



# City of Flagstaff, AZ

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

*City Council Meeting  
April 2nd, 2024*



# Agenda

1. Review Water Rate Option 3 Comparison for Single Family Tier "Ratios"
2. Discussion on Reclaimed Water Rates



# Water Rate Option 3 Comparison



# What was presented on March 25: Option 2 + Class Combination = Option 3

Meter Size	Current Rate*	Fixed Charge (25% Cost Recovery)
3/4"	\$16.64	\$14.33
1"	\$19.60	\$19.86
1 1/2"	\$26.98	\$33.66
2"	\$35.84	\$50.23
3"	\$56.52	\$102.68
4"	\$86.05	\$144.10
6"	\$159.88	\$364.97
8"	\$248.47	\$447.80
10"	\$351.83	\$1,165.64
<b>Annual Cost Recovery (millions) – Option 3</b>		<b>\$4.24</b>

Customer Class	Tier Price Ratio	Current Rate*	Volume Charge (per 1,000 gallons) (75% Cost Recovery)	
Single Family	Tier One	0.95	\$3.44	\$4.48
	Tier Two	1.00	\$4.45	\$4.72
	Tier Three	1.80	\$6.86	\$8.50
	Tier Four	4.00	\$13.72	\$18.88
Multi-family		\$4.42	\$4.97	
Commercial/Schools		\$4.69	\$5.88	
Landscape		\$4.69	\$10.51	
Manufacturing		\$4.63	\$5.56	
Institutional		\$4.30	\$5.88	
Hydrant		\$7.17	\$7.60	
Standpipe		\$9.56	\$7.55	
<b>Annual Cost Recovery (millions) – Option 3</b>			<b>\$12.72</b>	

\*Inside city rate. All rates exclude taxes and energy fee



# Option Comparison – Volume Charge (per 1,000 gallons)

Customer Class		Tier Price Ratio	Current Rate*	COS Results (71% Cost Recovery)		Option 1 (75% Cost Recovery)		Option 2 (75% Cost Recovery)		Option 3 (75% Cost Recovery)		Option 3 Revised (75% Cost Recovery)	
Single Family	Tier One (0-3,500)	1.00	\$3.44	1.00	\$3.74	1.00	\$4.23	0.95	\$4.48	0.95	\$4.48	0.93	\$4.39
	Tier Two (3,501-6,200)	1.30	\$4.45	1.30	\$4.86	1.30	\$5.50	1.00	\$4.72	1.00	\$4.72	1.00	\$4.72
	Tier Three (6,201-11,500)	2.00	\$6.86	2.00	\$7.48	2.00	\$8.47	1.8	\$8.50	1.8	\$8.50	2.00	\$9.43
	Tier Four (11,501+)	4.00	\$13.72	4.00	\$14.95	4.00	\$16.93	4.00	\$18.88	4.00	\$18.88	4.00	\$18.86
Multi-family			\$4.42	\$4.74	\$4.97	\$4.97	\$4.97	\$4.97	\$4.97	\$4.97	\$4.97	\$4.97	\$4.97
Commercial/Schools			\$4.69	\$5.43	\$5.62	\$5.62	\$5.62	\$5.62	\$5.88	\$5.88	\$5.88	\$5.88	\$5.88
Landscape			\$4.69	\$10.24	\$10.51	\$10.51	\$10.51	\$10.51	\$10.51	\$10.51	\$10.51	\$10.51	\$10.51
Manufacturing			\$4.63	\$5.48	\$5.56	\$5.56	\$5.56	\$5.56	\$5.56	\$5.56	\$5.56	\$5.56	\$5.56
Institutional			\$4.30	\$6.82	\$6.86	\$6.86	\$6.86	\$6.86	\$5.88	\$5.88	\$5.88	\$5.88	\$5.88
Hydrant			\$7.17	\$7.60	\$7.60	\$7.60	\$7.60	\$7.60	\$7.60	\$7.60	\$7.60	\$7.60	\$7.60
Standpipe			\$9.56	\$7.55	\$7.55	\$7.55	\$7.55	\$7.55	\$7.55	\$7.55	\$7.55	\$7.55	\$7.55
<b>Annual Volume Charge Cost Recovery (millions)</b>				<b>\$11.98</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>	<b>\$12.72</b>

