



March 21, 2022

UPDATE ON WATER AND SEWER RATE STUDY CITY OF GEORGETOWN, TEXAS



AGENDA

SUMMARY

FINANCIAL POLICY CONSIDERATIONS

RATE DESIGN STRATEGIES

COUNCIL DISCUSSION & DIRECTION

SUMMARY

SUMMARY INTRODUCTION

- FY 2021 & 2022 Study Goals and Objectives:
 - ✓ Continuation of FY 2020 Rate Study
 - ✓ Focus on Revenue Adequacy – Operations and Capital Needs
 - ✓ Fiscal Policy Compliance or Review
 - ✓ Fairness in Rate Setting
- Key Elements Included
 - Growth
 - Increases customer base AND demand for services
 - Inclusion of South Lake WTP, Pecan Branch and San Gabriel WWTPs and System Resiliency Projects
 - Impact fees evaluated and balances confirmed for appropriate uses
 - Customer Type Identification

WATER CIP

Includes 30-year
Level Debt on
South Lake WTP

The projects listed are
based on the 2018
Master Plans and will
be updated this
summer.

Project Name	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Carriage Oaks Transmission	\$ 600,000	\$ 2,750,000	\$ -	\$ -	\$ -	\$ 2,200,000
CR 200 Line Impr. (CO-1)	-	-	550,000	2,750,000	2,750,000	3,850,000
CR 262 Waterline	2,500,000	-	-	-	-	-
Miscellaneous Line Upgrades	500,000	550,000	550,000	550,000	550,000	550,000
SCADA Upgrades	1,500,000	-	-	-	-	-
South Lake Plant Trans. East (W23-02)	-	-	5,500,000	-	-	-
South Lake Plant Trans. West (W23-01)	-	-	13,200,000	-	-	-
Southside WTP Rehab.	3,000,000	-	-	-	-	-
Stonewall Pump Station Expansion	600,000	2,750,000	-	-	-	-
System Resiliency	1,000,000	55,000,000	550,000	550,000	550,000	550,000
Tank Rehabilitation	750,000	825,000	825,000	825,000	825,000	825,000
Water/WW Master Plan Upd.*	600,000	-	-	-	-	-
Southlake WTP	220,000,000	-	-	-	-	-
Automated Meter Reading Systems**	1,500,000	5,500,000	2,750,000	-	-	-
Total	\$ 232,550,000	\$ 67,375,000	\$23,925,000	\$ 4,675,000	\$ 4,675,000	\$ 7,975,000

Notes:

Some projects listed on the Water CIP are split between water and wastewater for system Revenue Requirements.

Water/Wastewater Master Plan Update project is allocated 50% to water and 50% to wastewater

Automated Meter Reading Systems project is allocated 63% to water and 37% to wastewater

WASTEWATER CIP

The projects listed are based on the 2018 Master Plans and will be updated this summer.

Project Name	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Cimarron Hills WTP Expansion	\$4,500,000	\$ -	\$ -	\$ -	\$ -	\$ -
Dove Springs WWTP Rehabilitation	500,000	2,970,000	-	-	-	-
EARZ	2,000,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000
Int. Lift Station Removal/Gravity Main	2,500,000	6,600,000	-	-	-	-
Lift Station Upgrades	550,000	605,000	605,000	605,000	605,000	605,000
Northlands WTP	-	-	-	-	19,800,000	-
Pecan Branch WWTP Expansion	5,000,000	-	35,200,000	-	-	-
San Gabriel Int. (SGI-2)	-	35,750,000	-	-	-	-
San Gabriel WWTP Rehabilitation	2,000,000	9,350,000	-	-	-	-
Wolf Ranch Expansion and Force Main	1,700,000	4,620,000	-	-	-	-
Total	\$ 18,750,000	\$ 62,095,000	\$ 38,005,000	\$ 2,805,000	\$ 22,605,000	\$ 2,805,000

Notes:

Some projects listed on the Water CIP are split between water and wastewater for system Revenue Requirements.

Water/Wastewater Master Plan Update project is allocated 50% to water and 50% to wastewater

Automated Meter Reading Systems project is allocated 63% to water and 37% to wastewater

IMPACT FEES IN 5-YEAR CAPITAL PLANS

WATER = \$77.1M

- South Lake WTP
 - \$25M up front with cash
 - \$6.3M annually towards estimated \$11M debt payments
- South Lake Transmission
 - \$18.7M cash funding
- Stonewall Pump Station Expansion
 - \$2.75M cash funding

WASTEWATER = \$22.2M

- Pecan Branch WWTP
 - \$12.2M in cash funding
 - \$0.25M in annual debt service
- Interceptor LS/Gravity Main
 - \$9M cash funding

