



# Rate Structure Analysis & Proposed FY 2023 Rates

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# Overview

## Why is a cost-of-service study needed?

- Formal cost allocation has not been performed since bifurcation
- Cost allocation required as part of bifurcation agreement
- Rates required to reflect cost of service per Michigan law

## Why is a cost-of-service study recommended?

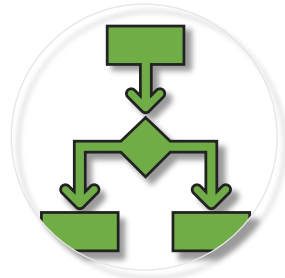
- Supports rates that are in proportion to the cost of providing service
- Industry best practices (American Water Works Association & Water Environment Federation)
- Legal defensibility and transparency

# Cost of Service Rate Study Process



## Revenue Requirements

- Financial policies/targets
- Infrastructure needs
- Operating expenses, including wholesale costs
- Liabilities and programs



## Cost Allocation

- Detailed analysis of cost drivers and functions
- Maintain equity across systems & classifications
- Determine appropriate units of service



## Rate Design

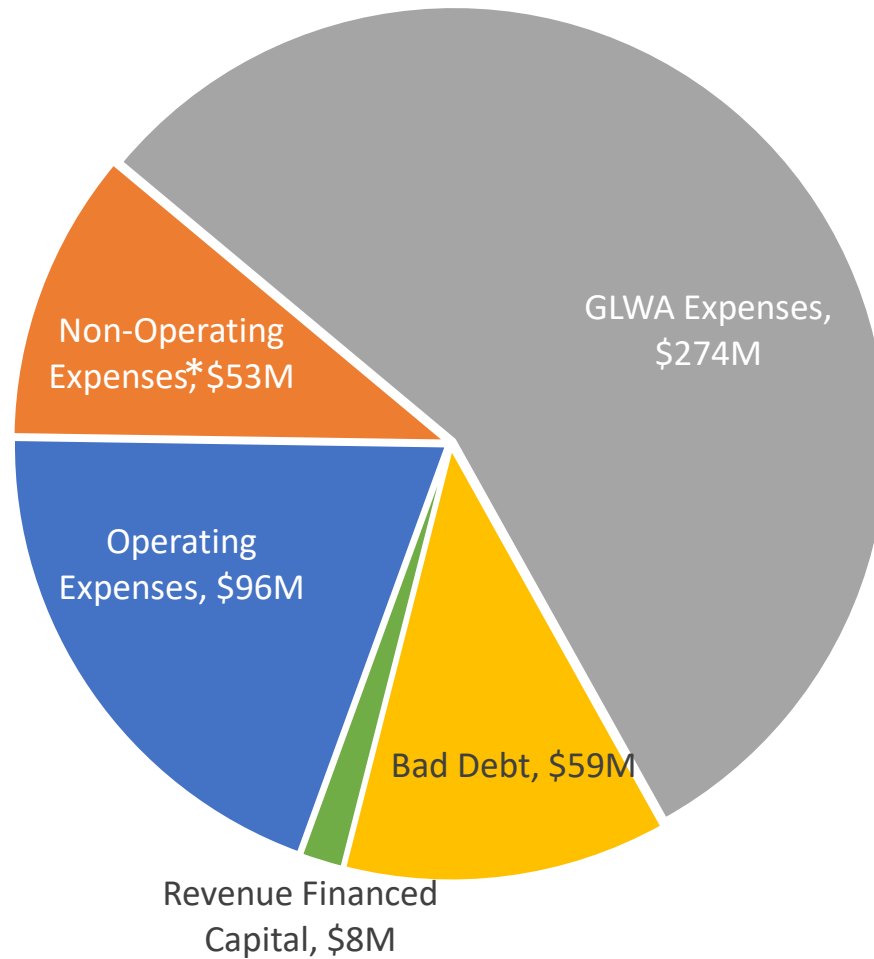
- Reflect cost to serve each customer classification
- Consider affordability and other objectives
- Establish clear linkage of costs to schedule of rates



## Communication

- National and local benchmarking/trends
- Evaluate customer impacts
- Public presentations and stakeholder outreach
- Implementation timeframe

