



# **Sweetwater Authority**

## **Water Rate Cost of Service Study**

Draft Water Rate Policy Recommendation

August 8, 2023

# Agenda

- Single-Family Residential Tier Design
- Fixed vs. Variable Charges
- Bill Comparisons



# **Single-Family Residential Tier Design**

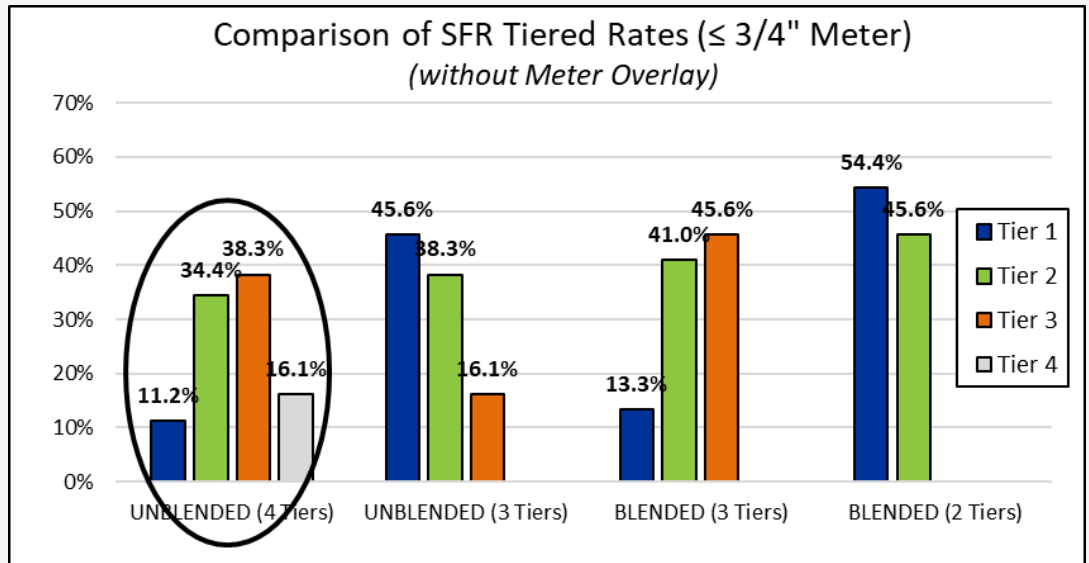
# Single-Family Residential Tier Design

- Tiers Must be Based on Sources of Supply:
  - Quantities & Costs Updated based on Adopted FY 2023/24 Budget

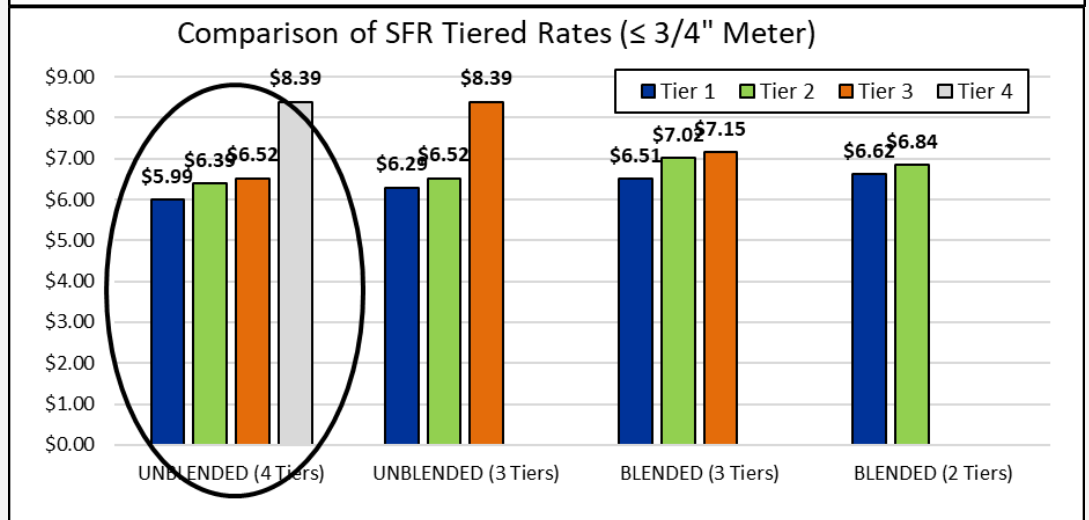
Source of Supply	Total Supplies		Cost (\$/AF) <sup>2</sup>	Supply Costs <sup>3</sup> (FY 2023/24)	
	In AF/Year	% of Total		(\$)	% of Total
<b>Tier 1</b>					
NC Wells	1,900	11.2%	\$338	\$ 642,300	5.9%
<b>Tier 2</b>					
Reservoir Water	5,847	34.4%	\$506	2,955,733	27.1%
<b>Tier 3</b>					
Desal	6,500	38.3%	\$561	3,647,200	33.5%
<b>Tier 4</b>					
SDCWA	2,733	16.1%	\$1,338	3,657,200	33.5%
	<b>16,980</b>	<b>100.0%</b>		<b>\$ 10,902,433</b>	<b>100%</b>

# Single-Family Residential Tier Design

- Supply Quantities:



- Tier Rates:



# Single-Family Residential – Tier Design

Tiers	Supply (Only) Costs (\$/HCF)	Breakpoints	% Resid. HCF's
<b>UNBLENDED 4-Tier Rates</b>			
Tier 1	\$0.78	T1 ≤ 4 hcf	11.2%
Tier 2	\$1.16	4 < T2 ≤ 12.5	34.4%
Tier 3	\$1.29	12.5 < T3 ≤ 24	38.3%
Tier 4	\$3.07	24 < T4	16.1%
<b>UNBLENDED 3-Tier Rates</b>			
Tier 1	\$1.07	T1 ≤ 12.5 hcf	45.6%
Tier 2	\$1.29	12.5 < T2 ≤ 24	38.3%
Tier 3	\$3.07	24 < T3	16.1%
<b>BLENDED Tiered Rates (3 Tiers)</b>			
Tier 1	\$1.06	T1 ≤ 5 hcf	13.3%
Tier 2	\$1.47	5 < T2 ≤ 15	41.0%
Tier 3	\$1.58	15 < T3	45.6%
<b>BLENDED Tiered Rates (2 Tiers)</b>			
Tier 1	\$1.37	T1 ≤ 15 hcf	54.4%
Tier 2	\$1.58	15 < T2	45.6%



# Single-Family Residential Tier Design

- 4-tier, unblended structure recommended based:
  - Supply quantity data:
    - 83.9% of supply from local water sources (Tiers 1-3)
    - 16.1% purchased water source (Tier 4)
  - Rate tier structure reflects:
    - Lower supply costs for local water sources (Tiers 1-3)
      - Lower rate tier costs for all residential usage up to 24 hcf
    - Higher supply costs for purchased water source (Tier 4)
      - Higher rate tier costs for all residential usage above 24 hcf



