

# Reclaimed Water Rates Discussion Follow-up from City Council

**Erin Young, Water Resources Section Director**  
**Lee Williams, Acting Director**  
**February 18, 2025**





# Agenda



## **Tonight's intent – Share feedback from Reclaimed Water Workgroup on considerations to City Council for reclaimed water rate setting**

### **Seeking Council Direction**

- Explore water conservation and/or reclaimed water demand-smoothing actions now and direct staff to include a cost-of-service-based analysis in the next rate study (Reclaimed Water Workgroup Recommendation)
- Do not take any action on reclaimed water rates at this time and monitor customer response to rate increases
- Ask the Water Commission and/or Staff to take different action



# Agenda



## **Tonight's intent – Share feedback from Reclaimed Water Workgroup on considerations to City Council for reclaimed water rate setting**

- Review of topic and why we bring this to City Council
- What is reclaimed water and what is the future of reclaimed water for Flagstaff
- Existing reclaimed water rates policy
- Existing reclaimed water rates
- Timeline of discussion with Water Commission and Reclaimed Water Workgroup
- Recommendation from Reclaimed Water Workgroup
- Questions, Discussion, Direction from City Council



# What is reclaimed water?

## Recycled wastewater from the community

<https://wrrc.arizona.edu/az-ag-recycled-water>

- Reclaimed water uses are designated in state code/rule
- Permits are administered by the Arizona Department of Environmental Quality (ADEQ) and City of Flagstaff Water Services Regulatory Compliance Section
- ADEQ Class A+ has been cleanest category of reuse permissible for decades

Water Class	Water Quality Criteria
A+	<ul style="list-style-type: none"> <li>• 24-hour average turbidity <math>\leq</math> 2 NTU (measure of clarity);</li> <li>• No detectable fecal coliform bacteria in four of the last seven daily water samples taken, and</li> <li>• The maximum concentration of fecal coliform bacteria in a single water sample <math>&lt;</math> 23 per 100 mL;</li> <li>• Total nitrogen <math>&lt;</math> 10 mg per L.</li> </ul> <p><i>Flagstaff can only put Class A+ into "purple pipe" delivery system</i></p>
A	<ul style="list-style-type: none"> <li>• 24-hour average turbidity <math>\leq</math> 2 NTU (measure of clarity);</li> <li>• No detectable fecal coliform bacteria in four of the last seven daily water samples taken, and</li> <li>• The maximum concentration of fecal coliform bacteria in a single water sample <math>&lt;</math> 23 per 100 mL.</li> </ul>
B+	<ul style="list-style-type: none"> <li>• The concentration of fecal coliform bacteria in four of the last seven daily water samples taken <math>&lt;</math> 200 per 100 mL;</li> <li>• The maximum concentration of fecal coliform bacteria in a single water sample is <math>&lt;</math> 800 per 100 mL.</li> <li>• Total nitrogen <math>&lt;</math> 10 mg per L.</li> </ul>
B	<ul style="list-style-type: none"> <li>• The concentration of fecal coliform bacteria in four of the last seven daily water samples taken <math>&lt;</math> 200 per 100 mL;</li> <li>• The maximum concentration of fecal coliform bacteria in a single water sample is <math>&lt;</math> 800 per 100 mL.</li> </ul>
C	<ul style="list-style-type: none"> <li>• The concentration of fecal coliform bacteria in four of the last seven daily water samples taken <math>&lt;</math> 1000 per 100 mL;</li> <li>• The maximum concentration of fecal coliform bacteria in a single water sample is <math>&lt;</math> 4000 per 100 mL.</li> </ul>

TABLE 1. Arizona Recycled Water Standards. Source: Arizona Administrative Code, Title 18, Chapter 11, Article 3

**A/A+** Food crops, recreational impoundments, open-access irrigation (residential, parks, schools), toilet flushing, fire protection, snowmaking, vehicle washing

