

## AGENDA

JOINT CITY COUNCIL / WATER COMMISSION  
SPECIAL WORK SESSION  
MONDAY  
MARCH 4, 2024

HYBRID  
COUNCIL CHAMBERS  
211 WEST ASPEN AVENUE  
[\(click here to join virtually\)](#)  
3:00 P.M.

All City Council Meetings are live streamed on the city's website  
(<https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings>)

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### 1. Call to Order

#### NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

*Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for discussion and consultation with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).*

### 2. Roll Call

*NOTE: One or more Councilmembers or Commission Members may be in attendance through other technological means.*

MAYOR DAGGETT  
VICE MAYOR ASLAN  
COUNCILMEMBER HARRIS  
COUNCILMEMBER HOUSE

COUNCILMEMBER MATTHEWS  
COUNCILMEMBER MCCARTHY  
COUNCILMEMBER SWEET

COMMISSIONER RIEGELMAN  
COMMISSIONER LOVERICH  
COMMISSIONER ALTER  
COMMISSIONER BILLS

COMMISSIONER DILDAY  
COMMISSIONER NAUMAN  
COMMISSIONER RUDELL

### 3. Pledge of Allegiance, Mission Statement, and Land Acknowledgement

#### MISSION STATEMENT

*The mission of the City of Flagstaff is to protect and enhance the quality of life for all.*

#### LAND ACKNOWLEDGEMENT

*The Flagstaff City Council humbly acknowledges the ancestral homelands of this area's Indigenous nations and original stewards. These lands, still inhabited by Native descendants, border mountains sacred to Indigenous peoples. We honor them, their legacies, their traditions, and their continued contributions. We celebrate their past, present, and future generations who will forever know this place as home.*

**4. Wastewater Rate Design Alternatives Workshop**

Receive guidance on which wastewater rate option is preferred by City Council and Water Commission.

**5. Adjournment**

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on \_\_\_\_\_, at \_\_\_\_\_ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Stacy Saltzburg, MMC, City Clerk

THE CITY OF FLAGSTAFF ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 48-hour advance notice, reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 213-2076 or email at [stacy.saltzburg@flagstaffaz.gov](mailto:stacy.saltzburg@flagstaffaz.gov) to request an accommodation to participate in this public meeting.

NOTICE TO PARENTS AND LEGAL GUARDIANS: Parents and legal guardians have the right to consent before the City of Flagstaff makes a video or voice recording of a minor child, pursuant to A.R.S. § 1-602(A)(9). The Flagstaff City Council meetings are live-streamed and recorded and may be viewed on the City of Flagstaff's website. If you permit your child to attend/participate in a televised Council meeting, a recording will be made. You may exercise your right not to consent by not allowing your child to attend/participate in the meeting.

**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Erin Young, Water Resources Manager  
**Co-Submitter:** Shannon Jones  
**Date:** 02/28/2024  
**Meeting Date:** 03/04/2024




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**TITLE:**  
**Wastewater Rate Design Alternatives Workshop**

**DESIRED OUTCOME:**

Receive guidance on which wastewater rate option is preferred by City Council and Water Commission.

**EXECUTIVE SUMMARY:**

At the February 13, 2024 City Council meeting, the third phase of the Rate Study was presented by Stantec. This meeting was to request the Council's objectives for updating water, wastewater and reclaimed water rates.

Stantec gave the same presentation to the Water Commission at the February 15 Water Commission meeting.

The objectives that ranked highest among the Council and Commission were for revenue stability, water conservation, and equity between customer classes and within a customer class. Affordability and the administrative burden with each option will be evaluated during this Work Session.

At this Work Session, Stantec will present three options for updating wastewater rates and wastewater rate structure. The following options will be presented:

- Adjusting the current rate structure such that each of the customer class of revenues targets the cost of service
- Establishing a monthly base charge for wastewater and charging a volumetric rate to the current set of customer classes
- Establishing a monthly base charge for wastewater and charging a volumetric rate to a condensed set of customer classes

Direction from this Work Session and the Work Session on March 25 will be presented as a final set of changes to rates and rate structures to City Council on April 16, 2024

**INFORMATION:**

An objective of this rate analysis is to develop cost-of-service-based water, wastewater, and reclaimed water rates that charge customers in proportion to the cost of serving each customer. The methodologies used by Stantec are ones endorsed by the leading utility rate-making organizations in the United States, the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

Common industry practice is a two-part rate structure comprising both fixed and volume charges. Generally accepted practice recovers a portion of the costs of the system in a fixed monthly charge (base charge), recognizing that utilities have substantial investments in system costs and other year-round fixed costs to maintain a state of readiness to meet peak demands of customers when these demands occur. In addition, fixed charges also include recovery of customer-related costs. Volume charges recover the remaining revenue requirements, often based on average day-to-day use of the systems. Peak demands of water

systems may also be recovered through other forms of volume charges, such as tiered or seasonal rates.

The City currently has a monthly base charge for water service, which is scaled based on meter size. In addition, a usage charge is applied to customers based on metered water use. For wastewater service, customers are charged a uniform volume rate based on customer class. Reclaimed water rates are established at 35% of the water rates by policy.

While the City's current rate structures for both water and wastewater services comply with common industry practice, Stantec's analysis indicates the cost of service is out of balance for several customer classes. Stantec incorporated the pricing objectives from the previous meeting to evaluate alternative rate structures that achieve these objectives as well as align rates with costs of service. Rate options were developed to achieve the priorities we heard from our last work session with Council and Water Commission that include revenue stability, water conservation, administrative burden (complexity), and proportionality (equity) between customer classes and within a customer class.

**The desired outcome from this Work Session is guidance on which wastewater rate option is preferred by City Council and Water Commission.**

Water rate alternatives will be presented for discussion at the Joint Water Commission-City Council Work Session scheduled for March 25, 2024.

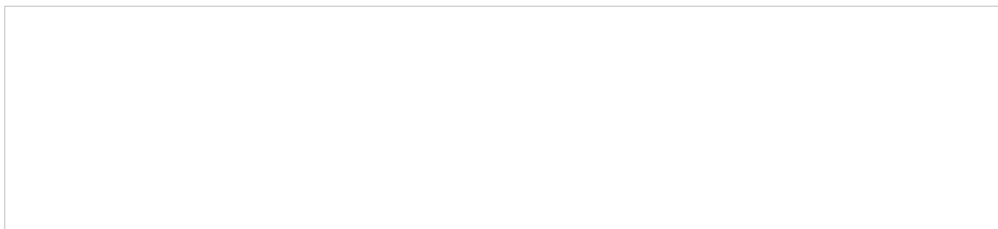
The user fee portion that addresses the cost-of-service to complete miscellaneous services is currently being worked on and the results will be presented at a future meeting.

City Council should expect the Rate Study to remain on monthly agendas through the proposed adoption of updated rates and fees at City Council's June 18<sup>th</sup> and July 2<sup>nd</sup> meetings.

## **RESULTS OF WASTEWATER COST-OF-SERVICE ANALYSIS**

The financial planning analysis evaluated the sufficiency of the City's revenues to meet all current and projected financial requirements over a 10-year projection period, and determined the level of any rate revenue adjustments necessary in each year of the projection period to provide sufficient revenues to fund the water, wastewater, and reclaimed water system cost requirements. This summary focuses on the wastewater fund revenue requirements, cost-of-service results, and options for recovering the costs of service by wastewater customer classes.

Wastewater fund annual revenue requirements are expected to increase from current FY 2024 to FY 2025, the first year of the proposed rate period, by 22%. The following table summarizes the components of the rate revenue requirements in these two periods.



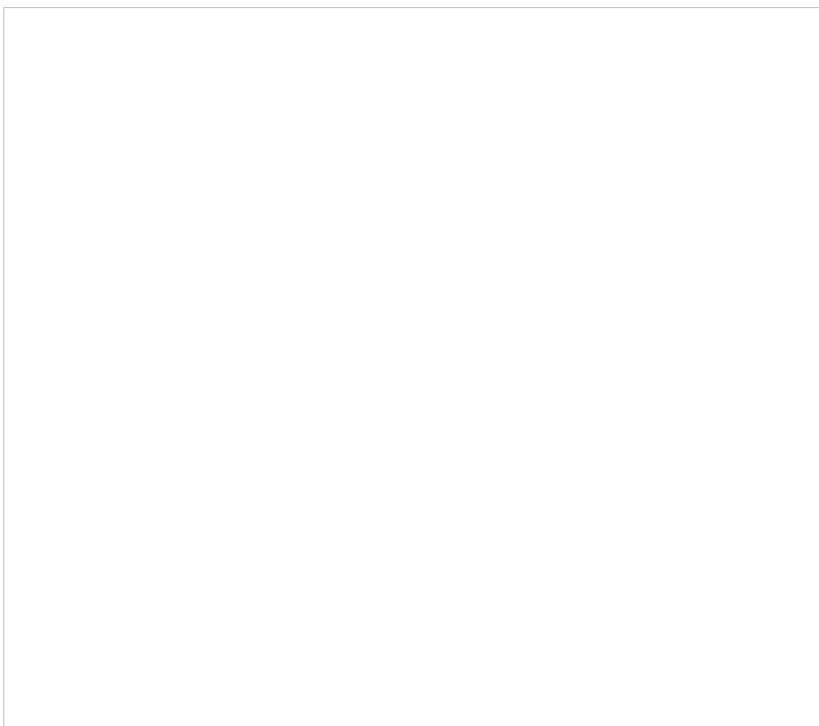
In conjunction with City Staff, Stantec allocated the City's wastewater costs in a cost-of-service (COS) analysis to determine the under or over-recovery of revenues generated from each customer class. The COS analysis evaluated projected FY 2025 annual costs the City will incur to provide its customers wastewater service and fund the full capital improvement program (CIP). The analysis determined the portion of system costs that are allocable to wastewater treatment, collection system, and administrative functions. Customer classes require wastewater service depending on each class's usage characteristics. Therefore, Stantec analyzed customer class billable wastewater flows and strengths of flows to determine the demand each class places on the City's wastewater system.

The following table presents the analysis of billable flows for FY 2023, with projected flows for FY 2024 used in the COS analysis. The adjustment in FY 2024 flows was calculated to recover budgeted revenue in FY

2024 based on FY 2023 billable units.

