



# Water and Wastewater Utility Rates - Workshop 2

February 9, 2016

Presented By: Diana Langley

# Workshop Agenda



- Workshop 1 – January 12
  - Financial Overview
  - Water and Wastewater Operational Needs
  - Condition of Water and Wastewater Systems
  - Major Capital Improvements Required
- Workshop 2 – February 9
  - Review Existing Rates
  - Presentation of Rate Options
  - Review of Proposition 218 Process
  - Decision Points

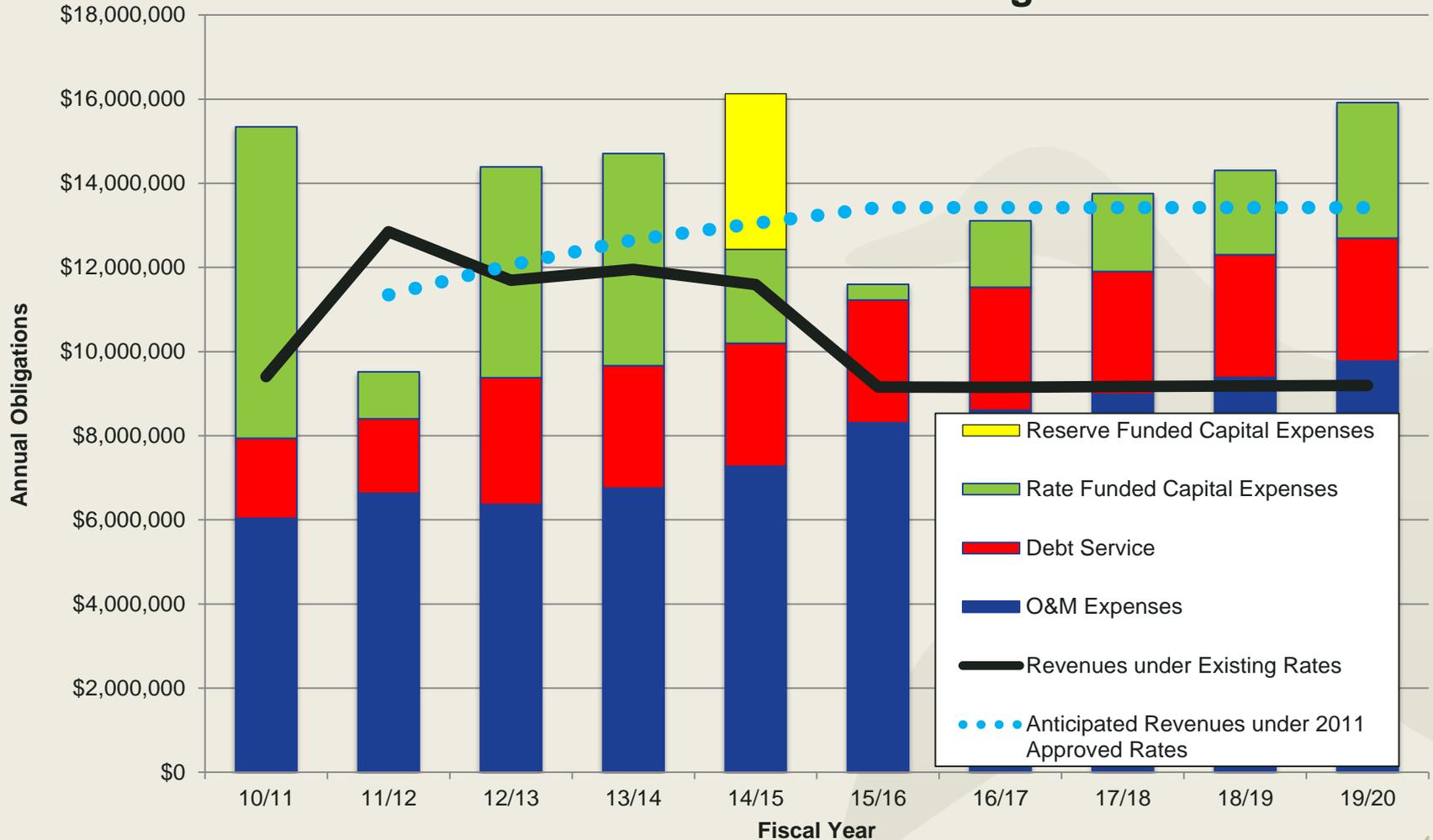


# FINANCIAL OVERVIEW

# Funding Allocation Over Time- Water



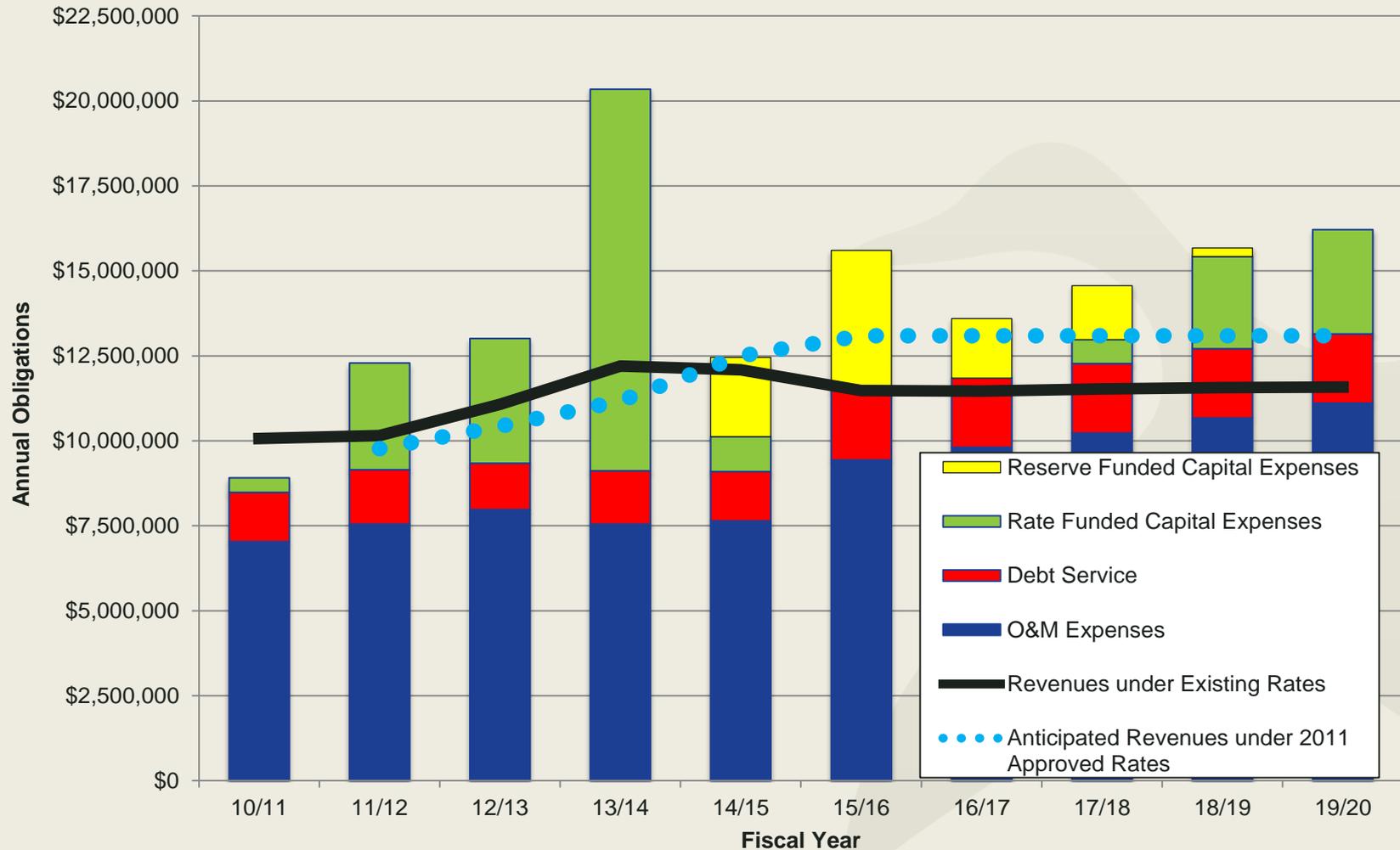
## Water Revenue Requirements vs. Revenue Under Existing Rates



# Funding Allocation Over Time- Wastewater



## Wastewater Revenue Requirements vs. Revenue Under Existing Rates





# EXISTING WATER RATES

# Existing Water Rates



Meter Size	Baseline HCF's*	9/1/11 – 8/31/12	9/1/12 – 8/31/13	9/1/13 – 8/31/14	9/1/14 – 8/31/15	9/1/15 – 8/31/16
1"	15	\$18.25	\$19.39	\$20.35	\$20.98	\$21.59
1-1/2"	30	\$36.50	\$38.79	\$40.70	\$41.96	\$43.18
2"	60	\$73.00	\$77.58	\$81.40	\$83.93	\$86.37
3"	240	\$292.01	\$310.32	\$325.60	\$335.71	\$345.47
4"	480	\$584.01	\$620.64	\$651.20	\$671.42	\$690.95
6"	900	\$1,095.02	\$1,163.69	\$1,220.99	\$1,258.48	\$1,295.52
8"	2,100	\$2,555.05	\$2,715.28	\$2,848.98	\$2,937.48	\$3,022.89
Flow Rate Per Excess HCF		\$1.21	\$1.28	\$1.34	\$1.39	\$1.43

\*HCF = Hundred Cubic Feet = 748 Gallons

# Existing Water Rates



## RATE HISTORY – 1" WATER METER



# Existing Water Meters By Size



Size of Meter	Number of Meters
1" or Less	17,354
1-1/2"	558
2"	370
3"	49
4"	37
6"	9
8"	4
<b>Total:</b>	<b>18,381</b>

# Monthly Water Bill Calculation



Monthly Bill = Base Rate + (Amount Over Base Allocation x Flow Rate)

Example: Monthly Use = 20 HCF

Monthly Bill = \$21.59 + (5 HCF x \$1.43)  
= \$28.74



# WATER RATE OPTIONS

# Water/Wastewater Rate Options



- 2 Year Rate Plan
  - O&M Expenses + Debt Service
- 5 Year Rate Plan
  - Option 1: O&M Expenses + Debt Service + Priority 1 & 2 Projects
  - Option 2: O&M Expenses + Debt Service + All Projects\*

\*All projects refers to Priority 1 – 4 projects discussed at 1/9/16 workshop. Does not include tertiary treatment project.

# Water Rate Options



- All Water Rate Options recommend a reduction of the Baseline HCF's by 33% to reflect State Conservation Mandate

Meter Size	Existing Baseline HCF's*	Proposed Baseline HCF's
1"	15	10
1-1/2"	30	20
2"	60	40
3"	240	160
4"	480	320
6"	900	600
8"	2,100	1,400

\*1 HCF = 748 Gallons

# Water Rate Options



- 2-Year Rate Plan
  - O&M Expenses + Debt Service

Meter Size	Baseline HCF's*	Current Rate	Year 1	Year 2
1"	10	\$21.59	\$25.91	\$29.79
1-1/2"	20	\$43.18	\$51.82	\$59.59
2"	40	\$86.37	\$103.64	\$119.19
3"	160	\$345.47	\$414.56	\$476.75
4"	320	\$690.95	\$829.14	\$953.51
6"	600	\$1,295.52	\$1,554.62	\$1,787.82
8"	1,400	\$3,022.89	\$3,627.47	\$4,171.59
Flow Rate Per Excess HCF		\$1.43	\$1.43	\$1.64

\*1 HCF = 748 Gallons

# Water Rate Options



- 5-Year Rate Plan – Option 1
  - O&M Expenses + Debt Service + Priority 1 & 2 Projects

Meter Size	Baseline HCF's*	Current Rate	Year 1	Year 2	Year 3	Year 4	Year 5
1"	10	\$21.59	\$27.64	\$32.89	\$39.13	\$40.70	\$42.33
1-1/2"	20	\$43.18	\$55.27	\$65.77	\$78.27	\$81.40	\$84.66
2"	40	\$86.37	\$110.55	\$131.56	\$156.55	\$162.82	\$169.33
3"	160	\$345.47	\$442.20	\$526.22	\$626.20	\$651.25	\$677.30
4"	320	\$690.95	\$884.42	\$1,052.46	\$1,252.42	\$1,302.52	\$1,354.62
6"	600	\$1,295.52	\$1,658.27	\$1,973.34	\$2,348.27	\$2,442.20	\$2,539.89
8"	1,400	\$3,022.89	\$3,869.30	\$4,604.47	\$5,479.31	\$5,698.49	\$5,926.43
Flow Rate Per Excess HCF		\$1.43	\$1.430	\$1.701	\$2.025	\$2.105	\$2.190

\*1 HCF = 748 Gallons

# Water Rate Options



- 5-Year Rate Plan – Option 2
  - O&M Expenses + Debt Service + All Projects

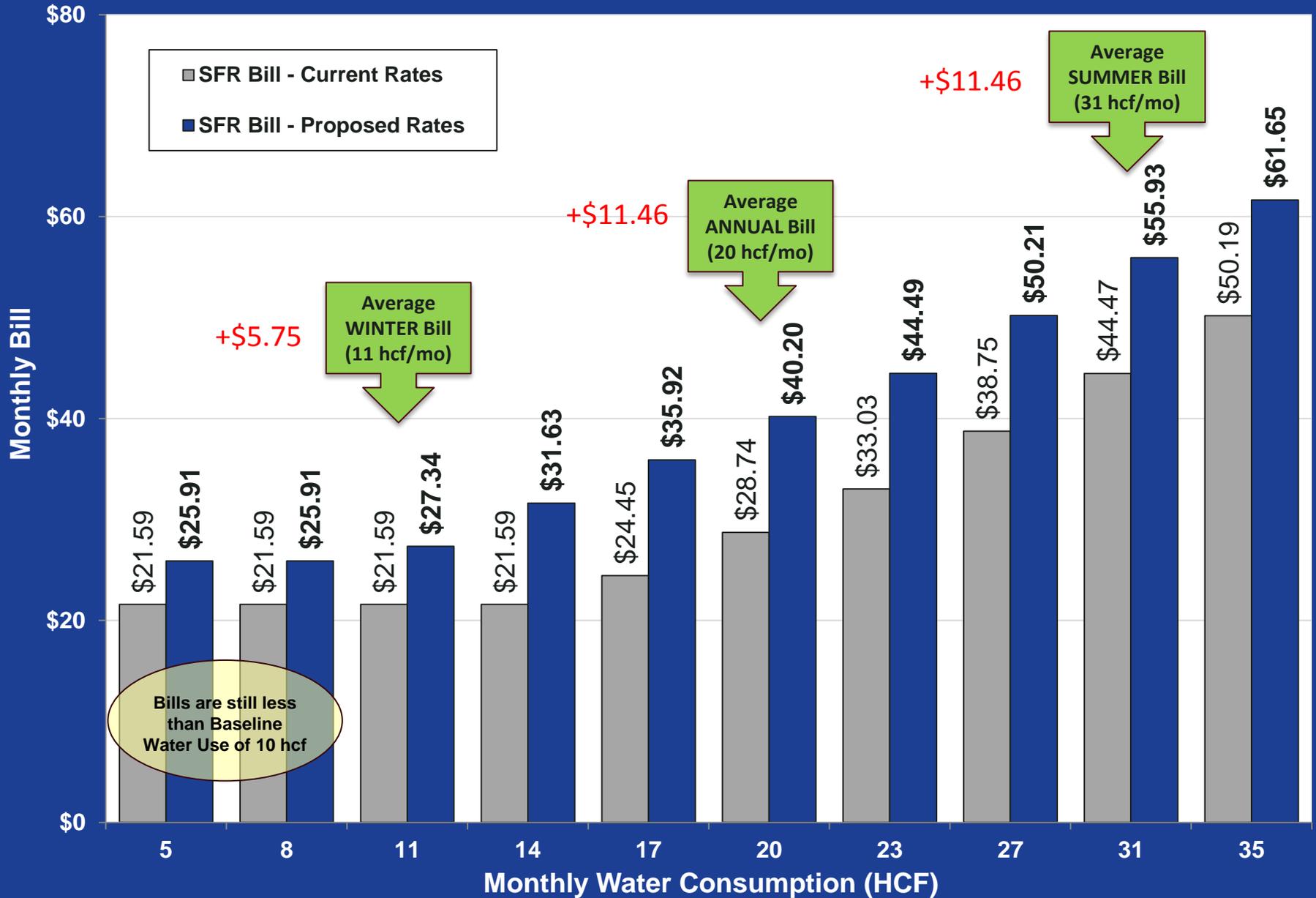
Meter Size	Baseline HCF's*	Current Rate	Year 1	Year 2	Year 3	Year 4	Year 5
1"	10	\$21.59	\$33.68	\$42.77	\$47.05	\$49.87	\$52.87
1-1/2"	20	\$43.18	\$67.36	\$85.55	\$94.10	\$99.75	\$105.73
2"	40	\$86.37	\$134.74	\$171.12	\$188.23	\$199.52	\$211.49
3"	160	\$345.47	\$538.93	\$684.45	\$752.89	\$798.06	\$845.95
4"	320	\$690.95	\$1,077.88	\$1,368.91	\$1,505.80	\$1,596.15	\$1,691.92
6"	600	\$1,295.52	\$2,021.01	\$2,566.68	\$2,823.35	\$2,992.75	\$3,172.32
8"	1,400	\$3,022.89	\$4,715.71	\$5,988.95	\$6,587.84	\$6,983.12	\$7,402.10
Flow Rate Per Excess HCF		\$1.43	\$1.430	\$1.816	\$1.997	\$2.117	\$2.244