# **Fixed vs. Variable Charge**



# Fixed vs. Variable Charges

- Recommendation:
  - 3-Year Phase-in Approach:

<b>3-Year Phase-In Assumptions</b>			
	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>
% Fixed	<b>13%</b>	<b>16%</b>	<b>19%</b>
% Variable	<b>87%</b>	<b>84%</b>	<b>81%</b>

Water Rate Schedule	Current Rates	Proposed Rates (with 3-Year Phase-In)		
		FY 2023/24	FY 2024/25	FY 2025/26
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		0.50%	6.00%	6.50%
<b>Bi-Monthly Fixed Service Charges (in \$/2-mo)</b>		13% F/87% V	16% F/84% V	19% F/81% V
<b>Sweetwater Authority Rates for Bi-Monthly Fixed Charge</b>				
< 1 inch	\$21.70	\$17.27	\$24.36	\$32.35
1 inch	\$32.30	\$25.09	\$35.77	\$47.83
1-1/2 inches	\$51.18	\$44.65	\$64.31	\$86.54
2 inches	\$72.40	\$68.12	\$98.56	\$132.98
<b>Sweetwater Authority Bi-Monthly Fixed Charges for Irrigation Meters</b>				
< 1 inch	N.A.	\$24.41	\$34.75	\$46.47
1 inch	N.A.	\$36.99	\$53.11	\$71.36
1-1/2 inches	N.A.	\$68.45	\$99.00	\$133.59
2 inches	N.A.	\$106.21	\$154.07	\$208.26
<b>Sweetwater Authority Bi-Monthly Fixed Charges for Fire Meters</b>				
< 1 inch	N.A.	\$15.12	\$16.02	\$17.07
1 inch	N.A.	\$21.51	\$22.80	\$24.28
1-1/2 inches	N.A.	\$37.48	\$39.73	\$42.31
2 inches	N.A.	\$56.65	\$60.05	\$63.96
<b>SDCWA Rates for Bi-Monthly Infrastructure Access Charge</b>				
< 1 inch	\$9.16	\$7.61	\$8.07	\$8.59
1 inch	\$14.66	\$12.69	\$13.45	\$14.32
1-1/2 inches	\$27.48	\$25.37	\$26.90	\$28.64
2 inches	\$47.62	\$40.60	\$43.03	\$45.83

Note: Draft Rate Alternatives – Subject to Revision.  
(Larger meter sizes not shown)

Water Rate Schedule		Current Rates	Proposed Rates (with 3-Year Phase-In)		
			FY 2023/24	FY 2024/25	FY 2025/26
Projected Increase in Rate Revenue per Financial Plan:			0.50%	6.00%	6.50%
<b>Variable Charges for All Water Consumed (in \$/hcf)</b>					
<b>Variable Rate for Bi-Monthly Sweetwater Authority Charge</b>					
Residential Use					
Tier 1 - 0 - 10 HCF		\$4.31	N.A.	N.A.	N.A.
Tier 2 - 11 - 16 HCF		\$5.14	N.A.	N.A.	N.A.
Tier 3 - 17 - 27 HCF		\$5.29	N.A.	N.A.	N.A.
Tier 4 - ≥ 28 HCF		\$6.37	N.A.	N.A.	N.A.
Proposed Residential Tier Design	Tier 1 (0-4 HCF)	N.A.	\$5.30	\$5.38	\$5.48
	Tier 2 (4-12.5 HCF)	N.A.	\$5.70	\$5.81	\$5.93
	Tier 3 (12.5-24 HCF)	N.A.	\$5.84	\$5.95	\$6.08
	Tier 4 (24 HCF +)	N.A.	\$7.70	\$7.93	\$8.18
Multi-Family		\$5.92	\$6.03	\$6.15	\$6.30
Commercial		\$5.66	\$6.03	\$6.15	\$6.30
Public Agencies		\$6.99	\$6.03	\$6.15	\$6.30
Irrigation		N.A.	\$6.03	\$6.15	\$6.30
Other-Construction		\$8.54	\$6.03	\$6.15	\$6.30
Industrial		N.A.	\$6.03	\$6.15	\$6.30
Fire Protection		N.A.	\$6.03	\$6.15	\$6.30
<b>Variable Rate for Bi-Monthly SDCWA Wholesale Water Purchase Charge</b>					
Residential Use					
Tier 1 - 0 - 10 HCF		\$0.54	N.A.	N.A.	N.A.
Tier 2 - 11 - 16 HCF		\$0.65	N.A.	N.A.	N.A.
Tier 3 - 17 - 27 HCF		\$0.66	N.A.	N.A.	N.A.
Tier 4 - ≥ 28 HCF		\$0.80	N.A.	N.A.	N.A.
Proposed Residential Tier Design	Tier 1 (0-4 HCF)	N.A.	\$0.52	\$0.55	\$0.58
	Tier 2 (4-12.5 HCF)	N.A.	\$0.52	\$0.55	\$0.58
	Tier 3 (12.5-24 HCF)	N.A.	\$0.52	\$0.55	\$0.58
	Tier 4 (24 HCF +)	N.A.	\$0.52	\$0.55	\$0.58
Multi-Family		\$0.74	\$0.52	\$0.55	\$0.58
Commercial		\$0.71	\$0.52	\$0.55	\$0.58
Public Agencies		\$0.87	\$0.52	\$0.55	\$0.58
Irrigation		N.A.	\$0.52	\$0.55	\$0.58
Other-Construction		\$1.07	\$0.52	\$0.55	\$0.58
Industrial		N.A.	\$0.52	\$0.55	\$0.58
Fire Protection		N.A.	\$0.52	\$0.55	\$0.58

Note: Draft Rate Alternatives – Subject to Revision.

The image features a green diagonal shape that starts from the top-left corner and extends towards the bottom-right corner. A solid blue vertical bar is positioned along the right edge of the image. The text 'Bill Comparisons' is located in the bottom-left area of the white background.