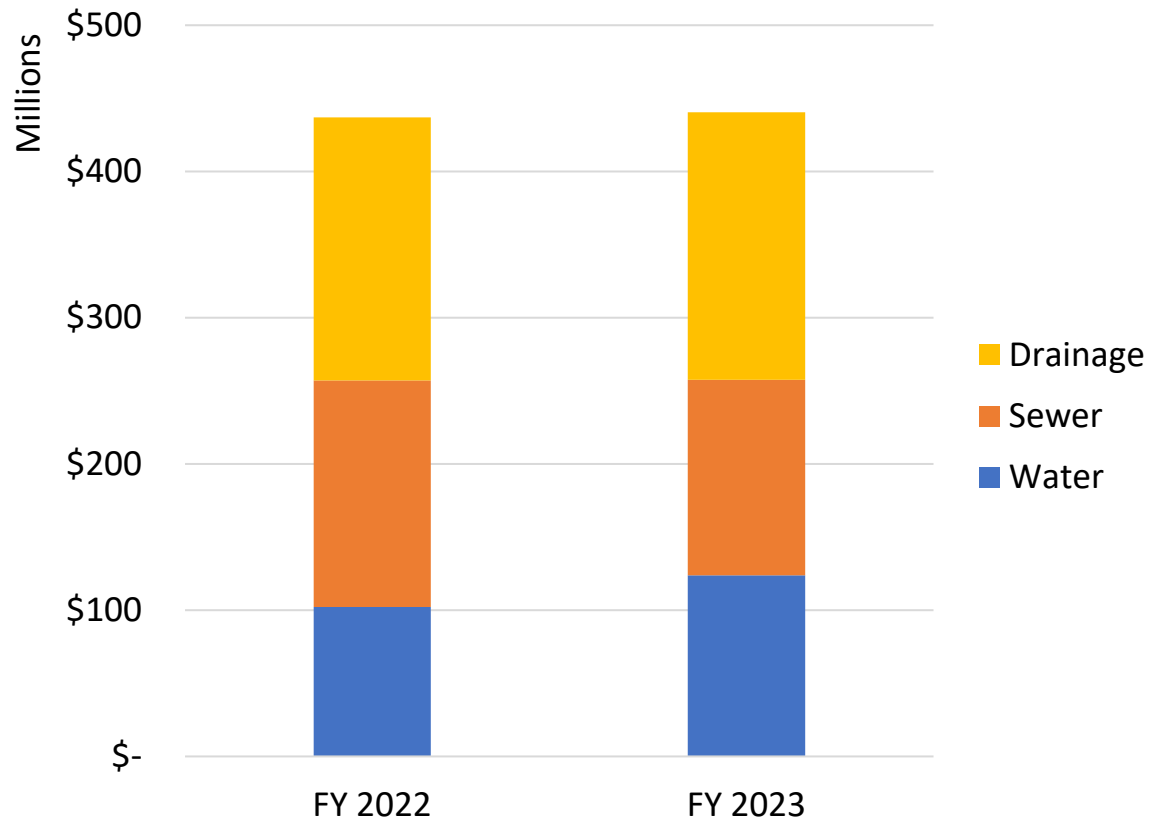
# Revenue Requirement FY 2023 Summary



- FY 2023 total revenue requirement consistent with approved budget
- 0.8% increase in rate revenue needed in FY 2023
- GLWA is >55% of total requirement
- “Controllable” expenses (operating and capital) are only 21% of the total

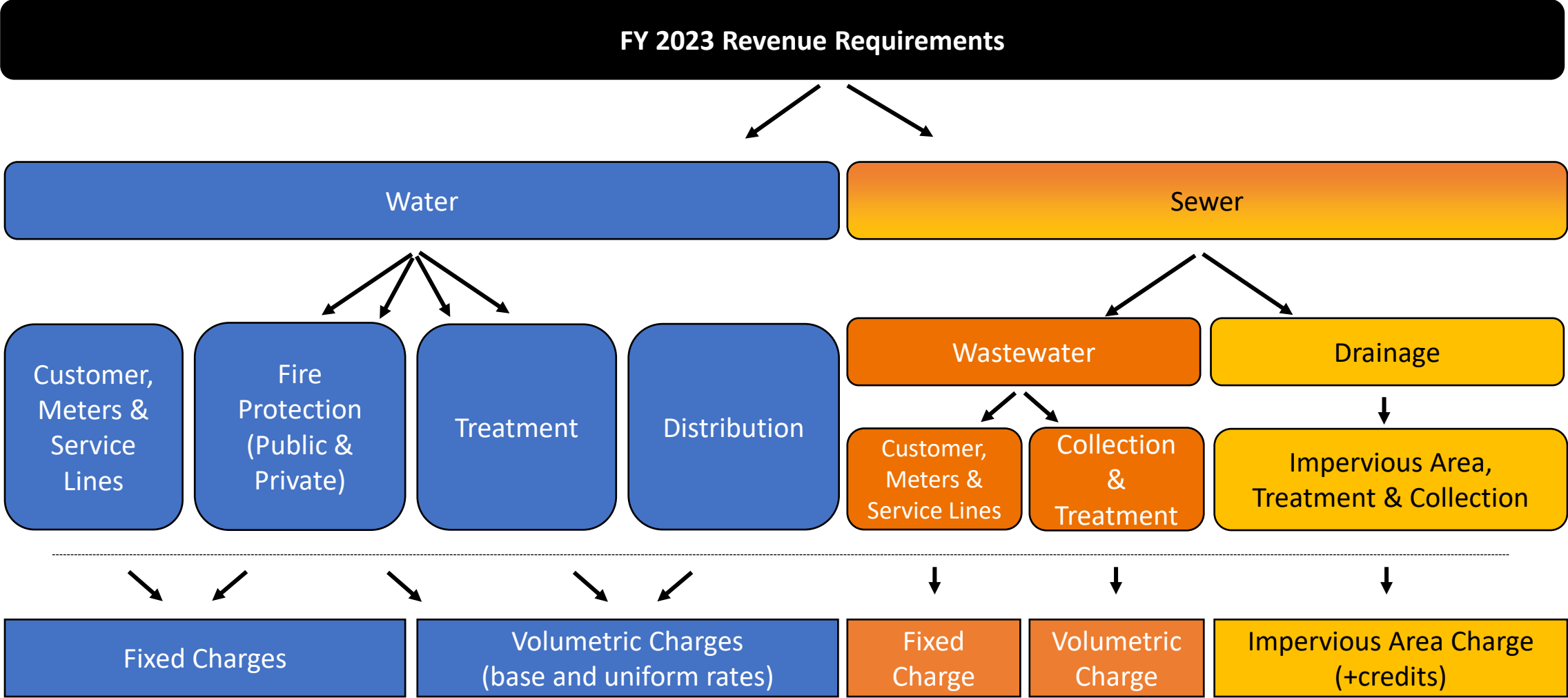
\*Non-operating expenses includes pension, WRAP, and IWC charges