\*1 HCF = 748 Gallons

# Residential Water Bill Comparison

## Current Rates vs. 2015/16 Proposed Rates (1" meter)

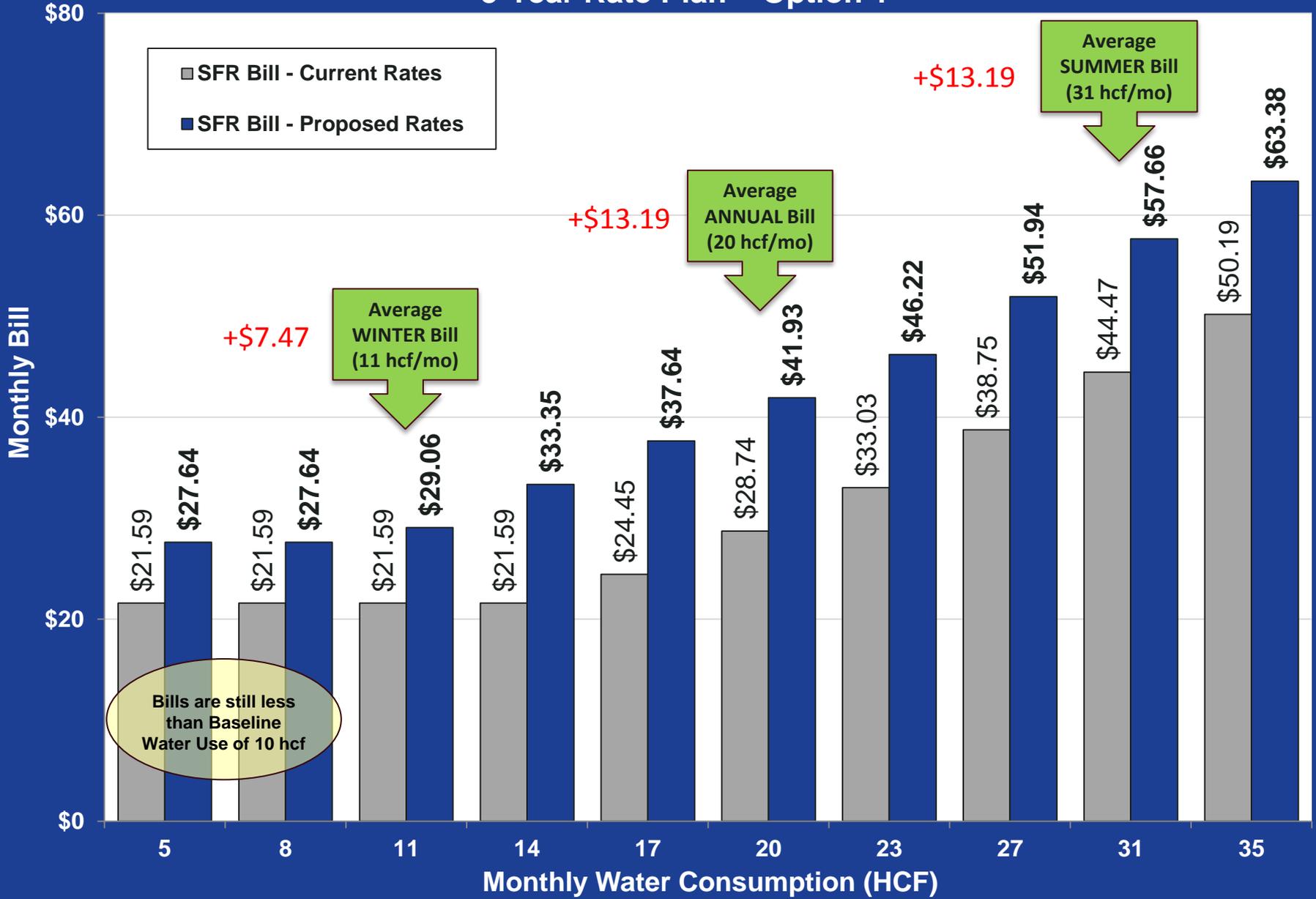
### 2-Year Rate Plan



# Residential Water Bill Comparison

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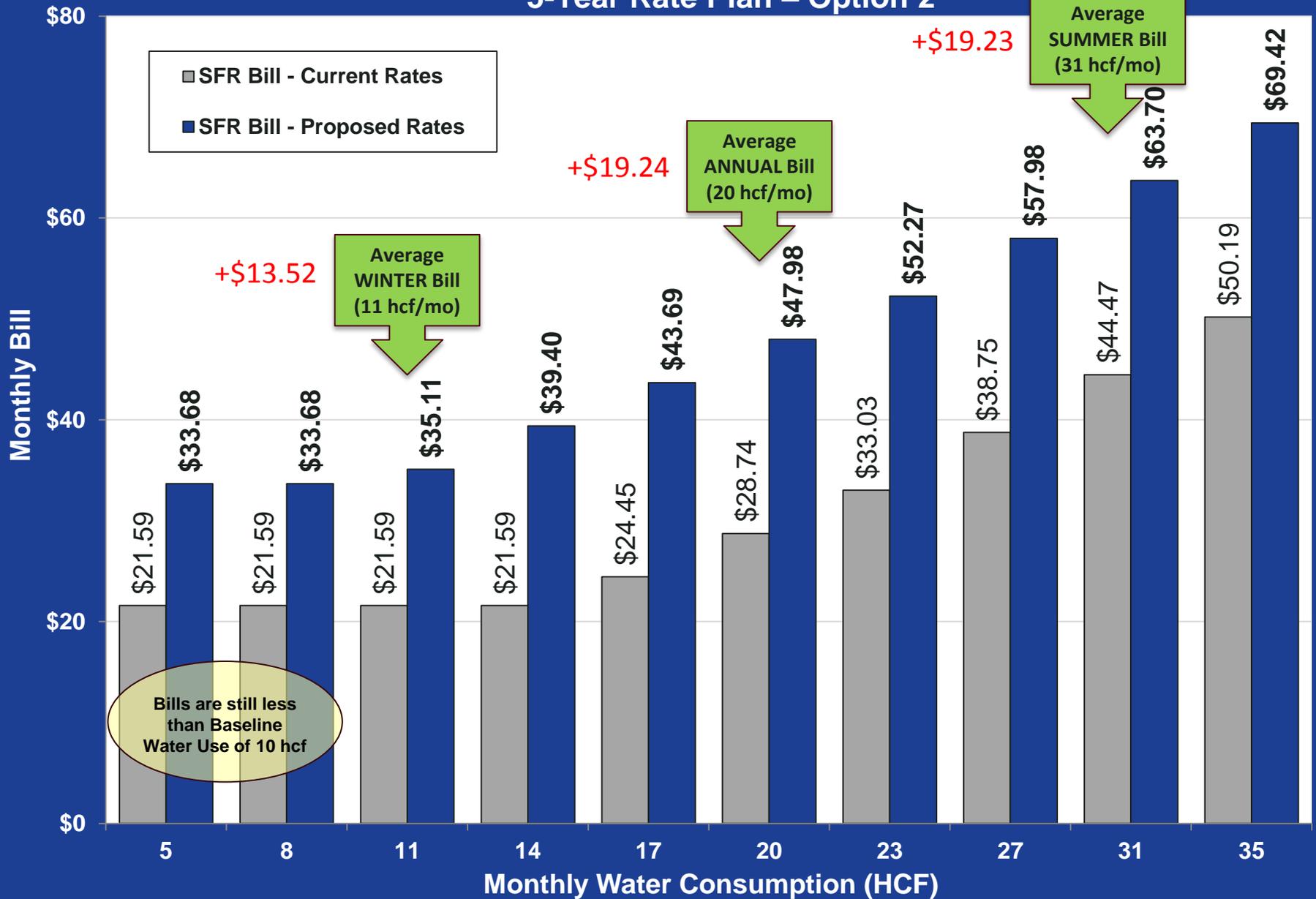
### 5-Year Rate Plan – Option 1