# **Bill Comparisons**

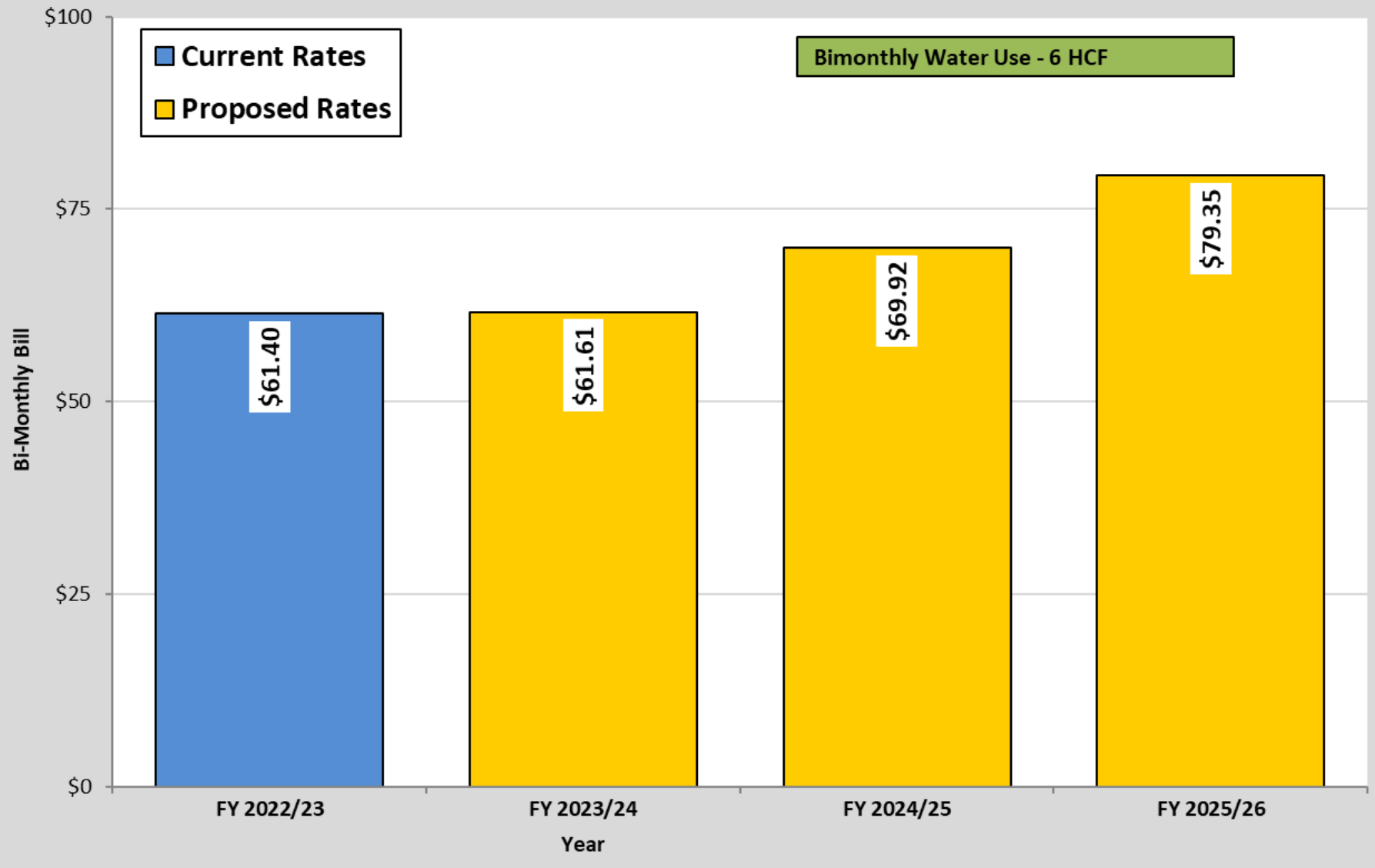
A large green diagonal shape that starts from the top-left corner and extends towards the bottom-right corner, covering most of the slide's background.

# **Three Year Projections: Residential Rates**

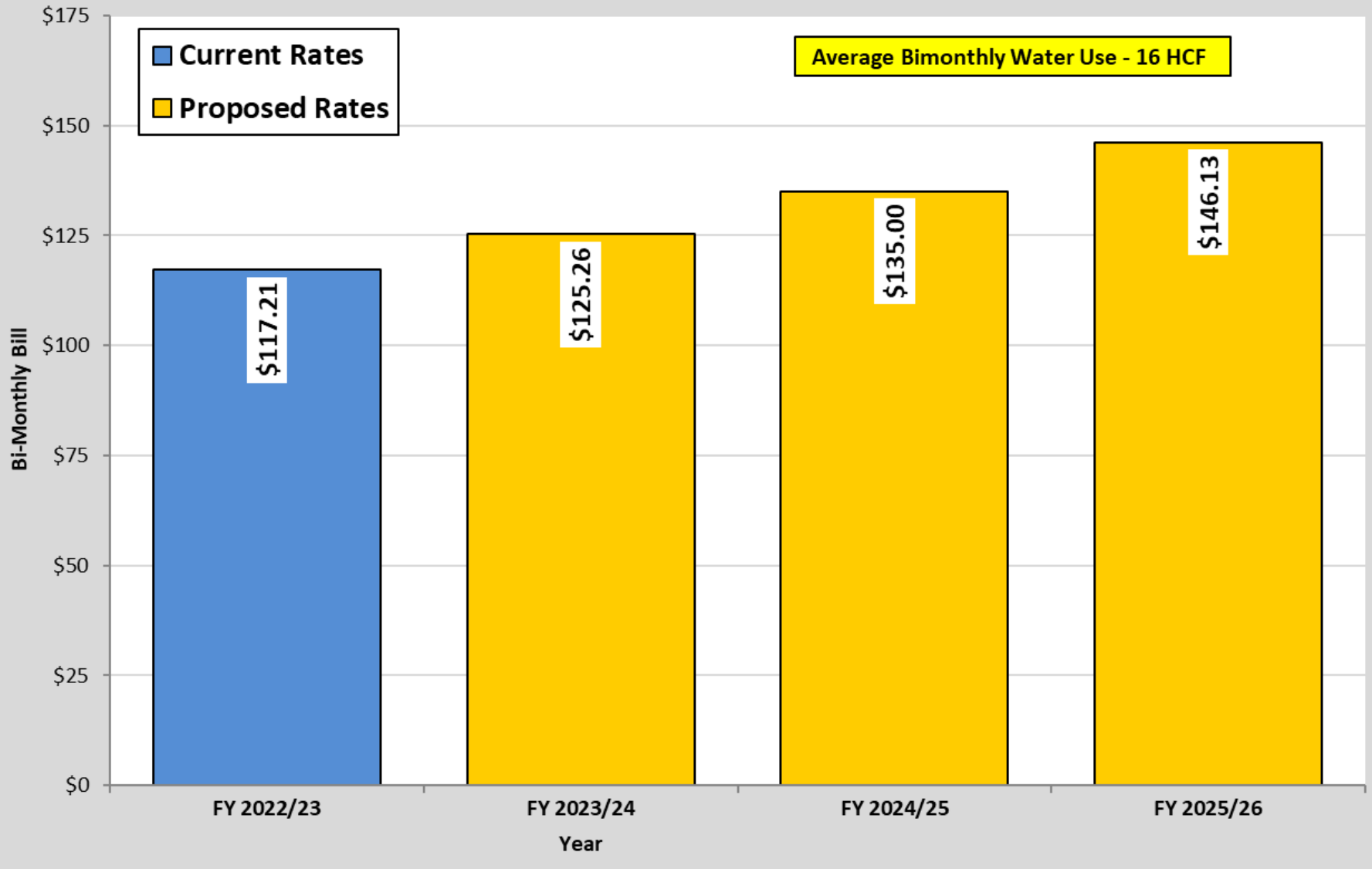
# Three Year Projections – Residential Rates