**B/B+** Irrigation of orchard, vineyard, golf course, dust control, livestock watering, concrete/cement mixing, street cleaning

[Type 2 Reclaimed Water General Permit for Direct Reuse of Reclaimed Water Classes | ADEQ](#)



# Reclaimed Water Trends

## Significant advancements in 2024-2025 to expand uses

- State should adopt rules by July 2025 to allow utilities a permit to purify reclaimed water for drinking water, termed “Advanced Water Purification”
- Arizona communities are gearing up for AWP
- Whether it is right for Flagstaff is a question to be determined (another meeting topic)



# Reclaimed Water Policy

- Reclaimed water rates are unique in that they can be set at the will of the governing body (water and wastewater rates must be based on cost-of-service)
- Existing Council-adopted policy for Reclaimed Water Enterprise Fund Cost Recovery (2014 Principals of Sound Water Management Water Policies Chapter)

*Policy C1.1 The City shall have a goal of a minimum of full Cost Recovery for reclaimed water that is delivered within and outside of the City's incorporated limits. To the extent the City Council determines whether these charges discourage the use of reclaimed water, the charges for reclaimed water shall be adjusted to encourage its use. The adjusted charge will be subsidized by the water rate customers.*



# Reclaimed Water Policy

## Example of Existing Policy for Cost Recovery

**Revenues = \$800,000 collected from reclaimed rate payers**

**Expenses = \$600,000 in Operations + \$200,000 in capital projects = \$800,000**

***Policy does not address how rates are set or define a rate structure***

Since 2015/2016, each utility fund stands essentially financially independent; each supports its own operations, maintenance, and capital improvement.

Reclaimed Water Fund – expenses have equaled revenues. However, policy reads if they do not match then the difference is obtained from the fund balance of a transfer from the Water Fund since viewed as a water supply. Historically, the imbalance was from the Wastewater Fund.



# Adopted Rates (effective Sept 1 2024)

- Annual increase = 8.5%/year for 5 years (same as potable)
- Rate structure remains a percentage of potable rates

RECLAIMED WATER RATES				
RECLAIMED WATER: (per 1,000 gallons)		Customer Class	Inside City Rate	Outside City Rate
Private Residential	Tier 1 (0 - 3,500 gallons)	R1	\$1.82	\$2.00
	Tier 2 (3,501 - 6,200 gallons)		\$1.93	\$2.12
	Tier 3 (6,201 - 11,500 gallons)		\$3.52	\$3.87
	Tier 4 (11,501+ gallons)		\$6.71	\$7.38
Commercial (no main Ext):		C	\$2.30	\$2.53
Commercial (w/ main Ext):		C	\$4.93	\$5.42
Manufacturing (no main Ext):		MN	\$2.18	\$2.40
Manufacturing (w/ main Ext):		MN	\$4.67	\$5.14
Institutional (No main extension):		NA	\$2.30	\$2.53
Institutional (with main extension):		NA	\$4.93	\$5.42
Hydrant Meter		WR	\$4.19	\$4.61
Standpipe		RS	\$4.16	\$4.40
Total standpipe**			\$4.74	\$5.11
Off Peak/Golf Course:*	All Tiers	WR	\$2.00	\$2.20