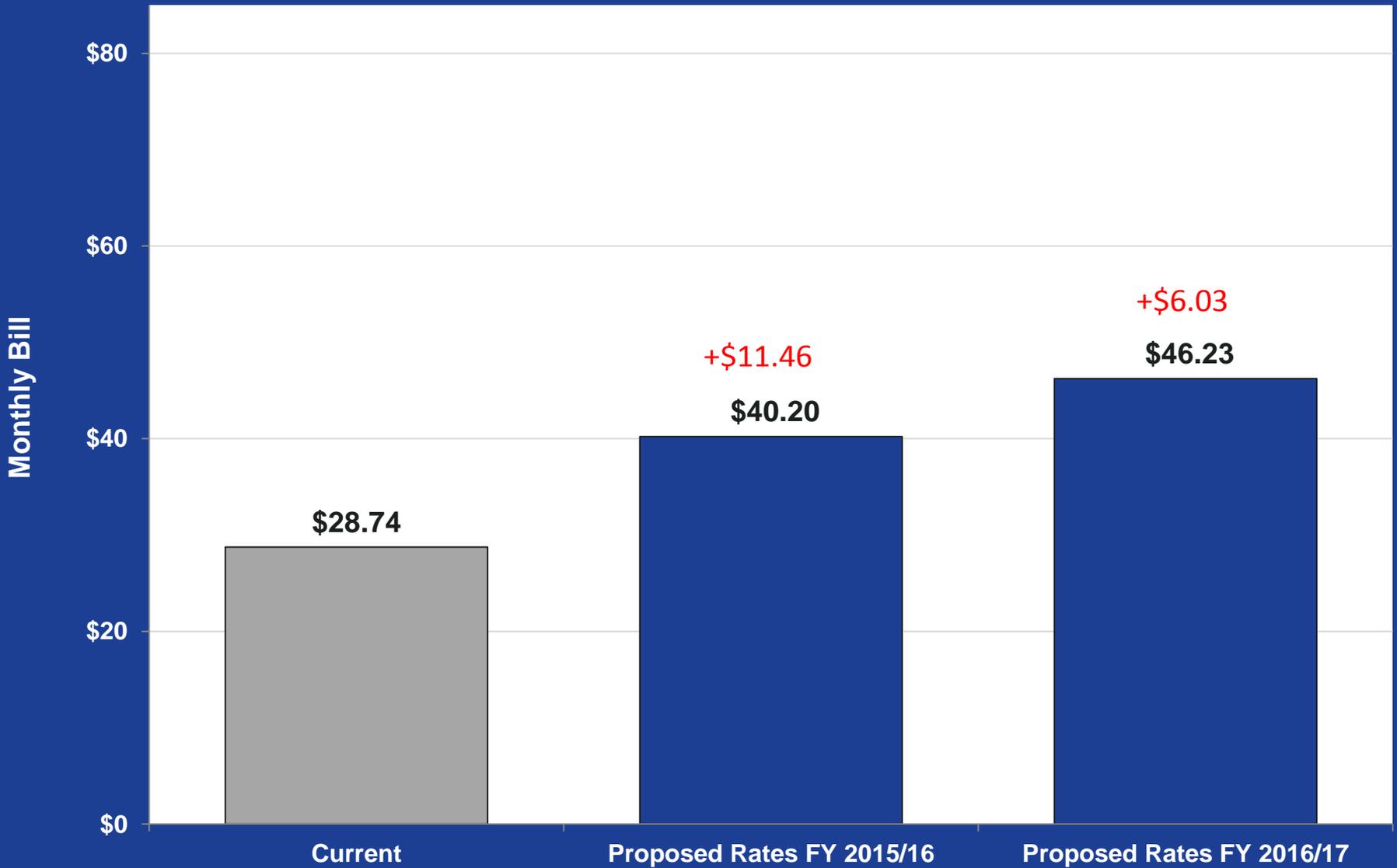
# Residential Water Bill Comparison

## Current Rates vs. 2015/16 Proposed Rates (1" meter)

### 5-Year Rate Plan – Option 2



**Residential Water Bill Comparison  
(1 inch meter, 20 hcf/month)  
2-Year Rate Plan**



# Residential Water Bill Comparison (1 inch meter, 20 hcf/month) 5-Year Rate Plan – Option 1



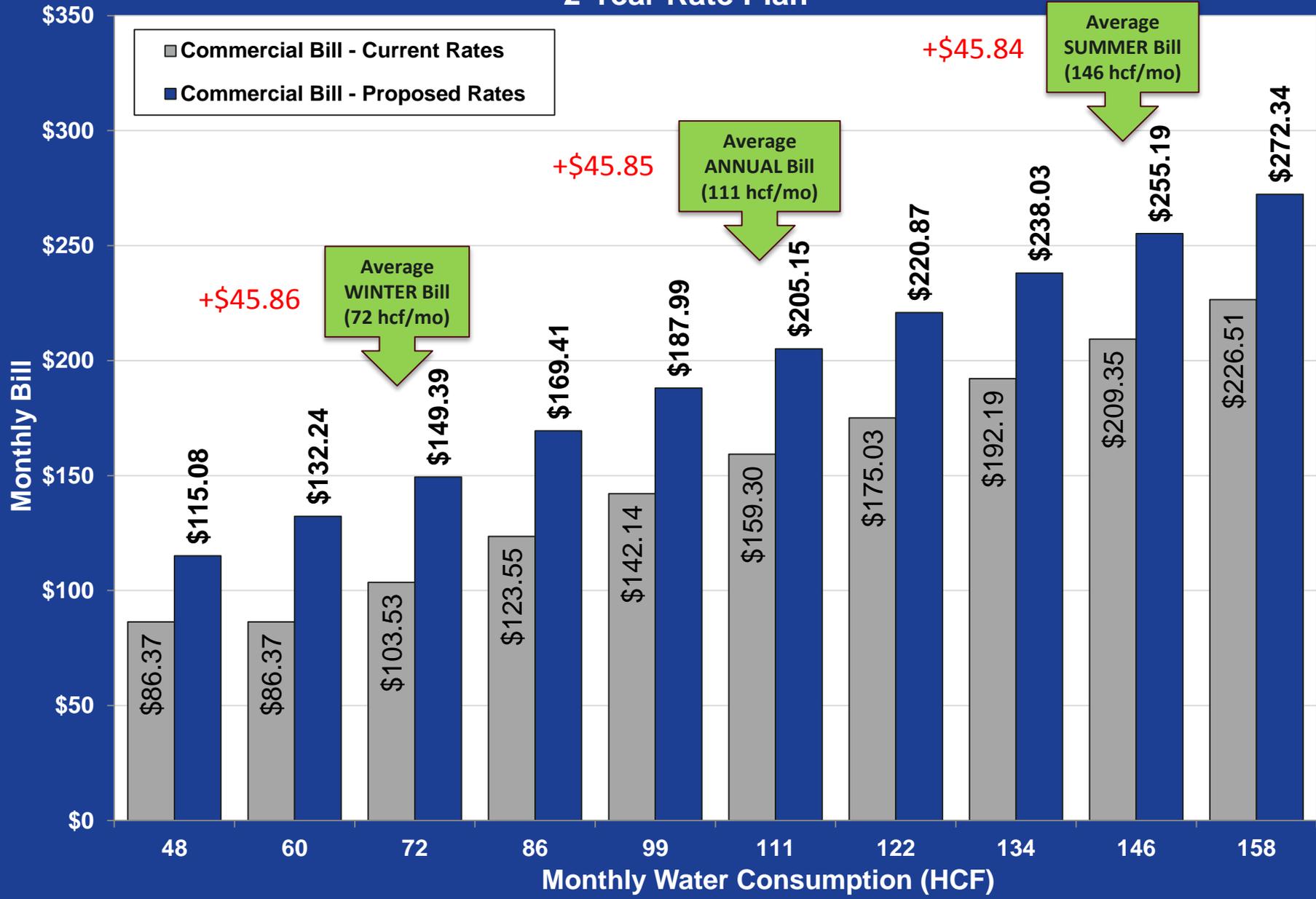
**Residential Water Bill Comparison**  
**(1 inch meter, 20 hcf/month)**  
**5-Year Rate Plan – Option 2**