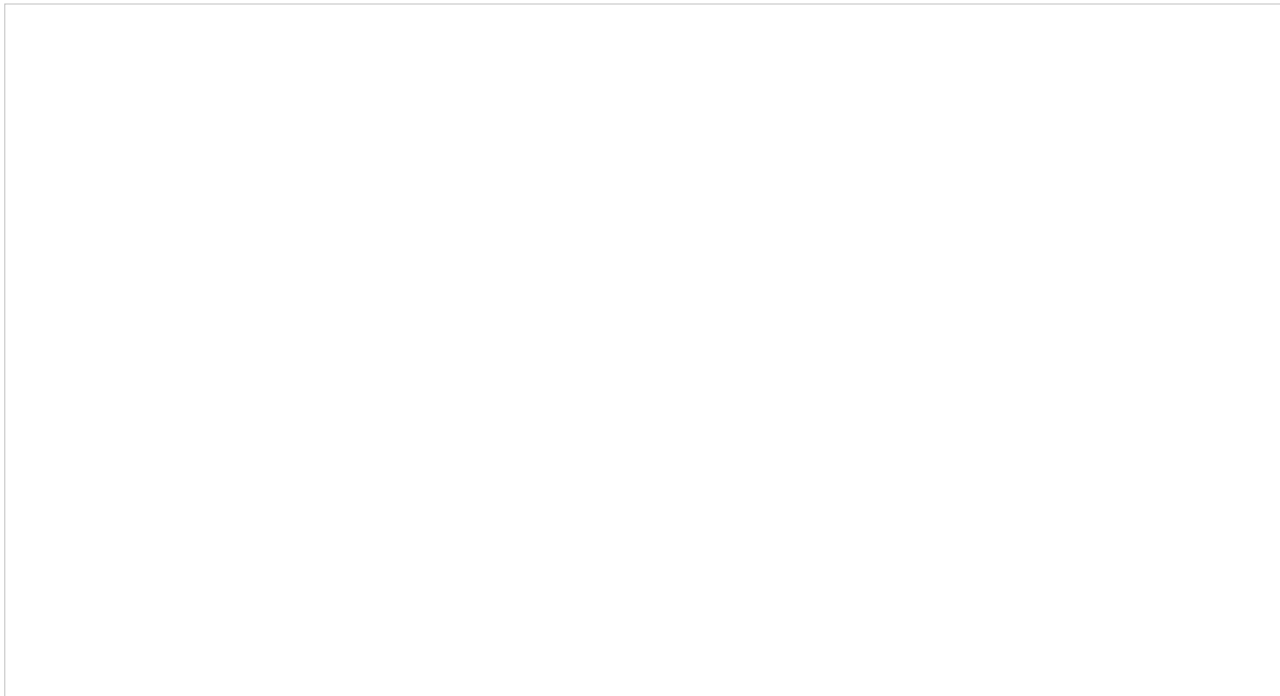


Stantec also reviewed wastewater strengths of flows by customer class. The current wastewater rates by class include assumptions of strength of flows. Review of City code assumptions, as well as considerations for process improvements for specific customer classes, results in the following concentrations in milligrams per liter (mg/L) for biochemical oxygen demand (BOD) and total suspended solids (TSS) assumed for the COS analysis.



Stantec allocated the FY2025 revenue requirements to customer classes using these flow and strength

characteristics. The resulting cost of service by class is presented in the following chart. A comparison of current (FY 2024) projected revenues by class with the cost of service for FY 2025 indicates some classes require an increase in cost recovery while others require a decrease in cost recovery for the first year in the rate study period.



## CONNECTING PRIORITIES WITH RATE OPTIONS

Given the feedback on priorities from both City Council and Water Commission, the wastewater rate design analysis presents three rate options for consideration that meet these priorities. Priorities include:

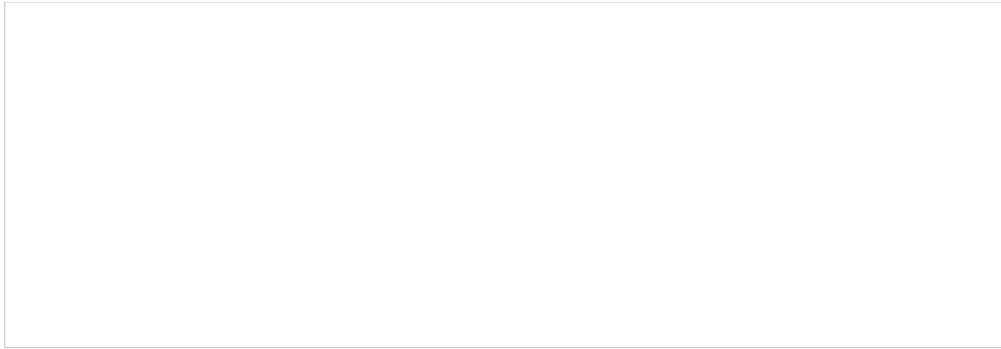
- Revenue stability
- Conservation/demand management
- Administrative burden
- Proportionality (or equity) between classes and within a class
- Affordability

### *Proportionality and Administrative Burden*

While proportionality between classes and within a class is not the top priority, it is achieved through each of the three rate options presented. At the most basic level, the same rate structure as currently in place can be adjusted based on the cost of service by class results to achieve multiple priorities.

### **Option 1 - Cost of Service Rates by Class**

The first rate option adjusts the uniform volume rates by customer class to recover the class costs of service for FY 2025. This adjustment results in some classes' rates increasing, with other classes' decreasing to mirror the results of the cost of service analysis. The next table presents the results.



*Revenue Stability*

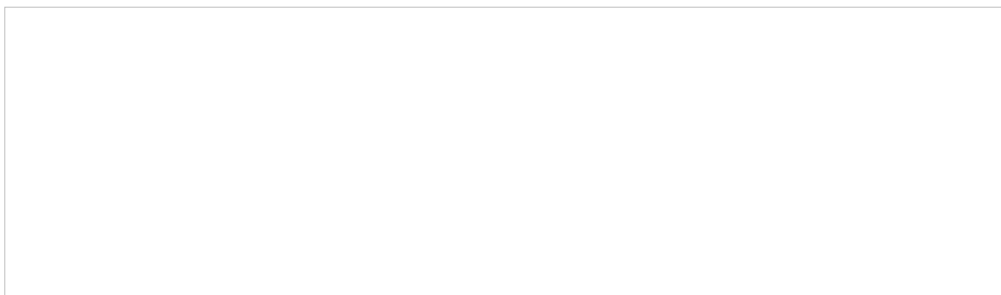
Stable annual revenues from Water Services' perspective, as well as stable monthly bills from a customer perspective can be achieved through implementing a fixed charge for wastewater customers. A fixed charge, similar to the fixed charge for water and reclaimed water service, is established to recover a portion of annual revenue requirements from a monthly charge by meter size. Through discussions with City staff, Water Services best practice for fixed charge revenue recovery is set to a minimum of 25% based on City policy for the water fund. Stantec calculated a fixed charge for the wastewater fund following the same practice. This approach also aligns with bond rating agencies metrics and the nature of utility costs to operate a wastewater system. A large portion of the wastewater system revenue requirements, such as salaries and wages, debt service payments, and maintenance costs, do not vary as wastewater flows increase or decrease. A fixed charge protects the water fund revenues from changes in usage.

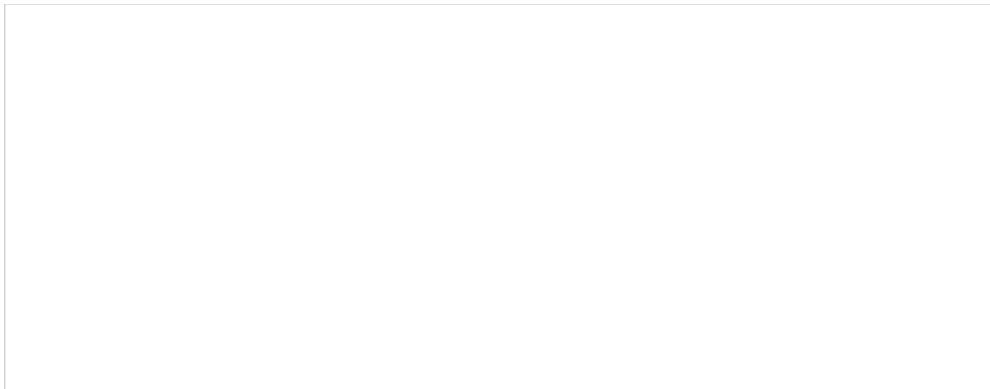
**Option 2 - Fixed Charge + Individualized Rates by Class**

The second rate option is calculated to recover 25% of FY 2025 revenue requirements from a monthly fixed charge by meter size. The charge is determined by evaluating the total number of connections to the wastewater system, identifying the water meter size associated with those connections, and determining an equivalent residential unit (ERU) total using factors from the AWWA manuals on flow rates for different meter sizes. These ERUs represent the potential usage of the wastewater system.

The remaining 75% of revenue requirements is recovered through the same sewer rate structure as currently in place -- uniform volume rates per 1,000 gallons of billed sewer flow by class. These rates have been adjusted for the costs of service by class.

The tables present the results for FY 2025. All rates represent the inside-City rates. Outside-City rates include a 10% surcharge.





*Revenue Stability/Administrative Burden*

Adding on to the priorities addressed in the first two options, the priority of administrative burden and complexity of the rate structure can be addressed by consolidation of the non-residential customer classes. The City has maintained individual customer classes for non-residential type customers with rates that reflect a combination of flows and strengths for many years. As new customers are added, it is important to assign the customer to the correct class. To simplify the current structure, Stantec proposes a consolidation of non-residential customers into classes with similar flow and strength characteristics. While variations in flows and strengths exist, the three non-residential classes present a range of loadings (flows and strengths) for each class that can be used to evaluate where a new customer belongs in the consolidated structure.

**Option 3 -- Fixed Charge + Consolidated Non-Residential Rates by Class**

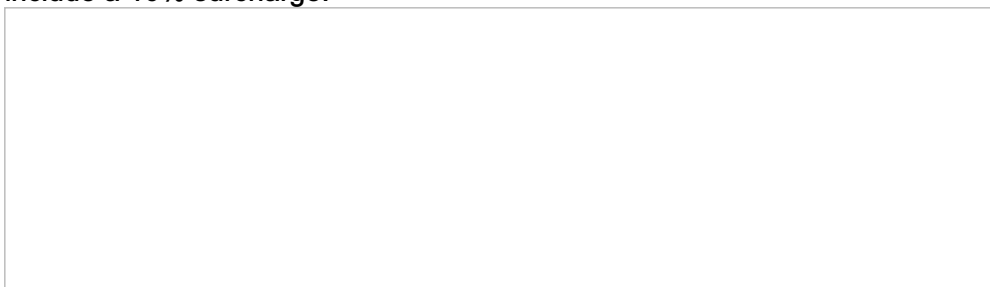
The third rate option builds on Options 1 & 2. The fixed charge is the same as in Option 2 and is calculated to recover 25% of the annual revenue requirements.

