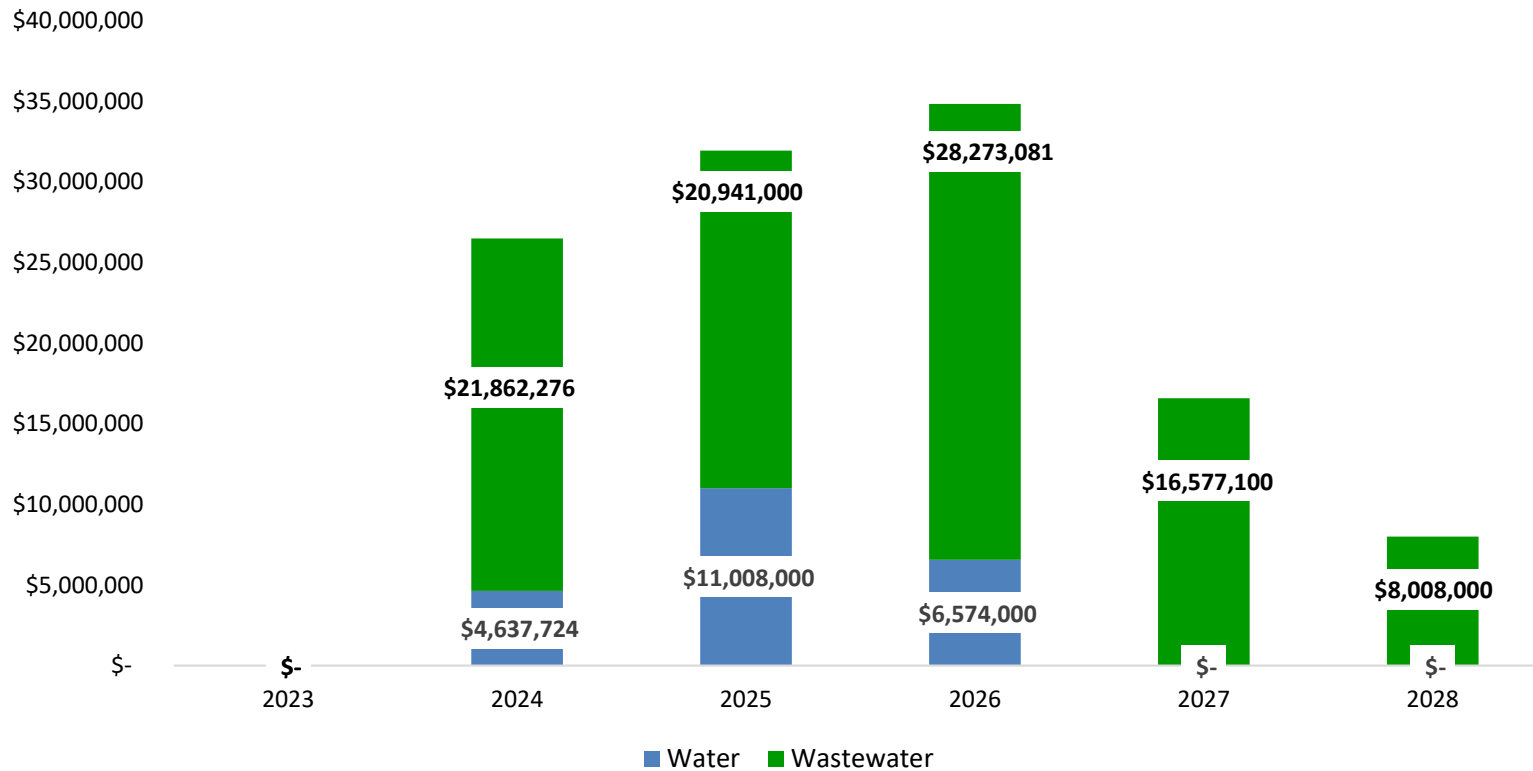
Forecast Bond Issues 2023 -- 2028



Total Debt = \$117,881,181

Term = 20 Years

Interest = 4.5%



W and WW Cost of Service Forecast 2024 - 2028



	2024	2025	2026	2027	2028
Water					
Total Operating	\$ 2,305,121	\$ 2,380,876	\$ 2,717,197	\$ 2,811,239	\$ 2,908,288
NHCRWA Charges	3,706,339	3,877,427	4,243,287	4,629,318	5,014,355
Transfers	1,183,104	1,218,597	1,255,155	1,292,810	1,331,594
Capital Outlays	160,000	160,000	160,000	160,000	160,000
Debt Service	263,886	234,096	974,559	1,422,509	1,777,435
Total	7,618,451	7,870,996	9,350,199	10,315,875	11,191,673
Wastewater					
Total Operating	1,796,051	1,872,383	2,128,575	2,219,772	2,313,423
Transfers	955,105	983,758	1,013,271	1,043,669	1,074,979
Capital Outlays	325,000	325,000	325,000	325,000	325,000
Debt Service	1,055,545	1,086,885	2,999,254	4,987,519	6,417,242
Total	4,131,701	4,268,027	6,466,099	8,575,961	10,130,644