\*Inside city



# Water COS Average Bill Impacts for Rate Option 3 Revised

Customer Class	Rep. Meter Size	Avg. Bill Volume (kgals)	Avg. FY 2024 Water Bill	FY 2025			FY 2026			FY 2027			FY 2028			FY 2029		
				Total Bill	\$ Change	% Change	Total Bill	\$ Change	% Change	Total Bill	\$ Change	% Change	Total Bill	\$ Change	% Change	Total Bill	\$ Change	% Change
Single Family	¾"	4	\$30.91	\$32.04	\$1.13	3.7%	\$36.84	\$4.81	15.0%	\$42.37	\$5.53	15.0%	\$48.72	\$6.36	15.0%	\$56.03	\$7.31	15.0%
Multi-family	1"	9	\$59.38	\$64.59	\$5.21	8.8%	\$74.28	\$9.69	15.0%	\$85.42	\$11.14	15.0%	\$98.23	\$12.81	15.0%	\$112.97	\$14.73	15.0%
Commercial/ Schools	1"	40	\$207.20	\$255.08	\$47.88	23.1%	\$293.34	\$38.26	15.0%	\$337.35	\$44.00	15.0%	\$387.95	\$50.60	15.0%	\$446.14	\$58.19	15.0%
Landscape	1"	24	\$132.16	\$272.10	\$139.94	105.9%	\$312.92	\$40.82	15.0%	\$359.85	\$46.94	15.0%	\$413.83	\$53.98	15.0%	\$475.90	\$62.07	15.0%
Manufacturing	1.5"	73	\$364.97	\$439.54	\$74.57	20.4%	\$505.47	\$65.93	15.0%	\$581.29	\$75.82	15.0%	\$668.49	\$87.19	15.0%	\$768.76	\$100.27	15.0%
Institutional	8"	2,165	\$9,557.97	\$13,179.22	\$3,621.25	37.9%	\$15,156.10	\$1,976.88	15.0%	\$17,429.52	\$2,273.42	15.0%	\$20,043.94	\$2,614.43	15.0%	\$23,050.54	\$3,006.59	15.0%



# Water – Discussion of Options

## ➤ Option 3 as Presented on March 25<sup>th</sup>

To address Council's objectives of "***intraclass proportionality***" and "***water conservation***" the "ratios" between each Tier within the Single-Family Residential Customer Class were evaluated

- The ratios that distribute the cost-of-service between Tiers 1, 2, and 3 were adjusted from current
- The resulting ratios adjust the volume charges for more equitable "essential" water uses while preserving water conservation price incentive
  - "Efficient" water use of 50 gallons per person per day
    - = 2.3 people per home in Tier 1 (up to 3,500 gallons per month)
    - = \$0.20/1,000 gallons for the next 1.7 people in Tier 2 (for the next 2,700 gallons per month)
- Maintaining Tier 1 and Tier 2 maintains a water conservation signal
- Shifts more of the cost-of-service due of the peaking impact to outdoor water demand (Tiers 3 & 4)



# Water – Discussion of Options

## ➤ Option 3 Comparison

Response to the Council's and Commission's objective to relieve pressure from Tier 1 & Tier 2

Adjusted ratio back to 2.00 on Tier 3 resulting in a slight reduction to Tier 1 ratio

- Shifts more of the peaking burden to Tier 3 by an increase of \$1.00/1,000 gallons
- Reduces the peaking burden in Tier 1 by a decrease of \$0.10/1,000 gallons
- Maintains a water conservation signal
- Slightly reduces the intraclass proportionality between family sizes by \$0.10/1,000 gallons



# Council Direction on Single-Family Volume Rate

- Option 3 from March 25
- Revised Option 3



# Reclaimed Water Rate & Policy Discussion



# What are the updated rates for reclaimed?



# BASED ON OPTION 3

# PROPOSED CURRENT

RECLAIMED WATER: (per 1,000 gallons)		Customer Class	Inside City Rate	Outside City Rate	% of Potable
Private Residential	Tier 1 (0 - 3,500 gallons)	R1	\$1.63	\$ 1.79	35%
	Tier 2 (3,501 - 6,200 gallons)		\$1.98	\$ 2.18	35%
	Tier 3 (6,201 - 11,500 gallons)		\$2.82	\$ 3.11	35%
	Tier 4 (11,501+ gallons)		\$5.23	\$ 5.75	35%
Commercial (no main Ext):		C	\$2.07	\$ 2.27	35%
Commercial (w/ main Ext):		C	\$4.43	\$ 4.87	75%
Manufacturing (no main Ext):		MN	\$2.04	\$ 2.25	35%
Manufacturing (w/ main Ext):		MN	\$4.38	\$ 4.82	75%
NAU (No main extension):		NA	\$1.93		35%
NAU (with main extension):		NA	\$4.13		75%
Hydrant Meter		WR	\$4.19		50%
Standpipe		RS	\$4.78		
Off Peak/Golf Course:*	All Tiers	WR	\$1.80	\$ 1.98	87%