# Cost of Service Allocation High Level Results

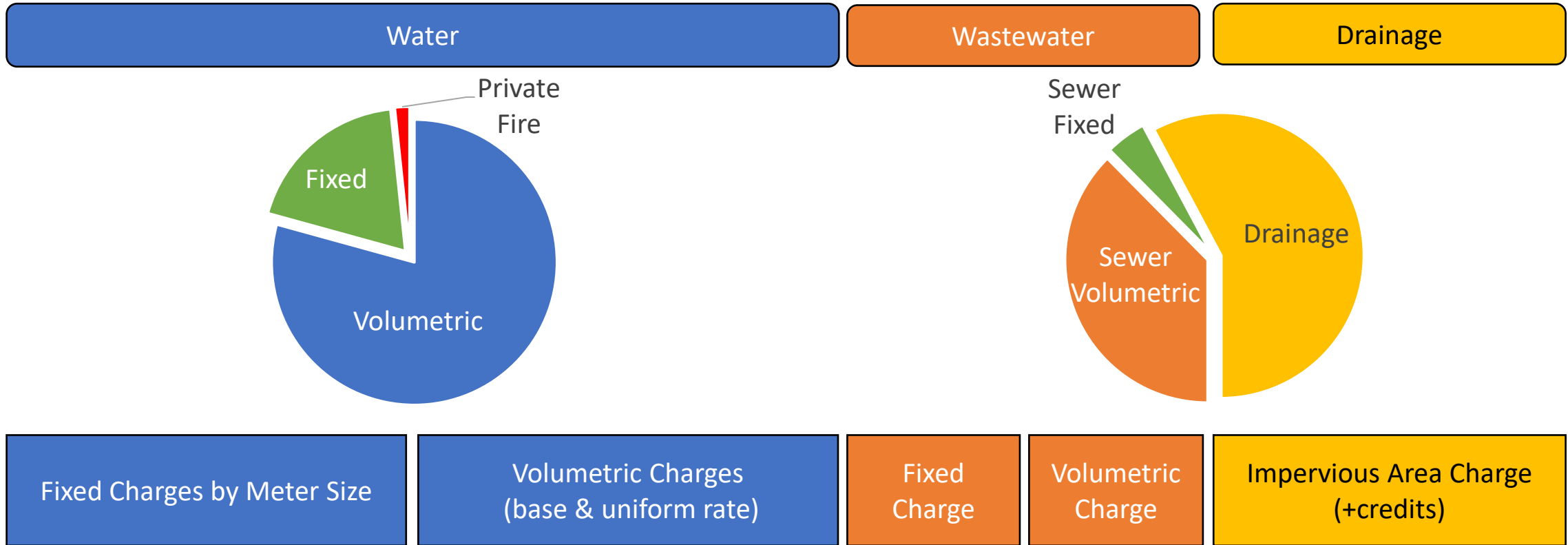


- Total FY 2023 costs consistent with budget
- Reflects detailed analysis & allocation by cost center
- ~\$20M shift from wastewater to water
- Small increase in drainage costs
- Foundation for mapping specific cost types to rates

# Cost Allocation & Rate Design Approach



# Elements of Proposed Rate Design



What is a base or lifeline rate?

