



Council Workshop



Water, Sewer, Stormwater & Solid Waste Rate Study Update

Sergey Tarasov, Principal
Matthew Hobson, Project Manager
Luke Rosson, Analyst

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Agenda

- **Background**
- **Overview of the rate setting process**
- **Summary findings and recommendations**
 - » Revenue requirement
 - » Rate design
- **Next steps**
- **Questions / discussion**



Background

- **Previous study completed in 2018**
 - » Rate adjustments were needed to meet ongoing obligations
 - » Reminder: no System Development Charges for Stormwater or Solid Waste
- **2023 rate study update commenced early 2023**
 - » 9/5/2023 presented water & sewer revenue requirements
 - » 9/18/2023 presented stormwater & solid waste revenue requirements
- **Today's focus: direction / input**
 - » Proposed revenue requirement scenarios
 - » Rate design
 - Water tiered rates



Overview of Rate Setting Process

Fiscal Policies – Set the Management Foundation

Step 1:
Revenue Requirement
(defining overall needs)

Revenue

Debt

Reserves

O&M

Capital

Step 2:
Design Rates
(collect target revenue)

Fixed Charge

Variable Charge



Revenue Requirement Objectives

- **Determine the amount of annual revenue necessary to fund all financial obligations on a standalone basis**
 - » Operating expenses
 - » Debt service (principal & interest)
 - » Capital costs and funding approach
- **Meet financial parameters and targets**
 - » Target debt service coverage ratios
 - » Maintain target reserve balances
- **Evaluate revenue sufficiency over a multi-year period**
- **Develop rate plan to balance financial needs and minimize customer impacts**



Overview of Rate Design

- **Development of fixed and variable charges assessed to customers**



Aligns fixed and variable costs with fixed and variable revenue sources



Generates sufficient revenue to meet utility requirements



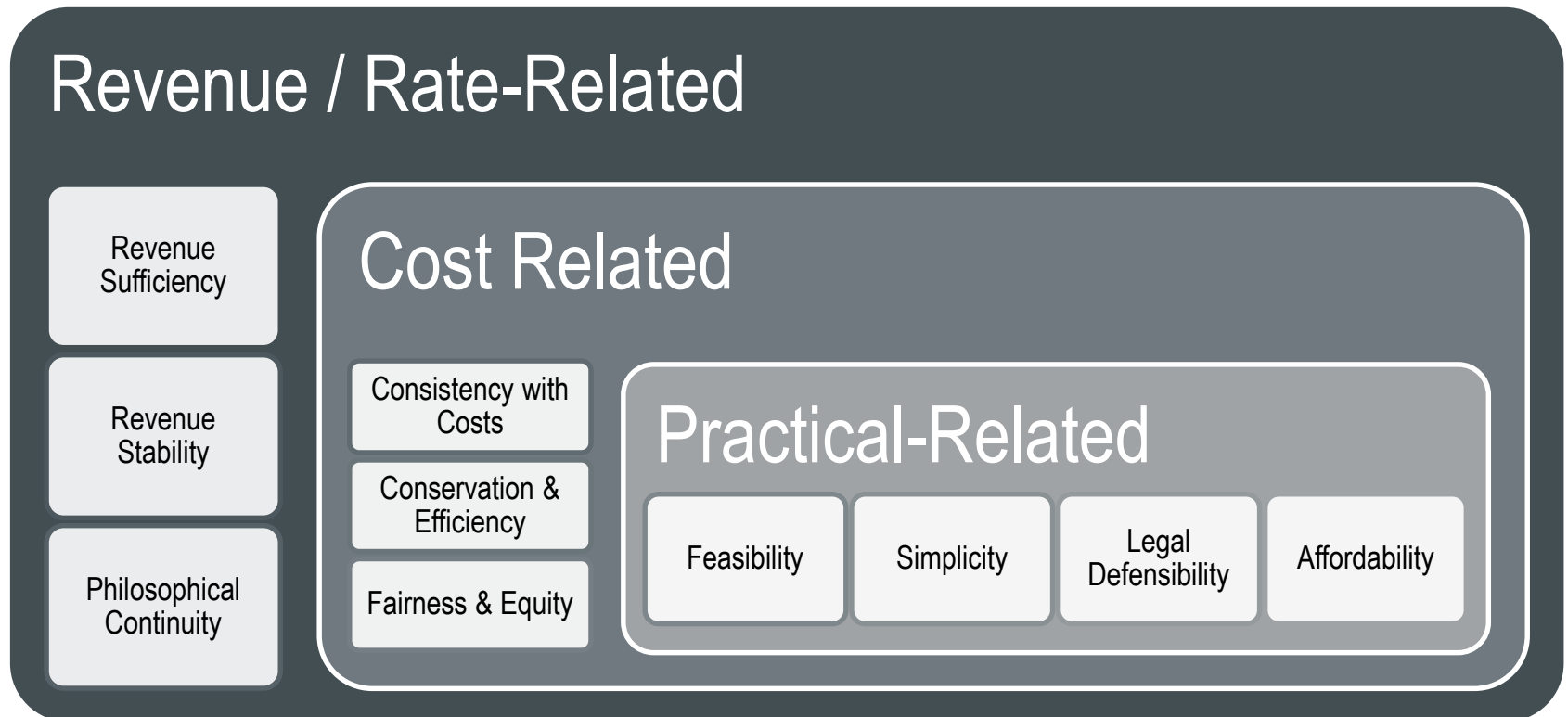
Meet goals and objectives of the utility (e.g., conservation)