INFLATION FACTORS

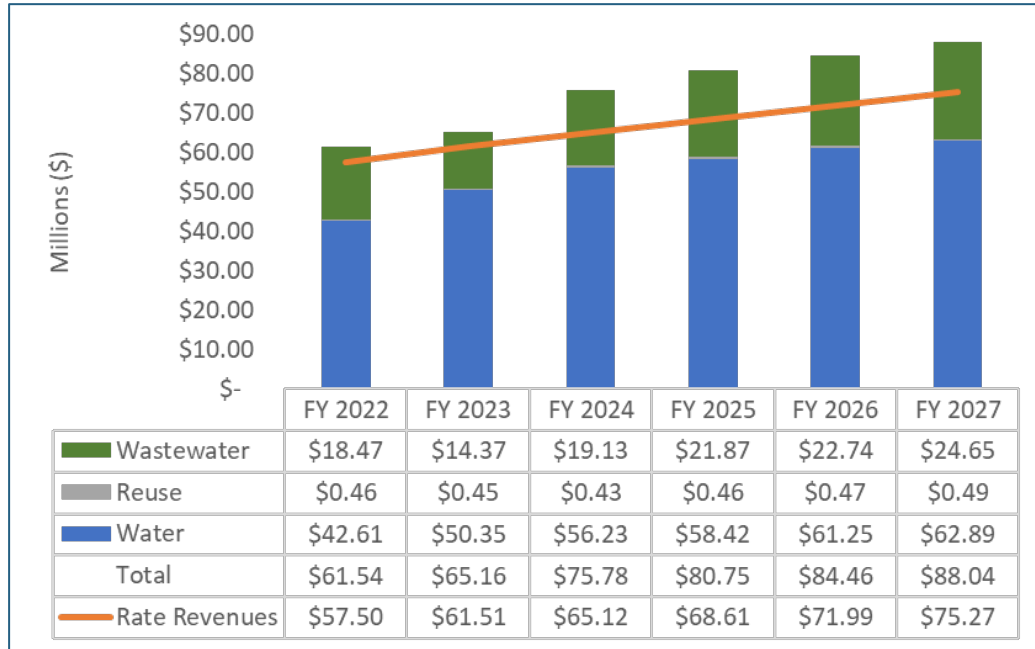
- Council Requested Inflation Factors be Reviewed

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Municipal Cost Index	5.00%	4.00%	3.00%	3.00%	3.00%
Construction Cost Index	15.00%	9.15%	3.30%	3.30%	3.30%
Chemicals	30.00%	15.83%	1.66%	1.66%	1.66%
Electricity	7.00%	0.00%	3.00%	0.00%	3.00%
Natural Gas	30.00%	16.45%	2.89%	3.80%	3.36%
Fuel	30.00%	16.93%	3.85%	3.27%	3.72%

- Notes:

- Used a large increase in FY 2023, then the average of the large increase and the normal index in FY 2024. FY 2025 through FY 2027 are the normal factors.
- Electricity is based on discussions with the Electric Rate Study team.

PROJECTED COMBINED UTILITY PERFORMANCE UNDER CURRENT RATE REVENUES



- Combined utility estimated to not recover revenue requirements as early as **FY 2022**
 - Shortfall covered by available balances
- An increase is needed to achieve Debt Service Coverage targets in **FY 2024**.
- Days Cash on Hand reserves drop below 90 Days as early as **FY 2025**
- Water Monthly Base Charge revenues lower than target for Water Fixed Cost of Service as early as **FY 2022**

FY (Targets)	2022	2023	2024	2025	2026	2027
DSC (1.50x)	5.49	2.08	1.42	1.32	1.25	1.23
Days Cash (90 Days)*	299	238	140	64	(5)	(69)
Fixed COS (75%)	72%	62%	58%	59%	59%	61%