- Methodology:
  - Utilized Commodity Demand
  - Recommended Residential Tier Design: Unblended, 4-Tier Structure
  - No Meter Overlay
  - SDCWA & MWD Volumetric Charges Included
  - Includes Revenue Increase Based on Adopted Budget

### Residential Bi-Monthly Water Bill Comparison 3-Year Projection (<1" Meter)

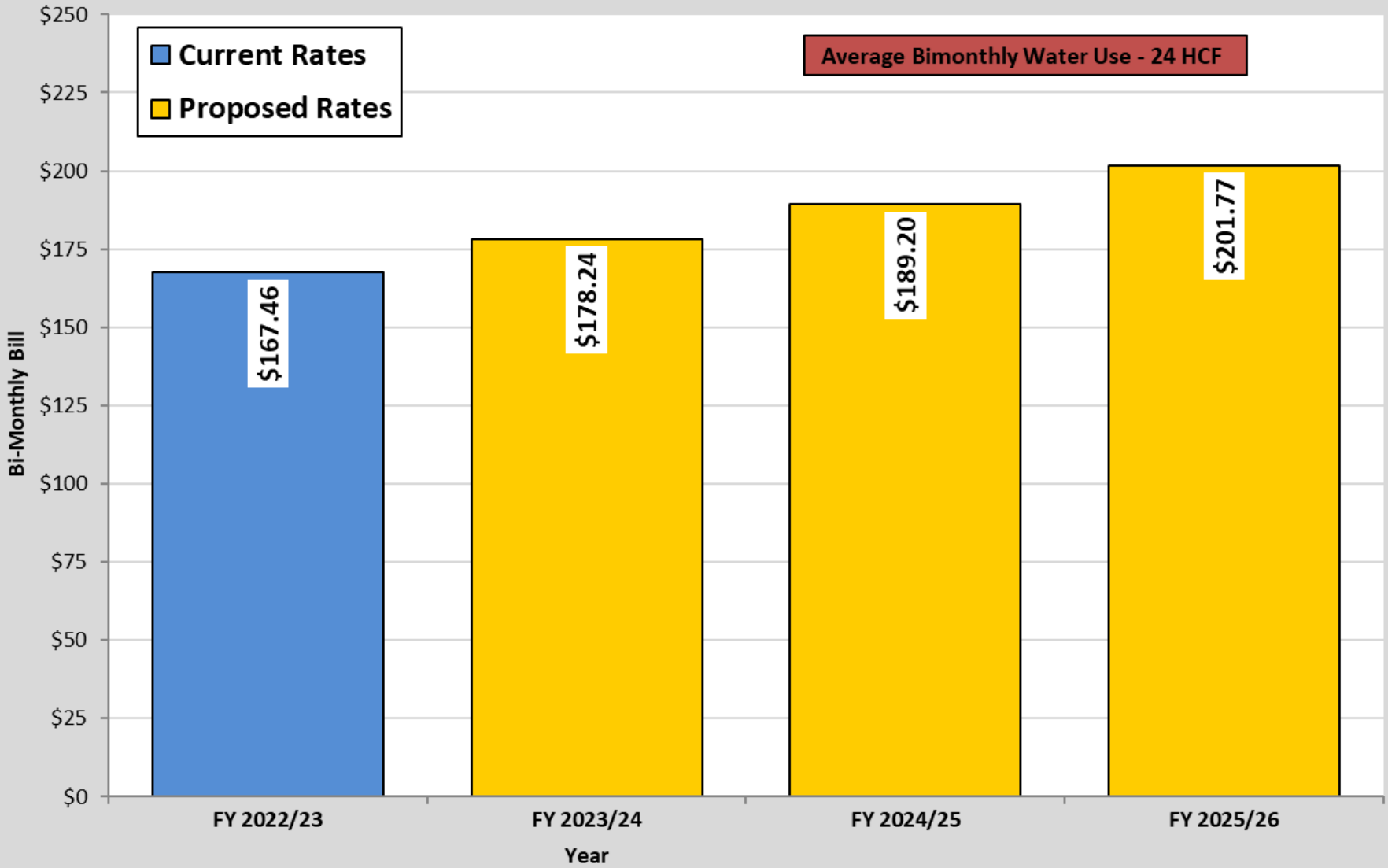


### Residential Bi-Monthly Water Bill Comparison 3-Year Projection (<1" Meter)

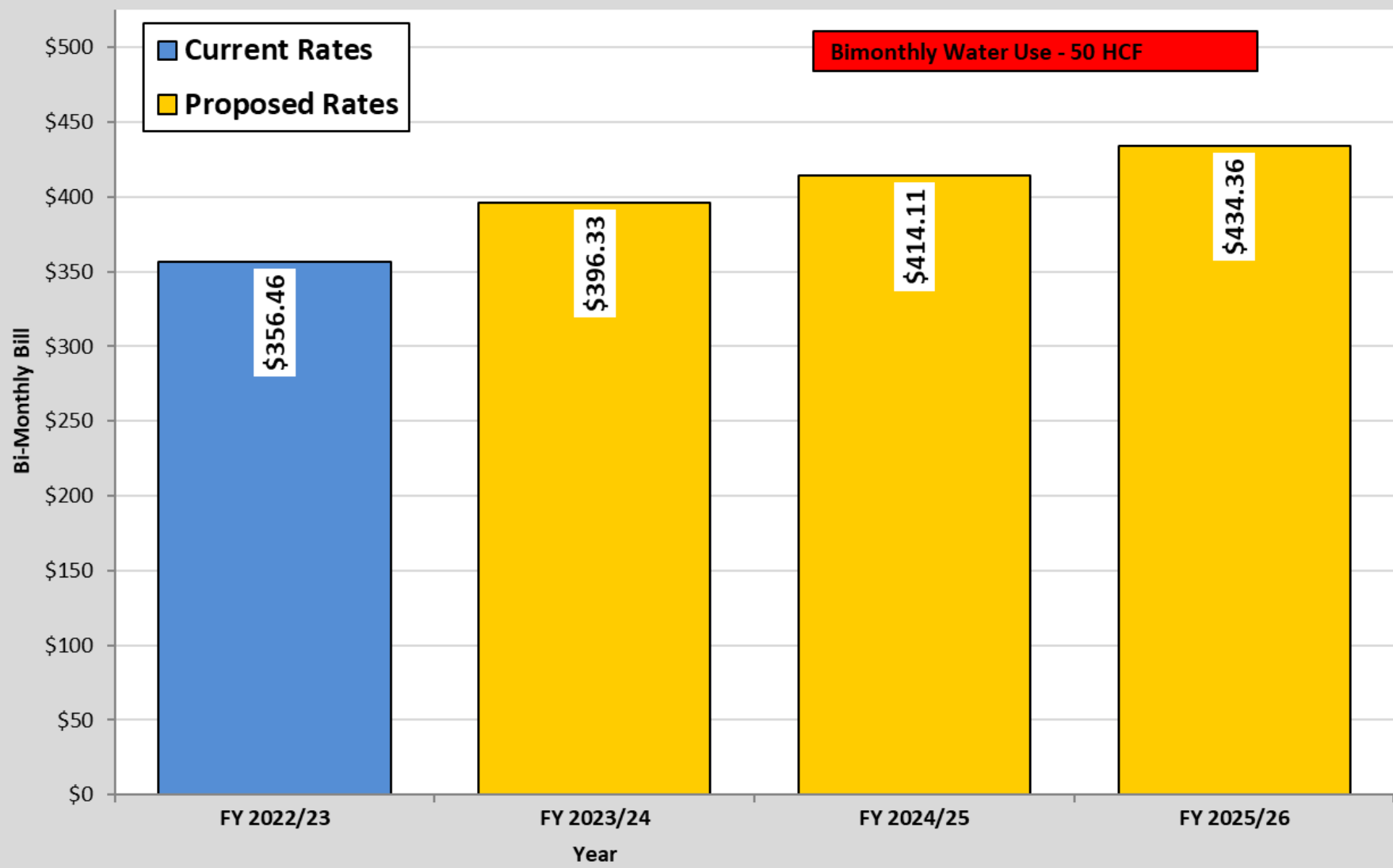





### Residential Bi-Monthly Water Bill Comparison 3-Year Projection (<1" Meter)



### Residential Bi-Monthly Water Bill Comparison 3-Year Projection (<1" Meter)



A large green diagonal shape that starts from the top-left corner and extends towards the bottom-right corner, covering most of the slide's background.