# Commercial Water Bill Comparison

## Current vs. Proposed 2015/16 Rates (2" meter)

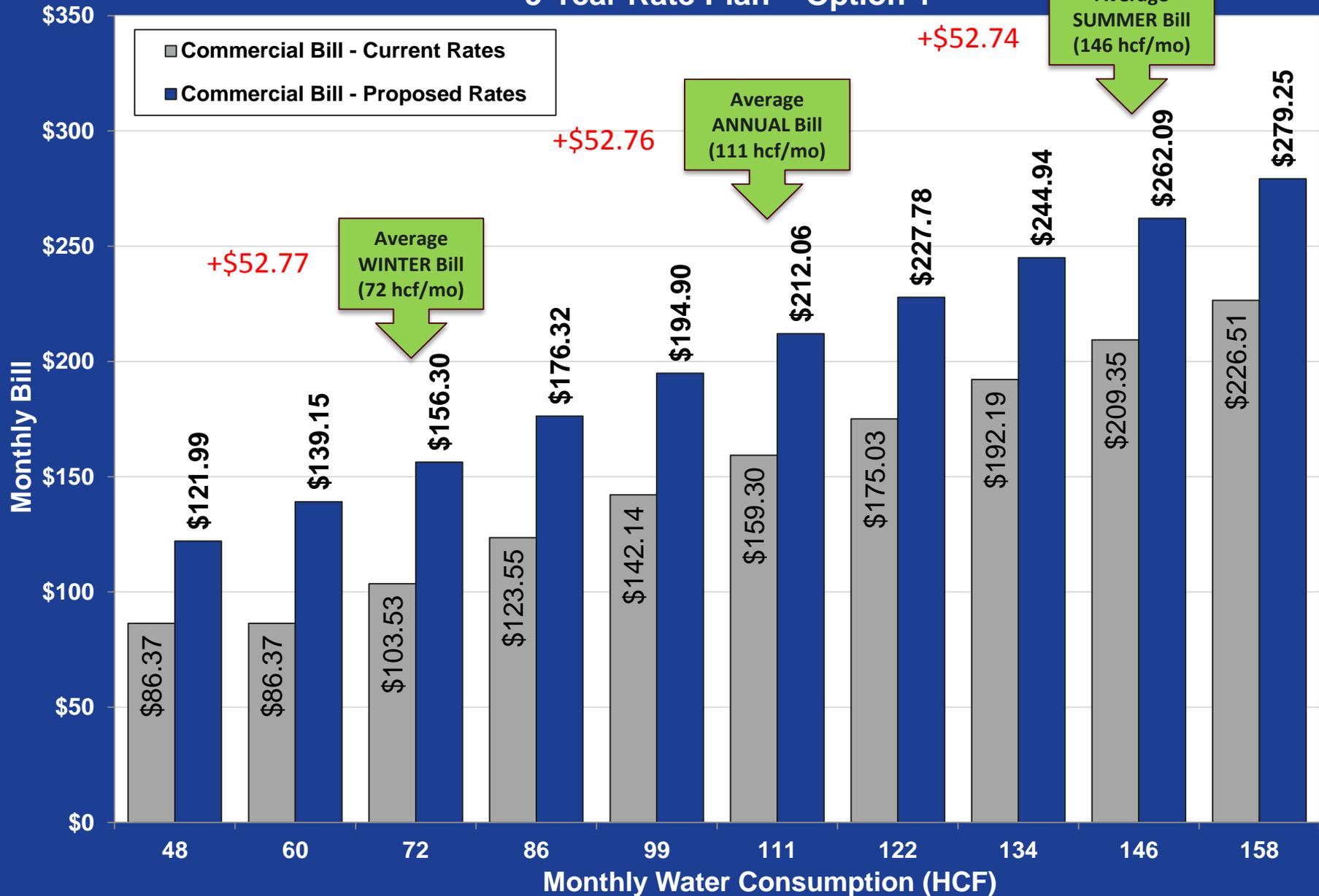
### 2-Year Rate Plan



# Commercial Water Bill Comparison

## Current vs. Proposed 2015/16 Rates (2" meter)

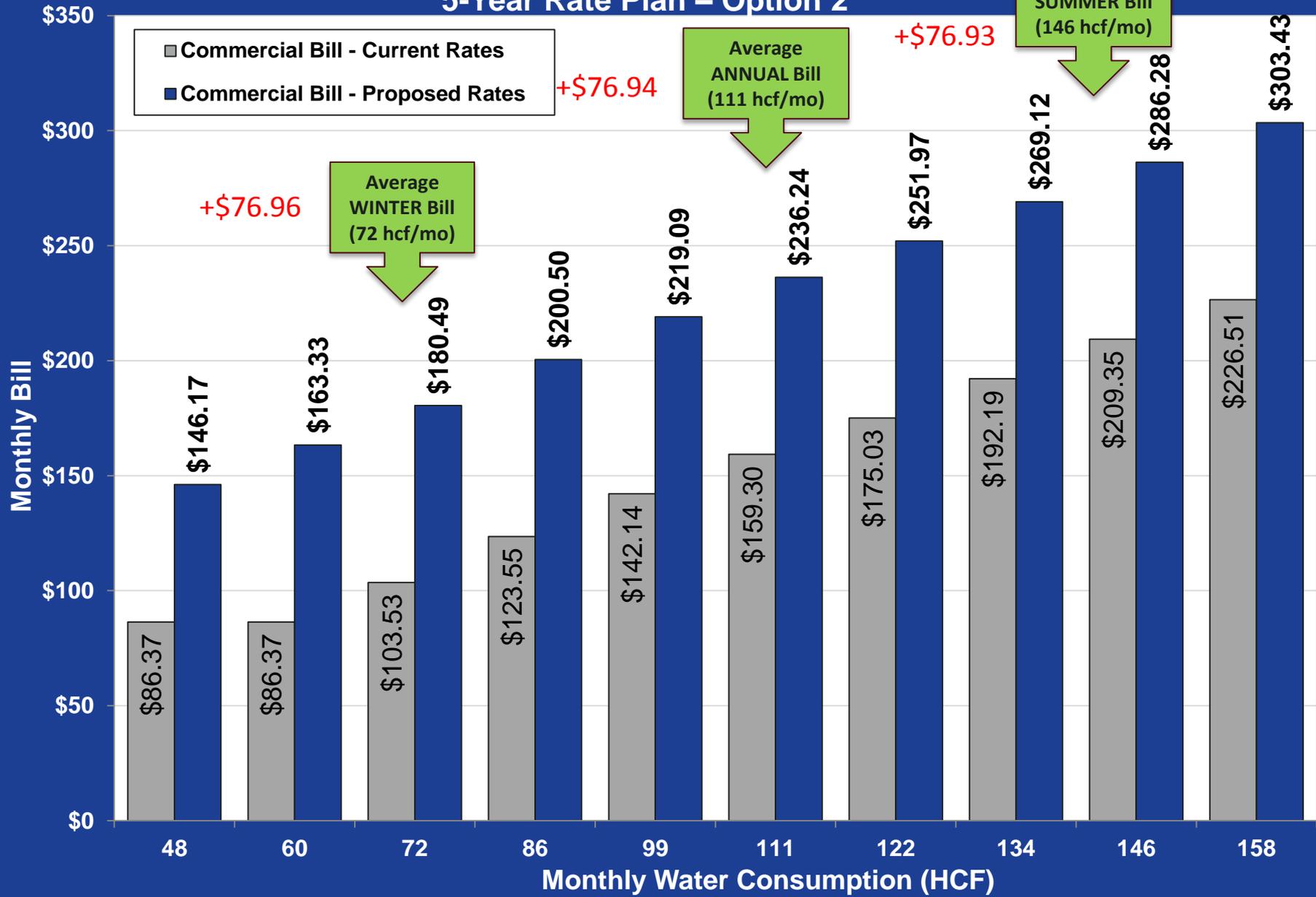
### 5-Year Rate Plan – Option 1



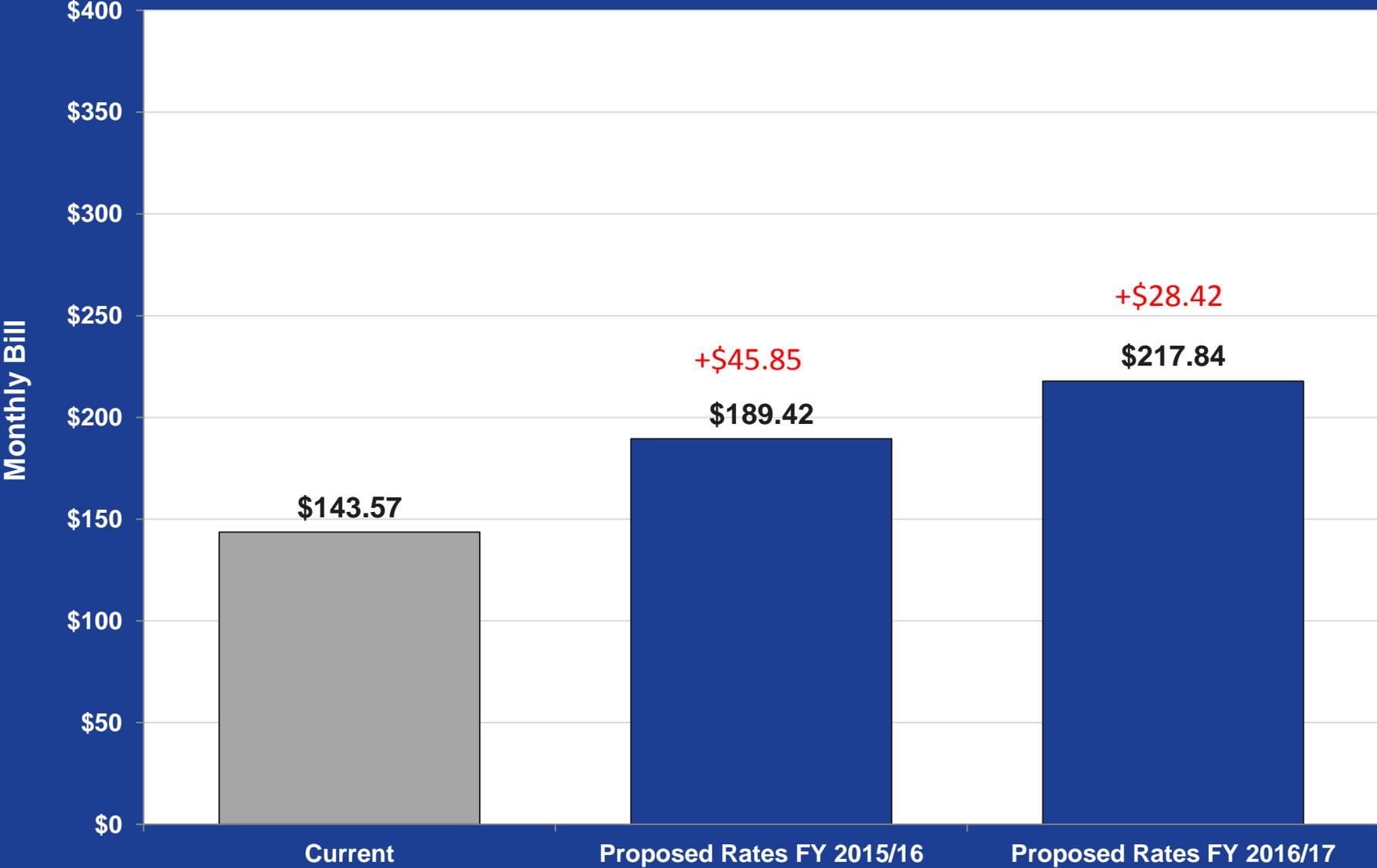
# Commercial Water Bill Comparison

## Current vs. Proposed 2015/16 Rates (2" meter)

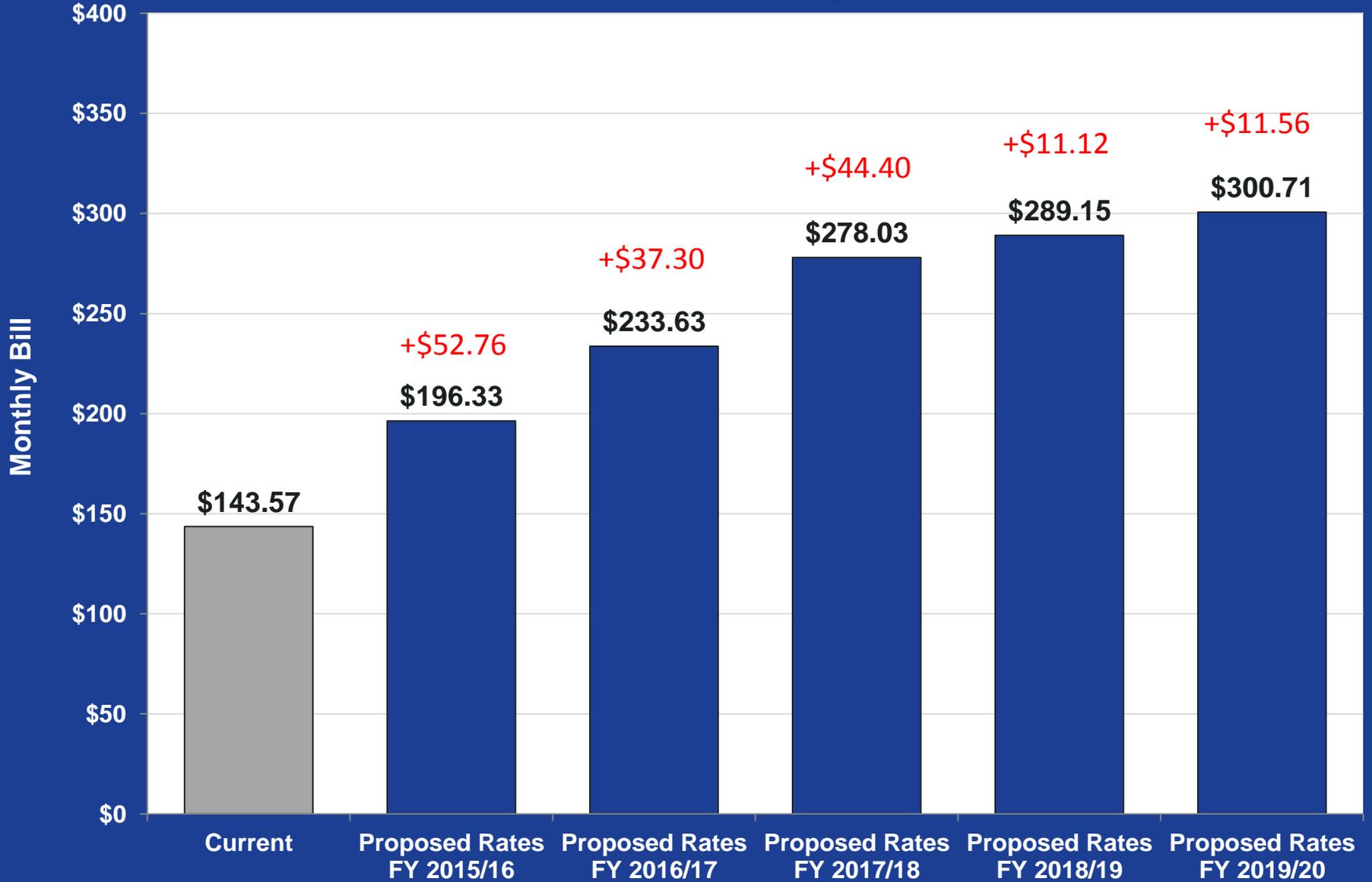
### 5-Year Rate Plan – Option 2



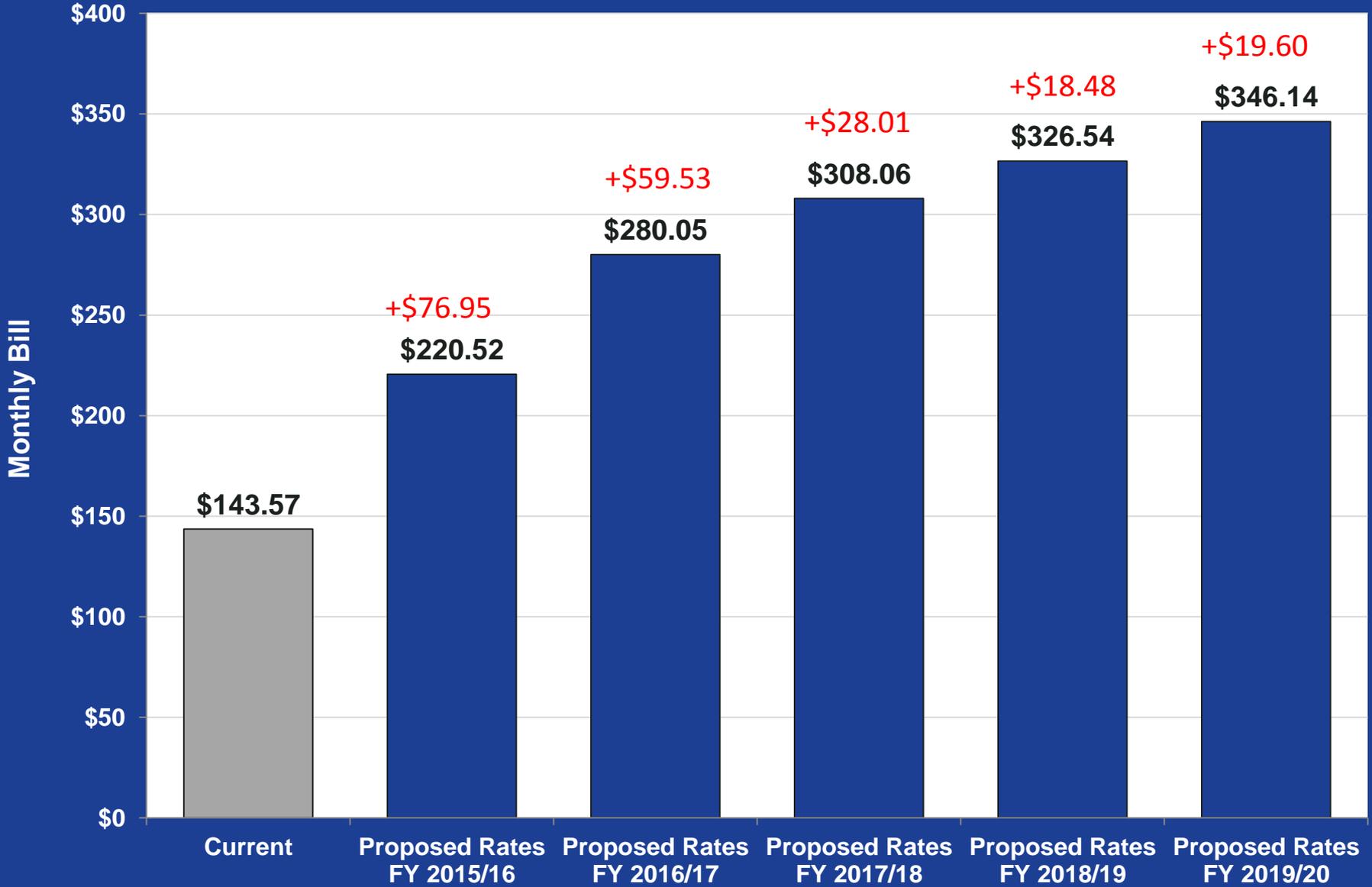
# Commercial Water Bill Comparison (2" meter, 100 hcf/month) 2-Year Rate Plan



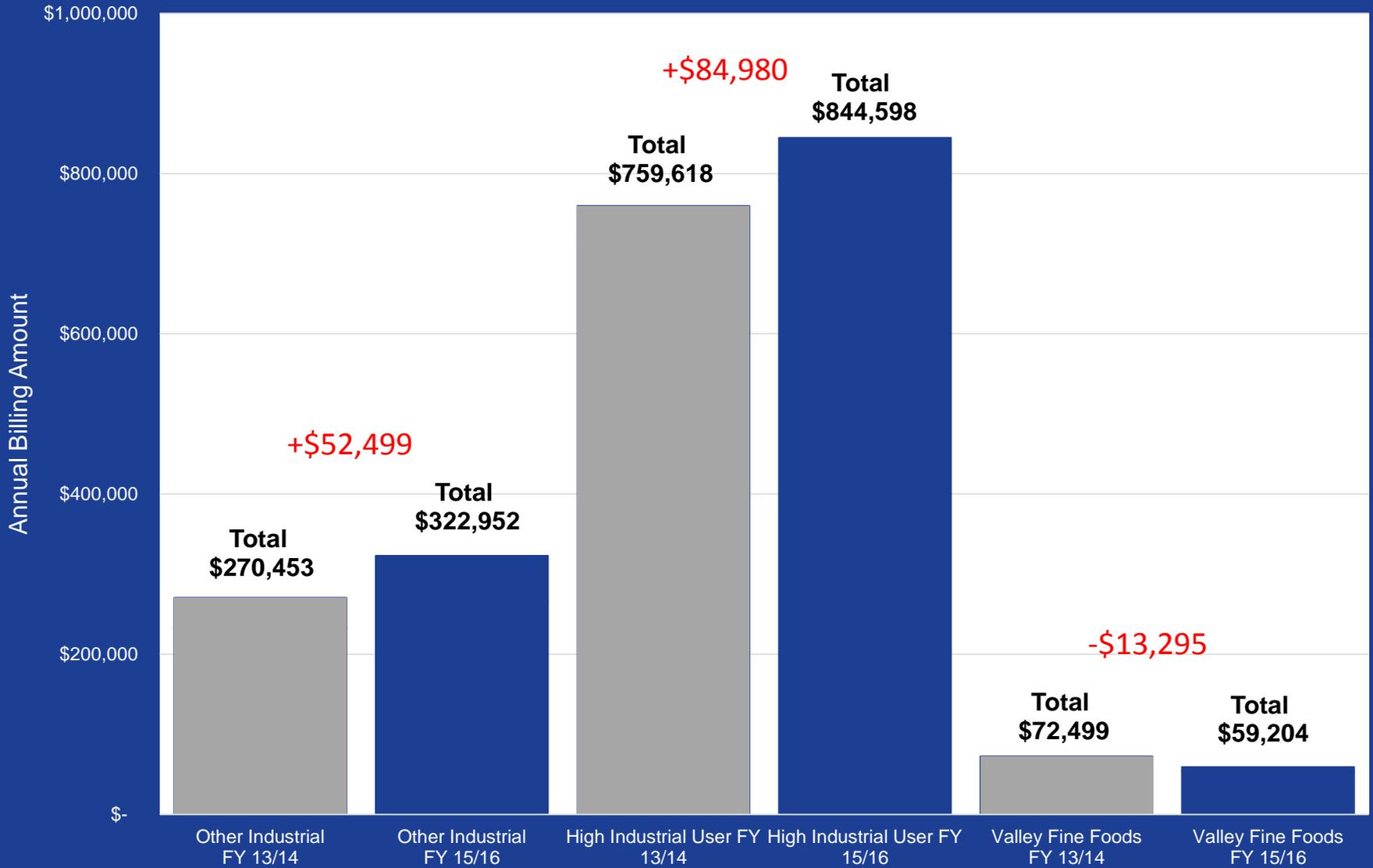
# Commercial Water Bill Comparison (2" meter, 100 hcf/month) 5-Year Rate Plan – Option 1



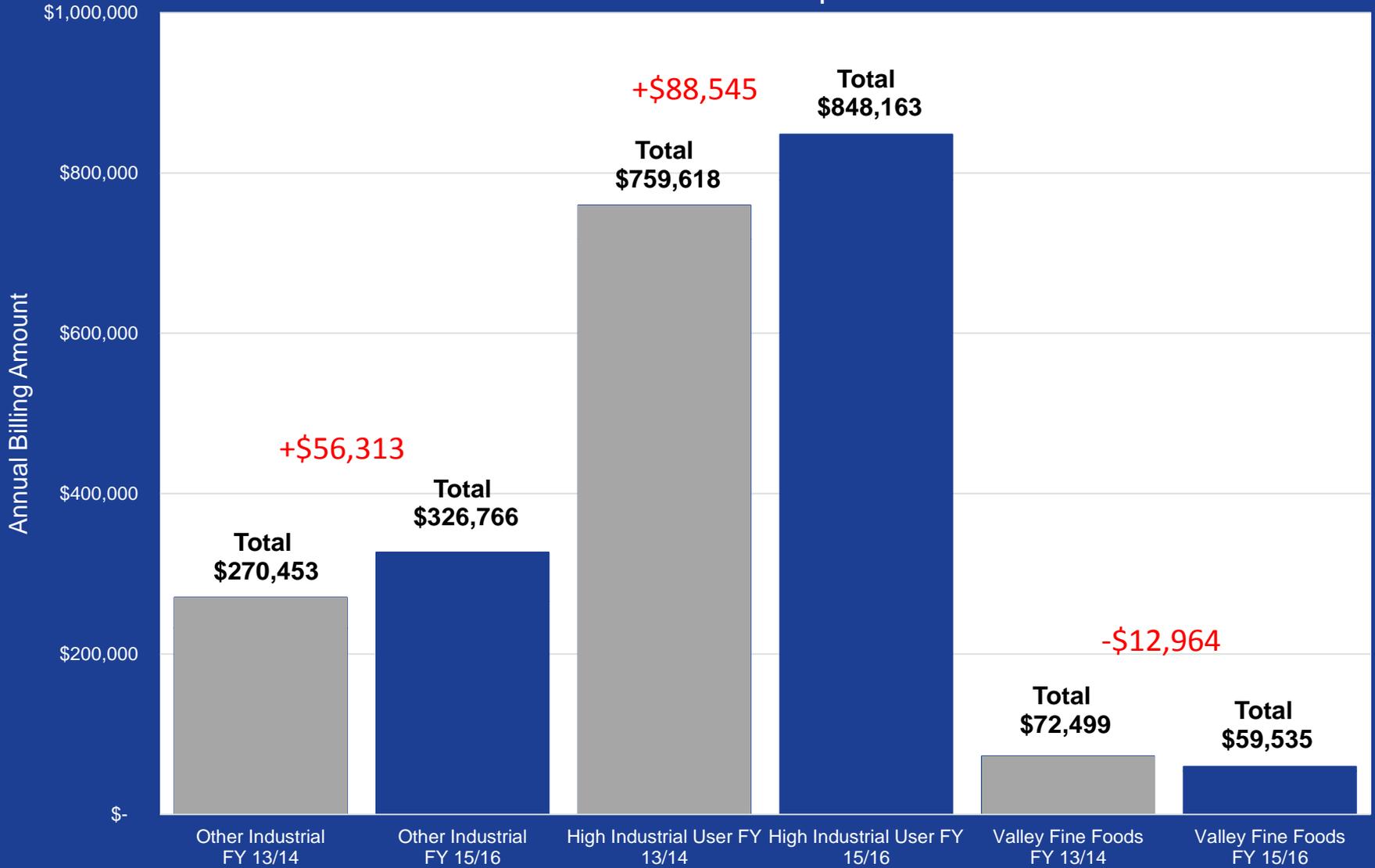
# Commercial Water Bill Comparison (2" meter, 100 hcf/month) 5-Year Rate Plan – Option 2