Evaluate monthly rate impact for different levels of use

Rate Design Goals

- No structure can completely achieve all the objectives – it's a balancing act



Source: *Principles of Public Utility Rates*, Bonbright, Danielson and Kamerschen



Considerations for Discussion

- **No structural changes**
 - » Apply increases on an across-the-board basis – equally to fixed and variable charges
- **Tiered water rates for residential customers**
 - » Encourage conservation
 - Pros
 - Discourages wasteful use of resources
 - May defer additional capacity investments in the long term
 - Addresses DOH water use efficiency rules in WSP planning process
 - Cons
 - Initial transition will impact customers differently (higher users pay proportionally more)
 - Reduction of billable volume may impact the overall revenue stability unless elasticity is considered



Water



Scenarios for Consideration

- **Scenario for consideration**

- » S1: fully fund ongoing obligations and policies
- » S2: increased debt financing and reduced coverage

Scenarios	2023	2024	2025	2026	2027	2028	Total
Annual Rate Increases							
S1: Full Funding		7.50%	7.50%	7.50%	3.00%	3.00%	
S2: Reduced Policies		4.75%	4.75%	4.75%	4.75%	4.75%	
Avg. Residential Monthly Bill (3/4" Meter 10ccf)							
S1: Full Funding	\$ 38.33	\$ 41.20	\$ 44.30	\$ 47.62	\$ 49.05	\$ 50.52	
S2: Reduced Policies	38.33	40.15	42.06	44.06	46.15	48.34	
Avg. Residential Monthly Bill Difference							
S1: Full Funding	\$ 2.87	\$ 3.09	\$ 3.32	\$ 1.43	\$ 1.47		
S2: Reduced Policies	1.82	1.91	2.00	2.09	2.19		
New Debt (Revenue Bonds)							
S1: Full Funding	\$ -	\$ -	\$ -	\$ 13,200,000	\$ -	\$ -	\$ 13,200,000
S2: Reduced Policies	-	-	-	15,300,000	-	-	15,300,000
Annual Coverage (2.50 Policy Target 1.25 Min. Covenant Target)							
S1: Full Funding	2.86	3.64	4.53	2.51	2.70	2.59	
S2: Reduced Policies	2.86	3.48	4.17	2.05	2.28	2.22	

- S1 projects an additional \$5.5MM in revenue bonds in 2029
- S2 projects an additional \$8.1MM in revenue bonds between 2029 and 2031



Recommended Scenario

- **Incorporated feedback from the Council**
 - » Level increases every year
 - » Minor deviation from policies for one year

Scenarios	2023	2024	2025	2026	2027	2028	Total
Annual Rate Increase		6.00%	6.00%	6.00%	6.00%	6.00%	
Avg. Res. Mo. Bill (10 ccf)	\$ 38.33	\$ 40.63	\$ 43.07	\$ 45.65	\$ 48.39	\$ 51.29	
Avg. Res. Mo. Bill Difference	\$ 2.30	\$ 2.44	\$ 2.58	\$ 2.74	\$ 2.90		
New Debt (Rev. Bonds)	\$ -	\$ -	\$ -	\$ 14,500,000	\$ -	\$ -	\$ 14,500,000
Annual Coverage After Increase	2.86	3.55	4.33	2.23	2.52	2.54	