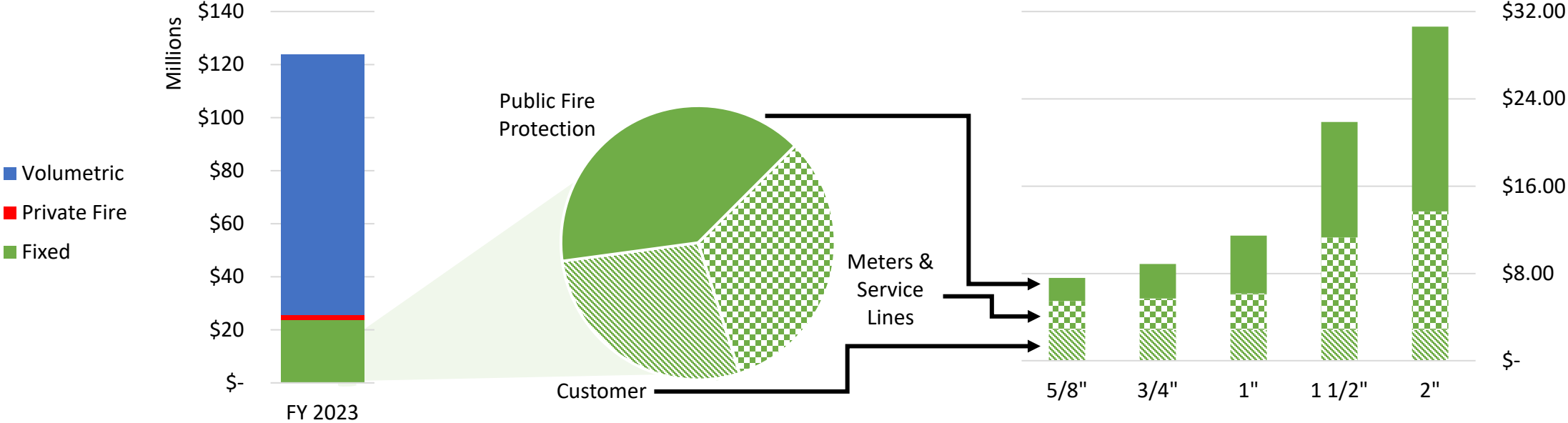
- Lower rate that applies to essential water use
- Remaining use at higher rate due to peaking costs

Irrigation Considerations

- Current volumetric charge applies to all water use
- Winter average water use as basis for sewer usage

# Water Fixed Charges

Water fixed charges cover three types of costs:

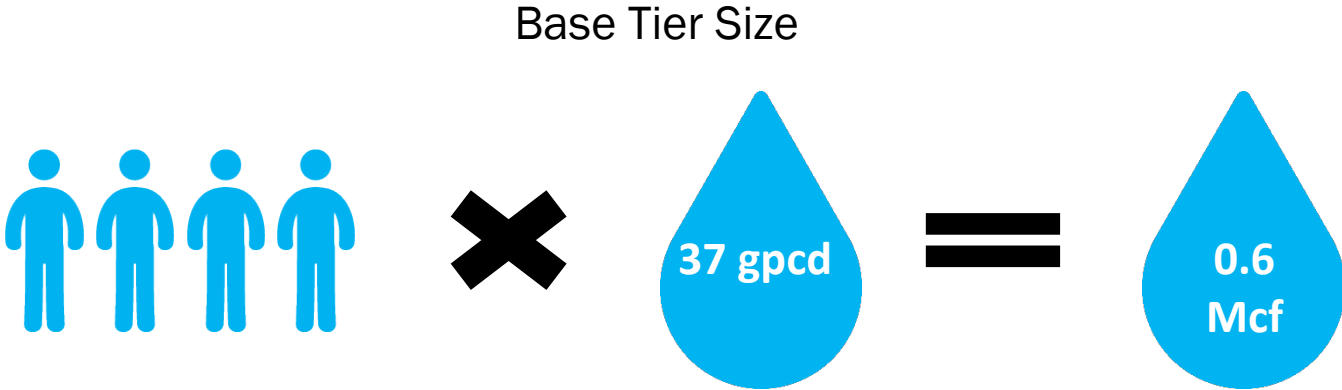


1. Customer service costs allocated uniformly to all meters
2. Meter & service line costs reflect replacement costs by meter size
3. Portion of public fire protection costs (capital, debt, & GLWA expense) scaled based on hydraulic capacity