September 1st, 2024 - December 31st, 2025		January 1st, 2026 - December 31st, 2026		January 1st, 2027 - December 31st, 2027		January 1st, 2028 - December 31st, 2028		January 1st, 2029 - December 31st, 2029		
Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate	% of Potable
\$1.82	\$2.00	\$1.94	\$2.13	\$2.08	\$2.29	\$2.23	\$2.45	\$2.39	\$2.63	0.35
\$1.93	\$2.12	\$2.07	\$2.28	\$2.21	\$2.43	\$2.37	\$2.61	\$2.54	\$2.79	0.35
\$3.52	\$3.87	\$3.79	\$4.17	\$4.08	\$4.49	\$4.40	\$4.84	\$4.75	\$5.23	0.35
\$6.71	\$7.38	\$7.25	\$7.98	\$7.84	\$8.62	\$8.48	\$9.33	\$9.17	\$10.09	0.35
\$2.30	\$2.53	\$2.47	\$2.72	\$2.65	\$2.92	\$2.85	\$3.14	\$3.06	\$3.37	0.35
\$4.93	\$5.42	\$5.29	\$5.82	\$5.68	\$6.25	\$6.10	\$6.71	\$6.56	\$7.22	0.75
\$2.18	\$2.40	\$2.34	\$2.57	\$2.51	\$2.76	\$2.70	\$2.97	\$2.89	\$3.18	0.35
\$4.67	\$5.14	\$5.01	\$5.51	\$5.38	\$5.92	\$5.78	\$6.36	\$6.20	\$6.82	0.75
\$2.30	\$2.53	\$2.47	\$2.72	\$2.65	\$2.92	\$2.85	\$3.14	\$3.06	\$3.37	0.35
\$4.93	\$5.42	\$5.29	\$5.82	\$5.68	\$6.25	\$6.10	\$6.71	\$6.56	\$7.22	0.75
\$4.19	\$4.61	\$7.74	\$8.51	\$8.39	\$9.23	\$9.10	\$10.01	\$9.87	\$10.86	0.5
\$3.68	\$4.05	\$4.00	\$4.40	\$4.34	\$4.77	\$4.71	\$5.18	\$5.11	\$5.62	
\$2.00	\$2.20	\$2.15	\$2.37	\$2.31	\$2.54	\$2.48	\$2.73	\$2.66	\$2.93	0.87

\*\*Includes sales tax and env fee  
 \*Rate is 87% of the Commercial (no main extension) reclaimed rate  
 Reclaimed rates include energy surcharge



# Reclaimed Water Facts

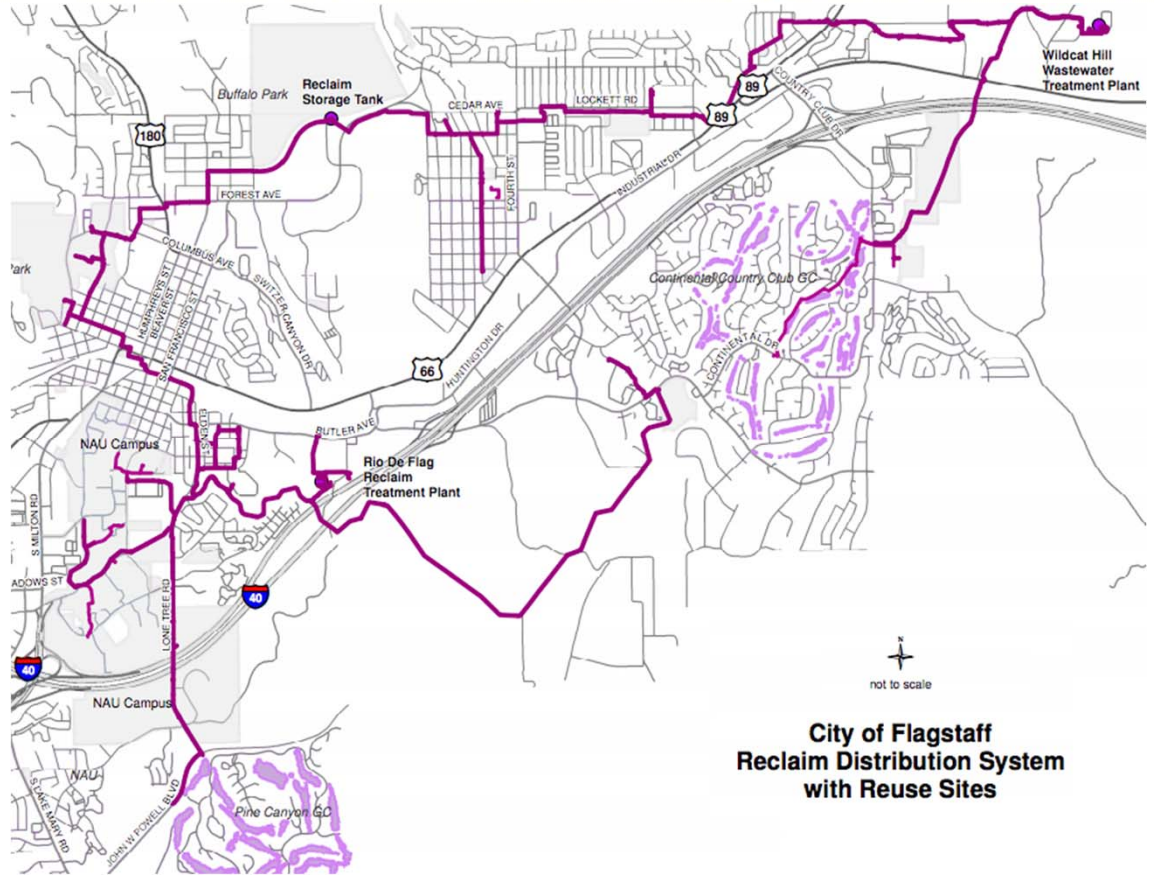
- Continental first user in Flagstaff in 1966 with water from Wildcat Hill Water Reclamation Plant
- Expanded system to current system in mid-1990's with addition of Rio de Flag Water Reclamation Plant
- System designed to serve large users
  - golf courses, many city and school parks, NAU, commercial customers – incentives were given to join in 1990's/2000's
  - some low-volume customers opted to connect if close to the main trunkline