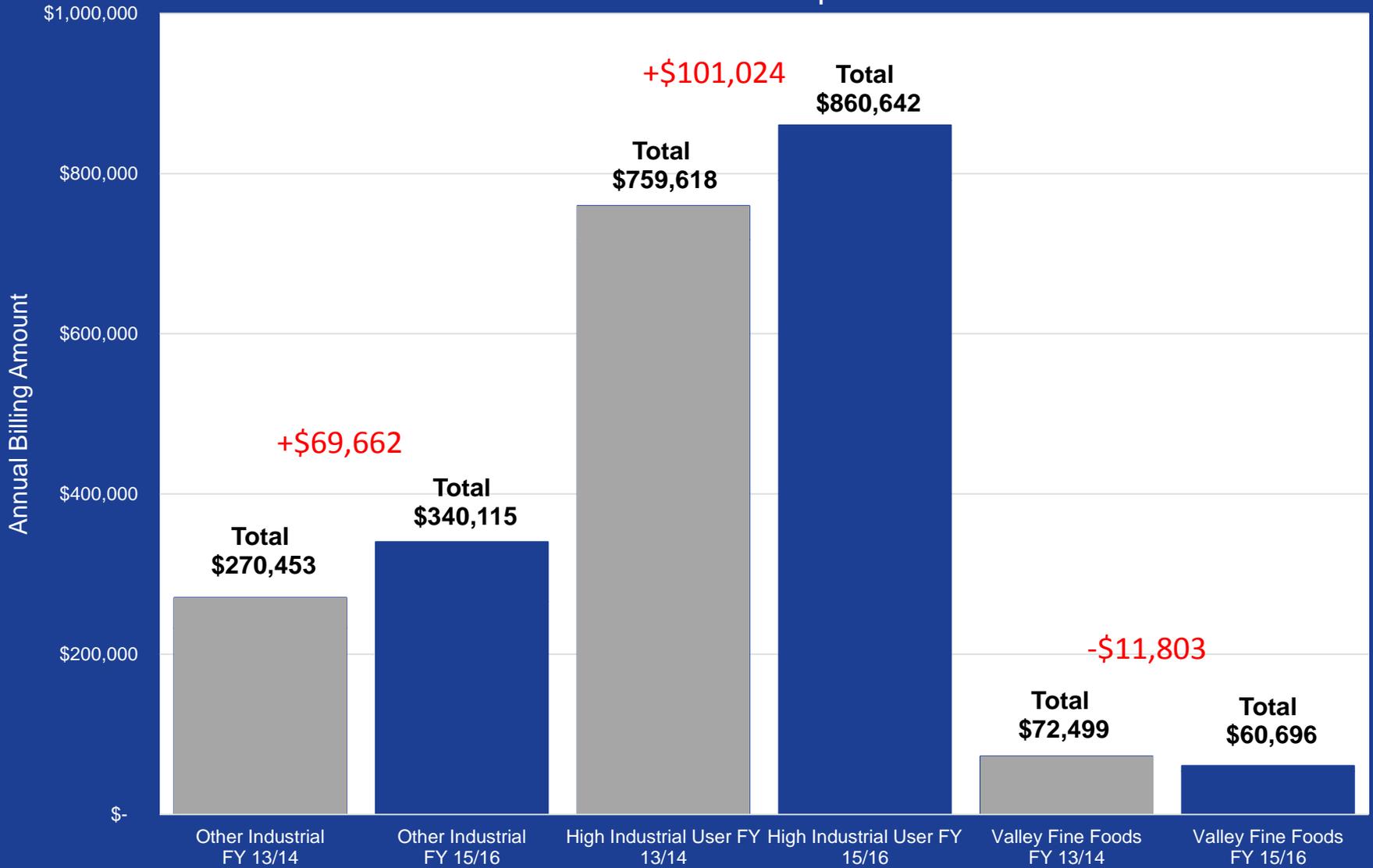
# Industrial Water Bill Comparison (Annual) 2-Year Rate Plan



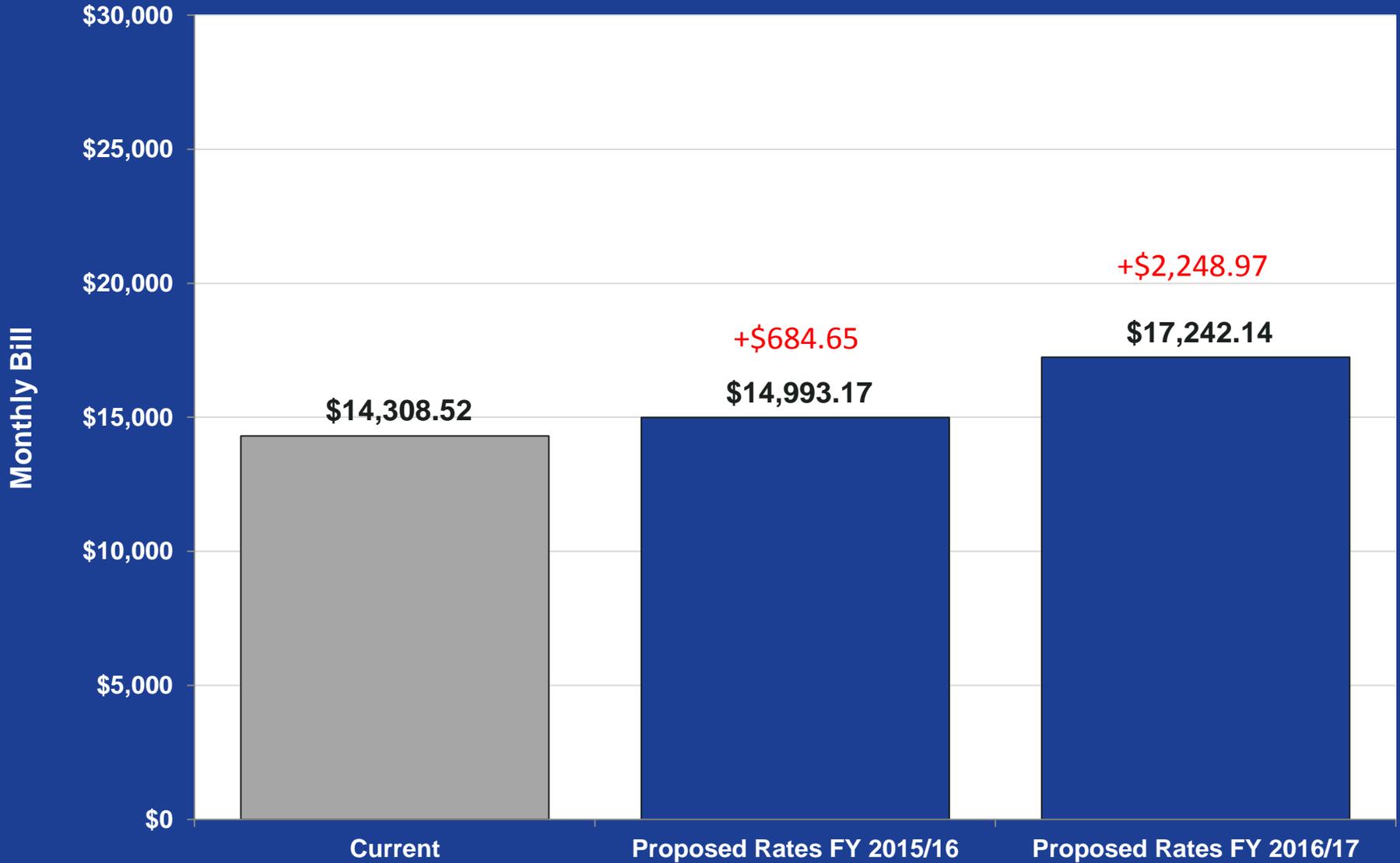
# Industrial Water Bill Comparison (Annual) 5-Year Rate Plan – Option 1



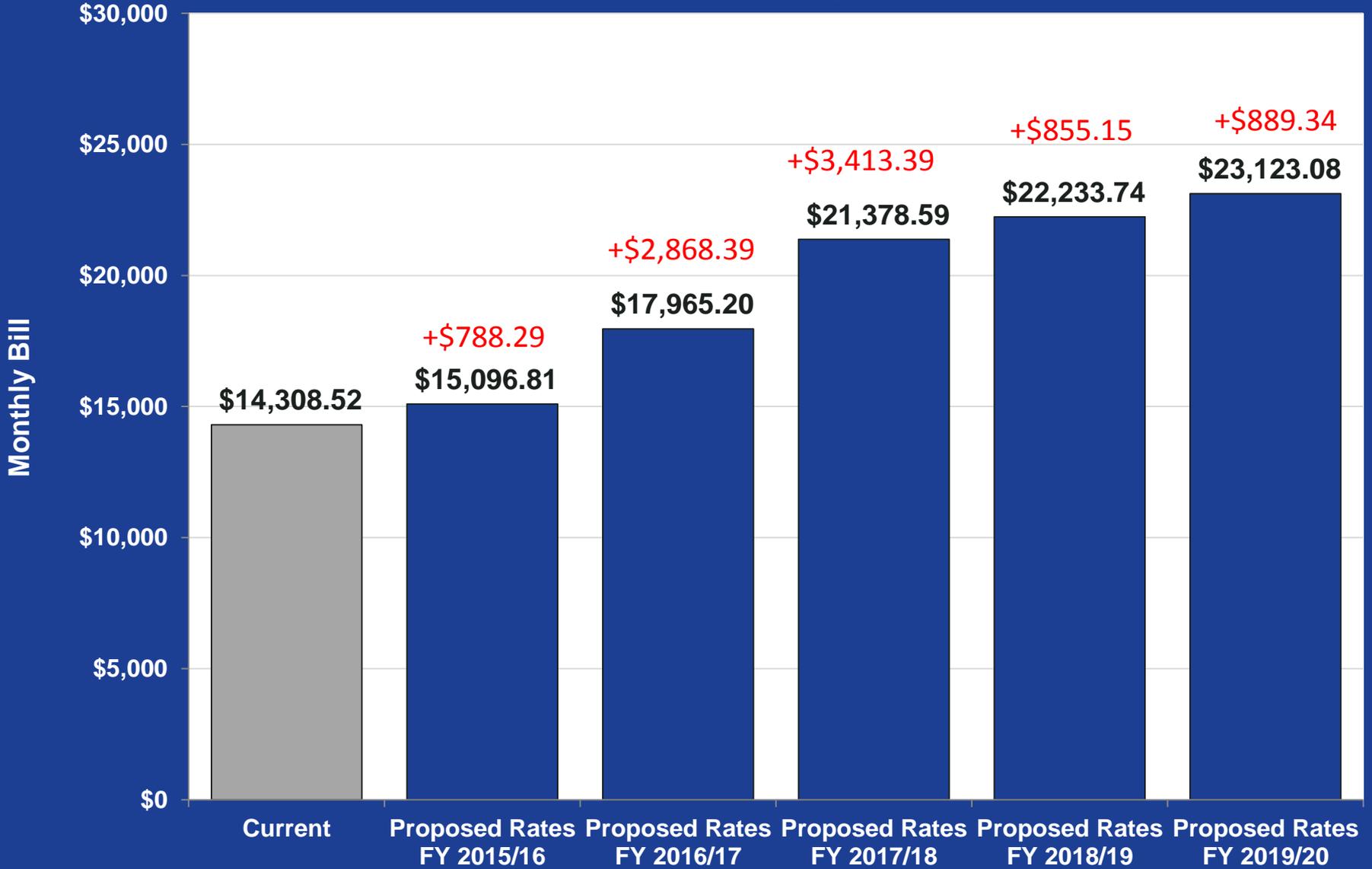
# Industrial Water Bill Comparison (Annual) 5-Year Rate Plan – Option 2



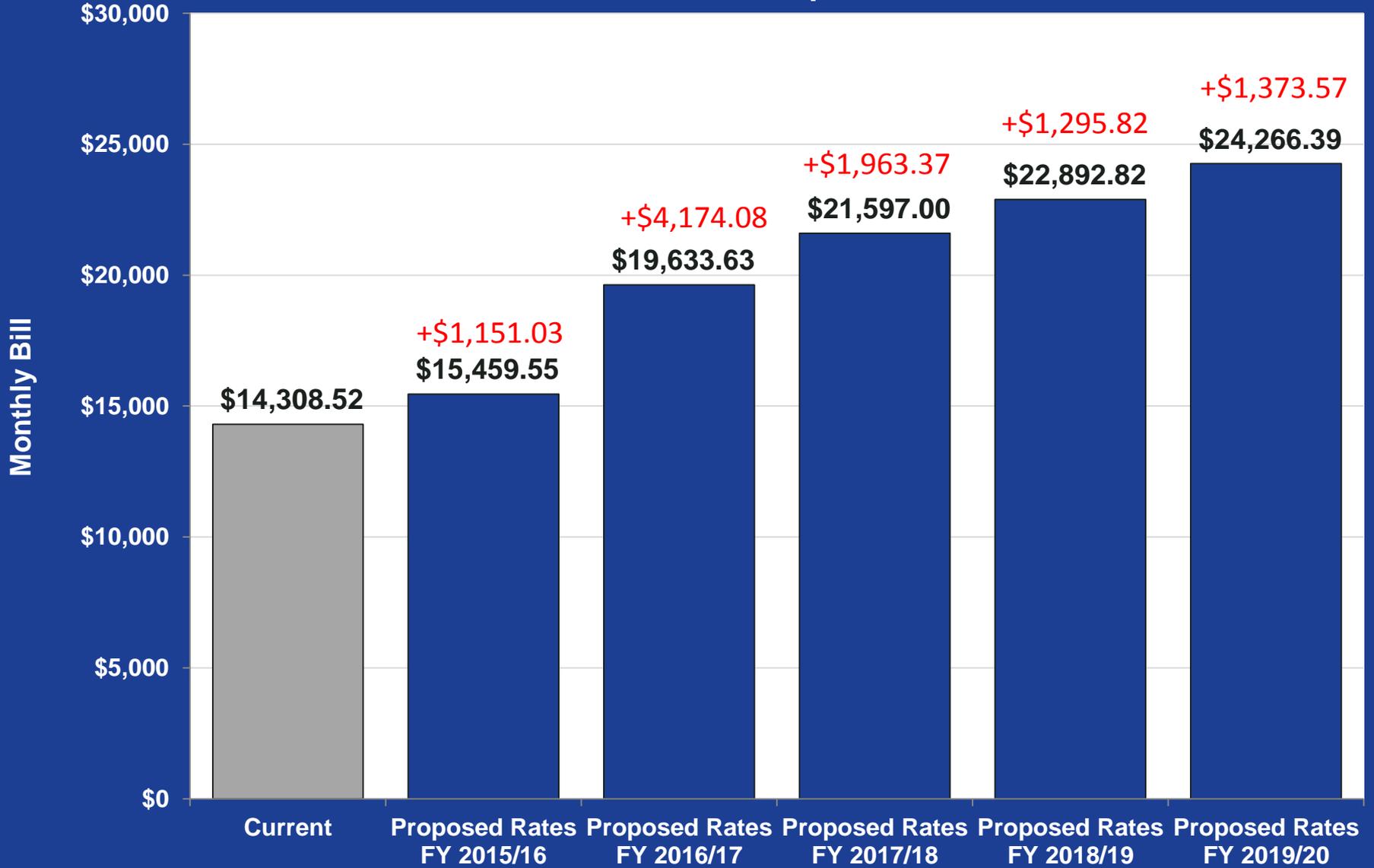
# Industrial Water Bill Comparison (6" meter, 10,000 hcf/month) 2-Year Rate Plan