*Excludes \$10M Annual Non-Operating Contingency

PRELIMINARY RESULTS

With Current Rates

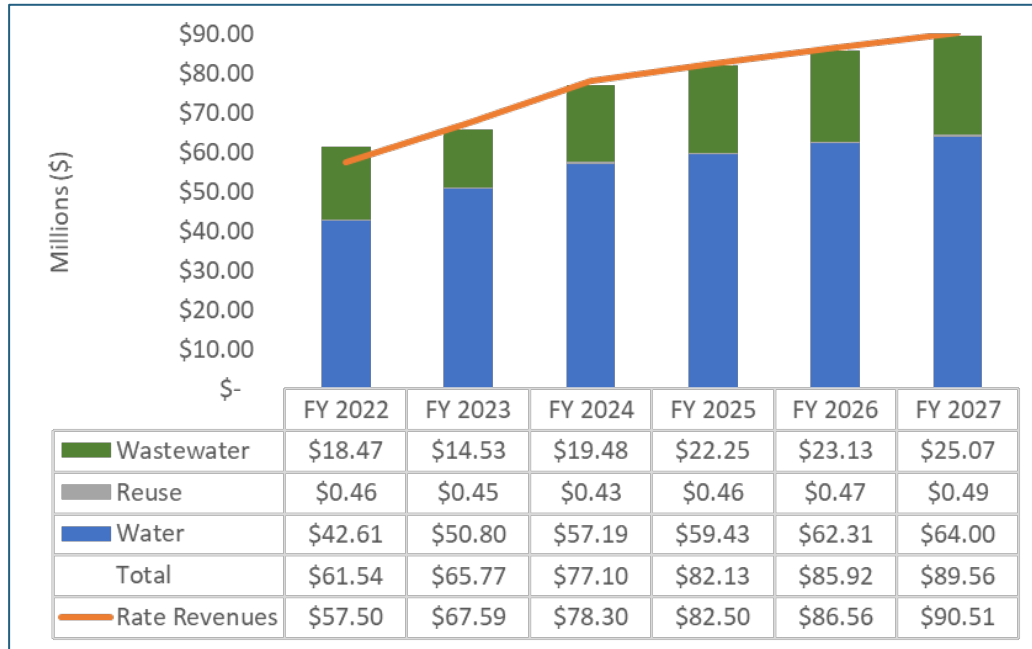
Includes 30-Year Debt
on Water Plant

Impact Fees applied
to projects or eligible
debt service

Increases are applied
to all classes equally

\$ Millions	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenues						
Rate Revenues	\$ 57.50	\$ 61.51	\$ 65.12	\$ 68.61	\$ 71.99	\$ 75.27
Other Revenues	10.13	10.13	10.13	10.13	10.13	10.13
Total Revenues	\$ 67.63	\$ 71.64	\$ 75.25	\$ 78.74	\$ 82.12	\$ 85.40
Expenses						
O&M	\$ 39.74	\$ 44.33	\$ 46.90	\$ 48.78	\$ 51.43	\$ 52.83
Wholesale	11.81	12.15	12.56	12.86	13.18	13.57
Cash Capital	5.18	0.00	0.00	0.00	0.00	0.00
Existing Debt	7.90	7.48	7.12	7.12	7.04	6.81
Projected Debt	0.00	4.52	12.17	14.59	15.06	16.73
Transfers	7.03	6.80	7.18	7.53	7.88	8.22
Total Expenses	\$ 71.67	\$ 75.29	\$ 85.91	\$ 90.88	\$ 94.59	\$ 98.16
<i>Over/(Under) \$</i>	<i>(\$ 4.04)</i>	<i>(\$ 3.65)</i>	<i>(\$ 10.66)</i>	<i>(\$ 12.13)</i>	<i>(\$ 12.47)</i>	<i>(\$ 12.77)</i>
<i>Over/(Under) %</i>	<i>-7.03%</i>	<i>-5.94%</i>	<i>-16.37%</i>	<i>-17.68%</i>	<i>-17.33%</i>	<i>-16.97</i>
<i>Flat Increase Est.</i>		9.5%	9.5%			

PROJECTED COMBINED UTILITY PERFORMANCE UNDER PRELIMINARY DRAFT RATE REVENUES



Draft Rate Projection

- Increases shown here are for discussion ONLY.
- Rate adjustments below reflect current assumptions and CIP funding plan.
- Inflation, increased wholesale costs and accelerated/new capital projects will likely change FY 2025-2027.
- Increases are applied to all classes equally.

FY (Targets)	2022	2023	2024	2025	2026	2027
DSC (1.50x)	5.49	3.67	2.50	2.30	2.22	2.15
Days Cash (90 Days)*	299	272	236	223	220	214
Fixed COS (75%)	72%	68%	68%	70%	70%	75%

*Excludes \$10M Annual Non-Operating Contingency

Rate Adjustments	2023	2024	2025	2026	2027
Water (All%)	9.50%	9.50%	-	-	-
Wastewater (All %)	9.50%	9.50%	-	-	-

FINANCIAL POLICY CONSIDERATIONS

FINANCIAL POLICY REVIEW AND SUGGESTED EDITS

- Days Operating Cash on Hand Reserve
 - Current – 90 Day Minimum
 - Recommend – 90 Day Minimum, Target of 120 Days and Max of 1 Year
- Water Fixed Cost Recovery from Base Charges
 - Current – 75% of Identified Fixed Costs
 - Recommend – 65% of Identified Fixed Costs with 90% in Base plus 1st Tier Rates
- Non-Operating Reserve
 - Current – Broadly Defined and Historically \$10M
 - Recommend – Defined as a minimum of 50% of Annual Debt Service Requirements

RATE DESIGN

Similar users found to have differing effective rates and charges for similar services