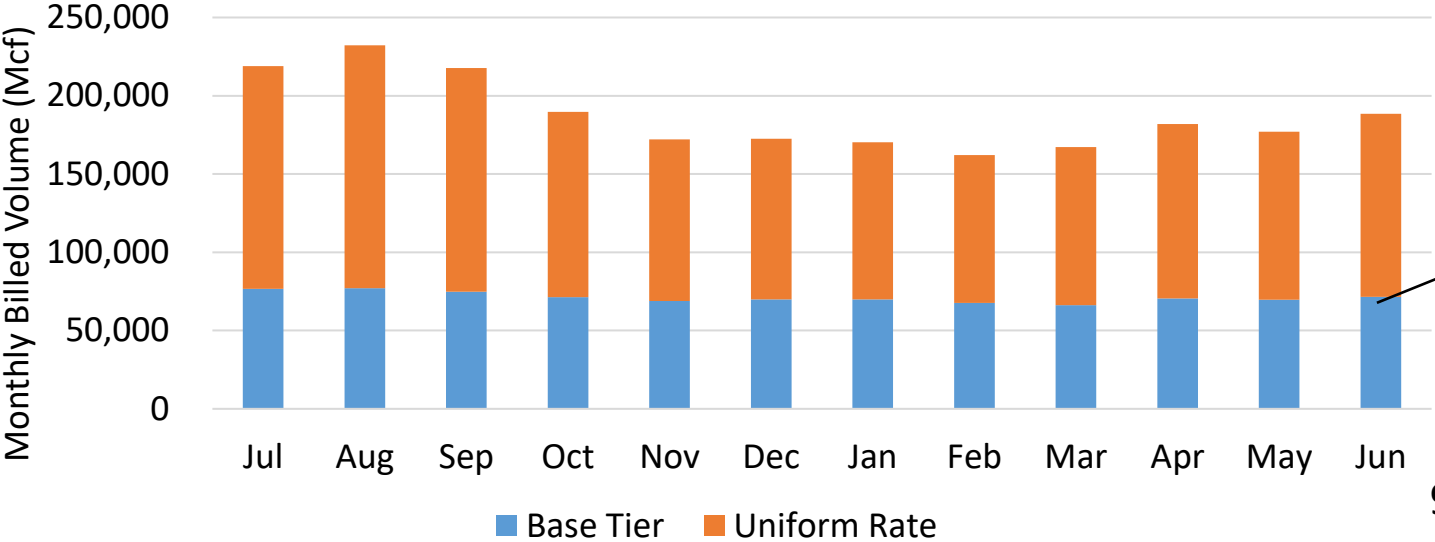




# Water Volumetric Rates (Use Analysis)



Amount of Water Use That Falls in Each Tier



Minimal peaking in Tier 1  
 Amount of water use stays very consistent throughout the year



# Water Volumetric Rates (Pricing Analysis)

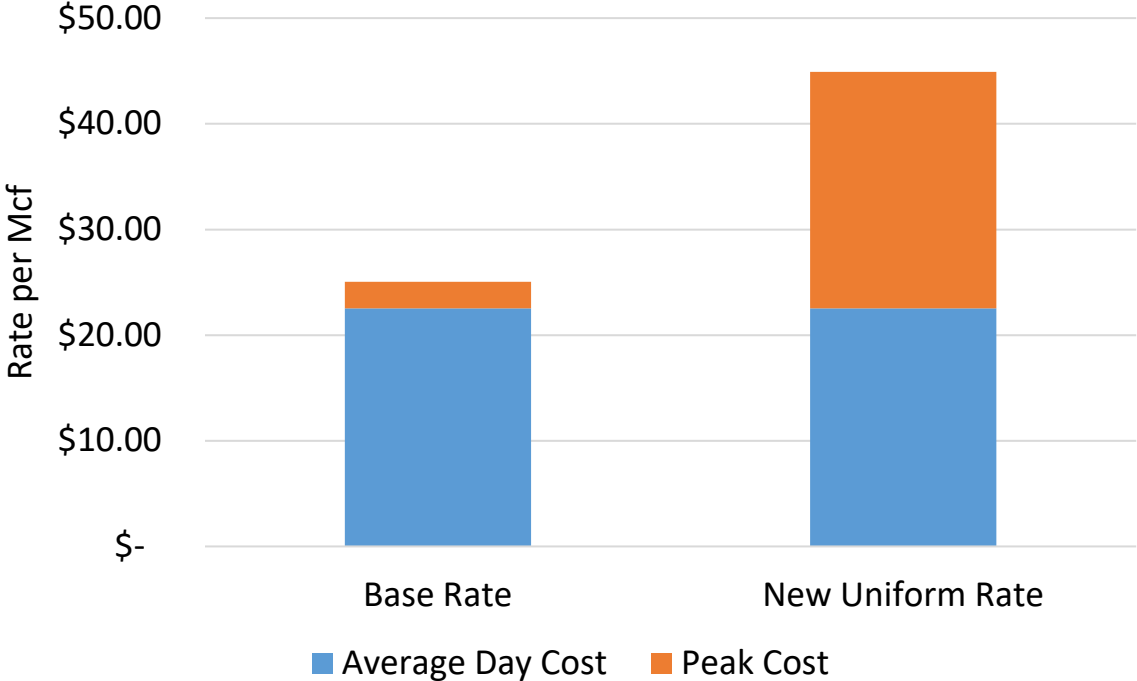
## Base Rate (Lifeline Tier)

$$\frac{\text{Average Day Costs}}{\text{Total Volume}} + \frac{\text{Tier 1 Peaking Costs*}}{\text{Tier 1 Volume}}$$