**Current Rates vs.  
Proposed FY 2023/24 Rates**

# Current vs. Proposed Rates

- Methodology:

- Current Rates

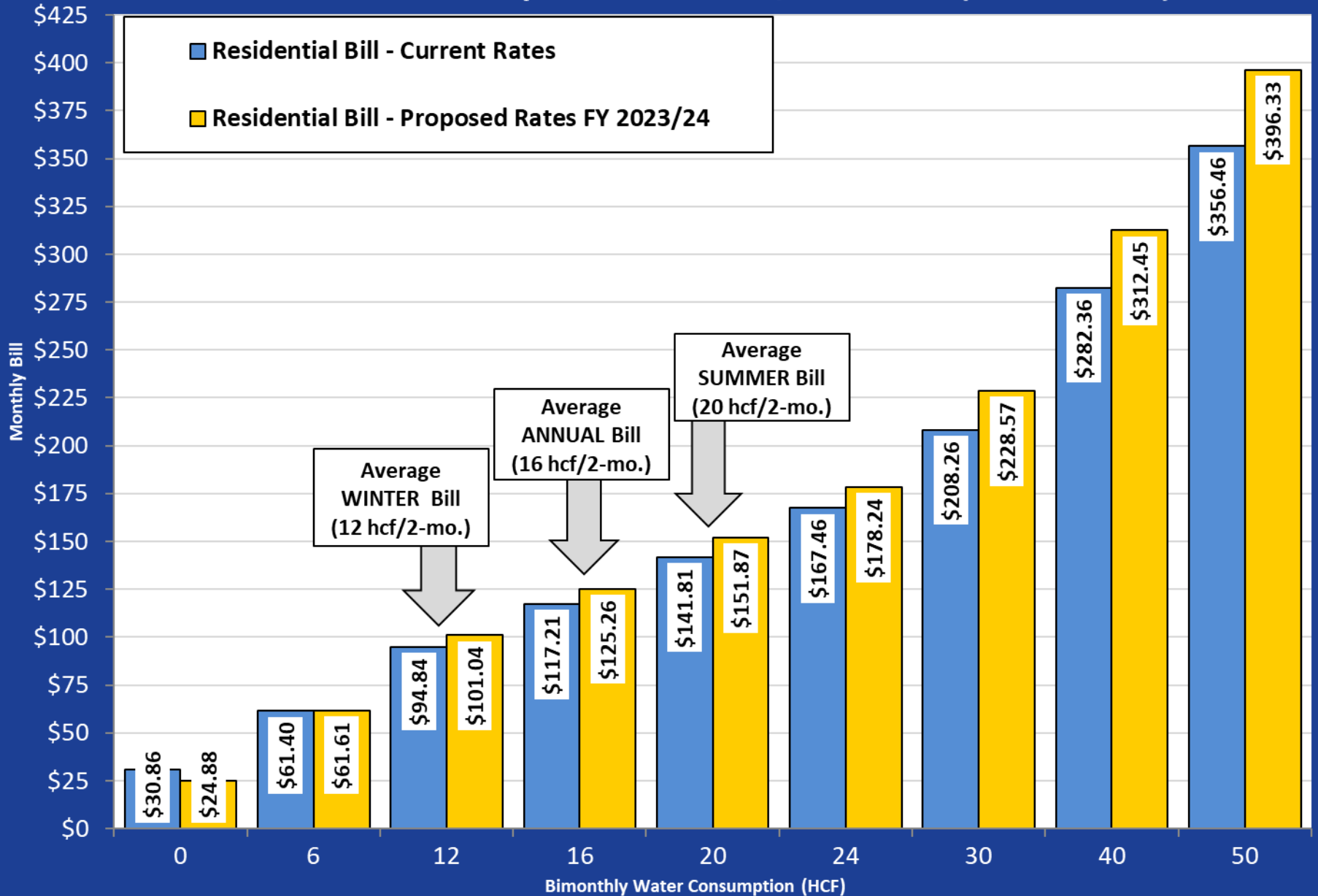
- Utilized Base Extra Capacity
    - Volumetric rates calculated based on existing residential tier design (4 tiers)
    - No Meter Overlay
    - SDCWA & MWD Pass-Through Volumetric Charges Included

- Proposed FY 2023/24 Rates

- Utilized Commodity Demand
    - 3-Year Phase-in Approach
    - Recommended Residential Tier Design: Unblended, 4-Tier Structure
    - No Meter Overlay
    - SDCWA & MWD Volumetric Charges Included
    - Includes Revenue Increases Based on Adopted Budget