The remaining revenue requirements are recovered through a uniform volume rate for residential customers and for three non-residential classes:

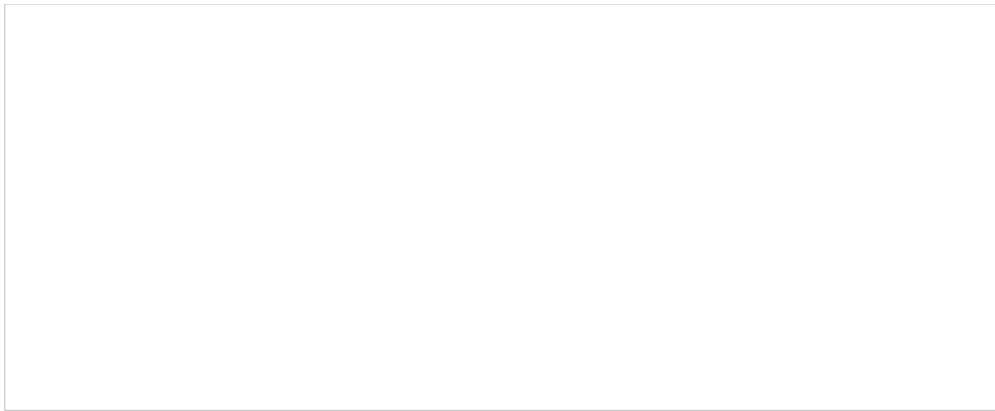
- Non-residential A
- Non-residential B
- Non-residential C

Residential rates are the same as in Option 2. The non-residential classes' rates are calculated to recover the total costs of service for customers in the consolidated classes. Therefore, the volume rates per 1,000 gallons of billed flows are based on the cost-of-service results.

The tables below present the results for FY 2025. All rates represent the inside-City rates. Outside-City rates include a 10% surcharge.

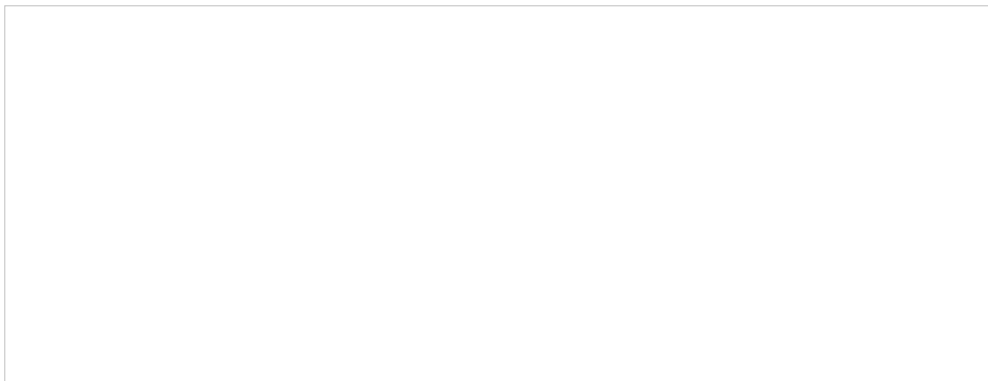






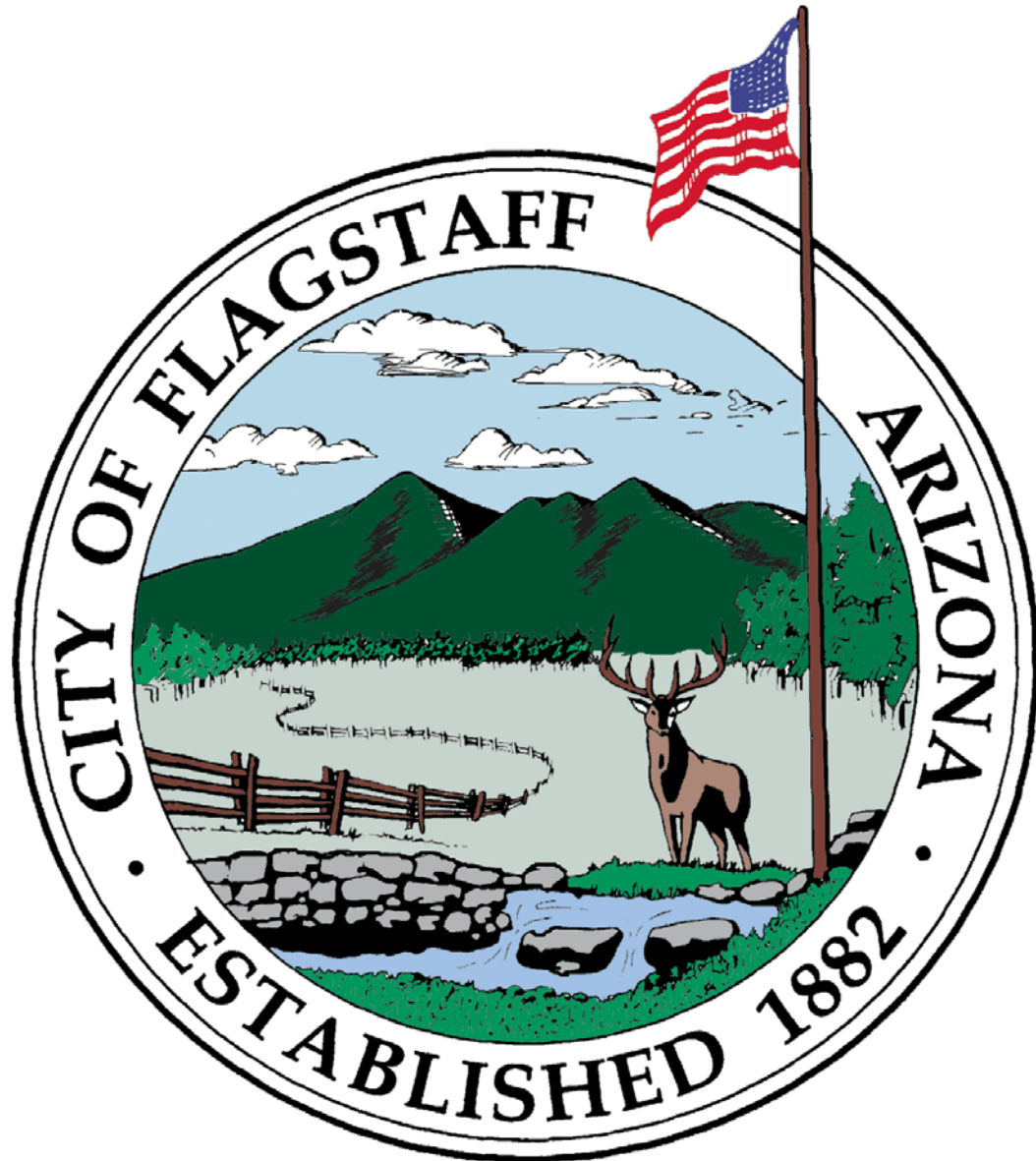
## ESTIMATED CUSTOMER BILL IMPACTS

For each option, customers will see an effect on their current monthly bills due to the revenue requirements for FY 2025, the adjustment for cost-of-service results, and the rate option. The table below presents average monthly bill impacts for each customer class for each of the rate options. Average bill impacts in this table means all monthly bills for 12 months for each customer class were averaged to calculate a change in those monthly bills as a result of the rate option. These may not represent typical bills for the class due to variations in usage and meter size for each class. The residential class, however, closely approximates our previous example municipal services bill for a typical residential customer.



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**Attachments:**    [Presentation](#)  
                          [Supplemental Information](#)  
                          [Staff Summary with Images](#)



# City of Flagstaff, AZ

## Water, Reclaimed Water, & Wastewater Cost-of-Service Study – Wastewater Rate Design

*Joint City Council & Water Commission Work Session  
March 4<sup>th</sup>, 2024*

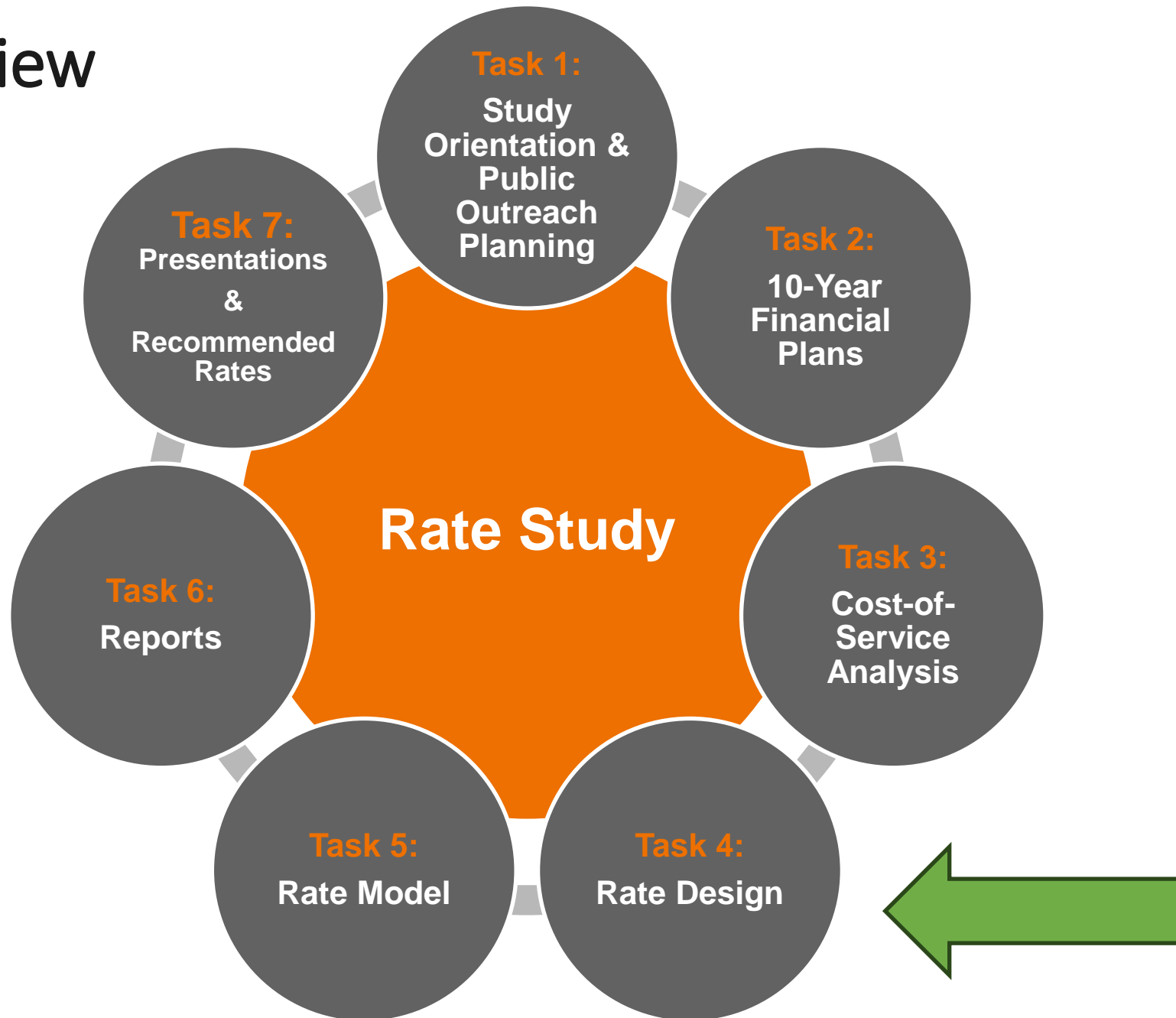


# Agenda

1. Overview
2. Cost Recovery for FY 2025
3. Wastewater Rate Options (3)
4. Customer Impacts
5. Next Steps



# Scope Overview





# The Rate Study Process

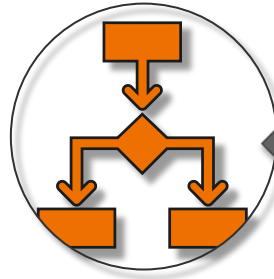
## How Much?