\*Rate is 87% of the Commercial (no maint extension) reclaimed rate

RECLAIMED WATER: (per 1,000 gallons)		Customer Class	Inside City Rate	Outside City Rate	% of Potable
Private Residential	Tier 1 (0 - 3,500 gallons)	R1	\$1.96	\$2.15	35%
	Tier 2 (3,501 - 6,200 gallons)		\$2.07	\$2.28	35%
	Tier 3 (6,201 - 11,500 gallons)		\$3.72	\$4.10	35%
	Tier 4 (11,501+ gallons)		\$7.03	\$7.73	35%
Commercial (no main Ext):		C	\$2.48	\$2.73	35%
Commercial (w/ main Ext):		C	\$5.32	\$5.85	75%
Manufacturing (no main Ext):		MN	\$2.37	\$2.61	35%
Manufacturing (w/ main Ext):		MN	\$5.08	\$5.59	75%
NAU (No main extension):		NA	\$2.48		35%
NAU (with main extension):		NA	\$5.32		75%
Hydrant Meter		WR	\$4.41		50%
Standpipe		RS	\$3.78		
Off Peak/Golf Course:*	All Tiers	WR	\$2.16	\$2.37	87%

\*Rate is 87% of the Commercial (no main extension) reclaimed rate



# Reclaimed Water Cost of Service Analysis

- The current and projected reclaimed water rates cover the Operation & Maintenance costs allocated for reclaimed
  - Distribution costs
  - Share of costs at Wildcat for production
  - Share of costs at Rio for production
  - Operating capital
  - Shared services costs (for Finance, HR, IT, billing, etc.)
- The large increase we were projecting was to fully fund the approved, informed, and unfunded CIP projects. The current rate plan is expected to fund a small portion of the full CIP.



# Previous Work on Reclaimed Water Policy

- 2014 City of Flagstaff Council-Adopted Water Policies – Chapter C
  - C1 – Charges
  - C2 – Water Quality & Education
  - C3 – Reclaimed Water Agreements
  - C4 – Reclaimed System Capacity
  - C5 – Out of City Deliveries
  - C6 – Recharge & Recovery
  - C7 – Uses, Allocation and Priority



# Previous Work on Reclaimed Water Policy

- 2021 Reclaimed Water Pricing Policy and Economic Value of Water, WestWater Research
  - Comparative analysis of reclaimed water rate structures in other AZ communities
  - Synthesis of rate structure and water policy considerations
- 2021 Reclaimed Water Study Technical Memorandum, Brown & Caldwell
  - Evaluation of Management Options for Uncommitted Reclaimed Water
  - Engaged a Citizen Group to Identify Community-Specific Values



# Reclaimed Water Considerations & Discussion

- Tonight: Discussion on what approach City Council takes
- Council: What are we trying to accomplish?
- Examples of prior work on this topic: See attachments to agenda
- Options for reclaimed water portion of rate study
  - Option 1 - Leave Policy "As-Is"
    - Allow staff to work on initiatives outside of rate study
    - Negotiate on water usage in customer contracts
    - Bring reclaimed water planning back for council discussion
  - Option 2 - 1% increase
    - Doesn't really allow us to do more projects
    - Helps the fund by reducing our debt financing



# Public Outreach Event

- April 8<sup>th</sup> at East Flagstaff Community Library 5:30 pm to 7 pm
  - Share “Rate Calculator” with customers
  - Information on Water Services
    - Water and Wastewater Production & Treatment
    - Water and Wastewater Distribution & Sewer Collections
    - Water Conservation & Water Resources
    - Customer Service
    - Regulatory Compliance
    - Capital Projects



Example from another community



# Next Steps

- April 16, 2024 – adopt notice of intention (NOI) to change rates and fees
  - Stantec will present a “rates package” for Council to review
  - 5-year rate schedules & impact to customer classes
  - Draft report of Rate Study released for review
- April 18 – Same presentation to Water Commission
- May 7 – Staff update and check-in with Council
  - Staff will update Council on public outreach and community response
  - Discussion & question/answer with Council on the rates package
- May 16 – Check-in with Water Commission on draft report or other rates topics; last update before first read
- May 21 – Check-in with City Council on draft report or other rates topics
- June 4 – Last update to Council before the public hearing
- June 18 and July 2, 2024 - Public hearings on changes in rates and fees
- September 1, 2024 - new rates are effective



# Thank you