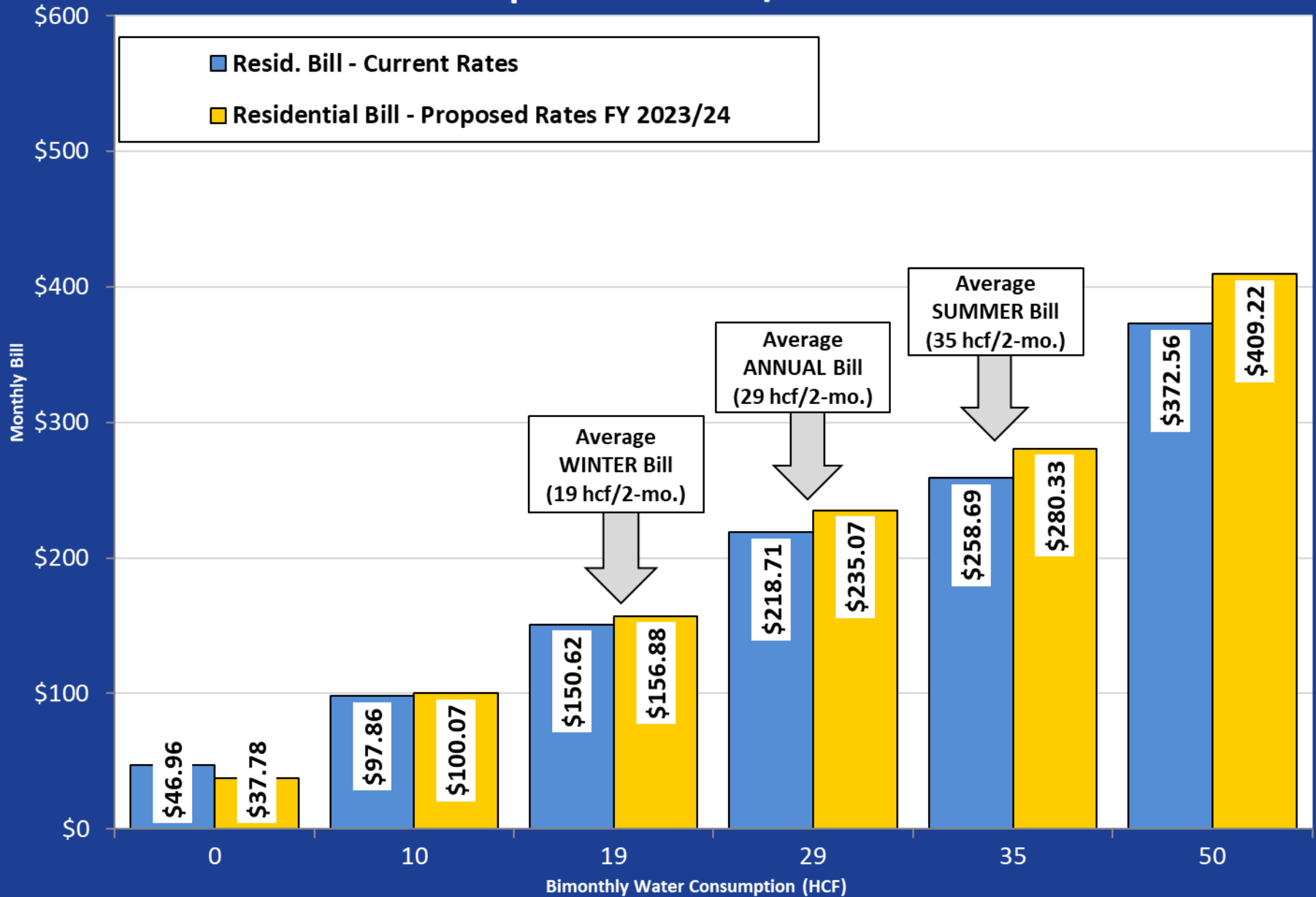
# Single-Family Residential Water Bill Comparison

## Current vs. Proposed FY 2023/24 Rates (< 1" Meter)



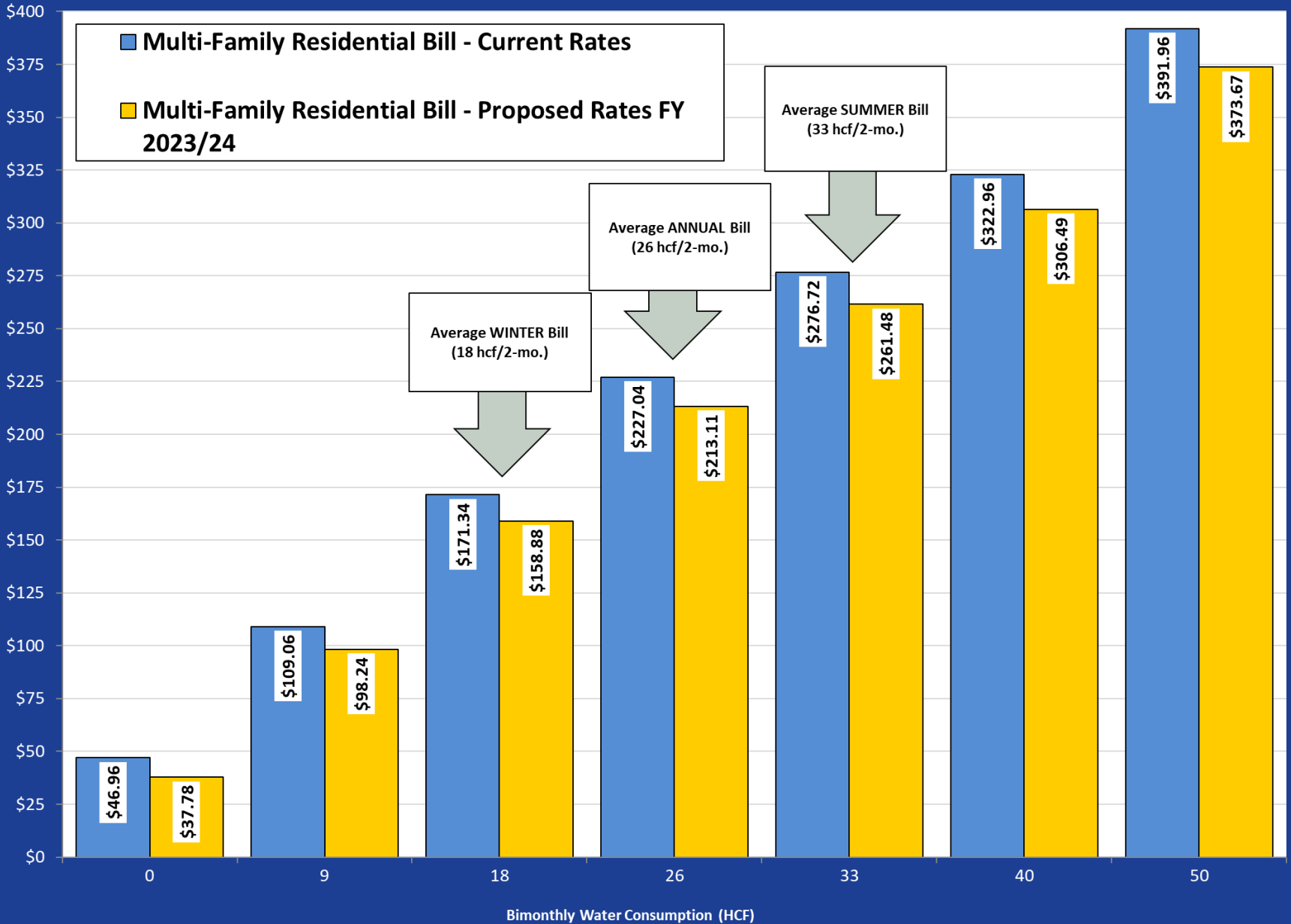
# Single Family Residential Water Bill Comparison