Proposed Water/Wastewater Long Term Rate Plan – Scenario I



- Recommend implementing a 4-year rate plan with rate adjustments in October 2024 – October 2027
- Recommend standardizing minimum charges – at a future date implement meter equivalencies
- NHCRWA rate remains a pass-through
- Rate plan designed to enable City to fund operating cost increases and new debt



Scenario I

Proposed Water and Wastewater Rate Plan



		Current	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
WATER RATES - RESIDENTIAL						
Base Charge	Current					
-	10,000	\$ 11.55	\$ -	\$ -	\$ -	-
10,001	15,000	13.29	-	-	-	-
15,001	Above	15.29	-	-	-	-
	Uniform	-	12.60	13.15	13.70	14.25
Volume Rate Per 1,000 Gal						
-	10,000	3.02	3.14	3.27	3.40	3.53
10,001	15,000	3.77	3.92	4.08	4.24	4.41
15,001	Above	4.72	4.91	5.11	5.31	5.52
WATER RATES - COMMERCIAL						
Base Charge	Current					
-	5,000	19.56	-	-	-	-
5,001	50,000	31.48	-	-	-	-
51,001	Above	55.11	-	-	-	-
	Uniform	-	28.55	29.70	30.90	32.15
Volume Rate Per 1,000 Gal						
-	5,000	3.66	3.81	3.96	4.12	4.28
5,001	50,000	4.58	4.76	4.95	5.15	5.36
51,001	Above	5.72	5.95	6.19	6.43	6.69
NHCRWA Surcharge Per 1,000 Gal		3.60	3.80	4.00	4.20	4.40
WASTEWATER RATES- RESIDENTIAL						
Monthly Base Charge		\$ 10.23	\$ 12.85	\$ 16.10	\$ 20.15	24.20
Volume Rate Per 1,000 Gal -- Winter Avg		3.57	4.46	5.58	6.97	8.37
WASTEWATER RATES - COMMERCIAL						
Base Charge		24.91	31.20	39.00	48.75	58.50
Volume Rate Per 1,000 Gal						
-	5,000	4.53	5.66	7.08	8.85	10.62
5,001	51,000	5.65	7.06	8.83	11.04	13.24
51,001	Above	7.07	8.84	11.05	13.81	16.57

Scenario I Rate Plan Impact on Monthly Charges



	Current	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
Residential Monthly Water/WW Charge					
5,000 Gallons W; 5,000 WW	\$ 54.73	\$ 63.47	\$ 73.47	\$ 85.70	\$ 97.95
NHCRWA Surcharge	18.00	19.01	20.02	21.02	22.02
Total	72.73	82.47	93.49	106.71	119.98
Dollar Inc		\$ 9.74	\$ 11.01	\$ 13.23	\$ 13.26
Percent Inc		13.4%	13.4%	14.1%	12.4%
10,000 Gallons W; 5,000 WW	\$ 69.83	\$ 79.17	\$ 89.80	\$ 102.68	\$ 115.62
NHCRWA Surcharge	36.00	38.02	40.03	42.03	44.05
Total	105.83	117.19	129.84	144.72	159.67
Dollar Inc		\$ 11.36	\$ 12.65	\$ 14.88	\$ 14.95
Percent Inc		10.7%	10.8%	11.5%	10.3%
Commercial Monthly Water/WW Charge					
20,000 Gallons W/ 20,000 WW	\$ 250.79	\$ 284.48	\$ 330.61	\$ 387.28	\$ 444.15
NHCRWA Surcharge	72.00	76.03	80.06	84.06	88.10
Total	322.79	360.51	410.67	471.34	532.25
Dollar Inc		\$ 37.72	\$ 50.16	\$ 60.67	\$ 60.90
Percent Inc		11.7%	13.9%	14.8%	12.9%

Proposed Water/Wastewater Long Term Rate Plan – Scenario II



- Assumes City chooses to fund 50% of CIP over 2023 -- 2028
- Total debt to be issued = **\$58,940,951**
- 4-year rate plan and standardized minimum charges would remain
- Advantages: significantly lower rate increases
- Challenges: City must choose which CIP projects to prioritize