# Industrial Water Bill Comparison (6" meter, 10,000 hcf/month) 5-Year Rate Plan – Option 1



# Industrial Water Bill Comparison (6" meter, 10,000 hcf/month) 5-Year Rate Plan – Option 2

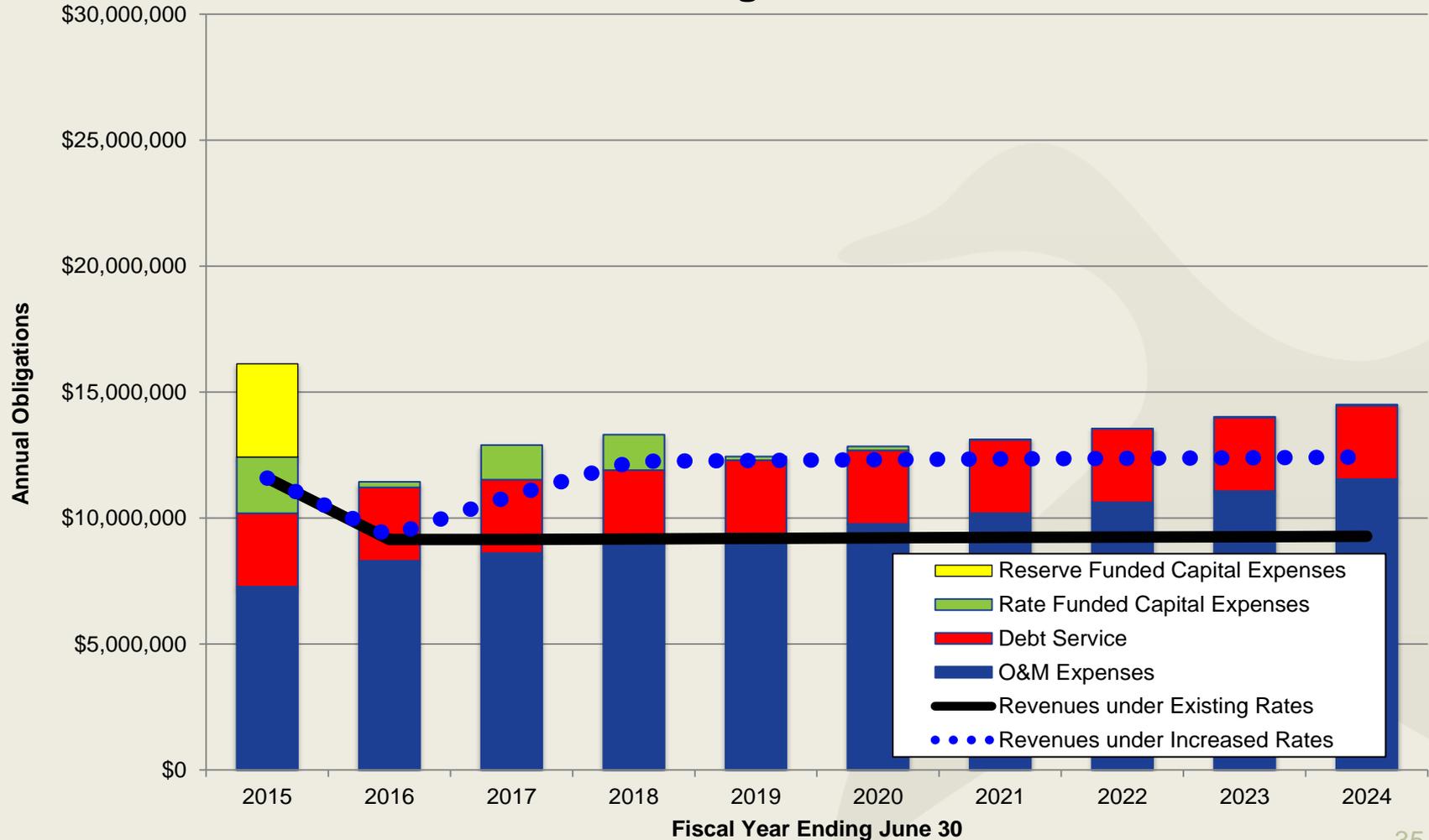


# Funding Allocation Over Time

## 2-Year Rate Plan



**Water Revenue Requirements vs. Revenue Under Existing and Increased Rates**

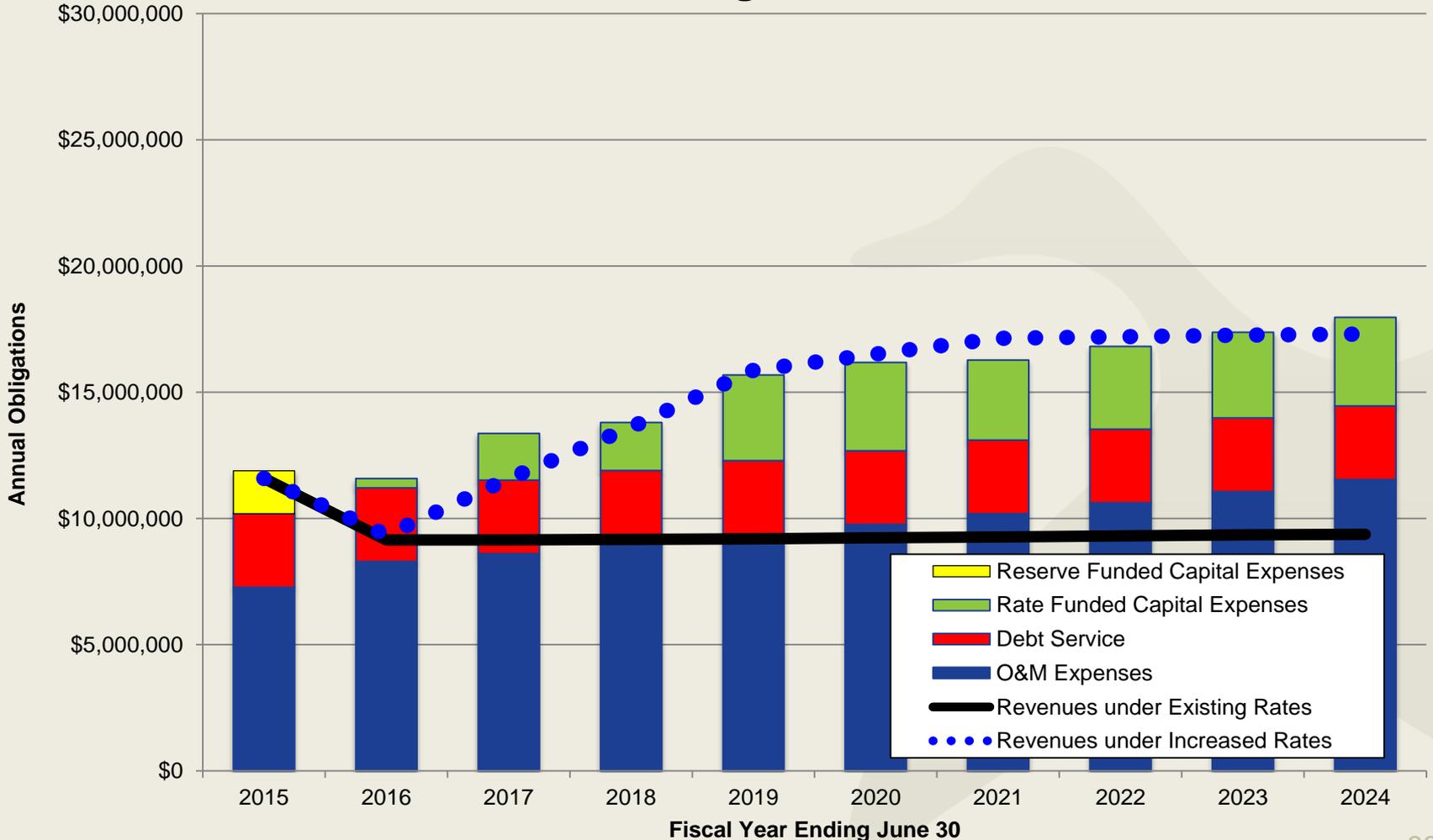


# Funding Allocation Over Time

## 5-Year Rate Plan – Option 1



**Water Revenue Requirements vs.  
Revenue Under Existing and Increased Rates**

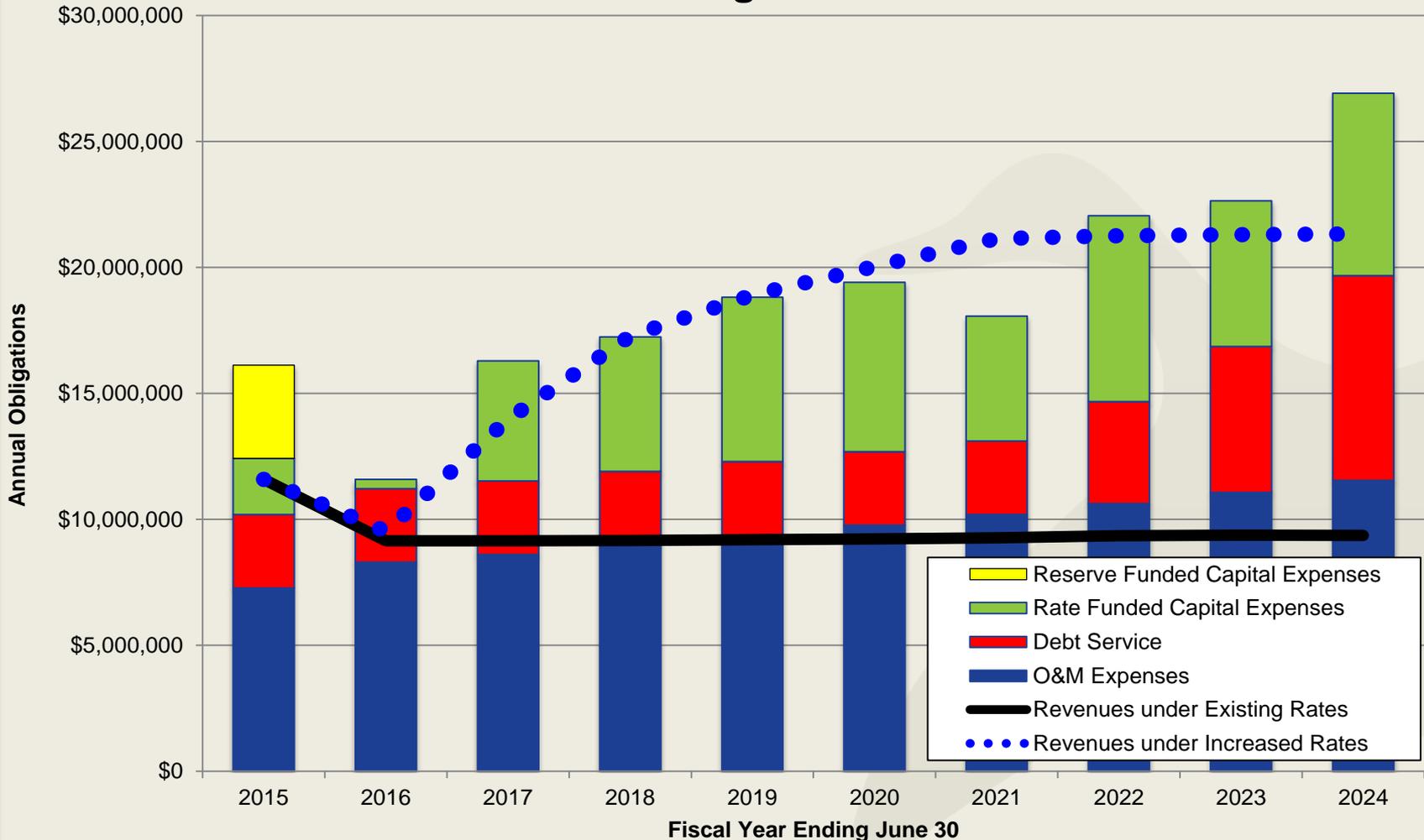


# Funding Allocation Over Time

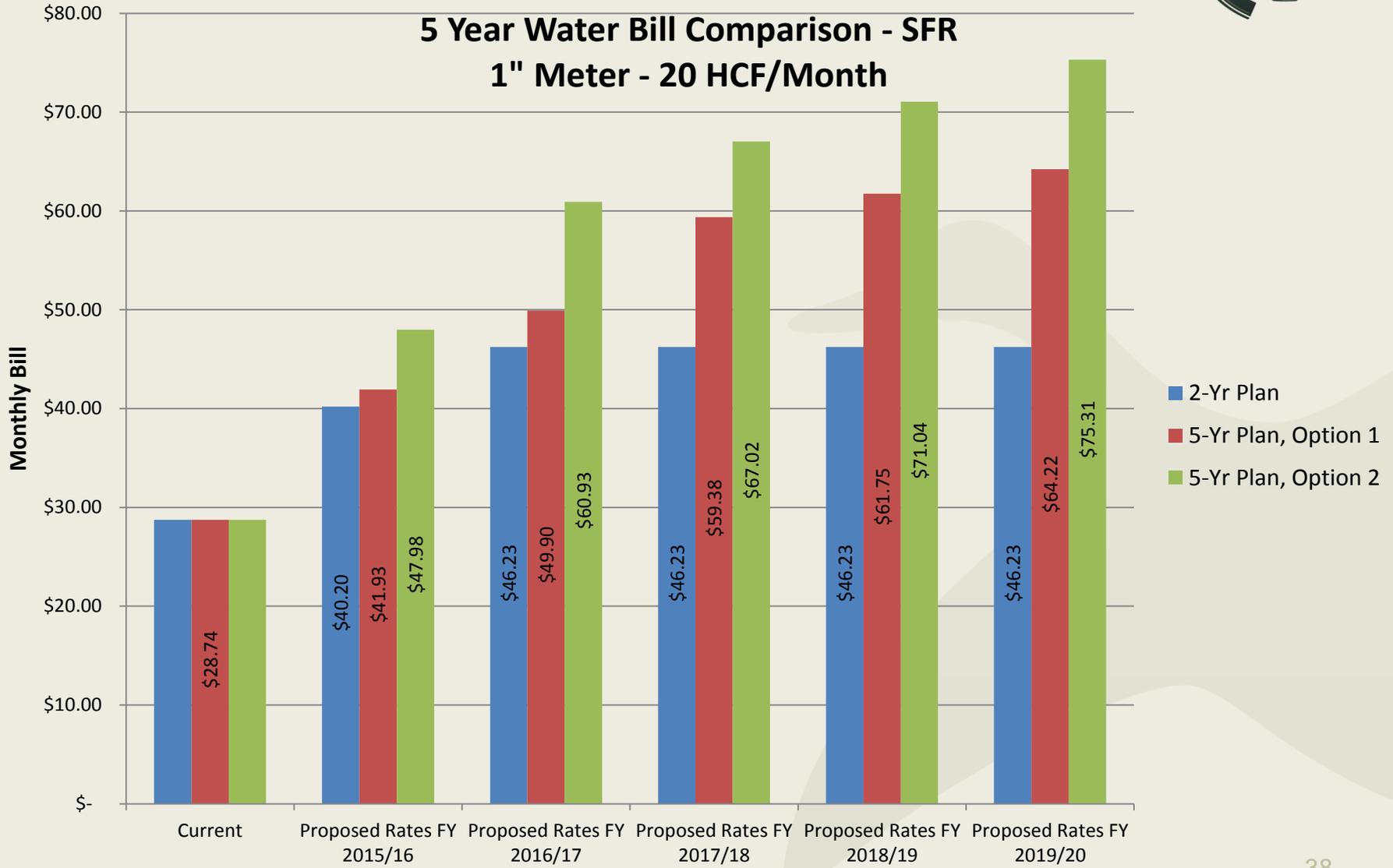
## 5-Year Rate Plan – Option 2



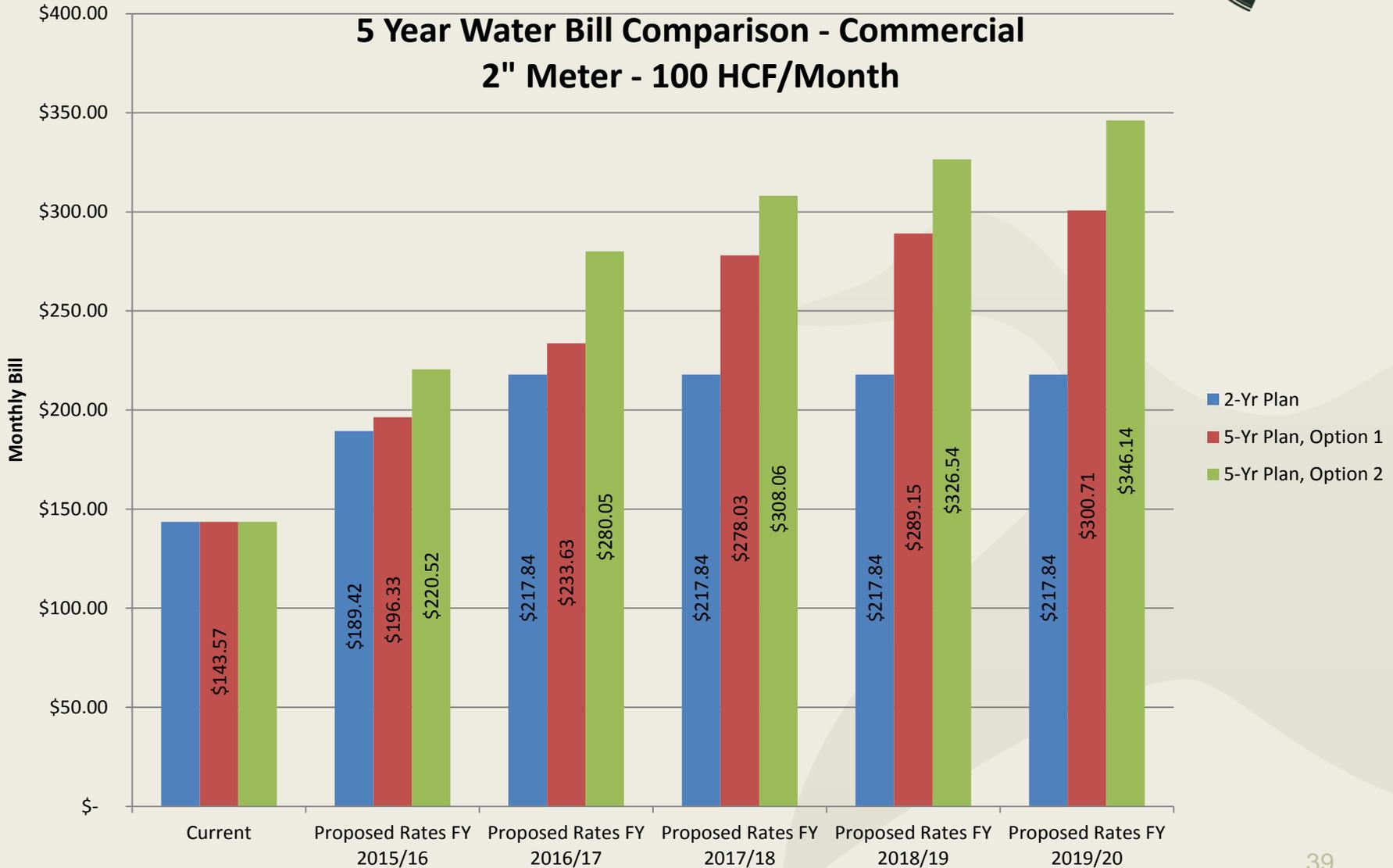
**Water Revenue Requirements vs.  
Revenue Under Existing and Increased Rates**



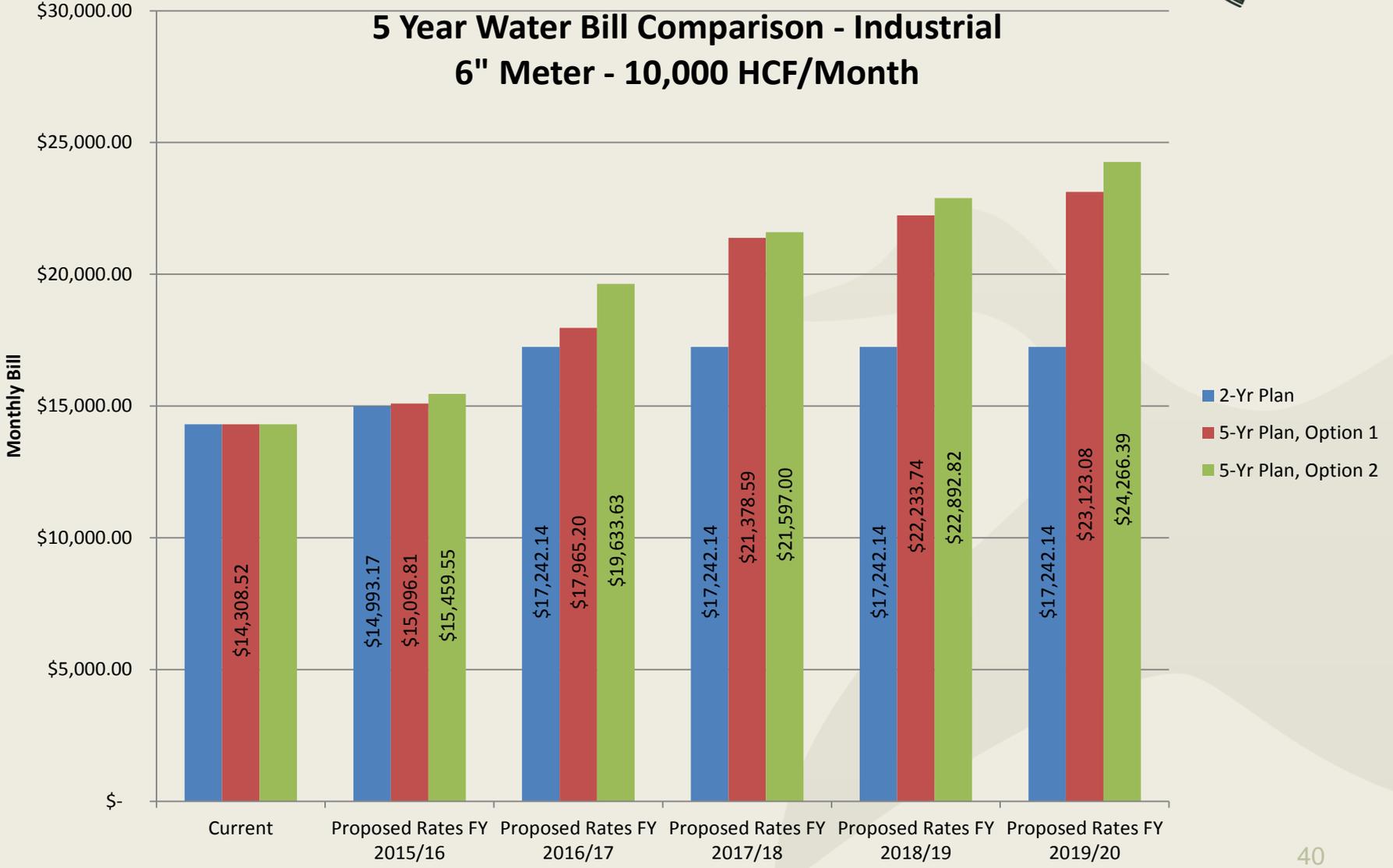
# Summary of Water Rate Options - SFR



# Summary of Water Rate Options - Commercial



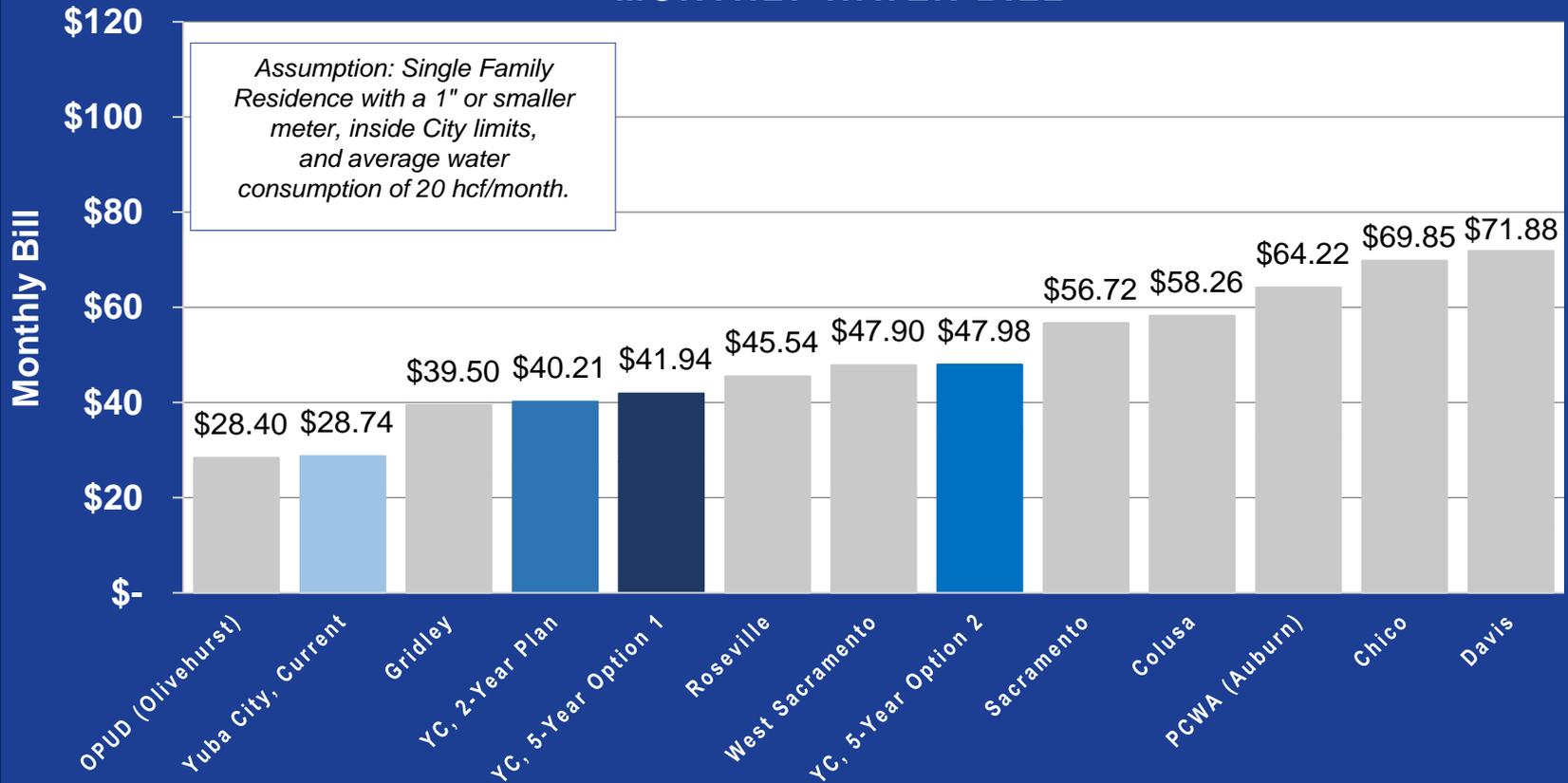
# Summary of Water Rate Options - Industrial



# Comparison to Other Agencies - SFR



**CITY OF YUBA CITY- REGIONAL COMPARISON  
MONTHLY WATER BILL**



# Key Decision Points - Water



- Reduce Base Allocation by 33%
- Rate Plan
  - 2 Year Rate Plan
    - O&M Expenses + Debt Service
  - 5 Year Rate Plan – Option 1
    - O&M Expenses + Debt Service + Priority 1 & 2 Projects
  - 5 Year Rate Plan – Option 2
    - O&M Expenses + Debt Service + All Projects



# EXISTING WASTEWATER RATES

# Existing Wastewater Rates



- Residential & Commercial

Type of Use	9/1/11 – 8/31/12	9/1/12 – 8/31/13	9/1/13 – 8/31/14	9/1/14 – 8/31/15	9/1/15 – 8/31/16
<b>Residential:</b>					
SFD	\$31.11	\$33.60	\$36.31	\$38.39	\$40.53
MFD	\$24.89	\$26.88	\$29.05	\$30.71	\$32.43
<b>Commercial:</b>					
C1	\$31.11	\$33.60	\$36.31	\$38.39	\$40.53
C2	\$34.92	\$37.76	\$40.83	\$43.19	\$45.60
C3	\$42.17	\$45.66	\$49.41	\$52.29	\$55.23
Flow Charge*	\$1.224	\$1.323	\$1.430	\$1.513	\$1.597

\*Commercial User Charges = Base Charge + Flow Charge for actual water used

# Existing Wastewater Rates



## RATE HISTORY – SINGLE FAMILY DWELLING



**YEAR** ↑  
Rate Increase Adopted

# Monthly Wastewater Bill Calculation



## Single Family Dwelling:

Monthly Bill = \$40.53