## Current vs. Proposed FY 2023/24 Rates: 1" Meter



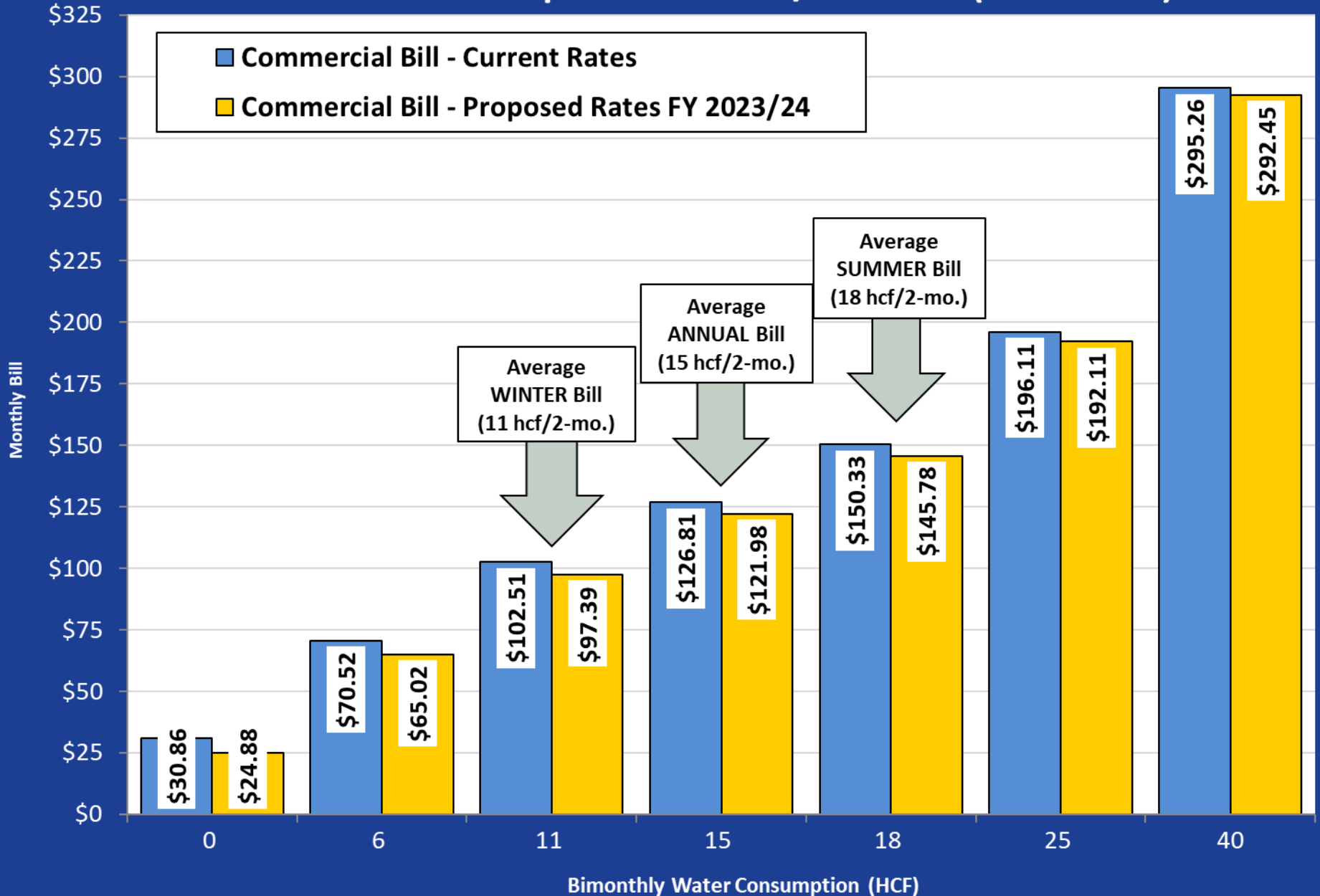
# Multi-Family Residential Water Bill Comparison