Scenario II – Less CIP Funding Proposed Water and Wastewater Rate Plan



			Current	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
WATER RATES - RESIDENTIAL							
Base Charge	Current						
-	10,000	\$	11.55	\$ -	\$ -	\$ -	-
10,001	15,000		13.29	-	-	-	-
15,001	Above		15.29	-	-	-	-
	Uniform		-	12.50	12.90	13.30	13.70
Volume Rate Per 1,000 Gal							
-	10,000		3.02	3.11	3.20	3.30	3.40
10,001	15,000		3.77	3.88	4.00	4.12	4.24
15,001	Above		4.72	4.86	5.01	5.16	5.31
WATER RATES - COMMERCIAL							
Base Charge	Current						
-	5,000		19.56	-	-	-	-
5,001	50,000		31.48	-	-	-	-
51,001	Above		55.11	-	-	-	-
	Uniform		-	28.30	29.15	30.05	31.00
Volume Rate Per 1,000 Gal							
-	5,000		3.66	3.77	3.88	4.00	4.12
5,001	50,000		4.58	4.72	4.86	5.00	5.15
51,001	Above		5.72	5.89	6.07	6.25	6.44
NHCRWA Surcharge Per 1,000 Gal			3.60	3.80	4.00	4.20	4.40
WASTEWATER RATES- RESIDENTIAL							
Monthly Base Charge		\$	10.23	\$ 11.70	\$ 13.35	\$ 15.25	17.40
Volume Rate Per 1,000 Gal – Winter Avg			3.57	4.07	4.64	5.29	6.03
WASTEWATER RATES - COMMERCIAL							
Base Charge			24.91	28.45	32.45	37.00	42.20
Volume Rate Per 1,000 Gal							
-	5,000		4.53	5.16	5.89	6.71	7.65
5,001	51,000		5.65	6.44	7.34	8.37	9.54
51,001	Above		7.07	8.06	9.19	10.47	11.94

Scenario II -- Proposed Rate Plan Impact on Monthly Charges



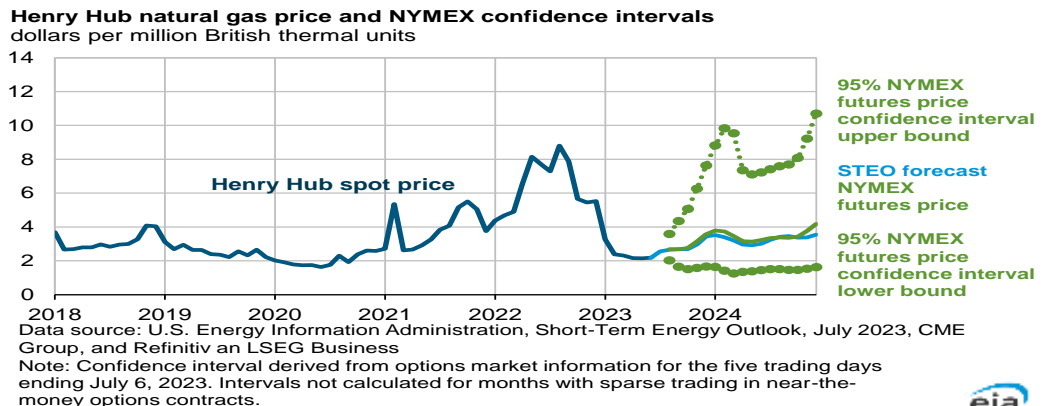
	Current	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
Residential Monthly Water/WW Charge					
5,000 Gallons W; 5,000 WW	\$ 54.73	\$ 60.10	\$ 65.47	\$ 71.50	\$ 78.24
NHCRWA Surcharge	18.00	19.01	20.02	21.02	22.02
Total	72.73	79.11	85.48	92.51	100.27
Dollar Inc		\$ 6.38	\$ 6.37	\$ 7.03	\$ 7.76
Percent Inc		8.8%	8.1%	8.2%	8.4%
10,000 Gallons W; 5,000 WW	\$ 69.83	\$ 75.66	\$ 81.49	\$ 88.00	\$ 95.24
NHCRWA Surcharge	36.00	38.02	40.03	42.03	44.05
Total	105.83	113.67	121.52	130.03	139.29
Dollar Inc		\$ 7.84	\$ 7.85	\$ 8.51	\$ 9.26
Percent Inc		7.4%	6.9%	7.0%	7.1%
Commercial Monthly Water/WW Charge					
20,000 Gallons W/ 20,000 WW	\$ 250.79	\$ 268.80	\$ 293.48	\$ 321.24	\$ 352.51
NHCRWA Surcharge	72.00	76.03	80.06	84.06	88.10
Total	322.79	344.83	373.54	405.30	440.61
Dollar Inc		\$ 22.04	\$ 28.71	\$ 31.76	\$ 35.31
Percent Inc		6.8%	8.3%	8.5%	8.7%

Gas Utility Analysis and Recommendations

Facts about Natural Gas Utility Rates in the 21st Century



- In 2022 Texas broke a new record for natural gas production with over 11.2 trillion cubic feet of gas produced (27% of US total natural gas)
- Spot and future natural gas prices set at Henry Hub are seen to be the primary price set for the North American natural gas market
- The U.S. Energy Information Administration expects the Henry Hub spot price will rise in the 4th quarter of 2023 as declining natural gas production narrows the existing surplus of natural gas inventories compared with the five-year average