# Reclaimed Water Facts



City code 7-03-001-0014.E.1.d.  
"No person shall:  
Irrigate golf courses with potable water"

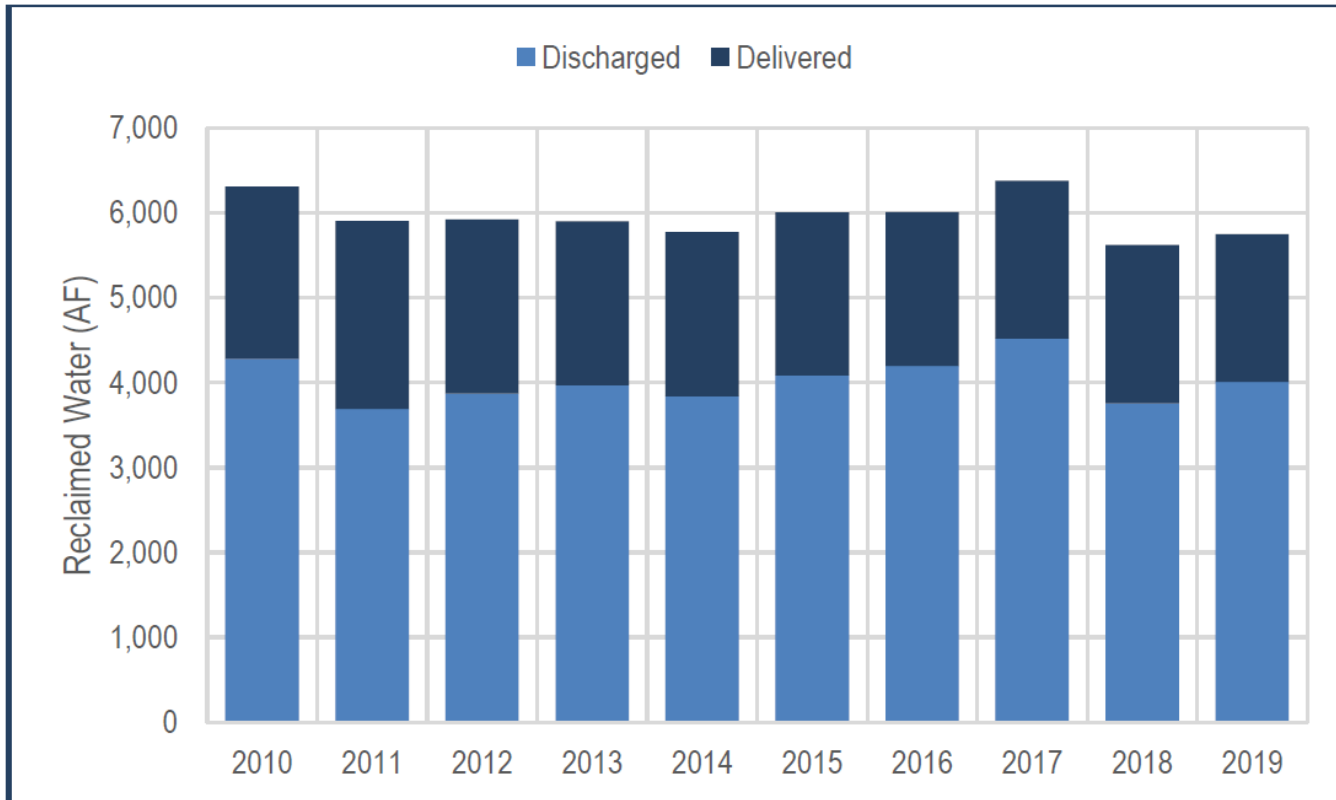




# Reclaimed Water Facts



Reclaimed Water Delivery to Reuse and Discharge to Rio de Flag (2010 - 2019)