## New Uniform Rate (All Remaining Use)

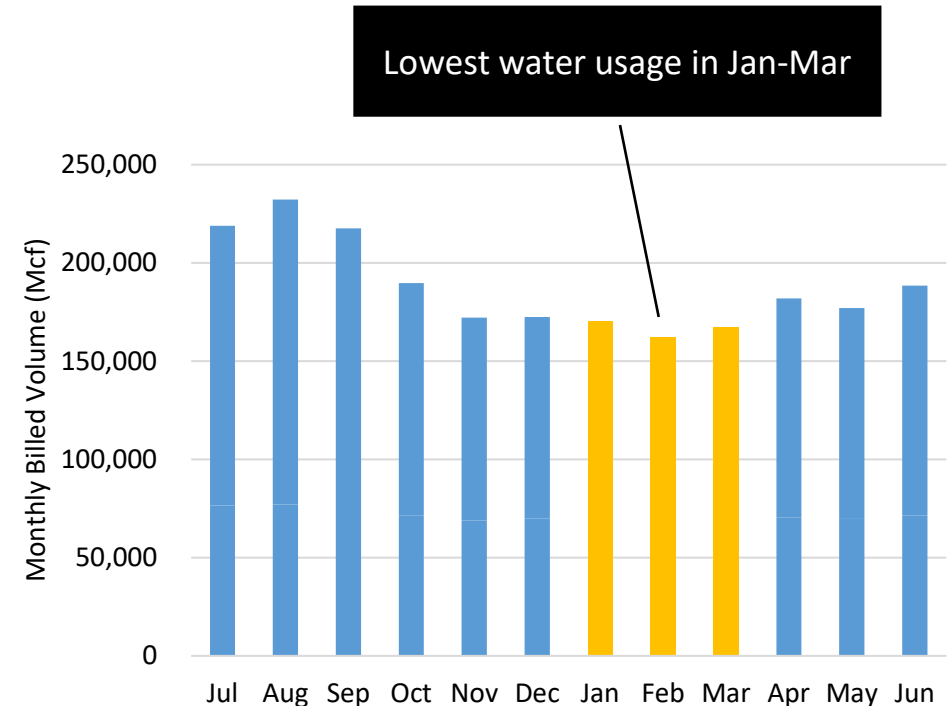
$$\frac{\text{Average Day Costs}}{\text{Total Volume}} + \frac{\text{Tier 2 Peaking Costs*}}{\text{Tier 2 Volume}}$$

\*Peaking cost allocation based on proportional change in monthly volume from lowest month to highest month of the test year



# Wastewater Fixed Charges & Volumetric Rates

- **Monthly fixed charge to recover customer- and meter-related costs**
- **Proposed volumetric rate approach**
  - Monthly average winter consumption (AWC) or actual water use, whichever is lower, as basis for billing volumetric rate
  - AWC is based average water use from January - March
  - Uniformly applied to all customer classifications
- **Interim wastewater volumetric rate approach**
  - Monthly cap of 1.2 Mcf on individually metered residential units
  - Continue using billed monthly water use for all other customers
  - Use until AWC can be implemented in billing system (FY 2024)





# FY 2023 Rates

# Recommended Rates

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## Water

Meter Size	Current Meter Charge (per month)	Proposed Meter Charge (per month)
5/8"	\$7.86	\$7.59
3/4"	\$11.79	\$8.88
1"	\$19.65	\$11.47
1.5"	\$39.31	\$21.88
2"	\$62.89	\$30.62
3"	\$125.79	\$96.03
4"	\$196.54	\$145.08
6"	\$393.08	\$367.74
8"	\$628.93	\$492.14
10"	\$904.08	\$923.52
12"	\$1,218.55	\$1,425.61
14"	\$1,690.24	\$2,246.35
16"	\$2,240.56	\$2,984.63

## Wastewater

	Current Charge (per bill)	Proposed Charge (per bill)
All Customers	\$6.54	\$6.34

	Current Volumetric Rate (per Mcf)	Proposed Volumetric Rate (per Mcf)
All Use	\$57.06	\$55.40

Current Tier	Current Volumetric Rate (per Mcf)	Proposed Tier	Proposed Volumetric Rate (per Mcf)
All Use	\$26.60	Base Tier (<=0.6 Mcf)	\$25.04
		Uniform Tier (>0.6 Mcf)	\$44.92