Current Gas Rates Effective 2011

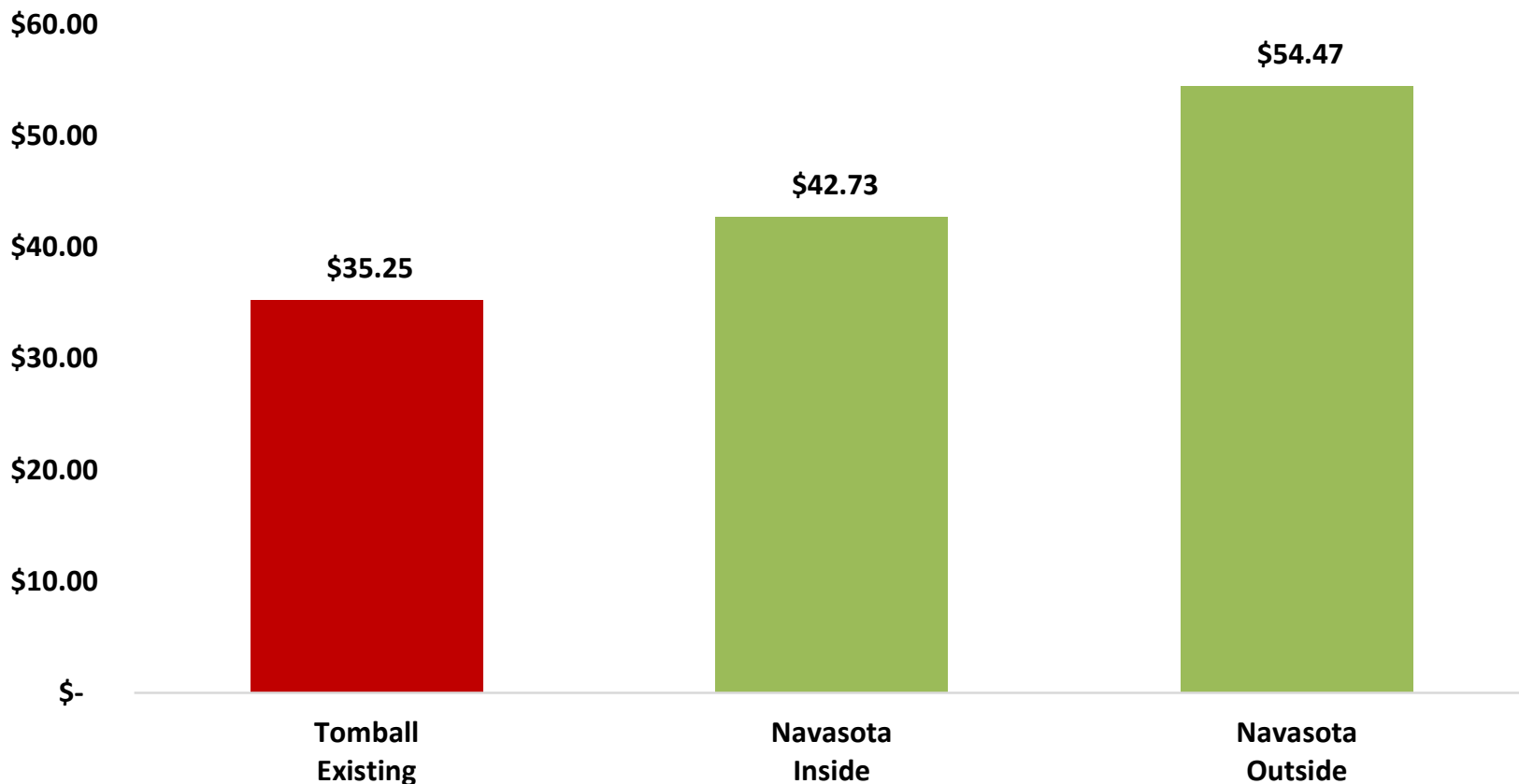


All Customers

Minimum Charge Includes 1,000 Cubic Feet or 1 MCF	\$	11.75
Usage Charge 1,001 Cubic Feet or >1 MCF	\$	11.75