### Financial Plan

- Operations & Maintenance, debt service, projects
- Financial policies & targets
- Council direction for funding full CIP on October 23, 2023

## From Whom?



### Cost-of-Service Allocations

- Identifies how costs are incurred
- Determines how customers use the systems
- Council direction on capacity fees February 6, 2024

## How to Collect?



### Rate Design

- Identifies objectives of the City
- Ties rate structure alternatives to objectives
- Communicates costs of service to customers



# How Much: Revenue Requirements FY 2024 vs. FY 2025

Wastewater Fund	FY 2024 (millions)	FY 2025 (millions)
<b>Operations &amp; Maintenance</b>	\$8.3	\$8.7
<b>Debt Service</b>	\$2.6	\$3.1
<b>Capital</b>	\$8.3	\$5.5
<b>Total Expenditures</b>	<b>\$19.2</b>	<b>\$17.3</b>
<i>Use of Reserves</i>	(\$7.7)	(\$3.7)
<i>Non-Rate Revenue</i>	(\$0.9)	(\$0.6)
<b>Rate Revenue</b>	<b>\$10.6</b>	<b>\$13.0</b>

**Change in rate revenue needed – 22%**



# Revenue Requirements FY 2024 - FY 2025

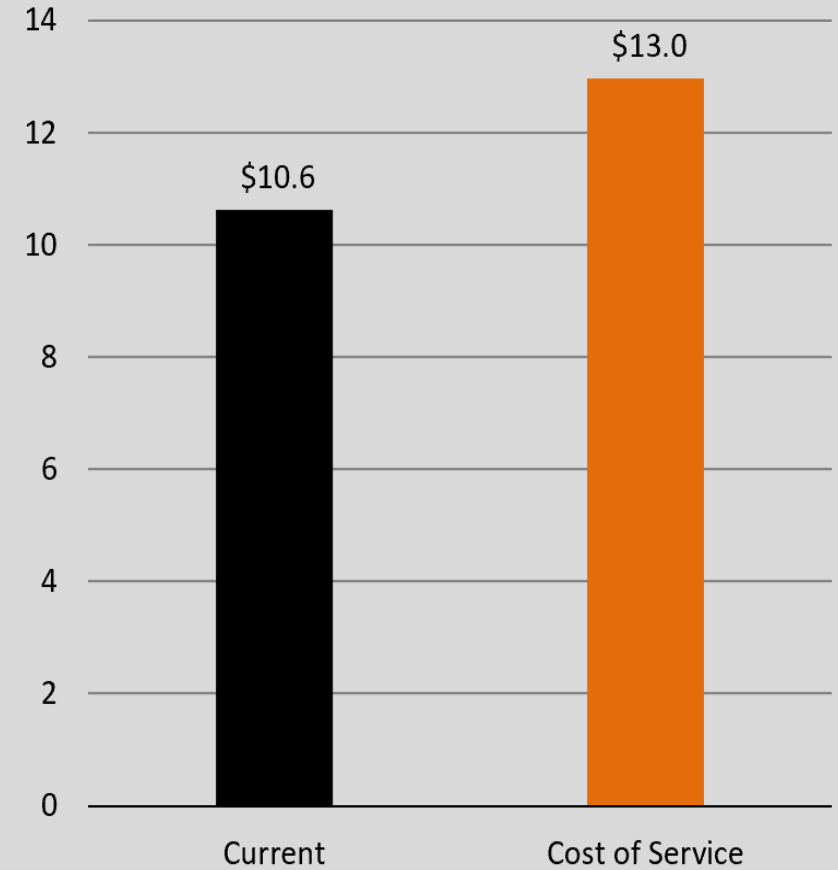
Change (\$M)

\$2.33

Change (%)

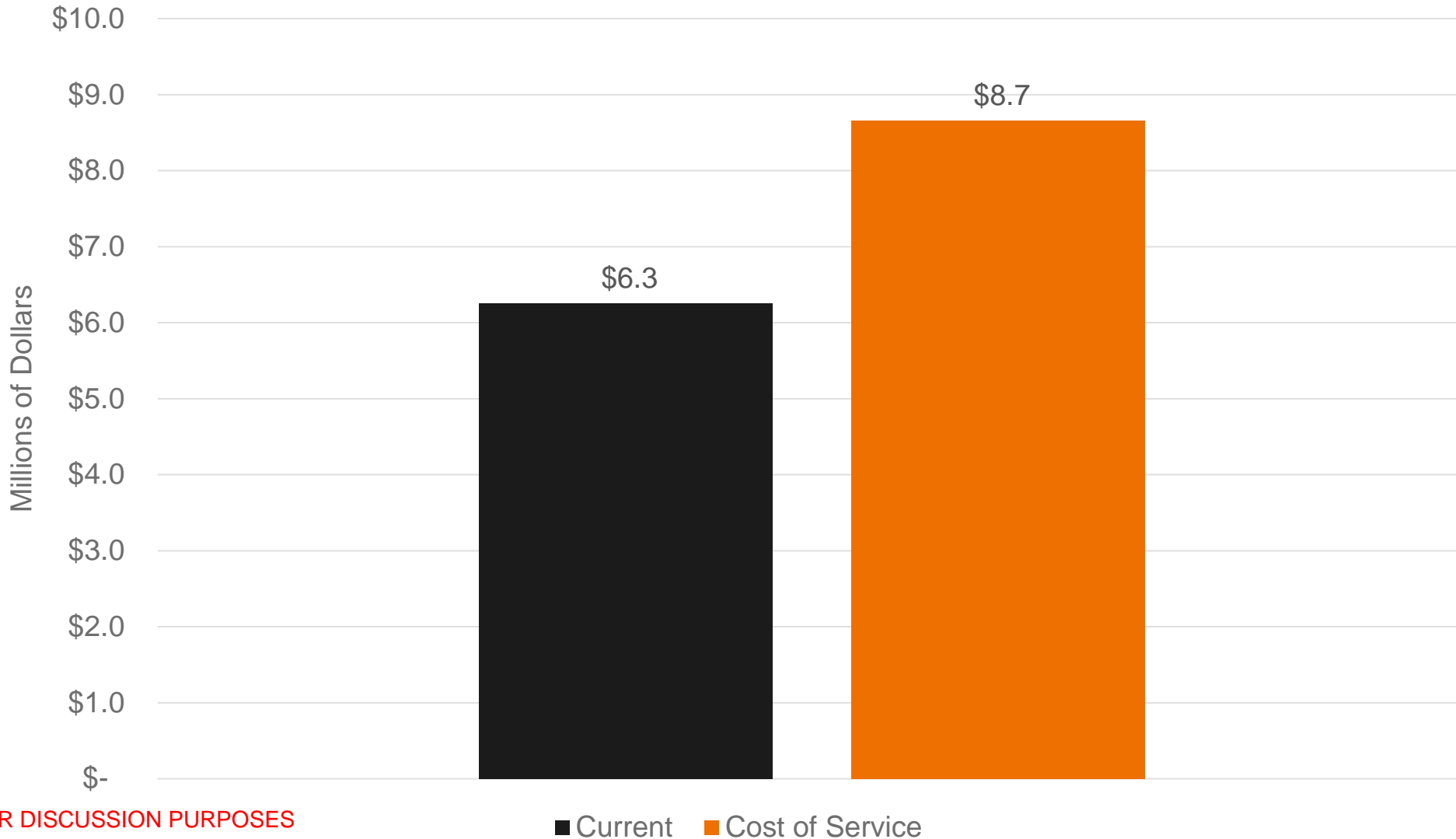
22.0%

Total Revenue/Cost of Service (\$M)





# From Whom: Customer Class Cost Recovery FY 2025 - Residential

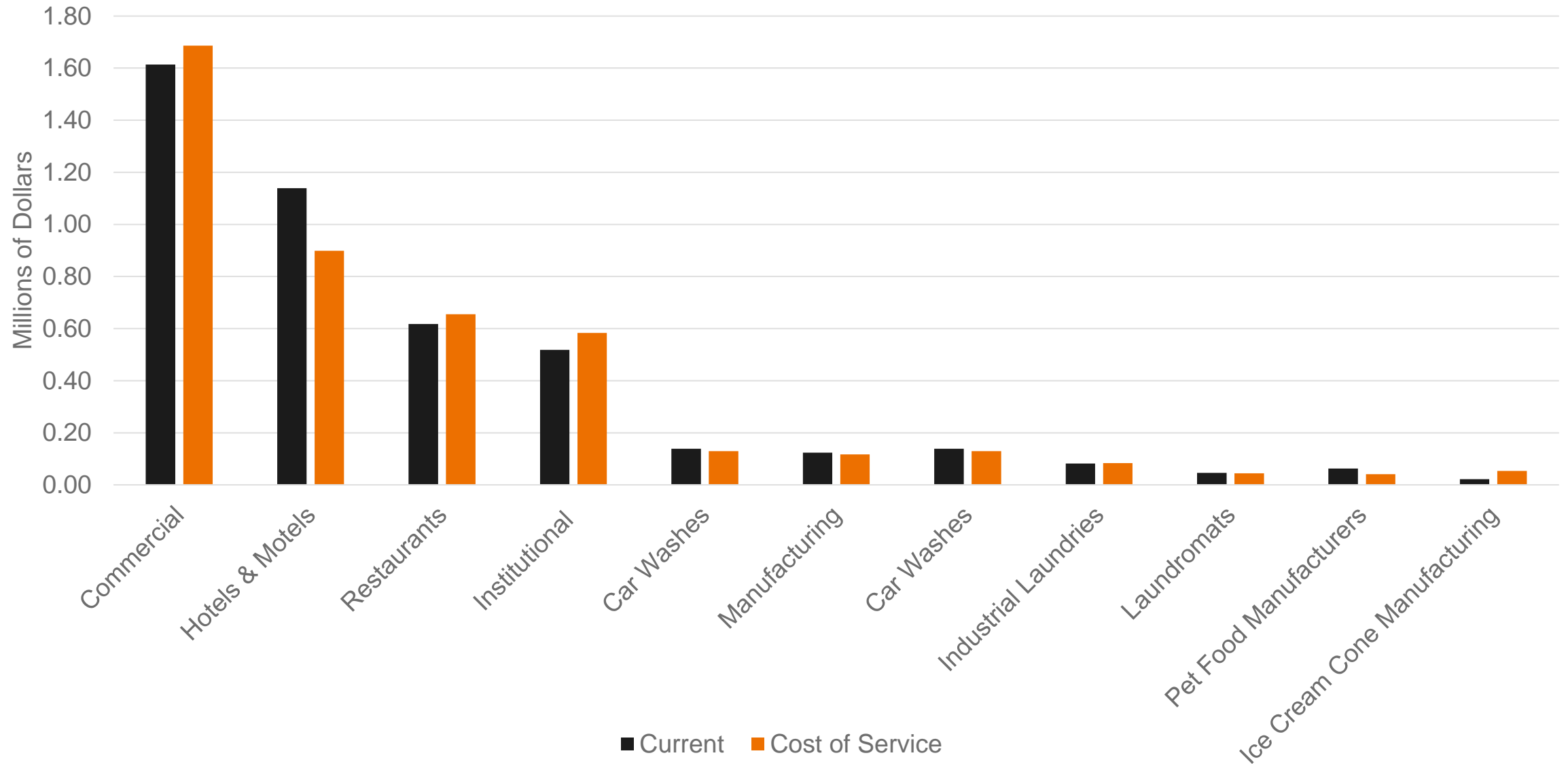


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# From Whom: Customer Class Cost Recovery FY 2025 – Non-Residential