Multi-family and Builder



**3-Person
Households**



**Each Person
Showers
Daily**

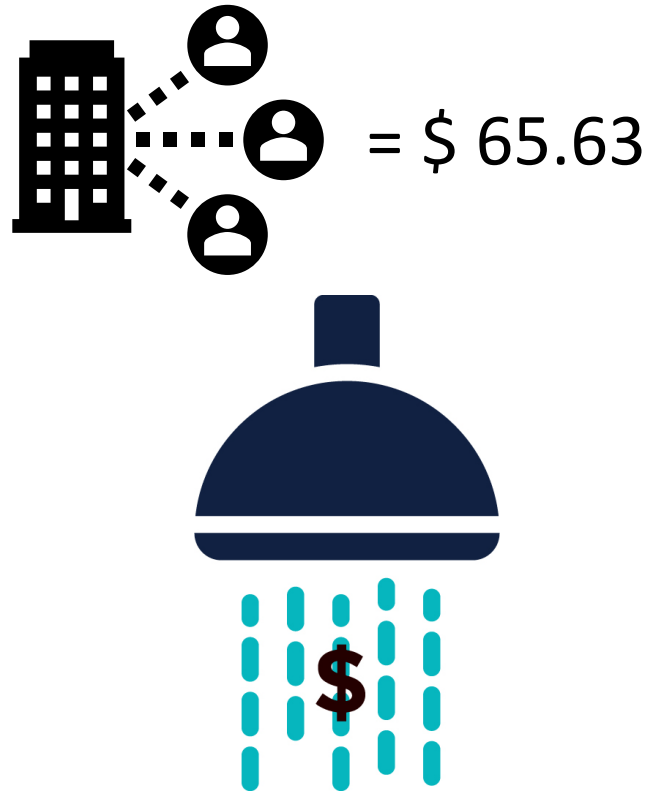


**Each Person
Flushes 5
Times Daily**

SAMPLE FAMILIES

Averaging 3,500 Gallons Indoor Water Usage Monthly

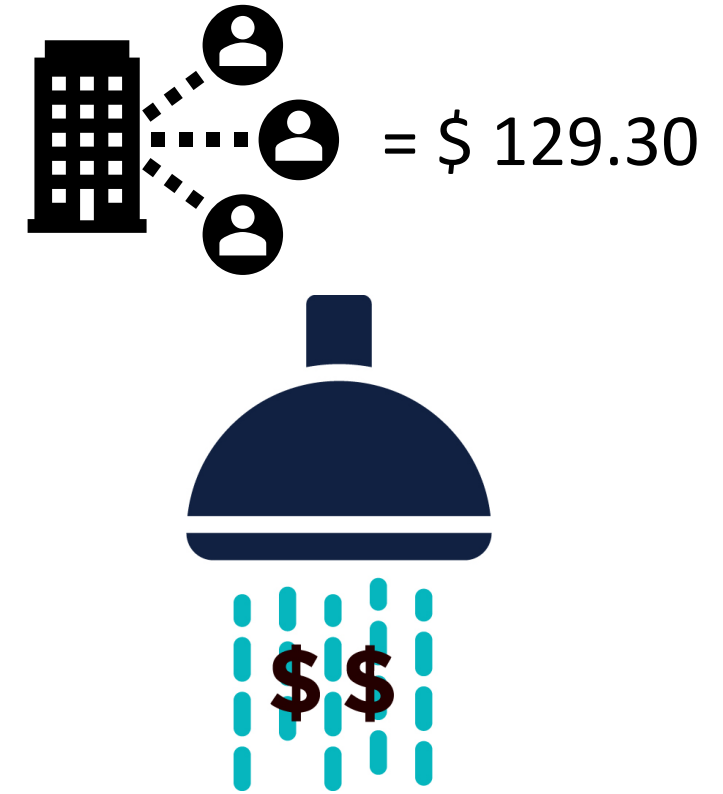
Currently Multi-Family as Commercial



Single Family Residential or Submetered Units



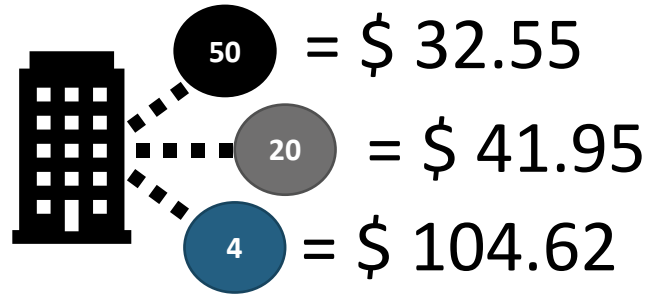
Suggested Multi-Family as Multi-Family Residential



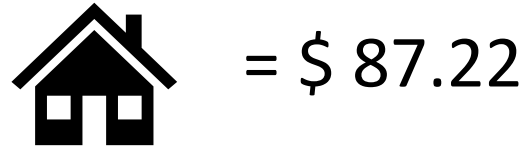
ANNUAL COST TO SHOWER

WATER ONLY PORTION OF BILL

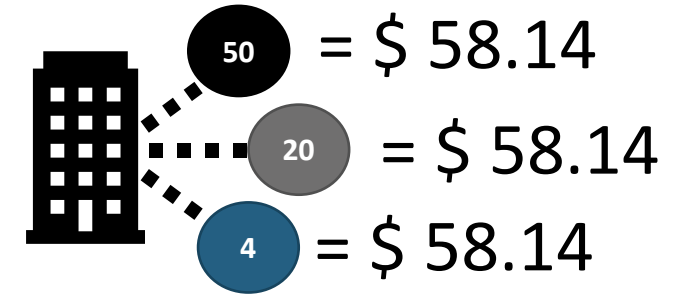
Currently Multi-Family as Commercial



Single Family Residential or Submetered Units



Suggested Multi-Family as Multi-Family Residential



ANNUAL COST TO FLUSH
WASTEWATER ONLY PORTION OF BILL

MULTI-FAMILY

- City has the Option to Bill Multi-Family Customers on a per Unit Basis
 - Minimum and Volumetric Charge Calculated per Unit
 - Currently 109 Accounts with a Total of 6,751 Units
- Average Residential Account = 3/4" Meter
 - If per Unit Billing, Multi-Family at 5/8" Meter = 66% Lower Minimum
- "...the number of service connections in an apartment complex would be equal to the number of individual living units." 30 TAC §290.38(16)