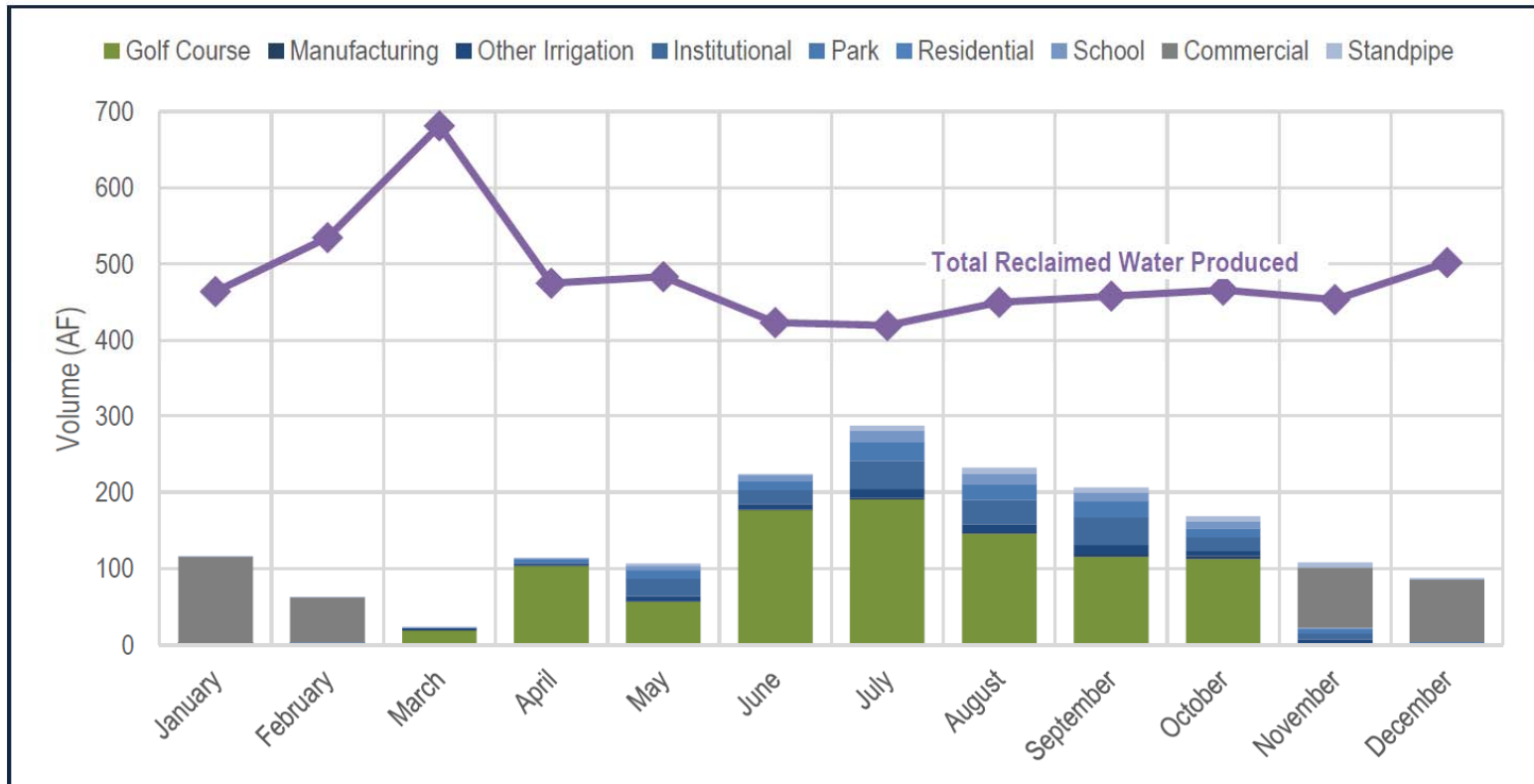




# Reclaimed Water Facts



## 2019 Reclaimed Water Production and Deliveries by Customer Type