## Commercial:

Monthly Bill = Base Charge + (Water Use x Flow Charge)

Example: Monthly Water Use = 100 HCF

Monthly Bill = \$40.53 + (100 HCF x \$1.597)  
= \$200.23

# Existing Wastewater Rates



- Industrial

Category	9/1/11 – 8/31/12	9/1/12 – 8/31/13	9/1/13 – 8/31/14	9/1/14 – 8/31/15	9/1/15 – 8/31/16
Flow Charge (Million Gallons)	\$1,981.34	\$2,041.25	\$2,147.15	\$2,240.06	\$2,336.92
Biochemical Oxygen Demand (lb)	\$0.2023	\$0.2087	\$0.2195	\$0.2292	\$0.2393
Suspended Solids (lb)	\$0.1521	\$0.1570	\$0.1651	\$0.1724	\$0.1800

# Existing Wastewater Accounts by Use



Customer Class	Number of Accounts	Volume (HCF)	BOD (lbs/year)	TSS (lbs/yr)
Single Family	12,415	1,819,166	3,443,143	3,205,184
Multi-Family	1,028	402,744	762,275	709,594
Commercial – C1	858	234,884	388,995	310,381
Commercial – C2	58	18,223	38,802	32,107
Commercial – C3	106	67,405	287,051	207,832
Schools ADA	41	66,541	81,863	58,619
Industrial - Sunsweet	1	326,007	2,343,627	498,418
Industrial – VFF	1	30,600	70,609	32,307
Industrial - Other	4	43,704	62,038	42,351
<b>Total:</b>	<b>14,512</b>	<b>3,009,274</b>	<b>7,478,404</b>	<b>5,096,794</b>



# WASTEWATER RATE OPTIONS

# Wastewater Rate Options



- 2-Year Rate Plan
  - O&M Expenses + Debt Service

Sewer Rate Schedule	Current Rate	Year 1	Year 2
Single Family	\$40.53	\$43.77	\$46.84
Multi-Family	\$32.43	\$35.02	\$37.48
Commercial – C1	\$40.53	\$43.77	\$46.84
Commercial – C2	\$45.60	\$49.25	\$52.70
Commercial – C3	\$55.23	\$59.65	\$63.82
Commercial Volumetric Charge (HCF)	\$1.60	\$1.72	\$1.85
Schools – Per Student/Year	\$18.61	\$20.10	\$21.50

# Wastewater Rate Options



- 5-Year Rate Plan – Option 1
  - O&M Expenses + Debt Service + Priority 1 & 2 Projects

Sewer Rate Schedule	Current Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Single Family	\$40.53	\$44.58	\$49.04	\$53.95	\$59.34	\$65.27
Multi-Family	\$32.43	\$35.67	\$39.24	\$43.16	\$47.48	\$52.23
Commercial – C1	\$40.53	\$44.58	\$49.04	\$53.95	\$59.34	\$65.27
Commercial – C2	\$45.60	\$50.16	\$55.18	\$60.69	\$66.76	\$73.44
Commercial – C3	\$55.23	\$60.75	\$66.83	\$73.51	\$80.86	\$88.95
Commercial Volumetric Charge (HCF)	\$1.60	\$1.76	\$1.93	\$2.13	\$2.34	\$2.57
Schools – Per Student/Year	\$18.61	\$20.47	\$22.52	\$24.77	\$27.25	\$29.97