Comparison of Average Residential Cost Per Month for 3 MCF



FY 2023 (Test Year) Natural Gas Accounts and Usage



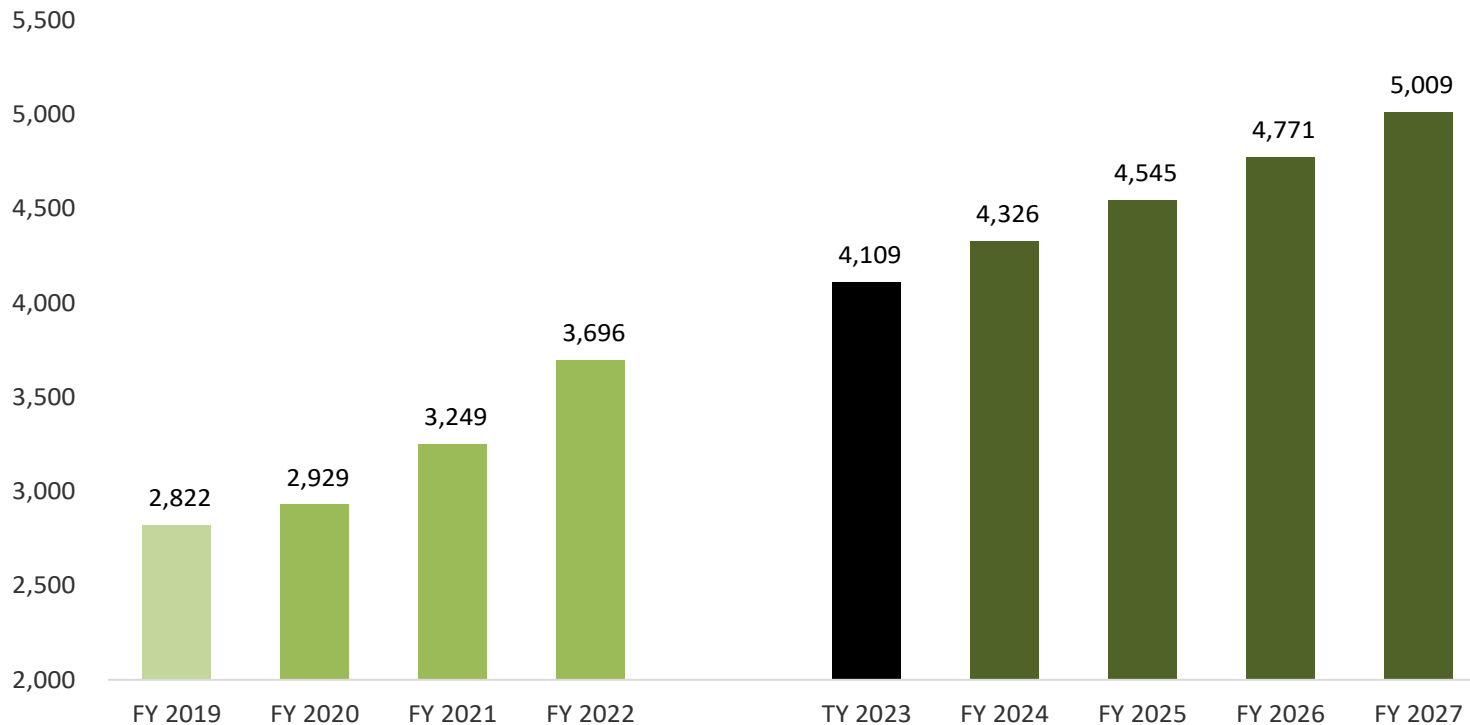
NATURAL GAS CUSTOMERS

	Feb-23	Sales MCF March 22 - Feb 23	Percent of Total Usage
Residential	3,682	112,767	39.21%
Commercial	416	173,634	60.38%
Municipal	<u>10</u>	<u>1,189</u>	<u>0.41%</u>
Total	4,109	287,590	100.00%