- Recommended scenario projects an additional \$5.5 million in revenue bonds in 2029



Rate Design – Across the Board

Description	Existing	Proposed Monthly Charges				
		2024	2025	2026	2027	2028
Fixed Monthly Charge						
5/8"	\$ 12.77	\$ 13.54	\$ 14.35	\$ 15.21	\$ 16.12	\$ 17.09
3/4"	13.83	14.66	15.54	16.47	17.46	18.51
1"	17.06	18.08	19.16	20.31	21.53	22.82
1.25"	19.21	20.36	21.58	22.87	24.24	25.69
1.5"	21.38	22.66	24.02	25.46	26.99	28.61
2"	33.24	35.23	37.34	39.58	41.95	44.47
3"	120.40	127.62	135.28	143.40	152.00	161.12
4"	152.74	161.90	171.61	181.91	192.82	204.39
6"	228.07	241.75	256.26	271.64	287.94	305.22
Volume Charge (\$ / ccf)						
Residential	\$ 2.45	\$ 2.60	\$ 2.76	\$ 2.93	\$ 3.11	\$ 3.30
Commercial	2.99	3.17	3.36	3.56	3.77	4.00
Industrial	2.48	2.63	2.79	2.96	3.14	3.33
Cemetery	1.11	1.18	1.25	1.33	1.41	1.49
Irrigation	2.78	2.95	3.13	3.32	3.52	3.73

Note : rates for customers located outside the City are increased by 1.50.

Annual Increase	6.00%	6.00%	6.00%	6.00%	6.00%
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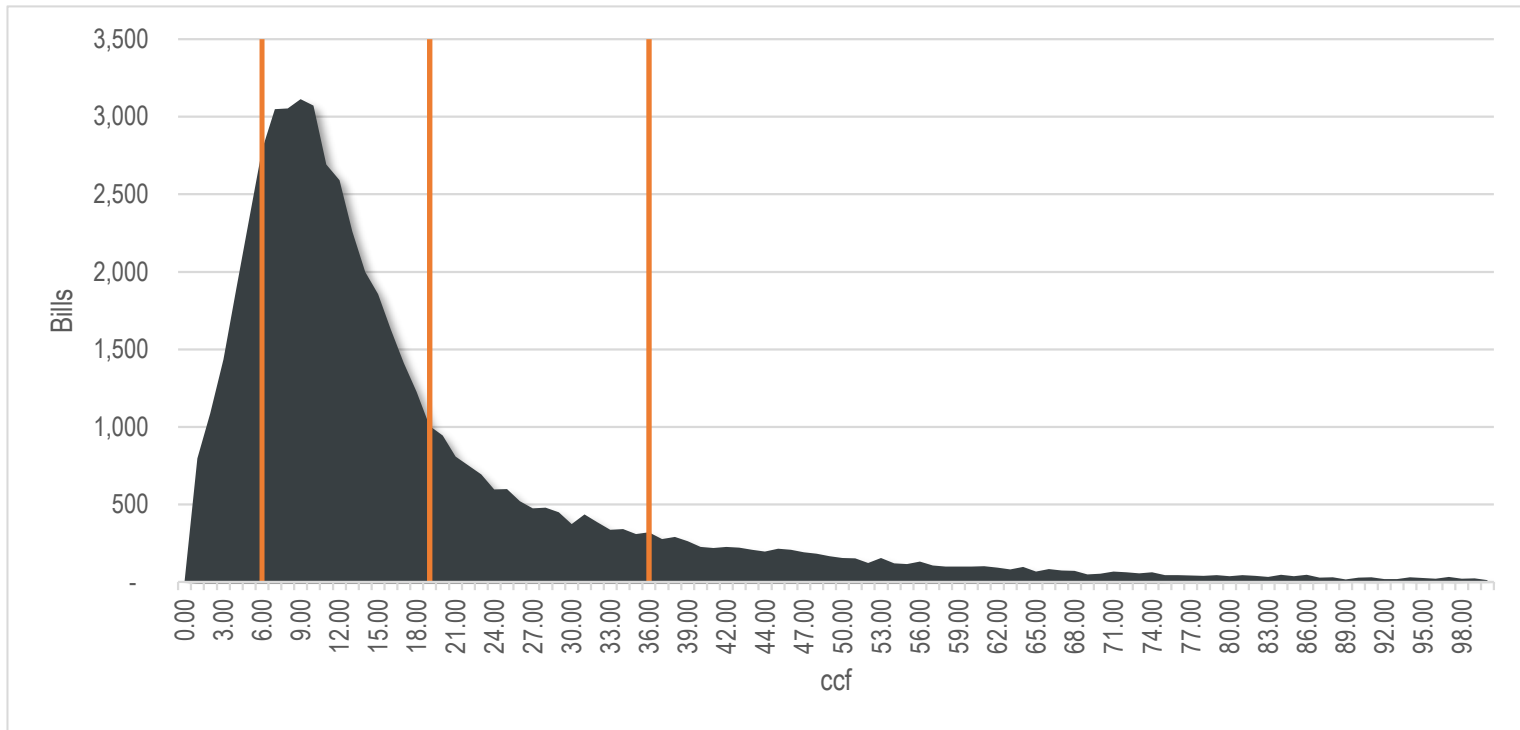