## Current vs. Proposed FY 2023/24 Rates (1" Meter)



# Commercial Water Bill Comparison

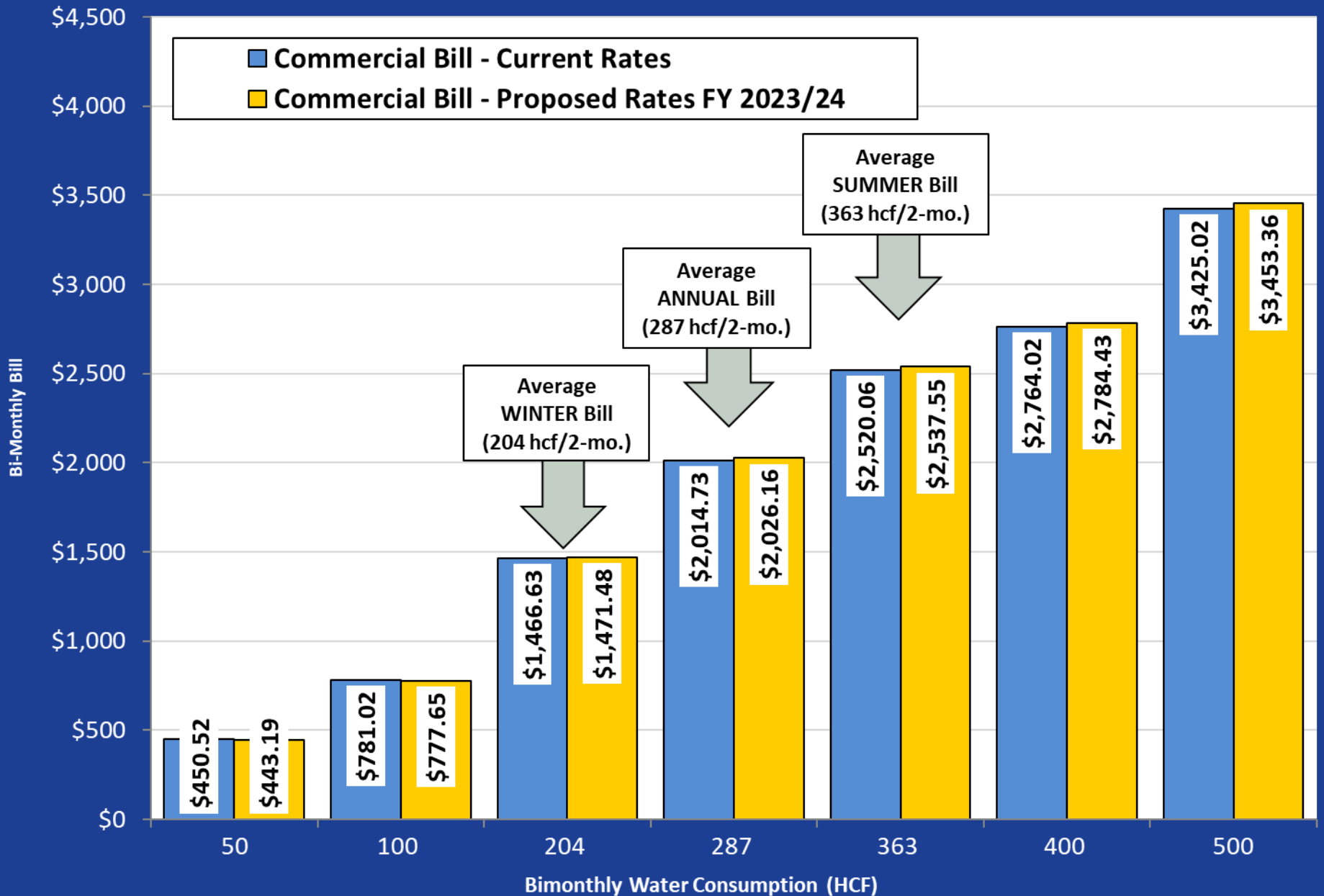
## Current vs. Proposed FY 2023/24 Rates (<1" Meter)





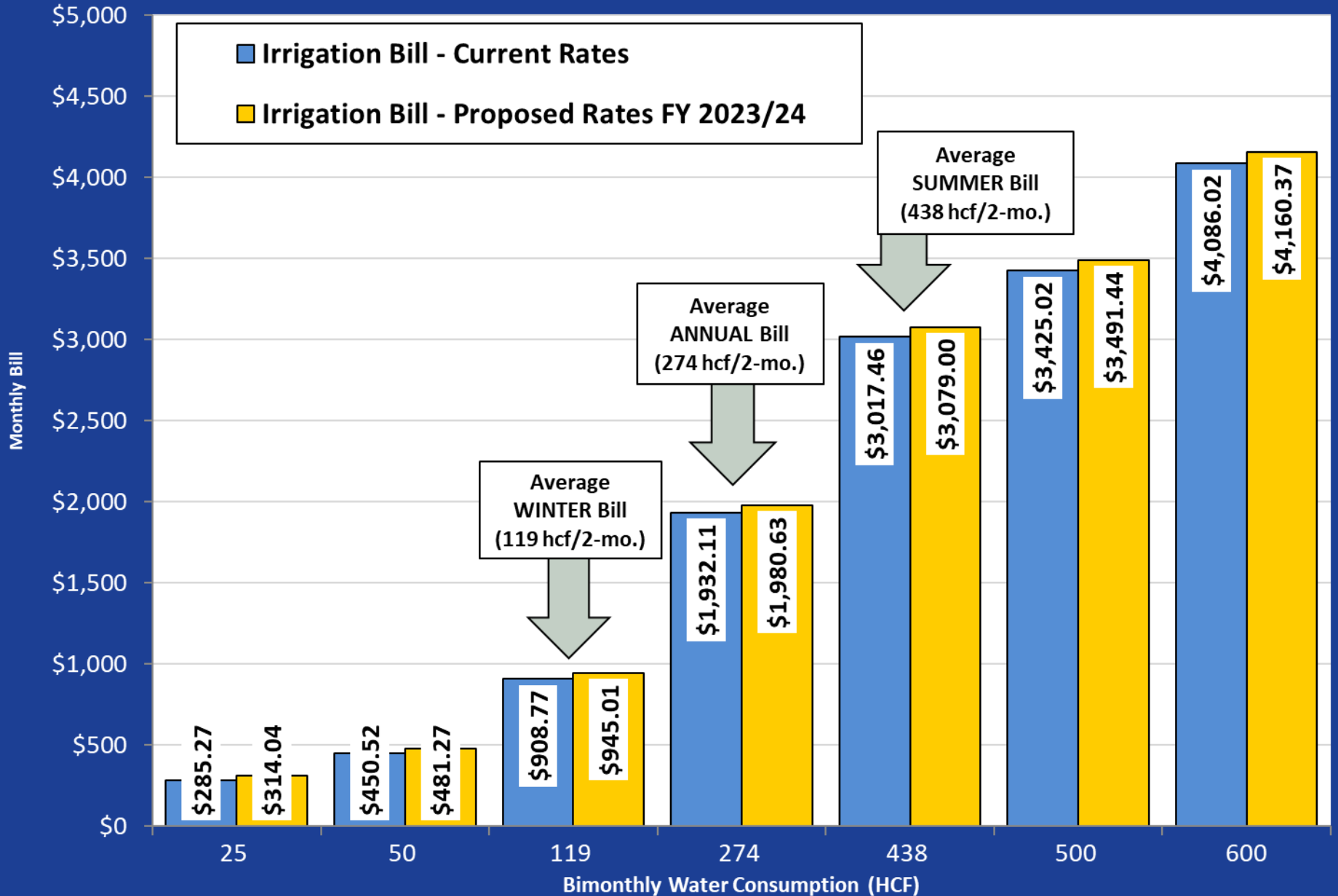
# Commercial Water Bill Comparison

## Current vs. Proposed FY 2023/24 Rates (2" Meter)



# Irrigation Water Bill Comparison

## Current vs. Proposed FY 2023/24 Rates (2" Meter)



# Questions & Discussion

# Questions and Comments 800.676.7516



**Jeremy Tamargo**

*Project Manager/Civil  
Engineer*

[jtamargo@nbsgov.com](mailto:jtamargo@nbsgov.com)



**Greg Clumpner**

*Senior Review*

[gclumpner@nbsgov.com](mailto:gclumpner@nbsgov.com)