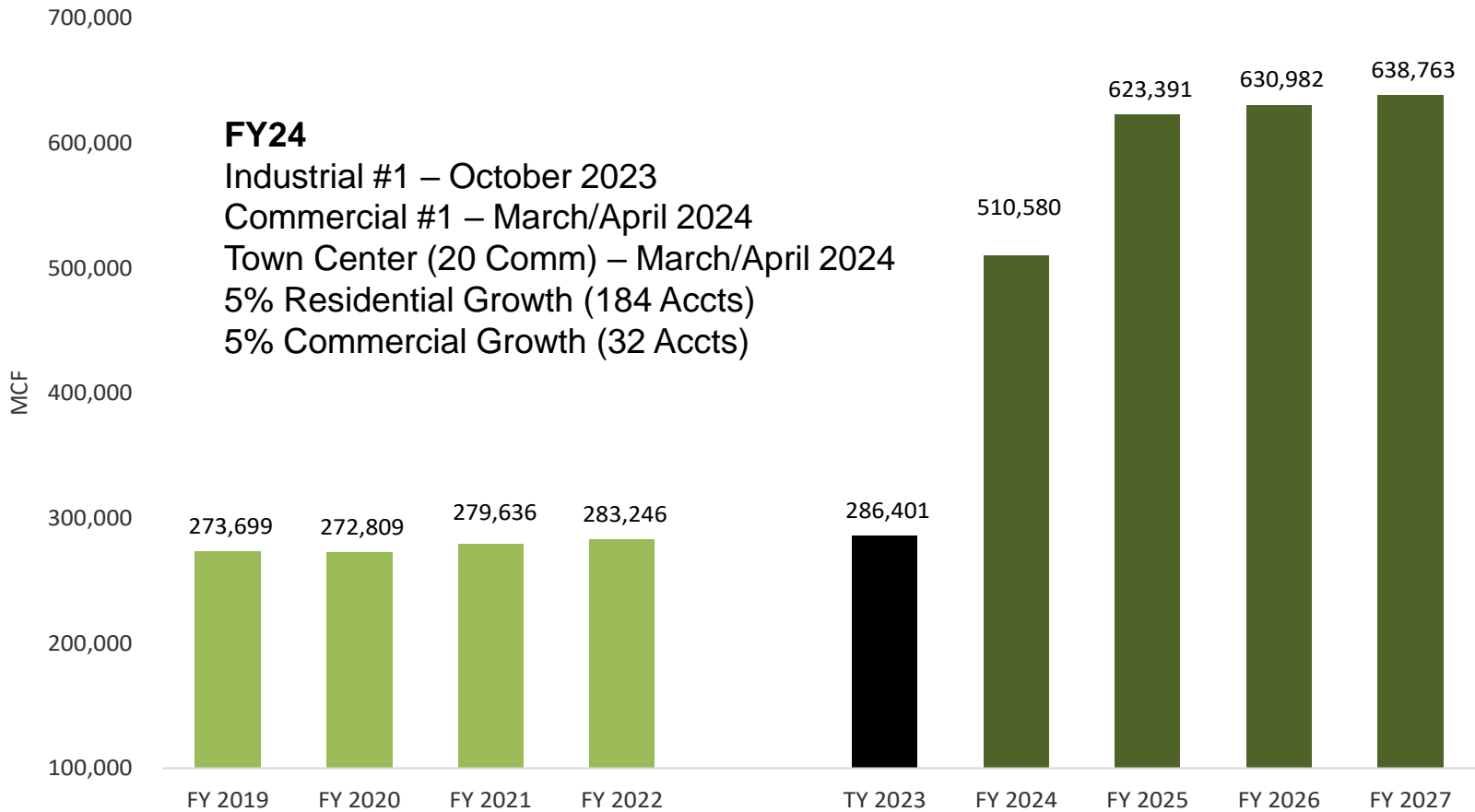
Historical and Forecast Natural Gas Accounts Through FY 2027