Residential Tiered Rates

- **Key assumptions and data**
 - » Residential customer class was separated into
 - Single-family residential
 - Multi-family residential
 - » Tiered rates were developed for single-family customers only
 - Multi-family customers do not receive a bill directly
 - Multi-family customers do not have yards for irrigation



Single-family Usage



2022 Single-family Data	Bi-Monthly Average Use						Annual
	Jan	Mar	May	Jul	Sep	Nov	Avg.
Bi-Mo. Average	12	12	13	12	36	30	19
25% Percentile	7	6	8	7	14	12	8
50% Percentile	10	10	11	10	28	23	12
75% Percentile	14	14	16	15	49	38	22
Monthly Data							
Mo. Average	6	6	7	6	18	15	10
25% Percentile	4	3	4	4	7	6	4
50% Percentile	5	5	6	5	14	12	6
75% Percentile	7	7	8	8	25	19	11



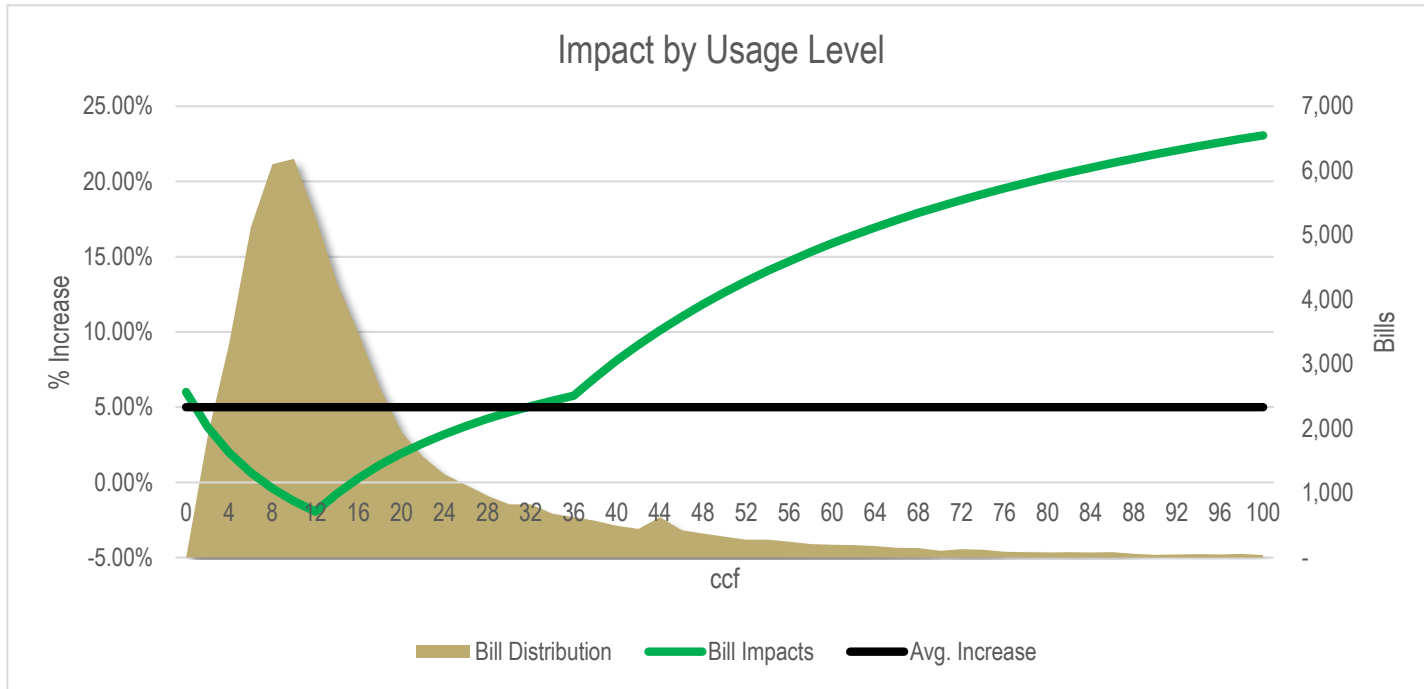
Single-family Tiered Rates Example

- Assuming overall 6.0% increase for 2024 example

Bi-Monthly Tiers	Volume % by Tier	Sample Rates	Notes:
Tier 1: 0-12 ccf	50.26%	\$ 2.22	<i>Lifeline tier, tied to winter average use.</i>
Tier 2: 12.01-36 ccf	31.37%	2.77	<i>Tier tied to highest summer bi-monthly period.</i>
Tier 3: 36.01+ ccf	18.37%	3.33	<i>Excess use.</i>
Uniform Rate (Existing Structure)		\$ 2.60	



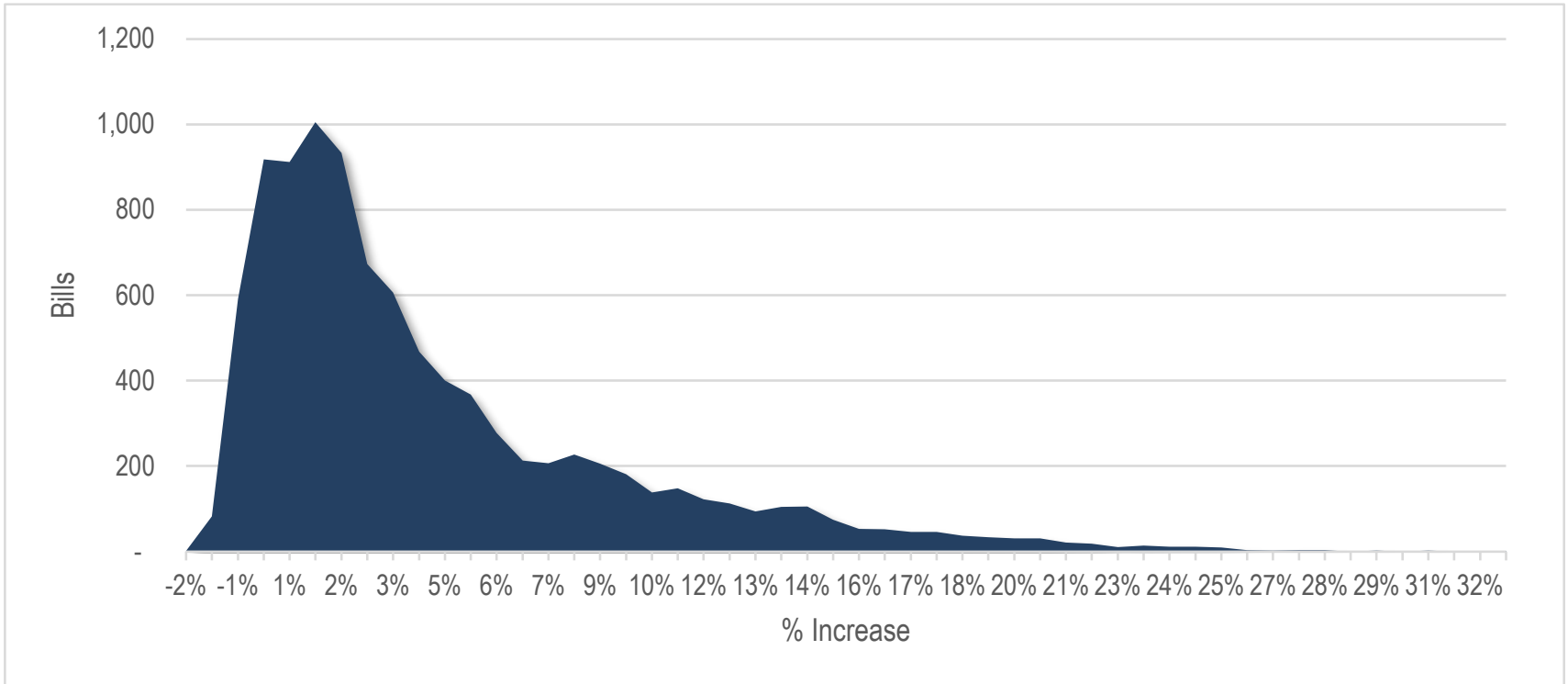
Single-family Impacts (Bi-Monthly)