# Roadmap – timeline of discussion

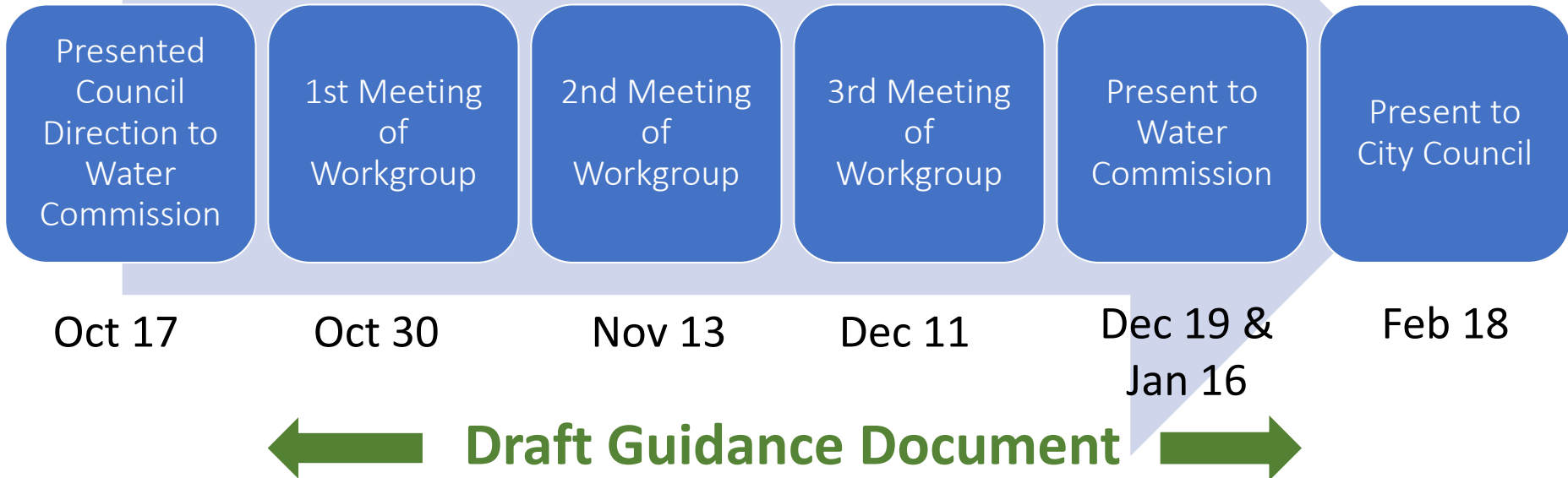
## April 2, 2024 City Council meeting – Council Direction