Average Annual Growth Rate FY 2023 thru FY 2027 = 5.0%



Historical and Forecast Natural Gas Sales



5% Annual Account Growth Plus New Commercial Customers

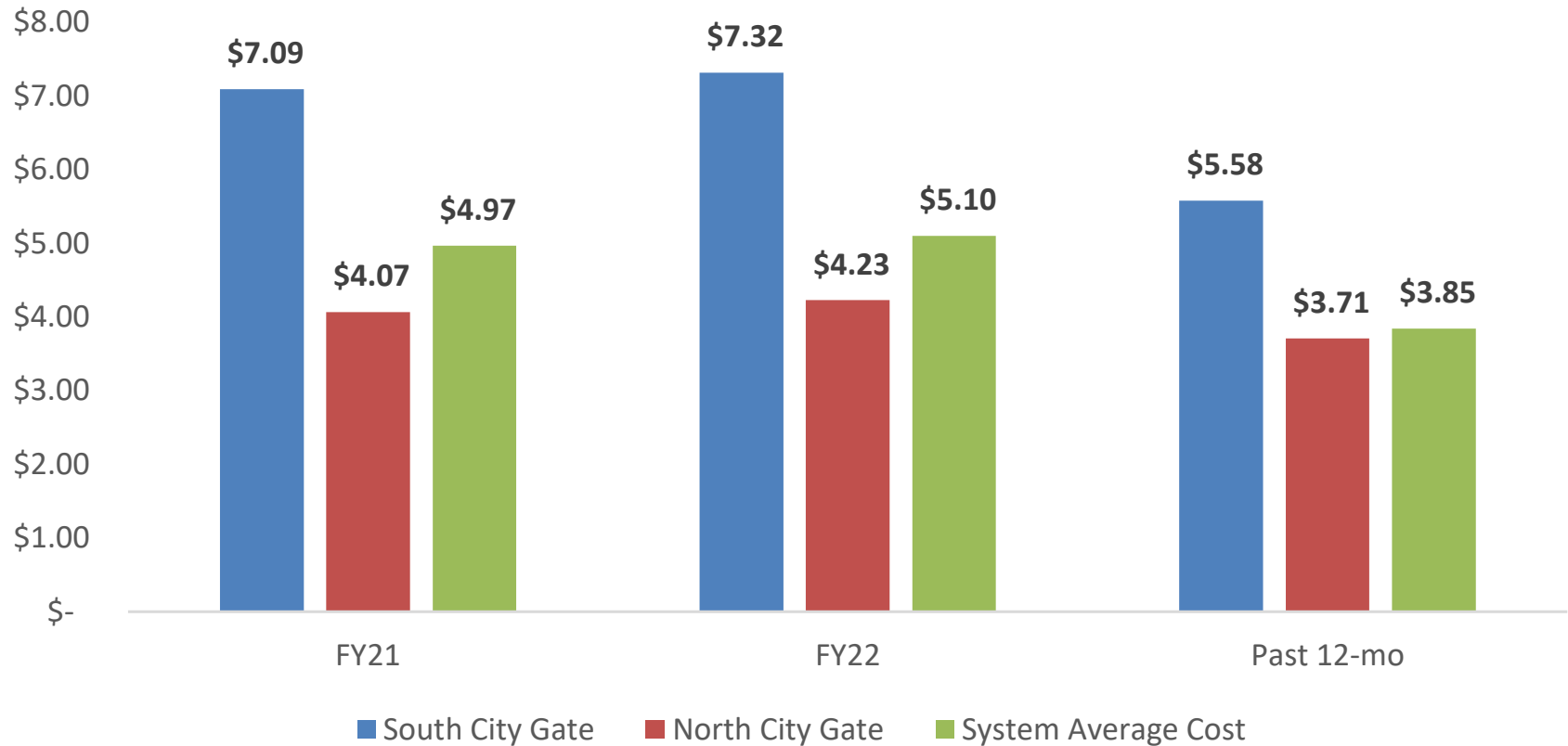
City Purchased Gas Supply



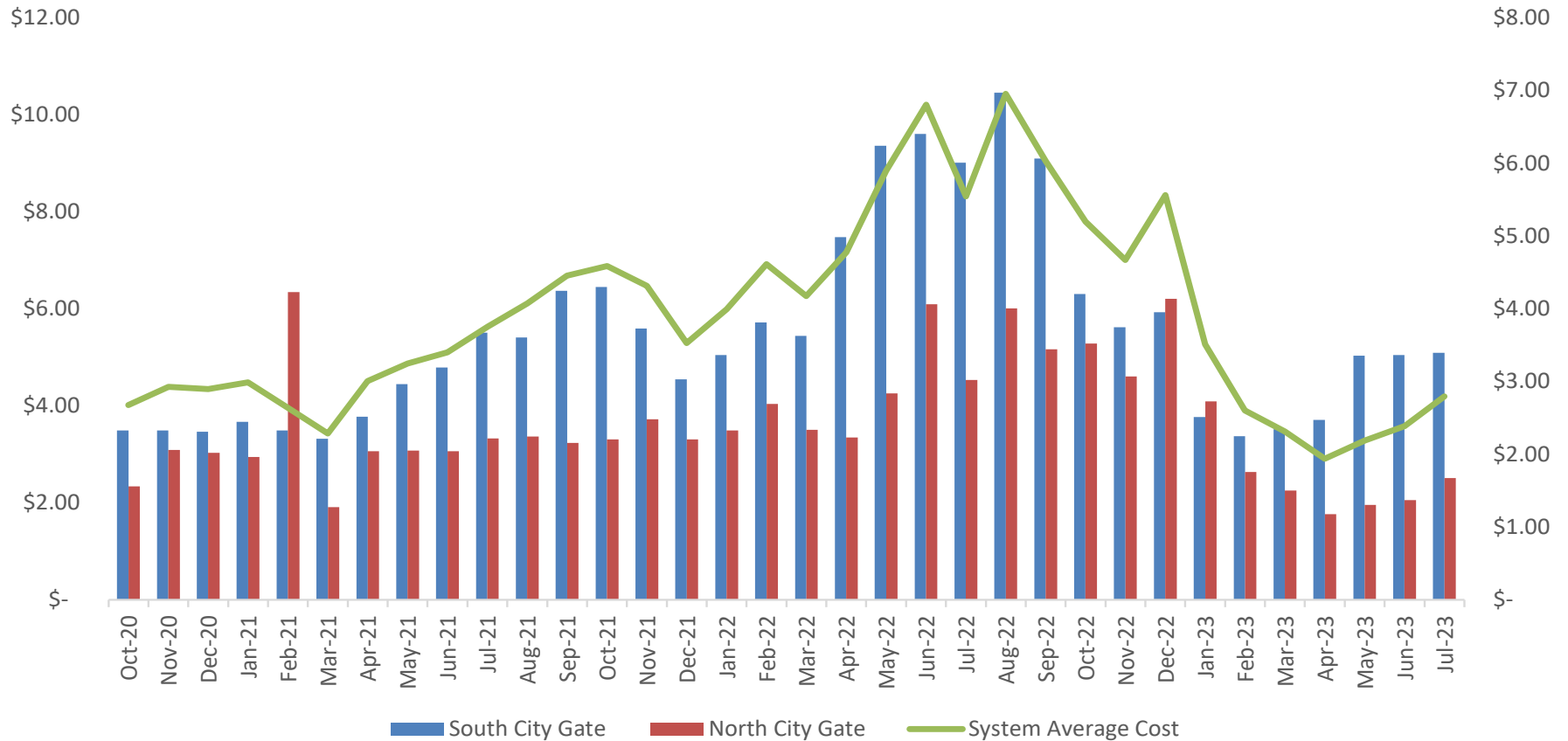
- Current Supply Contract is under a Joint Gas Purchase Contract administered by the Municipal Gas Acquisition and Supply Corporation (MuniGas), served by Symmetry Energy Solutions as the Supplier and BP Energy Company as the Dealer
- A \$0.30/MMBTU discount is applied monthly to the gas billing for netting, aggregation or set off of purchases from the supplier
 - The MuniGas Discount was \$93,000 between August 2022 and July 2023
- Spot Gas Prices remain highly volatile