ccf	Existing		2024 Tiered		Difference			
	\$		\$		\$	%		
0	\$	27.66	\$	29.32	\$	1.66	6.00%	
4		37.46		38.20		0.74	1.97%	
6		42.36		42.64		0.28	0.65%	winter avg.
10		52.16		51.51		(0.65)	-1.24%	
14		61.96		61.50		(0.46)	-0.75%	
18		71.76		72.59		0.83	1.16%	annual avg.
24		86.46		89.24		2.78	3.21%	
30		101.16		105.88		4.72	4.67%	
36		115.86		122.53		6.67	5.75%	peak bi-mo. avg.
40		125.66		135.84		10.18	8.10%	
50		150.16		169.13		18.97	12.63%	
80		223.66		268.99		45.33	20.27%	



Single-family Impacts (2022 Actual Data)



Description	Impact
Minimum	-2.09%
Maximum	32.08%
Average	4.07%
Mode	4.75%
W. Average	5.99%

A close-up photograph of a circular sewer manhole cover. The cover has a textured, grid-like pattern. A dark grey arrow-shaped graphic is overlaid on the image, pointing from the left towards the right. The word "Sewer" is written in white, bold, sans-serif font inside the arrow.

Sewer



Scenario for Consideration

- Fully fund ongoing obligations and policies

Scenarios	2023	2024	2025	2026	2027	2028	Total
Annual Rate Increase		3.25%	3.25%	3.25%	3.25%	3.25%	
Avg. Res. Mo. Bill (6ccf)	\$ 55.67	\$ 57.48	\$ 59.35	\$ 61.28	\$ 63.27	\$ 65.33	
Avg. Res. Mo. Bill Difference		\$ 1.81	\$ 1.87	\$ 1.93	\$ 1.99	\$ 2.06	
New Debt (Rev. Bonds)	\$ -	\$ 9,000,000	\$ -	\$ 4,500,000	\$ -	\$ -	\$ 13,500,000
Annual Coverage After Increase	3.54	3.58	3.84	3.58	3.90	4.25	

» An additional \$14.50MM revenue bond is anticipated in 2029



Rate Design – Across the Board

Description	Existing	Proposed Monthly Charges				
		2024	2025	2026	2027	2028
Fixed Monthly Charge						
Residential	\$ 29.09	\$ 30.04	\$ 31.02	\$ 32.03	\$ 33.07	\$ 34.14
Commercial and Industrial	13.95	14.40	14.87	15.35	15.85	16.37
Volume Charge (\$ / ccf)						
Residential	\$ 4.43	\$ 4.57	\$ 4.72	\$ 4.87	\$ 5.03	\$ 5.19
Commercial and Industrial	5.92	6.11	6.31	6.52	6.73	6.95
Annual Increase		3.25%	3.25%	3.25%	3.25%	3.25%

Note: rates for customers located outside the City are increased by 1.50.



Stormwater



Scenarios for Consideration

- **Scenario for consideration**

- » S1: fully fund ongoing obligations and policies
- » S2: increased debt financing and reduced coverage

Scenarios	2023	2024	2025	2026	2027	2028	Total
Annual Rate Increases							
S1: Full Funding		13.50%	13.50%	13.50%	13.50%	13.50%	
S2: Reduced Policies		10.00%	10.00%	10.00%	10.00%	10.00%	
Avg. Residential Monthly Bill							
S1: Full Funding	\$ 13.55	\$ 15.38	\$ 17.46	\$ 19.81	\$ 22.49	\$ 25.52	
S2: Reduced Policies	13.55	14.91	16.40	18.04	19.84	21.82	
Avg. Residential Monthly Bill Difference							
S1: Full Funding	\$ 1.83	\$ 2.08	\$ 2.36	\$ 2.67	\$ 3.04		
S2: Reduced Policies	1.36	1.49	1.64	1.80	1.98		
New Debt (Revenue Bonds)							
S1: Full Funding	\$ 1,000,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 1,500,000
S2: Reduced Policies	1,300,000	-	1,100,000	-	-	-	2,400,000
Annual Coverage (2.50 Policy Target 1.25 Min. Covenant Target)							
S1: Full Funding		2.50	6.20	5.64	8.67	12.23	
S2: Reduced Policies		1.29	3.35	2.31	3.63	5.06	