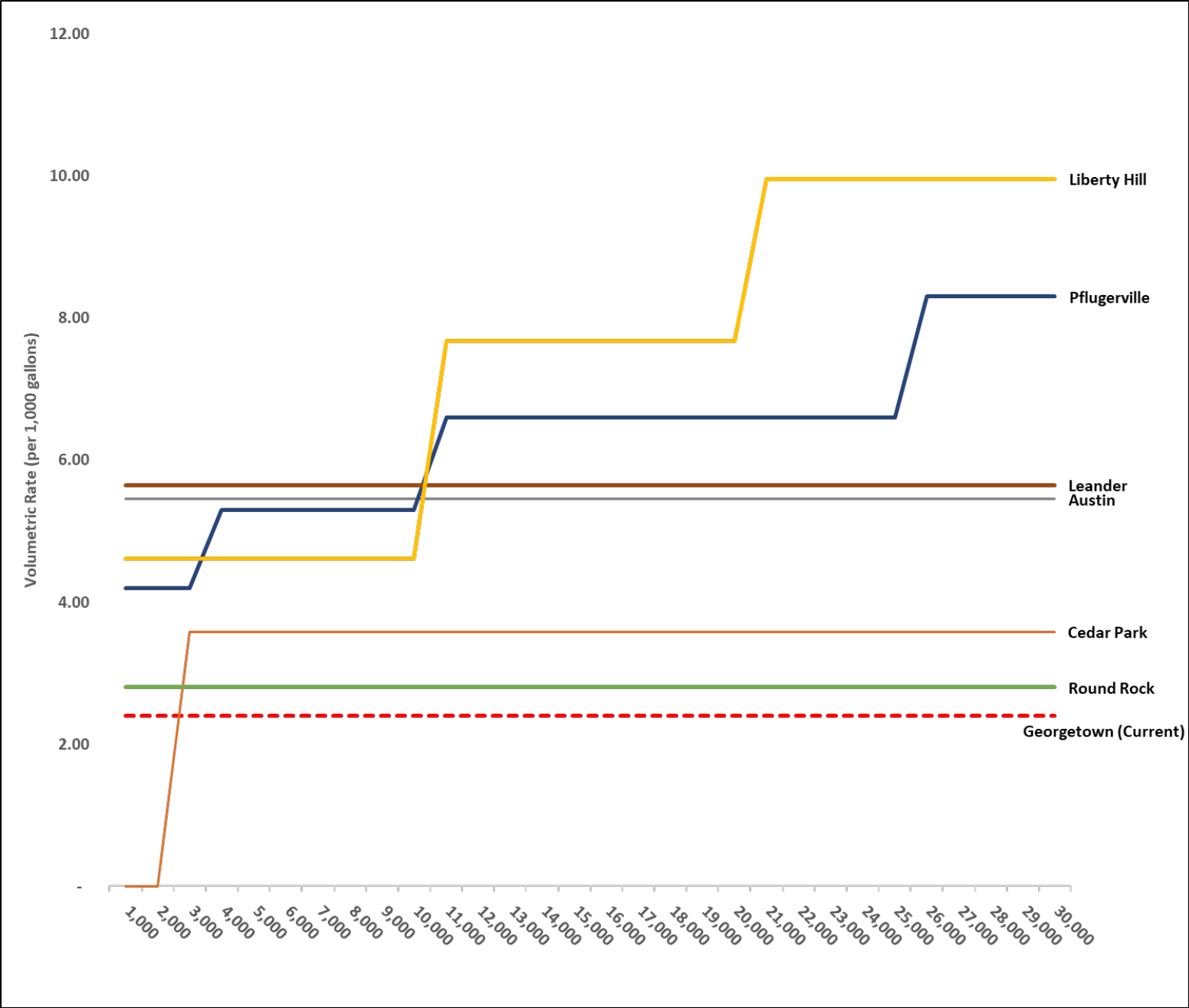
BUILDER

- Recommend Billing Builders same Class as Property
 - Recommended to be Billed as Residential Last Year
- Per FY 2020 Billing Data
 - Residential Peak/Average = 1.73
 - Builder Peak/Average = 1.75
- Keeping the meter in the same rate class as the end user is also helpful for customer service record keeping

COMMERCIAL

- Reviewed Commercial Tier Options
- Existing Structure has High 1st Tier
- Customers Rarely Reach 2nd Tier (Per FY 2020 Billing Data)
 - Out of 16,277 Bills, Only 60 Reached the 2nd Tier (0.4%)
 - 26,000 kgal out of 683,000 kgal in the 2nd Tier (3.8%)
- Projected FY 2022 Billing
 - \$237K out of \$2,055K Volumetric Revenue is from 2nd Tier (11.5%)

COMMERCIAL (CONT.)