Contracted Natural Gas Average Cost of Supply



Contracted Natural Gas Average Cost of Supply



Natural Gas Capital Improvement Plan FY 2023 - 2027



GAS DEPARTMENT CAPITAL IMPROVEMENT PLAN 2023 - 2027

Grand Parkway Gas Gate - Gas Gate South	\$	720,000
Cherry Street Main		403,200
		<hr/>
		-
TOTAL GAS DEPARTMENT CIP	\$	1,123,200

CIP FUNDING:

- Cost Sharing – Lovett Industrial and Grand Parkway Town Center
- Unobligated Enterprise Capital Funds
- Other Funding

Natural Gas Alt 1 - Cost of Service Residential Rate Recommendation



GAS	Current	Effective Dec-23	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
Residential						
Base Charge Includes 1 MCF	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75
Usage Charge Per MCF	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75
Commercial						
Base Charge Includes 1 MCF	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75
Usage Charge Per MCF	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75	\$ 11.75

Gas Alt 1 - Cost of Service

Net Cash Flow



	2023	2024	2025	2026	2027
Gas Rate Revenues	\$ 3,365,212	\$ 5,999,389	\$ 7,325,126	\$ 7,414,323	\$ 7,505,751
Non-Rate Revenues	300,000	300,000	300,000	300,000	300,000
Total Operating Revenues	3,665,212	6,299,389	7,625,126	7,714,323	7,805,751
Operating Expenses - O&M	1,249,690	1,346,521	1,400,010	1,456,675	1,516,800
Gas Purchase Cost	1,239,105	2,131,938	2,651,368	2,734,677	2,821,084
Total Operating Expense	2,488,795	3,478,459	4,051,378	4,191,353	4,337,884
Net Rev Before Transfer/Cap Outlay/Debt	1,176,417	2,820,930	3,573,747	3,522,970	3,467,866
Fund Transfers	823,348	712,854	750,823	791,920	836,479
Capital Outlays	850,000	765,000	765,000	765,000	765,000
Debt Service	-	-	-	-	-
Total Cost of Service	4,162,143	4,956,314	5,567,201	5,748,273	5,939,363
Net Cash Flow Available for Contingency	(496,931)	1,343,075	2,057,925	1,966,050	1,866,387
Percent of Revenues	-13.56%	21.32%	26.99%	25.49%	23.91%



Presentation Summary

W & WW, Natural Gas Consolidated Residential Rate Impacts – Scen I



	Current	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
RESIDENTIAL Rates					
Water Rates					
10,000 Gallons	\$ 41.75	\$ 44.01	\$ 45.81	\$ 47.67	\$ 49.58
NHCRWA Surcharge	36.00	38.02	40.03	42.03	44.05
Wastewater Rates					
5,000 Gallons	28.08	35.16	43.99	55.01	66.04
Gas Rates					
3 MCF	35.25	35.25	35.25	35.25	36.25
TOTAL MONTHLY CHARGES	141.08	152.44	165.09	179.97	195.92
Difference - \$		11.36	12.65	14.88	15.95
Difference - %		7.4%	7.7%	8.3%	8.1%

W & WW, Natural Gas Consolidated Residential Rate Impacts – Scen II



	Current	Effective Oct-24	Effective Oct-25	Effective Oct-26	Effective Oct-27
RESIDENTIAL Rates					
Water Rates					
10,000 Gallons	\$ 41.75	\$ 43.61	\$ 44.94	\$ 46.30	\$ 47.69
NHCRWA Surcharge	36.00	38.02	40.03	42.03	44.05
Wastewater Rates					
5,000 Gallons	28.08	32.05	36.55	41.70	47.55
Gas Rates					
3 MCF	35.25	35.25	35.25	35.25	36.25
TOTAL MONTHLY CHARGES	141.08	148.92	156.77	165.28	175.54
Difference - \$		7.84	7.85	8.51	10.26
Difference - %		5.3%	5.0%	5.1%	5.8%

Presentation Summary

Benefits of Proposed Rate Plan



- No increase in gas costs over 5 years
- Will enable utility to recover all of its operating costs without subsidies from General Fund
- Will allow for \$60 -- \$120 million in investment in the future of the City
- Will result in a healthy utility fund that meets its financial goals





Questions?