# Recommended Rates (Continued)

## Fire Protection

Meter Size	Current Charge (per month)	Proposed Charge (per month)
4"	\$94.41	\$28.84
6"	\$196.69	\$83.78
8"	\$283.23	\$178.54
10"	\$456.32	\$321.07
12"	\$676.61	\$518.62

## Drainage

	Current Charge (per month per impervious acreage)	Proposed Charge (per month per impervious acreage)
All Customers	\$677.00	\$685.71

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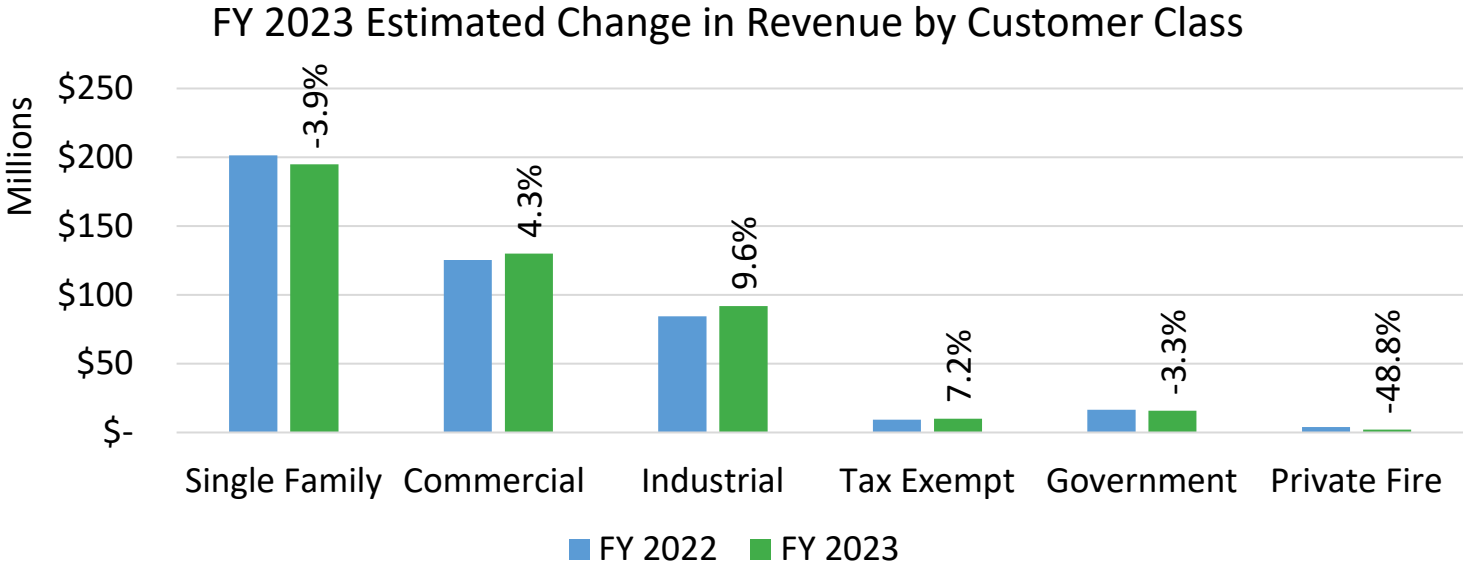


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# Customer Impacts

# Summary of Rate Structure Changes

- FY 2023 rates reflect revenue requirements and cost of service results
- Cost of service-based water fixed charge rate structure and tiered volumetric rate structure
- Wastewater volumetric rate applied using average winter consumption (effective in FY 2024)
- Cap individually metered residential units at 1.2 Mcf per month for wastewater volumetric rates as interim step
- No change to drainage rate structure and credit program