EFFECT OF RATE DESIGN CHANGES

- Multi-Family Change per Unit
 - Estimated Revenue Increase of about \$1M Annually
- Builder Change per Project Type/Ultimate Use
 - Estimated Revenue Increase of about \$100k Annually
- If both are accepted, reduces rate increases needed
 - From 9.5% to 9.0% in both FY 2023 and FY 2024
 - Both increases are applied to all classes equally

POSSIBLE BILL IMPACT TO RESIDENTIAL CUSTOMERS

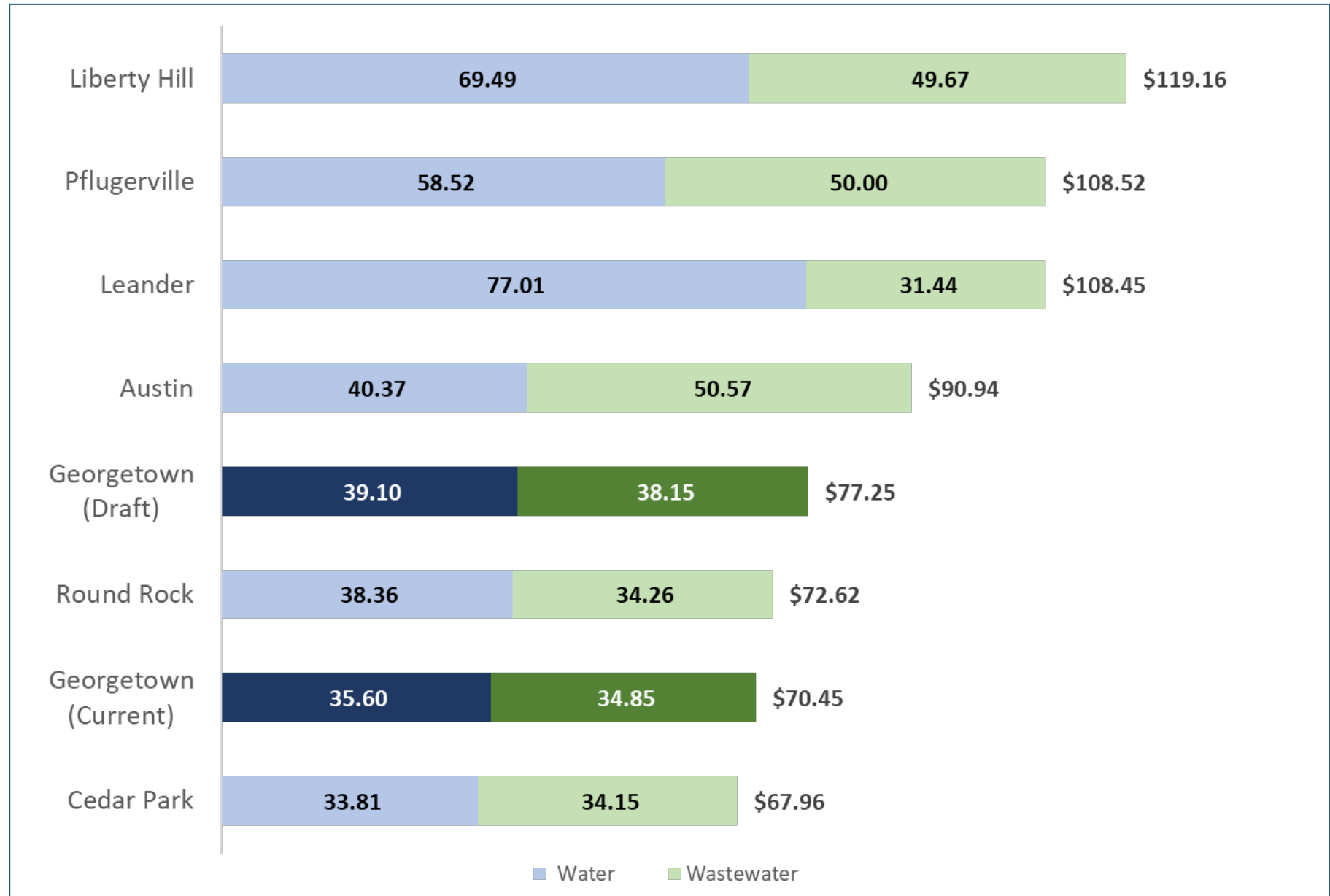
*SOME TOTALS WILL NOT
MATCH DUE TO ROUNDING*