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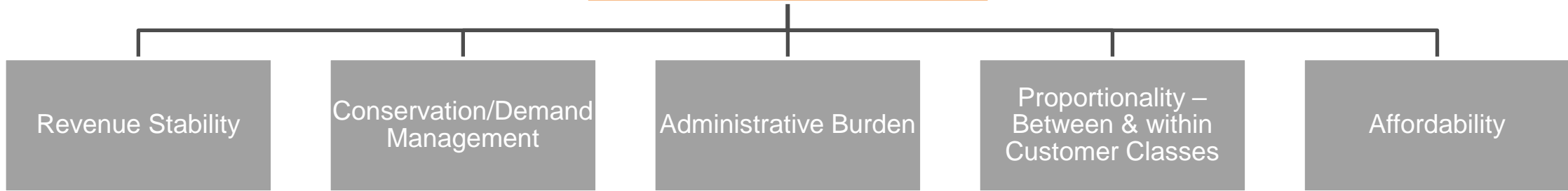
# Cost of Service (COS) Results – Option 1

Customer Class	Current Rate*	FY 2025 COS Results
Residential	\$5.35	\$7.33
Car Washes	\$5.38	\$5.16
Laundromats	\$5.53	\$5.55
Commercial	\$5.68	\$6.11
Institutional	\$4.91	\$5.41
Manufacturing	\$6.09	\$5.92
Hotels & Motels	\$7.58	\$6.14
Restaurants	\$9.09	\$9.54
Industrial Laundries	\$8.36	\$8.81
Pet Food Manufacturers	\$13.34	\$8.56
Ice Cream Cone Manufacturing	\$16.48	\$39.95

\*Inside city

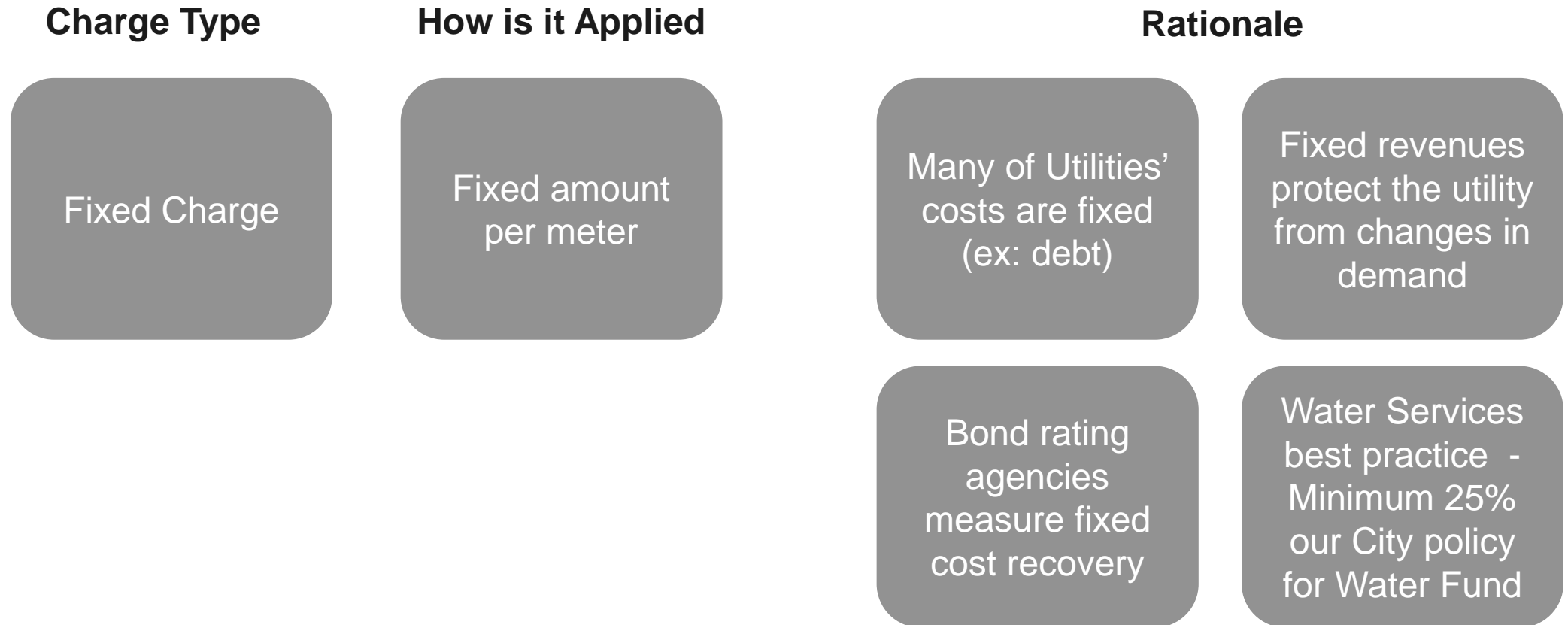


# Rate Design Priorities





# Revenue Stability through a Fixed Charge





# Fixed + Individualized – Option 2

Meter Size	ERU* Factor	FY 2025 Fixed Charge (25% Cost Recovery)
¾"	1.00	\$10.39
1"	1.67	\$17.32
1 ½"	3.33	\$34.63
2"	5.33	\$55.41
3"	11.67	\$121.22
4"	16.67	\$173.17
6"	33.33	\$346.33
8"	53.33	\$554.13

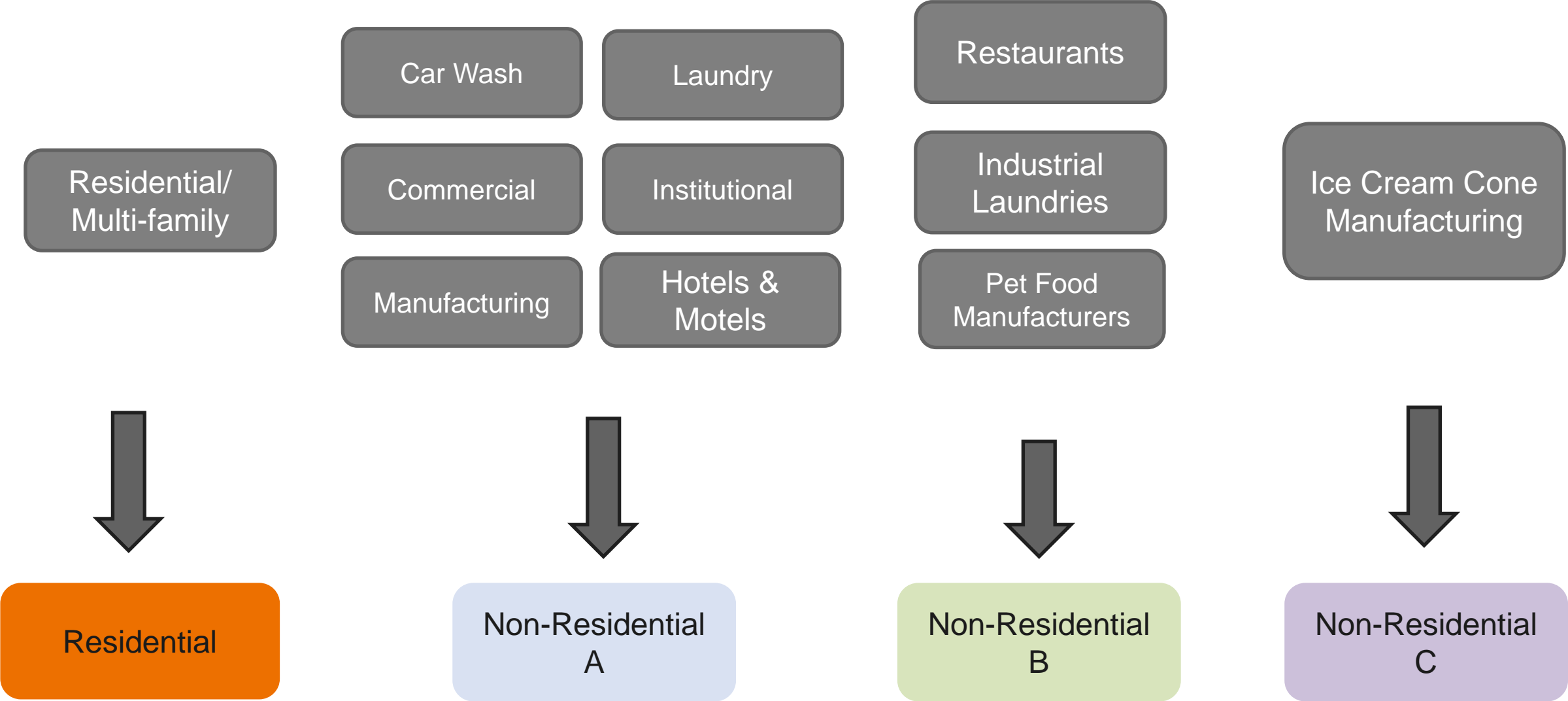
\*ERU = Equivalent Residential Unit

Customer Class	Current Rate**	FY 2025 Individualized Volume Charge (per 1,000 gallons) (75% Cost Recovery)
Residential	\$5.35	\$5.50
Car Washes	\$5.38	\$3.87
Laundromats	\$5.53	\$4.16
Commercial	\$5.68	\$4.58
Institutional	\$4.91	\$4.06
Manufacturing	\$6.09	\$4.44
Hotels & Motels	\$7.58	\$4.61
Restaurants	\$9.09	\$7.16
Industrial Laundries	\$8.36	\$6.61
Pet Food Manufacturers	\$13.34	\$6.42
Ice Cream Cone Manufacturing	\$16.48	\$29.96

\*\*Inside City



# Consolidated Non-residential Classes





# Fixed + Consolidated – Option 3

Meter Size	ERU* Factor	FY 2025 Fixed Charge (25% Cost Recovery)
3/4"	1.00	\$10.39
1"	1.67	\$17.32
1 1/2"	3.33	\$34.63
2"	5.33	\$55.41
3"	11.67	\$121.22
4"	16.67	\$173.17
6"	33.33	\$346.33
8"	53.33	\$554.13