- Reclaimed water rates were discussed as part of the 2023-2024 Water, Reclaimed Water, Wastewater Rates, Fees, and Cost-of-Service Study
  - Council requested Staff work with Water Commission to provide guidance to City Council on whether to deviate from current policy
- Rates adopted by City Council in July effective September 1, 2024
- Reclaimed water rates set by policy (~35% of potable rates)
- Adoption of updated rates resulted in an 8.5% annual increase to reclaimed water customers



# Guidance Document Timeline

## Reclaimed Water Workgroup formed by Water Commission Chairman Riegelman; Drafted Guidance Document





# Makeup of Workgroup

## **Workgroup consisted of reclaimed water users and three members from the City's Water Commission**

- Led by Water Commission Chair and Vice Mayor Sweet with City Staff assistance
- Reclaimed Water Users: NAU, Aspen Valley Golf Course, COF Parks and Recreation, AZ Snowbowl
- Discussed:
  - current pricing policy and alternative ways to set pricing
  - Fund finances overview
  - current and future goals of the reclaimed water program
  - challenges for utility and reclaimed water users



# Recommendations of Workgroup

## **The recommendation is to implement cost-based reclaimed water pricing to replace the present percent-of-potable pricing approach:**

- Achieves equitable recovery of costs by aligning methodology with water and wastewater cost recovery basis
- Revisits a rate structure based on how reclaimed water users use water vs. keeping the same rate structure as potable water
- Recommendation is to not revisit policy now but at time of next water rate study check-in (currently timed for January 2026)
- Identified water conservation initiatives



# Guidance Document

## Goals for an updated reclaimed water pricing system

- Provide simple, transparent logic.
- Provide ongoing funding to sustain reclaimed water operations at a level consistent with the needs and expectations of customers.
- Provide a method to address past questions concerning reclaimed water pricing fairness.
- Provide mechanisms to incentivize conservation and demand smoothing to minimize potential future competition over reclaimed supplies if the City of Flagstaff (COF) implements indirect or direct potable reuse.



# Guidance Document

**To fulfill these goals, the working group recommends implementing cost-based RW pricing to replace the present 35%-of-potable pricing approach:**

- Will put RW pricing on the same basis as potable water and wastewater pricing.
- Should be implemented at the time of the next rate study, i.e., the working group does NOT recommend changing the 5-year RW price trajectory agreed during the most recent rate study.
- The change in pricing methodology will be informed by a RW cost-of-service study presently planned by FWS for Q2 2026.



# Guidance Document

## Key characteristics of the proposed cost-based plan and management approach:

- City Council will have an opportunity to review cost allocations between RW and wastewater.
- Will include reclaimed customers as partners in determining what capital projects to include in any given rate period, balancing costs against system performance and maintenance requirements.
- May include tiers or seasonal pricing to incentivize conservation and demand smoothing, developed internally or with the help of rate consultants.
- Requires changing the COF's 2014 Policy C1.1 for Reclaimed Water Enterprise Fund Cost Recovery, primarily by eliminating the contingency for funding RW from Potable Water.



# Guidance Document

## Key Additional Recommendations

- Expand the scope of FWS water conservation activities to include RW uses. RW customers and FWS should be informed by and target achieving RW usage rates as good as or better than the standards defined by the Arizona Department of Water Resources (ADWR) and the 5<sup>th</sup> Management Plan Work Group (aka “5MP”).
- If the COF decides to implement an IPR/DPR program, the FCC should evaluate the advantages and disadvantages of converting to a value-based RW pricing system in place of a cost-based system.