DRAFT RATE OPTIONS

		Increases of 9.5%		Increases of 9.0%	
Monthly Usage	Current	FY 2023	FY 2024	FY 2023	FY 2024
6,000 Gallons					
Water	\$ 35.60	\$ 39.10	\$ 42.80	\$ 38.75	\$ 42.35
Wastewater	34.85	38.15	41.75	38.00	41.40
Total at 6,000	\$ 70.45	\$ 77.25	\$ 84.55	\$ 76.75	\$ 83.75
Change \$		\$ 6.80	\$ 7.30	\$ 6.30	\$ 7.00
10,000 Gallons					
Water	\$ 45.70	\$ 50.30	\$ 55.10	\$ 49.60	\$ 54.30
Wastewater	34.85	38.15	41.75	38.00	41.40
Total at 10,000	\$ 80.55	\$ 88.45	\$ 96.85	\$ 87.60	\$ 95.70
Change \$		\$ 7.90	\$ 8.40	\$ 7.05	\$ 8.10
25,000 Gallons					
Water	\$ 107.45	\$ 118.55	\$ 129.85	\$ 115.85	\$ 127.05
Wastewater	34.85	38.15	41.75	38.00	41.40
Total at 25,000	\$ 142.30	\$ 156.70	\$ 171.60	\$ 153.85	\$ 168.45
Change \$		\$ 14.40	\$ 14.90	\$ 11.55	\$ 14.60