\*ERU = Equivalent Residential Unit

Consolidated Class	Customer Class	Current Rate**	FY 2025 Consolidated Volume Charge (75% Cost Recovery)
Residential	Residential	\$5.35	\$5.50
Non-Residential A	Car Washes	\$5.38	\$4.45
	Laundromats	\$5.53	
	Commercial	\$5.68	
	Institutional	\$4.91	
	Manufacturing	\$6.09	
	Hotels & Motels	\$7.58	
Non-Residential B	Restaurants	\$9.09	\$7.05
	Industrial Laundries	\$8.36	
	Pet Food Manufacturers	\$13.34	
Non-Residential C	Ice Cream Cone Manufacturing	\$16.48	\$29.96

\*\*Inside City

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# Wastewater COS Average Bill Impacts for Rate Options 1 - 3

Customer Class	Number of Accounts	Average Meter Size	Average Bill Volume (kgals)	Average FY 2023 Sewer Bill*	Option 1 – COS Results	Option 2 – Fixed + Individualized	Option 3 – Fixed + Consolidated
Residential	21,080	¾"	4.88	\$26.13	\$9.67	\$12.23	\$12.23
Car Washes	13	1 ½"	160.59	\$863.97	(\$35.33)	(\$212.26)	(\$119.54)
Laundromats	6	2"	157.85	\$872.92	\$3.15	(\$161.03)	(\$114.92)
Commercial	1,402	1"	17.60	\$99.96	\$7.57	\$5.07	\$2.73
Institutional	8	4"	9,559	\$46,932.24	\$4,402.71	(\$4,990.00)	(\$1,793.00)
Manufacturing	27	1 ½"	61.74	\$375.99	(\$10.50)	(\$67.72)	(\$67.03)
Hotels & Motels	97	2"	126.75	\$960.76	(\$182.52)	(\$330.31)	(\$350.09)
Restaurants	132	1"	40.86	\$371.41	\$18.39	(\$55.67)	(\$60.00)
Industrial Laundries	1	3"	778.52	\$6,508.40	\$350.33	(\$1,241.91)	(\$896.64)
Pet Food Manufacturers	1	3"	391.04	\$5,216.47	(\$1,780.00)	(\$2,651.00)	(\$2,230.00)
Ice Cream Cone Manufacturing	1	3"	109.3	\$1,801.23	\$2,565.00	\$1,595.00	\$1,595.00

\*Average bill per customer class billed in FY 23.

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Red text indicates a reduction

And...more additional Information...

Customer Class	Number of Accounts	Average Meter Size	Average Bill Volume (kgals)	Average FY 2023 Sewer Bill*	Option 1 – COS Results	Option 2 – Fixed + Individualized	Option 3 – Fixed + Consolidated	Current Average Monthly Revenue	Option 1 Average Monthly Revenue	Option 2 Average Monthly Revenue	Option 3 Average Monthly Revenue	Option 1 Average Monthly Impact	Option 2 Average Monthly Impact	Option 3 Average Monthly Impact
Residential	21,080	¾"	4.88	\$26.13	\$9.67	\$12.23	\$12.23	\$550,820.40	\$754,664.00	\$808,628.80	\$808,628.80	37.01%	46.80%	46.80%
Car Washes	13	1 ½"	160.59	\$863.97	(\$35.33)	(\$212.26)	(\$119.54)	\$11,231.61	\$10,772.32	\$8,472.23	\$9,677.59	-4.09%	-24.57%	-13.84%
Laundromats	6	2"	157.85	\$872.92	\$3.15	(\$161.03)	(\$114.92)	\$5,237.52	\$5,256.42	\$4,271.34	\$4,548.00	0.36%	-18.45%	-13.17%
Commercial	1,402	1"	17.6	\$99.96	\$7.57	\$5.07	\$2.73	\$140,143.92	\$150,757.06	\$147,252.06	\$143,971.38	7.57%	5.07%	2.73%
Institutional**	8	4"	9,559	\$46,932.24	\$4,402.71	(\$4,990.00)	(\$1,793.00)	\$375,457.92	\$410,679.60	\$335,537.92	\$361,113.92	9.38%	-10.63%	-3.82%
Manufacturing	27	1 ½"	61.74	\$375.99	(\$10.50)	(\$67.72)	(\$67.03)	\$10,151.73	\$9,868.23	\$8,323.29	\$8,341.92	-2.79%	-18.01%	-17.83%
Hotels & Motels	97	2"	126.75	\$960.76	(\$182.52)	(\$330.31)	(\$350.09)	\$93,193.72	\$75,489.28	\$61,153.65	\$59,234.99	-19.00%	-34.38%	-36.44%
Restaurants	132	1"	40.86	\$371.41	\$18.39	(\$55.67)	(\$60.00)	\$49,026.12	\$51,453.60	\$41,677.68	\$41,106.12	4.95%	-14.99%	-16.15%
Industrial Laundries	1	3"	778.52	\$6,508.40	\$350.33	(\$1,241.91)	(\$896.64)	\$6,508.40	\$6,858.73	\$5,266.49	\$5,611.76	5.38%	-19.08%	-13.78%
Pet Food Manufacturers***	1	3"	391.04	\$5,216.47	(\$1,780.00)	(\$2,651.00)	(\$2,230.00)	\$5,216.47	\$3,436.47	\$2,565.47	\$2,986.47	-34.12%	-50.82%	-42.75%
Ice Cream Cone Manufacturing	1	3"	109.3	\$1,801.23	\$2,565.00	\$1,595.00	\$1,595.00	\$1,801.23	\$4,366.23	\$3,396.23	\$3,396.23	142.40%	88.55%	88.55%
Annual Total								\$14,985,468.48	\$17,803,223.28	\$17,118,541.92	\$17,383,406.16			
												Number of Accounts Likely Preference		
												21,080	92	1,597

Green highlight indicates the likely customer preference

1,667 accounts were billed 500 gallons per month for 10-12 months in FY23.



# Discussion of Options

## Option 1

Customer Class	Current Rate*	FY 2025 COS Results
Residential	\$5.35	\$7.33
Car Washes	\$5.38	\$5.16
Laundromats	\$5.53	\$5.55
Commercial	\$5.68	\$6.11
Institutional	\$4.91	\$5.41
Manufacturing	\$6.09	\$5.92
Hotels & Motels	\$7.58	\$6.14
Restaurants	\$9.09	\$9.54
Industrial Laundries	\$8.36	\$8.81
Pet Food Manufacturers	\$13.34	\$8.56
Ice Cream Cone Manufacturing	\$16.48	\$39.95

## Option 2

Meter Size	ERU* Factor	Fixed Charge (25% Cost Recovery)
¾"	1.00	\$10.39
1"	1.67	\$17.32
1 ½"	3.33	\$34.63
2"	5.33	\$55.41
3"	11.67	\$121.22
4"	16.67	\$173.17
6"	33.33	\$346.33
8"	53.33	\$554.13



## Option 3

Customer Class	Individualized Volume Charge (per 1,000 gallons) (75% Cost Recovery)	Consolidated Volume Charge (75% Cost Recovery)
Residential	\$5.50	\$5.50
Car Washes	\$3.87	\$4.45
Laundromats	\$4.16	
Commercial	\$4.58	
Institutional	\$4.06	
Manufacturing	\$4.44	
Hotels & Motels	\$4.61	
Restaurants	\$7.16	\$7.05
Industrial Laundries	\$6.61	
Pet Food Manufacturers	\$6.42	
Ice Cream Cone Manufacturing	\$29.96	\$29.96

Customer Class	Individualized Volume Charge (per 1,000 gallons) (75% Cost Recovery)
Residential	\$5.50
Car Washes	\$3.87
Laundromats	\$4.16
Commercial	\$4.58
Institutional	\$4.06
Manufacturing	\$4.44
Hotels & Motels	\$4.61
Restaurants	\$7.16
Industrial Laundries	\$6.61
Pet Food Manufacturers	\$6.42
Ice Cream Cone Manufacturing	\$29.96



# Next Steps

- March 25, 2024 - Joint City Council & Water Commission Water Rate Design Direction
- *Future opportunities for direction:*
  - April work sessions for policy topic discussions
- April 16, 2024 – adopt notice of intention (NOI) to change rates and fees
- June 18 and July 2, 2024 - Public hearings on changes in rates and fees
- September 1, 2024 - new rates are effective



# Discussion & Guidance

*Next Steps/Action Items*



**Extra Slides (do not print)**

Supplemental information & answers to questions  
for March 4, 2024 discussion

# How many Out-of-City customers do we have?

Wastewater System Customers			Out of City Accounts
Residential	Residential	21,080	4
Non-Residential	Commercial	1,402	1 (City Fire Station on Ft. Valley Road)
	Restaurants	132	
	Hotels and Motels	97	
	Manufacturing	27	
	Car Washes	13	
	Laundromats	6	
	Industrial Laundries	1	
<b>Total</b>		<b>22,758</b>	

Reclaimed System Customers		Number of Accounts	Out of City Accounts
Residential	Residential	21,080	
Non-Residential	Commercial	1,402	1 (Snowbowl)
	Restaurants	132	
	Hotels and Motels	97	
	Manufacturing	27	
	Car Washes	13	
	Laundromats	6	
	Industrial Laundries	1	
<b>Total</b>		<b>22,758</b>	

Water System Customers		
Customer Type	2023	Out of City
Single-Family	16,225	99 mostly Pine Del area
Multi-Family	3,089	2
Commercial	1,686	18; Hwy 89 areas & Ft Valley Road including City Fire Station
Landscape	332	
Manufacturing	38	
Institutional	7	
Hydrant	0	
Standpipe	1	
<b>Total</b>	<b>21,378</b>	

## What is the Single Family vs. Multi-family gallons per capita per day?

Water Customer Type	Residents Per Dwelling Unit from Current Draft Regional Plan	2017 Number of Gallons Sold	Number of Residents	Gallons per person per day
MF	1.7	548,081,382	38,995	38.5
SF	2.2	805,177,821	33,966	64.9

Total 2017 Population = 72,961

How many homes pay minimum or very low wastewater bills based on the minimum 500 gallons per month figure, and *what average flows are for those homes during summer months?* (will try to have answer to second part of the question on Monday)

1,667 accounts were billed 500 gallons per month for 10-12 months in FY23.



Additional information added to Slide 15 in Agenda Packet



highlighted cells were rounded in agenda packet & corrected here

					Estimated Change in Monthly Bill		
Customer Class	Number of Accounts	Average Meter Size	Average Bill Volume (kgals)	Average FY 2023 Sewer Bill*	Option 1 – COS Results	Option 2 – Fixed + Individualized	Option 3 – Fixed + Consolidated
Residential	21,080	¾"	4.88	\$26.13	\$9.67	\$12.23	\$12.23
Car Washes	13	1 ½"	160.59	\$863.97	(\$35.33)	(\$212.26)	(\$119.54)
Laundromats	6	2"	157.85	\$872.92	\$3.15	(\$161.03)	(\$114.92)
Commercial	1,402	1"	17.60	\$99.96	\$7.57	\$5.07	\$2.73
Institutional**	8	4"	9,559	\$46,932.24	\$4,402.71	(\$4,990.00)	(\$1,793.00)
Manufacturing	27	1 ½"	61.74	\$375.99	(\$10.50)	(\$67.72)	(\$67.03)
Hotels & Motels	97	2"	126.75	\$960.76	(\$182.52)	(\$330.31)	(\$350.09)
Restaurants	132	1"	40.86	\$371.41	\$18.39	(\$55.67)	(\$60.00)
Industrial Laundries	1	3"	778.52	\$6,508.40	\$350.33	(\$1,241.91)	(\$896.64)
Pet Food Manufacturers***	1	3"	391.04	\$5,216.47	(\$1,780.00)	(\$2,651.00)	(\$2,230.00)
Ice Cream Cone Manufacturing	1	3"	109.3	\$1,801.23	\$2,565.00	\$1,595.00	\$1,595.00

\*Average bill total from FY 2023 billing data

\*\*Meter sizes for Institutional customer class range from 1 ½" – 8" meters

\*\*\*Only two meters for Pet Food Manufacturers customer class – 2" and 4"

Red text indicates a reduction

And...more additional Information...