# Guidance Document



## **Document includes additional considerations for Council**

- Relevant facts
- Macro-trends (industry trends)
- Guiding principals
- Recommended actions during 5-year period



# Guidance Document

## Guiding Principals

- Reclaimed water should continue to be the preferred solution for “outdoor,” non-recaptured and industrial uses of water. This includes large-scale irrigation, snowmaking, industrial and “grey water” activities within the city.
- A percentage of (or all) reclaimed water may eventually be considered as a source for IPR/DPR. Water Services needs to consider this in the design of future water treatment and distribution systems. Integrating this possibility into planning (now) will make this a higher probability with lower costs (in the future). If IPR/DPR are developing into viable solutions for Flagstaff, the application strategy (above) should be reconsidered.
- Near-term reclaimed water rates should not be used to “signal” future potential contention between customer uses and the potential to have reclaimed water as a source of IPR/DPR.
- Continued collaboration with clients (customers) to increase the efficiency in the use of reclaimed water and in smoothing the demand curve of reclaimed water.



# Guidance Document

## Recommended actions during this 5-year rate period

- Establish a standing Reclaimed Water stakeholder group comprised of key users, Water Department personnel and relevant City Council member.
- Confer with the User Group to identify potential conservation activities and/or development of on-site or system-wide storage facilities to increase the constant availability of reclaimed water.
- Determine if funding is available to facilitate conservation and increases in storage.
- Perform a formal “cost of service” survey to align City Council and the water department on i) which cost components are included in the reclaimed water rates and ii) to ensure all relevant costs are being captured.
- Define three levels of service for consideration and (ultimate) selection by the City Council.
- Launch the independent reclaimed water rate study (to take effect?) no sooner than year 3 of the current rate cycle. (Year 3 begins January 1, 2027)



# Current rate structure



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Hydrant Meter		WR	\$4.19		50% of potable
Standpipe		RS	\$4.16		
Total standpipe**			\$4.74		
Off Peak/Golf Course:*	All Tiers	WR	\$2.00	\$2.20	87% of commercial
**Includes sales tax and env fee					
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# Water Conservation Initiatives

## Come back to Council to discuss

- Ideas from AZ Department of Water Resources 5<sup>th</sup> Management Plan for Active Management Areas
- Update City Code for “demand management” peak-day reduction initiatives
- Update City Code for time-of-day water use reduction to match potable water code

https://www.azwater.gov/5MP/plans-concepts

### Management Plan Work Group

**5th Management Plans Concepts**

As ADWR and the 5th Management Plans Work Group proceeds in the development of the 5th Management Plans, concepts and stakeholder comments related to 5MP conservation programs will be made available below. Meeting links are provided, to provide additional context for the concept. Any questions or comments on these concepts can be sent to [managementplans@azwater.gov](mailto:managementplans@azwater.gov).

<b>Agricultural Subgroup</b> +
<b>Industrial Subgroup</b> +
<b>Turf Breakout Group</b> -

- Concept: Golf Course Conservation >
- Concept: Non-Golf Turf Facilities Conservation >
- Draft 5MP Turf Regulatory Language >

**5th Management Plans Concepts**

- Management Plans
- 5th Management Plans Work Group Meetings
- AMA Data
- Governor's Water Policy Council

Management Plans Work Group Contact Form



# Questions, Discussion & Direction

## Seeking Council Direction: Do we?

- Option 1: Explore water conservation and/or reclaimed water demand-smoothing actions now and direct staff to include a cost-of-service-based analysis in the next rate study
- Option 2: Do not take any action on reclaimed water rates at this time and monitor customer response to rate increases
- Option 3: Ask the Water Commission and/or Staff to take different action