# Monthly Residential Bill Impacts

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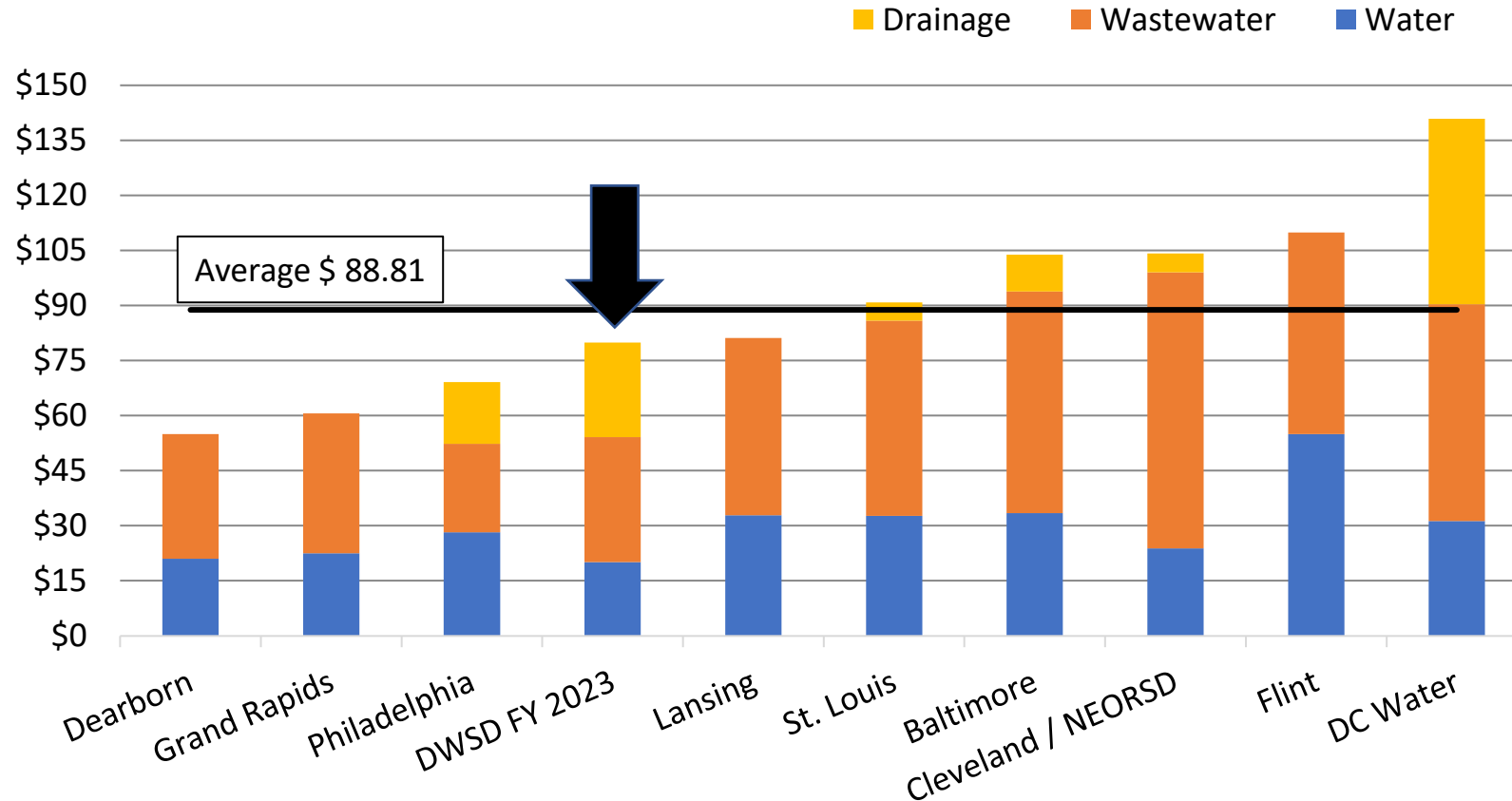
Water Use (Mcf)	Percentage of Bills	Current Bill	Proposed Bill	\$ Change	% Change
0.0	11%	\$39.79	\$39.64	-\$0.15	-0.4%
0.1	19%	\$48.15	\$47.69	-\$0.46	-1.0%
0.2	31%	\$56.52	\$55.73	-\$0.79	-1.4%
0.3	43%	\$64.89	\$63.78	-\$1.11	-1.7%
0.4	54%	\$73.25	\$71.82	-\$1.43	-2.0%
0.5	64%	\$81.62	\$79.86	-\$1.76	-2.2%
0.6	72%	\$89.98	\$87.91	-\$2.07	-2.3%
0.7	78%	\$98.35	\$97.94	-\$0.41	-0.4%
0.8	83%	\$106.72	\$107.97	\$1.25	1.2%
0.9	86%	\$115.08	\$118.00	\$2.92	2.5%
1.0	89%	\$123.45	\$128.04	\$4.59	3.7%
1.1	81%	\$131.81	\$138.07	\$6.26	4.7%
1.2	92%	\$140.18	\$148.10	\$7.92	5.6%
1.3	94%	\$148.55	\$152.59	\$4.04	2.7%

- 1) *Proposed bill reflects water, wastewater, and drainage FY 2023 revenue requirements*
- 2) *Proposed bill reflects water rate structure changes and wastewater volumetric rate cap of 1.2 Mcf*
- 3) *Assumes 0.05 impervious acres for drainage portion of bill*



# Monthly Residential Bill Comparison

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- 1) "DWSD FY 2023" reflects water, wastewater, and drainage FY 2023 revenue requirements and proposed rates
- 2) Assumes 5/8" meter, 0.5 Mcf of water use, and 0.05 impervious acres
- 3) Agencies without a drainage fee may capture costs in water/sewer charges or in non-utility sources (i.e. taxes)
- 4) Bills for other agencies are based on current (FY 2022) rates, and several will likely increase in FY 2023





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**Questions?  
Thank You**