Customer Class	Number of Accounts	Average Meter Size	Average Bill Volume (kgals)	Average FY 2023 Sewer Bill*	Option 1 – COS Results	Option 2 – Fixed + Individualized	Option 3 – Fixed + Consolidated	Current Average Monthly Revenue	Option 1 Average Monthly Revenue	Option 2 Average Monthly Revenue	Option 3 Average Monthly Revenue	Option 1 Average Monthly Impact	Option 2 Average Monthly Impact	Option 3 Average Monthly Impact
Residential	21,080	¾"	4.88	\$26.13	\$9.67	\$12.23	\$12.23	\$550,820.40	\$754,664.00	\$808,628.80	\$808,628.80	37.01%	46.80%	46.80%
Car Washes	13	1 ½"	160.59	\$863.97	(\$35.33)	(\$212.26)	(\$119.54)	\$11,231.61	\$10,772.32	\$8,472.23	\$9,677.59	-4.09%	-24.57%	-13.84%
Laundromats	6	2"	157.85	\$872.92	\$3.15	(\$161.03)	(\$114.92)	\$5,237.52	\$5,256.42	\$4,271.34	\$4,548.00	0.36%	-18.45%	-13.17%
Commercial	1,402	1"	17.6	\$99.96	\$7.57	\$5.07	\$2.73	\$140,143.92	\$150,757.06	\$147,252.06	\$143,971.38	7.57%	5.07%	2.73%
Institutional**	8	4"	9,559	\$46,932.24	\$4,402.71	(\$4,990.00)	(\$1,793.00)	\$375,457.92	\$410,679.60	\$335,537.92	\$361,113.92	9.38%	-10.63%	-3.82%
Manufacturing	27	1 ½"	61.74	\$375.99	(\$10.50)	(\$67.72)	(\$67.03)	\$10,151.73	\$9,868.23	\$8,323.29	\$8,341.92	-2.79%	-18.01%	-17.83%
Hotels & Motels	97	2"	126.75	\$960.76	(\$182.52)	(\$330.31)	(\$350.09)	\$93,193.72	\$75,489.28	\$61,153.65	\$59,234.99	-19.00%	-34.38%	-36.44%
Restaurants	132	1"	40.86	\$371.41	\$18.39	(\$55.67)	(\$60.00)	\$49,026.12	\$51,453.60	\$41,677.68	\$41,106.12	4.95%	-14.99%	-16.15%
Industrial Laundries	1	3"	778.52	\$6,508.40	\$350.33	(\$1,241.91)	(\$896.64)	\$6,508.40	\$6,858.73	\$5,266.49	\$5,611.76	5.38%	-19.08%	-13.78%
Pet Food Manufacturers***	1	3"	391.04	\$5,216.47	(\$1,780.00)	(\$2,651.00)	(\$2,230.00)	\$5,216.47	\$3,436.47	\$2,565.47	\$2,986.47	-34.12%	-50.82%	-42.75%
Ice Cream Cone Manufacturing	1	3"	109.3	\$1,801.23	\$2,565.00	\$1,595.00	\$1,595.00	\$1,801.23	\$4,366.23	\$3,396.23	\$3,396.23	142.40%	88.55%	88.55%
Annual Total								\$14,985,468.48	\$17,803,223.28	\$17,118,541.92	\$17,383,406.16			
												Number of Accounts Likely Preference		
												21,080	92	1,597

Green highlight indicates the likely customer preference

1,667 accounts were billed 500 gallons per month for 10-12 months in FY23.

# CITY OF FLAGSTAFF

## STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Erin Young, Water Resources Manager  
**Co-Submitter:** Shannon Jones  
**Date:** 02/28/2024  
**Meeting Date:** 03/04/2024



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### TITLE:

Wastewater Rate Design Alternatives Workshop

### DESIRED OUTCOME:

**The desired outcome from this Work Session is guidance on which wastewater rate option is preferred by City Council and Water Commission.**

### Executive Summary:

At the February 13, 2024 City Council meeting, the third phase of the Rate Study was presented by Stantec. This meeting was to request the Council's objectives for updating water, wastewater and reclaimed water rates.

Stantec gave the same presentation to the Water Commission at the February 15 Water Commission meeting.

The objectives that ranked highest among the Council and Commission were for revenue stability, water conservation, equity between customer classes and within a customer class. Affordability and the administrative burden with each option will be evaluated during this Work Session.

At this Work Session, Stantec will present three options for updating wastewater rates and wastewater rate structure. The following options will be presented:

- Adjusting the current rate structure such that each customer class revenues target the cost of service
- Establishing a monthly base charge for wastewater and charging a volumetric rate to the current set of customer classes
- Establishing a monthly base charge for wastewater and charging a volumetric rate to a condensed set of customer classes

Direction from this Work Session and the Work Session on March 25 will be presented as a final set of changes to rates and rate structures to City Council on April 16, 2024

### Information:

An objective of this rate analysis is to develop cost-of-service-based water, wastewater, and reclaimed water rates that charge customers in proportion to the cost of serving each customer. The methodologies used by Stantec are ones endorsed by the leading utility rate-making organizations in the United States, the American Water Works Association (AWWA) and the Water Environment Federation (WEF).

Common industry practice is a two-part rate structure comprising both fixed and volume charges. Generally accepted practice recovers a portion of the costs of the system in a fixed monthly charge (base charge), recognizing that utilities have substantial investments in system costs and other year-round fixed costs to maintain a state of readiness to meet peak demands of customers when these demands occur. In addition, fixed charges also include recovery of customer-related costs. Volume charges recover the remaining revenue requirements, often based on average day-to-day use of the systems. Peak demands of water systems may also be recovered through other forms of volume charges, such as tiered or seasonal rates.

The City currently has a monthly base charge for water service, which is scaled based on meter size. In addition, a usage charge is applied to customers based on metered water use. For wastewater service, customers are charged a uniform volume rate based on customer class. Reclaimed water rates are established at 35% of the water rates by policy.

While the City's current rate structures for both water and wastewater services comply with common industry practice, Stantec's analysis indicates the cost of service is out of balance for several customer classes. Stantec incorporated the pricing objectives from the previous meeting to evaluate alternative rate structures that achieve these objectives as well as align rates with costs of service. Rate options were developed to achieve the priorities we heard from our last work session with Council and Water Commission that include revenue stability, water conservation, administrative burden (complexity), and proportionality (equity)

between customer classes and within a customer class.

**The desired outcome from this Work Session is guidance on which wastewater rate option is preferred by City Council and Water Commission.**

Water rate alternatives will be presented for discussion at the Joint Water Commission-City Council Work Session scheduled for March 25, 2024.

The user fee portion that addresses the cost-of-service to complete miscellaneous services is currently being worked on and the results will be presented at a future meeting.

City Council should expect the Rate Study to remain on monthly agendas through the proposed adoption of updated rates and fees at City Council's June 18<sup>h</sup> and July 2<sup>nd</sup> meetings.

**RESULTS OF WASTEWATER COST-OF-SERVICE ANALYSIS**

The financial planning analysis evaluated the sufficiency of the City's revenues to meet all current and projected financial requirements over a 10-year projection period, and determined the level of any rate revenue adjustments necessary in each year of the projection period to provide sufficient revenues to fund the water, wastewater, and reclaimed water system cost requirements. This summary focuses on the wastewater fund revenue requirements, cost-of-service results, and options for recovering the costs of service by wastewater customer classes.

Wastewater fund annual revenue requirements are expected to increase from current FY 2024 to FY 2025, the first year of the proposed rate period, by 22%. The following table summarizes the components of the rate revenue requirements in these two periods.

<b>Wastewater Fund</b>	<b>FY 2024 (millions)</b>	<b>FY 2025 (millions)</b>
Operations & Maintenance	\$8.3	\$8.7
Debt Service	\$2.6	\$3.1
Capital	\$8.3	\$5.5
<b>Total Expenditures</b>	<b>\$19.2</b>	<b>\$17.3</b>
<i>Use of Reserves</i>	<i>(\$7.7)</i>	<i>(\$3.7)</i>
<i>Non-Rate Revenue</i>	<i>(\$0.9)</i>	<i>(\$0.6)</i>
<b>Rate Revenue</b>	<b>\$10.6</b>	<b>\$13.0</b>

In conjunction with City Staff, Stantec allocated the City's wastewater costs in a cost-of-service (COS) analysis to determine the under or over-recovery of revenues generated from each customer class. The COS analysis evaluated projected FY 2025 annual costs the City will incur to provide its customers wastewater service and fund the full capital improvement program (CIP). The analysis determined the portion of system costs that are allocable to wastewater treatment, collection system, and administrative functions. Customer classes require wastewater service depending on each class's usage characteristics. Therefore, Stantec analyzed customer class billable wastewater flows and strengths of flows to determine the demand each class places on the City's wastewater system.