- S1 projects an additional \$15.0MM in revenue bonds 2029-2039
- S2 projects an additional \$20.0MM in revenue bonds 2029-2039



Rate Design S1 – Across the Board

Description	Existing	Proposed Monthly Charges				
		2024	2025	2026	2027	2028
Fixed Monthly Charge						
Charge per ESU	\$ 13.55	\$ 15.38	\$ 17.46	\$ 19.82	\$ 22.50	\$ 25.54
Annual Increase		13.50%	13.50%	13.50%	13.50%	13.50%

Note: ESU = Equivalent Service Unit or 3,218 square feet of impervious surface area.

- **Note**

- » Includes \$250,000 per year in expenses associated with recommendations in the DRAFT Lake Management Plan
 - Additional costs may be required as more information becomes available



Solid Waste



Scenario for Consideration

- **Increase solid waste rate revenue by 2.50 percent annually from 2024 to 2028**

Description	2023	2024	2025	2026	2027	2028
Annual Rate Revenue Adjustment		2.50%	2.50%	2.50%	2.50%	2.50%
35-Gallon Weekly Garbage	\$ 17.40	\$ 17.84	\$ 18.29	\$ 18.75	\$ 19.22	\$ 19.70
Recycling Collection	\$ 7.44	\$ 7.63	\$ 7.82	\$ 8.02	\$ 8.22	\$ 8.43
Combined Monthly Bill	\$ 24.84	\$ 25.47	\$ 26.11	\$ 26.77	\$ 27.44	\$ 28.13
\$ Monthly Difference		\$ 0.63	\$ 0.64	\$ 0.66	\$ 0.67	\$ 0.69



Rate Design – Across the Board

Description	Existing	Proposed Monthly Charges				
		2024	2025	2026	2027	2028
One 35-gallon can every other week	\$ 15.02	\$ 15.40	\$ 15.79	\$ 16.18	\$ 16.58	\$ 16.99
One 35-gallon can weekly	17.40	17.84	18.29	18.75	19.22	19.70
One 65-gallon can weekly	22.10	22.65	23.22	23.80	24.40	25.01
Recycling	7.44	7.63	7.82	8.02	8.22	8.43

Note : rates available for 1.5-2.0 yard containers based on frequency of service.

Annual Increase	2.50%	2.50%	2.50%	2.50%	2.50%
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Combined Avg. Residential Bill

Description	Existing	Proposed Monthly Charges				
		2024	2025	2026	2027	2028
Water (3/4" 10ccf)	\$ 38.33	\$ 40.66	\$ 43.14	\$ 45.77	\$ 48.56	\$ 51.51
Sewer (6 ccf)	55.67	57.46	59.34	61.25	63.25	65.28
Stormwater	13.55	15.38	17.46	19.82	22.50	25.54
Solid Waste						
35 gallon can weekly	17.40	17.84	18.29	18.75	19.22	19.70
Recycling	7.44	7.63	7.82	8.02	8.22	8.43
Total Residential Mo. Bill	\$ 132.39	\$ 138.97	\$ 146.05	\$ 153.61	\$ 161.75	\$ 170.46
\$ Mo. Difference		\$ 6.58	\$ 7.08	\$ 7.56	\$ 8.14	\$ 8.71
% Difference		5.0%	5.1%	5.2%	5.3%	5.4%

Note: rates in calculation rounded to the nearest hundredth.



Next Steps

- **Incorporate feedback**
 - » Revenue requirement
 - » Rate design
 - Single-family residential tiered rates
- **Proposed rate ordinances presented at December 4th Regular Meeting**
- **Target implementation date: January 1st, 2024**



Questions/Discussion

Thank you!

Sergey Tarasov | Principal
425.867.1802 ext 247
sergeyt@fcsgroup.com

www.fcsgroup.com