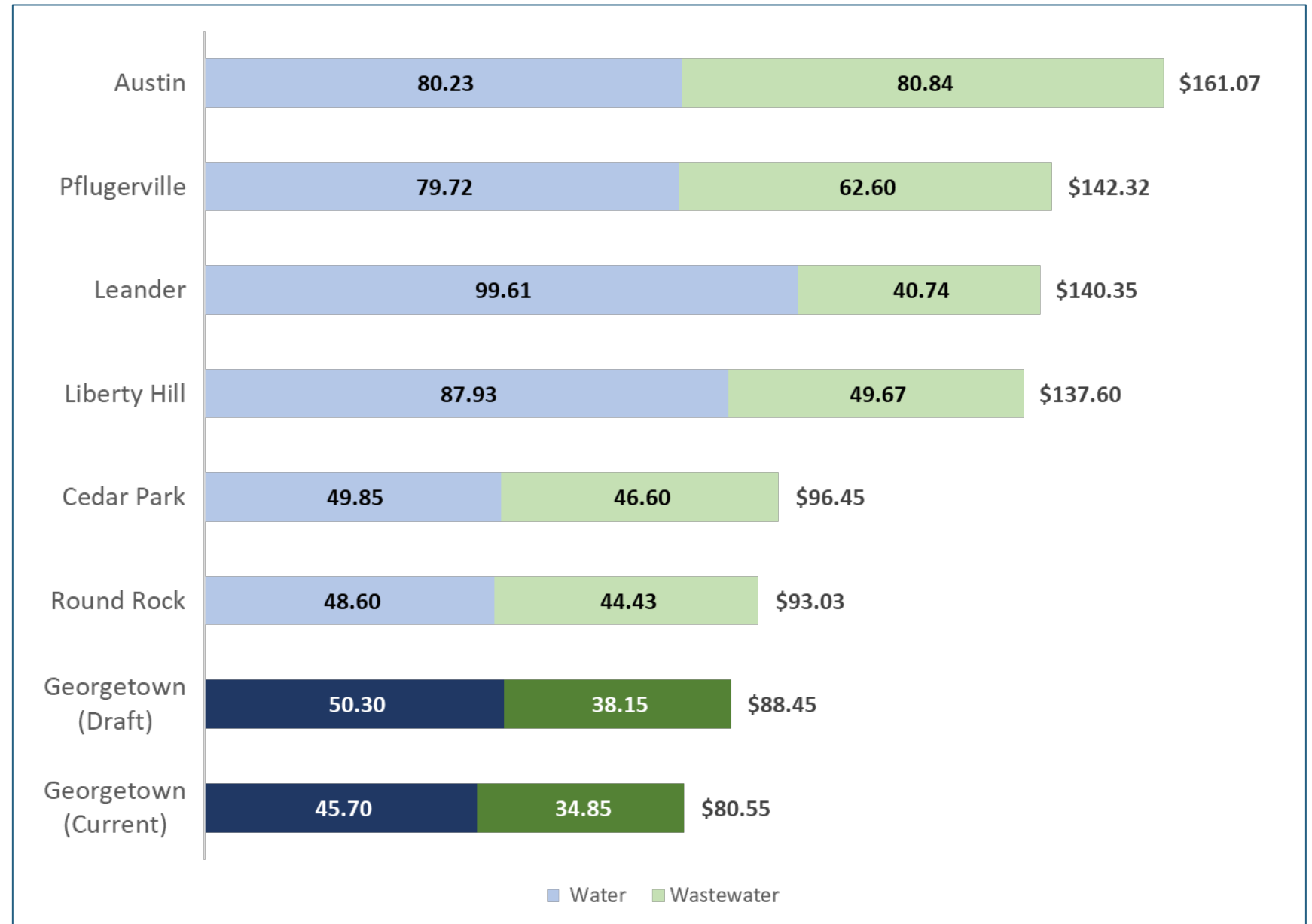
RESIDENTIAL REGIONAL BILL COMPARISON

Customer at
6,000 Gallons



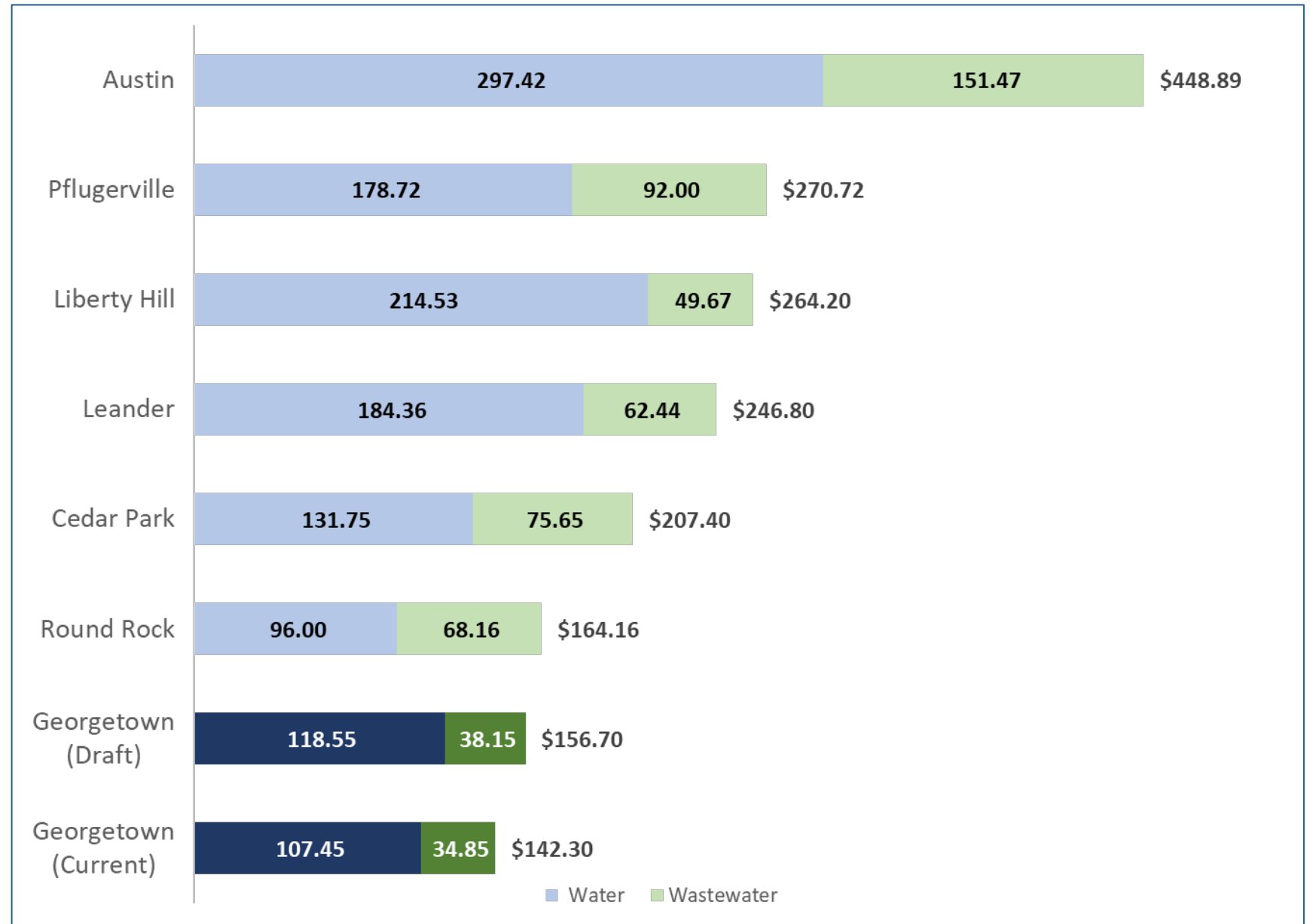
RESIDENTIAL REGIONAL BILL COMPARISON

Customer at 10,000
Gallons



RESIDENTIAL REGIONAL BILL COMPARISON

Customer at 25,000
Gallons



ON THE HORIZON - IMPORTANT FACTORS TO CONSIDER

- Master Plan updates
 - Related Impact Fee updates
- Inflation
 - Capital example that capital projects coming in at 20% higher than estimates
 - Operations example of energy costs
- Cost Allocation Study Updates
- Growth patterns may change
- New BRA Water Sources
 - System wholesale rate increases
 - Conveyance costs, etc.
- Legislative Mandates



NEXT STEPS



- April - Award of South Lake WTP
- May – Selling Revenue Bonds
- Proposed Rate Action Timing
 - Possible early adoption or during budget process
 - Effective Date October 1, 2022



THANK YOU FOR YOUR TIME

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