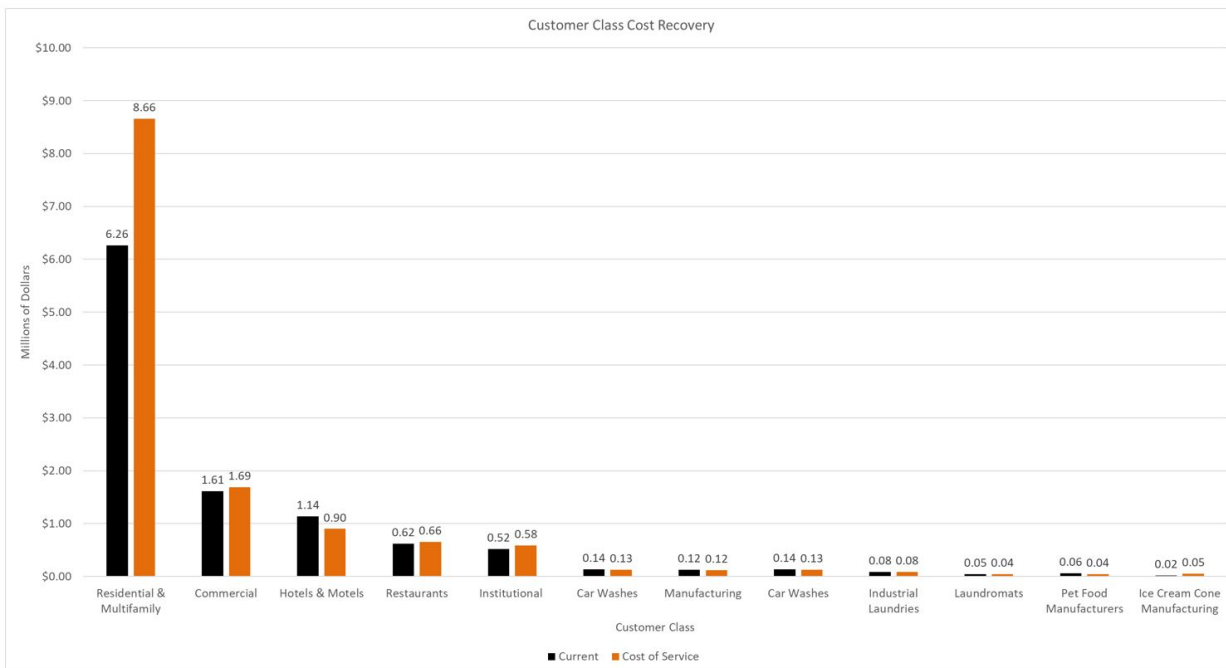
The following table presents the analysis of billable flows for FY 2023, with projected flows for FY 2024 used in the COS analysis. The adjustment in FY 2024 flows was calculated to recover budgeted revenue in FY 2024 based on FY 2023 billable units.

Wastewater Flows (1,000 gallons)			
Customer Class	2023	2024	% Increase
Residential	1,115,798	1,169,861	4.85%
Car Washes	24,570	25,761	
Laundromats	7,893	8,275	
Commercial	270,276	283,371	
Institutional	105,650	110,769	
Manufacturing	19,425	20,367	
Hotels and Motels	143,353	150,299	
Restaurants	64,844	67,986	
Industrial Laundries	9,342	9,795	
Pet Food Manufacturing	4,692	4,920	
Ice Cream Cone Manufacturing	1,312	1,375	
<b>Total</b>	<b>1,767,155</b>	<b>1,861,619</b>	

Stantec also reviewed wastewater strengths of flows by customer class. The current wastewater rates by class include assumptions of strength of flows. Review of City code assumptions, as well as considerations for process improvements for specific customer classes, results in the following concentrations in milligrams per liter (mg/L) for biochemical oxygen demand (BOD) and total suspended solids (TSS) assumed for the COS analysis.

Wastewater Strengths Assumed for COS		
Customer Class	BOD (mg/L)	TSS (mg/L)
Residential	300	350
Car Washes	20	150
Laundromats	150	110
Commercial	200	175
Institutional	130	100
Manufacturing	200	175
Hotels and Motels	310	120
Restaurants	1,000	600
Industrial Laundries	670	680
Pet Food Manufacturing	701	527
Ice Cream Cone Manufacturing	9,700	100

Stantec allocated the FY2025 revenue requirements to customer classes using these flow and strength characteristics. The resulting cost of service by class is presented in the following chart. A comparison of current (FY 2024) projected revenues by class with the cost of service for FY 2025 indicates some classes require an increase in cost recovery while others require a decrease in cost recovery for the first year in the rate study period.



## CONNECTING PRIORITIES WITH RATE OPTIONS

Given the feedback on priorities from both City Council and Water Commission, the wastewater rate design analysis presents three rate options for consideration that meet these priorities. Priorities include:

- Revenue stability
- Conservation/demand management
- Administrative burden
- Proportionality (or equity) between classes and within a class
- Affordability

### *Proportionality and Administrative Burden*

While proportionality between classes and within a class is not the top priority, it is achieved through each of the three rate options presented. At the most basic level, the same rate structure as currently in place can be adjusted based on the cost of service by class results to achieve multiple priorities.

### **Option 1 - Cost of Service Rates by Class**

The first rate option adjusts the uniform volume rates by customer class to recover the class costs of service for FY 2025. This adjustment results in some classes' rates increasing, with other classes' decreasing to mirror the results of the cost of service analysis. The next table presents the results.

Customer Class	Current Rate	FY 2025 COS Results
Residential	\$5.35	\$7.33
Car Washes	\$5.38	\$5.16
Laundromats	\$5.53	\$5.55
Commercial	\$5.68	\$6.11
Institutional	\$4.91	\$5.41
Manufacturing	\$6.09	\$5.92
Hotels & Motels	\$7.58	\$6.14
Restaurants	\$9.09	\$9.54
Industrial Laundries	\$8.36	\$8.81
Pet Food Manufacturers	\$13.34	\$8.56
Ice Cream Cone Manufacturing	\$16.48	\$39.95

### *Revenue Stability*

Stable annual revenues from Water Services' perspective, as well as stable monthly bills from a customer perspective can be achieved through implementing a fixed charge for wastewater customers. A fixed charge, similar to the fixed charge for water and reclaimed water service, is established to recover a portion of annual revenue requirements from a monthly charge by meter size. Through discussions with City staff, Water Services best practice for fixed charge revenue recovery is set to a minimum of 25% based on City policy for the water fund. Stantec calculated a fixed charge for the wastewater fund following the same practice. This approach also aligns with bond rating agencies metrics and the nature of utility costs to operate a wastewater system. A large portion of the wastewater system revenue requirements, such as salaries and wages, debt service payments, and maintenance costs, do not vary as wastewater flows increase or decrease. A fixed charge protects the water fund revenues from changes in usage.

**Option 2 - Fixed Charge + Individualized Rates by Class**

The second rate option is calculated to recover 25% of FY 2025 revenue requirements from a monthly fixed charge by meter size. The charge is determined by evaluating the total number of connections to the wastewater system, identifying the water meter size associated with those connections, and determining an equivalent residential unit (ERU) total using factors from the AWWA manuals on flow rates for different meter sizes. These ERUs represent the potential usage of the wastewater system.

The remaining 75% of revenue requirements is recovered through the same sewer rate structure as currently in place – uniform volume rates per 1,000 gallons of billed sewer flow by class. These rates have been adjusted for the costs of service by class.

The tables present the results for FY 2025. All rates represent the inside-City rates. Outside-City rates include a 10% surcharge.

Meter Size	ERU Factor	Fixed Charge (25% Cost Recovery)
3/4"	1.00	\$10.39
1"	1.67	\$17.32
1 1/2"	3.33	\$34.63
2"	5.33	\$55.41
3"	11.67	\$121.22
4"	16.67	\$173.17
6"	33.33	\$346.33
8"	53.33	\$554.13

Customer Class	Current Rate	Individualized Volume Charge (per 1,000 gallons) (75% Cost Recovery)
Residential	\$5.35	\$5.50
Car Washes	\$5.38	\$3.87
Laundromats	\$5.53	\$4.16
Commercial	\$5.68	\$4.58
Institutional	\$4.91	\$4.06
Manufacturing	\$6.09	\$4.44
Hotels & Motels	\$7.58	\$4.61
Restaurants	\$9.09	\$7.16
Industrial Laundries	\$8.36	\$6.61
Pet Food Manufacturers	\$13.34	\$6.42
Ice Cream Cone Manufacturing	\$16.48	\$29.96

*Revenue Stability/Administrative Burden*

Adding on to the priorities addressed in the first two options, the priority of administrative burden and complexity of the rate structure can be addressed by consolidation of the non-residential customer classes. The City has maintained individual customer classes for non-residential type customers with rates that reflect a combination of flows and strengths for many years. As new customers are added, it is important to assign the customer to the correct class. To simplify the current structure, Stantec proposes a consolidation of non-residential customers into classes with like flow and strength characteristics. While variations in flows and strengths exist, the three non-residential classes present a range of loadings (flows and strengths) for each class that can be used to evaluate where a new customer belongs in the consolidated structure.

**Option 3 – Fixed Charge + Consolidated Non-Residential Rates by Class**

The third rate option builds on Options 1 & 2. The fixed charge is the same as in Option 2 and is calculated to recover 25% of the annual revenue requirements.

The remaining revenue requirements are recovered through a uniform volume rate for residential customers and for three non-residential classes:

- Non-residential A
- Non-residential B
- Non-residential C

Residential rates are the same as in Option 2. The non-residential classes' rates are calculated to recover the total costs of service for customers in the consolidated classes. Therefore, the volume rates per 1,000 gallons of billed flows are based on the cost-of-service results.

The tables below present the results for FY 2025. All rates represent the inside-City rates. Outside-City rates include a 10% surcharge.

Meter Size	ERU Factor	Fixed Charge (25% Cost Recovery)
¾"	1.00	\$10.39
1"	1.67	\$17.32
1 ½"	3.33	\$34.63
2"	5.33	\$55.41
3"	11.67	\$121.22
4"	16.67	\$173.17
6"	33.33	\$346.33
8"	53.33	\$554.13

Consolidated Class	Customer Class	Current Rate	Consolidated Volume Charge (75% Cost Recovery)
Residential	Residential	\$5.35	\$5.50
Non-Residential A	Car Washes	\$5.38	\$4.45
	Laundromats	\$5.53	
	Commercial	\$5.68	
	Institutional	\$4.91	
	Manufacturing	\$6.09	
	Hotels & Motels	\$7.58	
Non-Residential B	Restaurants	\$9.09	\$7.05
	Industrial Laundries	\$8.36	
	Pet Food Manufacturers	\$13.34	
Non-Residential C	Ice Cream Cone Manufacturing	\$16.48	\$29.96

### ESTIMATED CUSTOMER BILL IMPACTS

For each option, customers will see an effect on their current monthly bills due to the revenue requirements for FY 2025, the adjustment for cost-of-service results, and the rate option. The table below presents average monthly bill impacts for each customer class for each of the rate options. Average bill impacts in this table means all monthly bills for 12 months for each customer class were averaged to calculate a change in those monthly bills as a result of the rate option. These may not represent typical bills for the class due to variations in usage and meter size for each class. The residential class, however, closely approximates our previous example municipal services bill for a typical residential customer.

Customer Class	Option 1 – COS Results	Option 2 – Fixed + Individualized	Option 3 – Fixed + Consolidated
Residential	\$10.00	\$12.23	\$12.23
Car Washes	(\$35.00)	(\$212.26)	(\$119.54)
Laundromats	\$3.00	(\$161.03)	(\$114.92)
Commercial	\$8.00	\$5.07	\$2.73
Institutional	\$4,402.71	(\$4,990.00)	(\$1,793.00)
Manufacturing	(\$10.00)	(\$67.72)	(\$67.03)
Hotels & Motels	(\$183.00)	(\$330.31)	(\$350.09)
Restaurants	\$18.00	(\$55.67)	(\$60.00)
Industrial Laundries	\$350.00	(\$1,241.91)	(\$896.64)
Pet Food Manufacturers	(\$1,780.00)	(\$2,651.00)	(\$2,230.00)
Ice Cream Cone Manufacturing	\$2,565.00	\$1,595.00	\$1,595.00

Attachments: [Draft Presentation](#)