# Wastewater Rate Options



- 5-Year Rate Plan – Option 2
  - O&M Expenses + Debt Service + All Projects

Sewer Rate Schedule	Current Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Single Family	\$40.53	\$47.01	\$54.54	\$62.17	\$70.88	\$79.38
Multi-Family	\$32.43	\$37.62	\$43.64	\$49.75	\$56.71	\$63.52
Commercial – C1	\$40.53	\$47.01	\$54.54	\$62.17	\$70.88	\$79.38
Commercial – C2	\$45.60	\$52.90	\$61.36	\$69.95	\$79.74	\$89.31
Commercial – C3	\$55.23	\$64.07	\$74.32	\$84.72	\$96.58	\$108.17
Commercial Volumetric Charge (HCF)	\$1.60	\$1.85	\$2.15	\$2.45	\$2.79	\$3.13
Schools – Per Student/Year	\$18.61	\$21.59	\$25.04	\$28.55	\$32.54	\$36.45

# Wastewater Rate Options



- 2-Year Rate Plan
  - O&M Expenses + Debt Service

Sewer Rate Schedule	Current Rate	Year 1	Year 2
Industrial			
Wastewater Volume (MG)	\$2,336.92	\$2,523.87	\$2,700.54
Total Suspended Solids (lbs)	\$0.180	\$0.194	\$0.208
Biochemical Oxygen Demand (lbs)	\$0.239	\$0.258	\$0.277
Septage Hauler			
Charge Per Gallon	\$0.312	\$0.337	\$0.361
Min. Charge: 400 Gallons	\$124.80	\$134.78	\$144.22
Min. Charge: 1,000 Gallon	\$312.00	\$336.96	\$360.55
Min. Charge: 1,500 Gallon	\$468.00	\$505.44	\$540.82

# Wastewater Rate Options



- 5-Year Rate Plan – Option 1
  - O&M Expenses + Debt Service + Priority 1 & 2 Projects

Sewer Rate Schedule	Current Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Industrial						
Volume (MG)	\$2,336.92	\$2,570.61	\$2,827.67	\$3,110.44	\$3,421.48	\$3,763.63
TSS (lbs)	\$0.180	\$0.198	\$0.218	\$0.240	\$0.264	\$0.290
BOD (lbs)	\$0.239	\$0.263	\$0.290	\$0.319	\$0.350	\$0.385
Septage Hauler						
\$/Gallon	\$0.312	\$0.343	\$0.378	\$0.415	\$0.457	\$0.502
400 Gallons	\$124.80	\$137.28	\$151.01	\$166.11	\$182.72	\$200.99
1,000 Gallon	\$312.00	\$343.20	\$377.52	\$415.27	\$456.80	\$502.48
1,500 Gallon	\$468.00	\$514.80	\$566.28	\$622.91	\$685.20	\$753.72

# Wastewater Rate Options

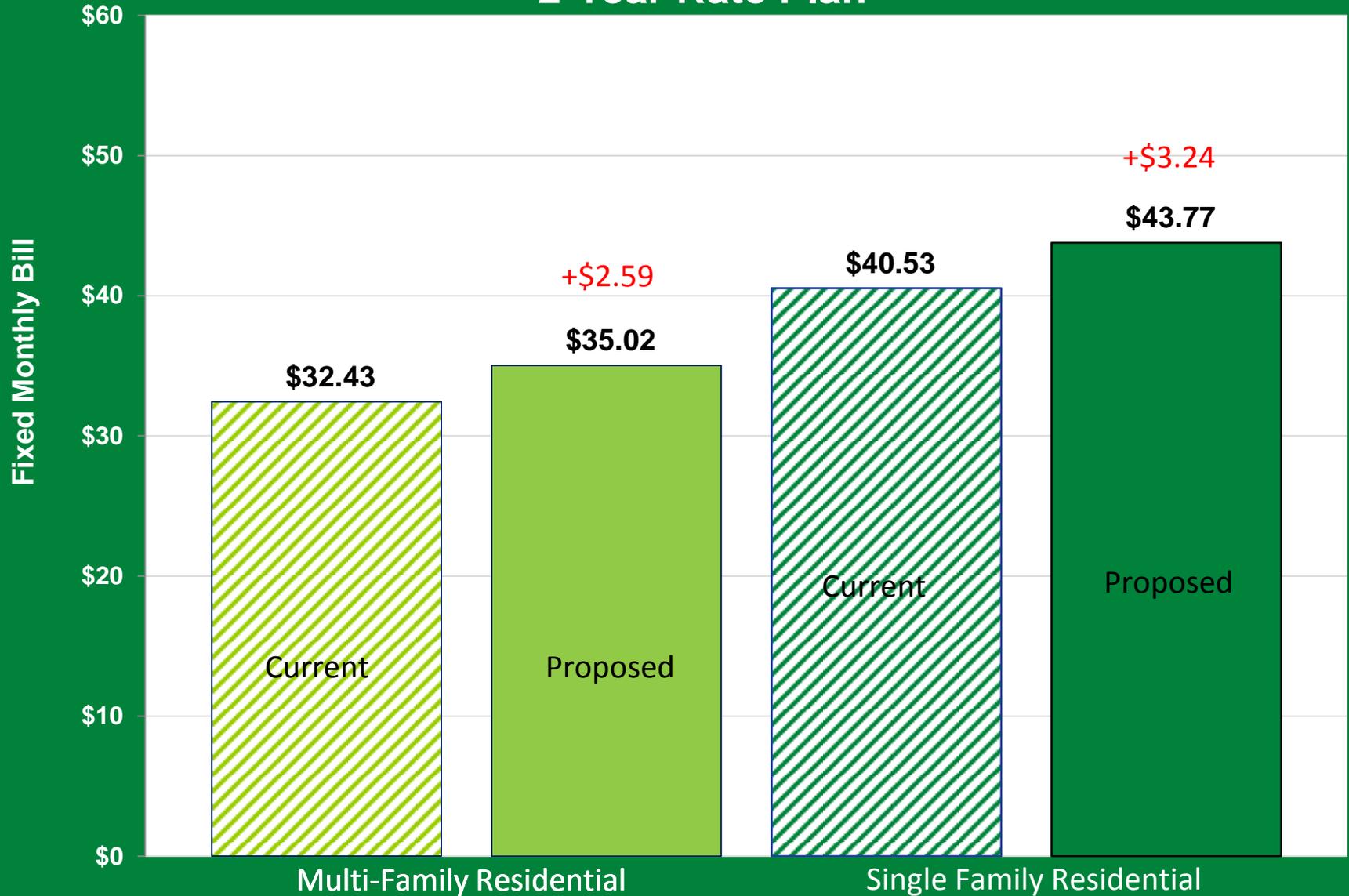


- 5-Year Rate Plan – Option 2
  - O&M Expenses + Debt Service + All Projects

Sewer Rate Schedule	Current Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Industrial						
Volume (MG)	\$2,336.92	\$2,710.83	\$3,144.56	\$3,584.80	\$4,086.67	\$4,577.07
TSS (lbs)	\$0.180	\$0.209	\$0.242	\$0.276	\$0.315	\$0.353
BOD (lbs)	\$0.239	\$0.278	\$0.322	\$0.367	\$0.418	\$0.469
Septage Hauler						
\$/Gallon	\$0.312	\$0.362	\$0.420	\$0.479	\$0.546	\$0.611
400 Gallons	\$124.80	\$144.77	\$167.93	\$191.44	\$218.24	\$244.43
1,000 Gallon	\$312.00	\$361.92	\$419.83	\$478.60	\$545.61	\$611.08
1,500 Gallon	\$468.00	\$542.88	\$629.74	\$717.90	\$818.41	\$916.62

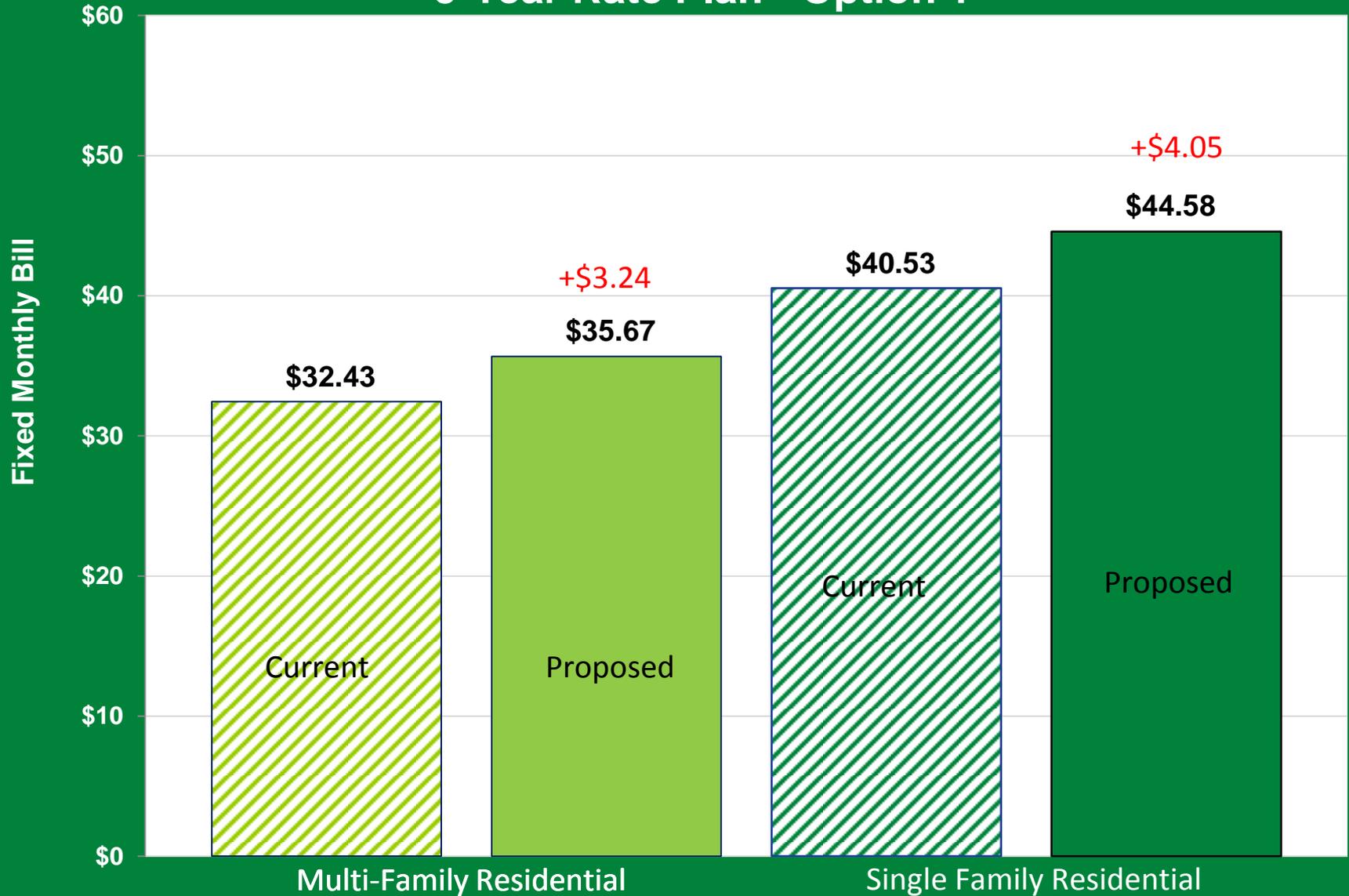
# Residential Wastewater Bill Comparison

## 2-Year Rate Plan



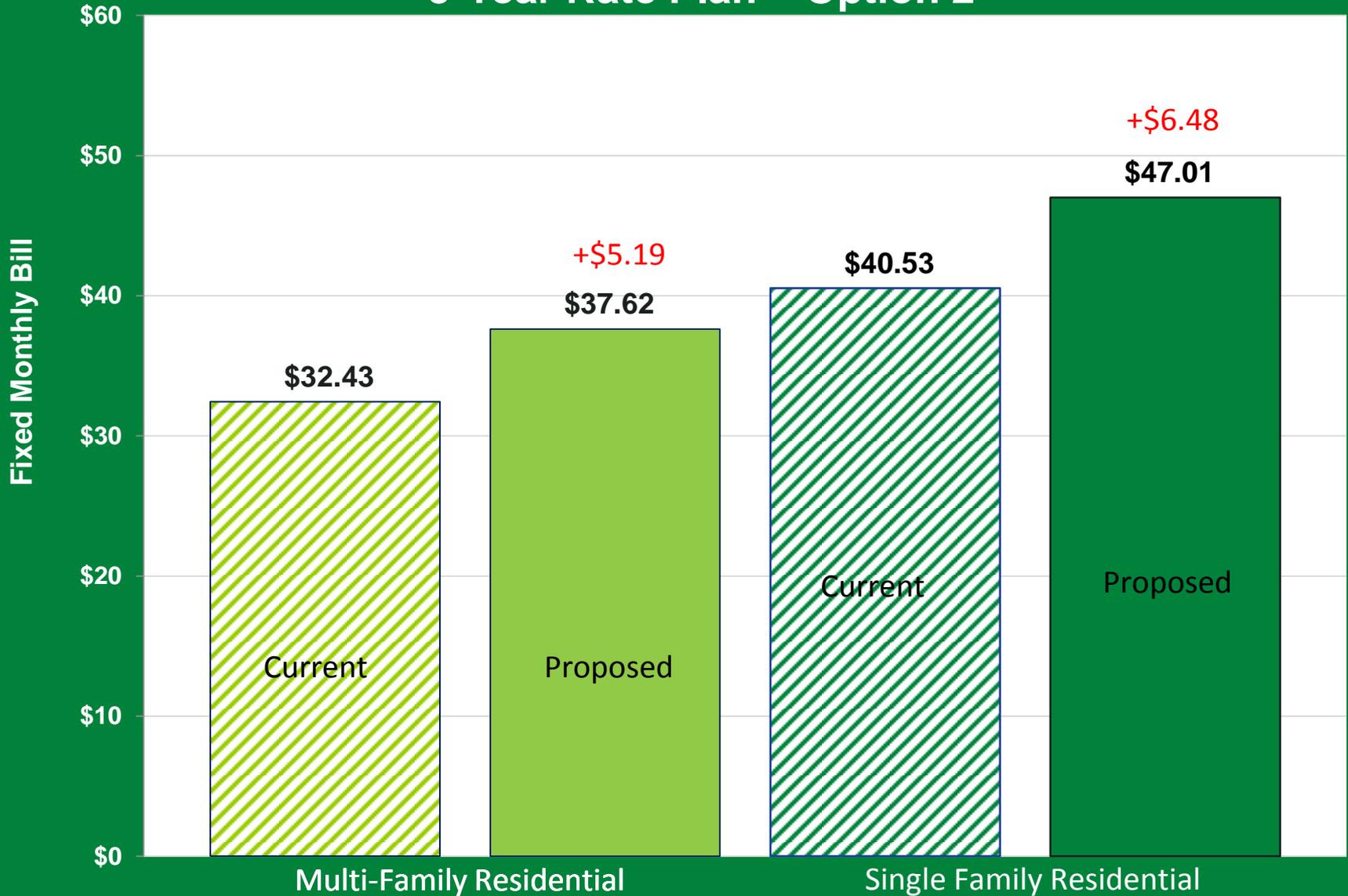
# Residential Wastewater Bill Comparison

## 5-Year Rate Plan - Option 1

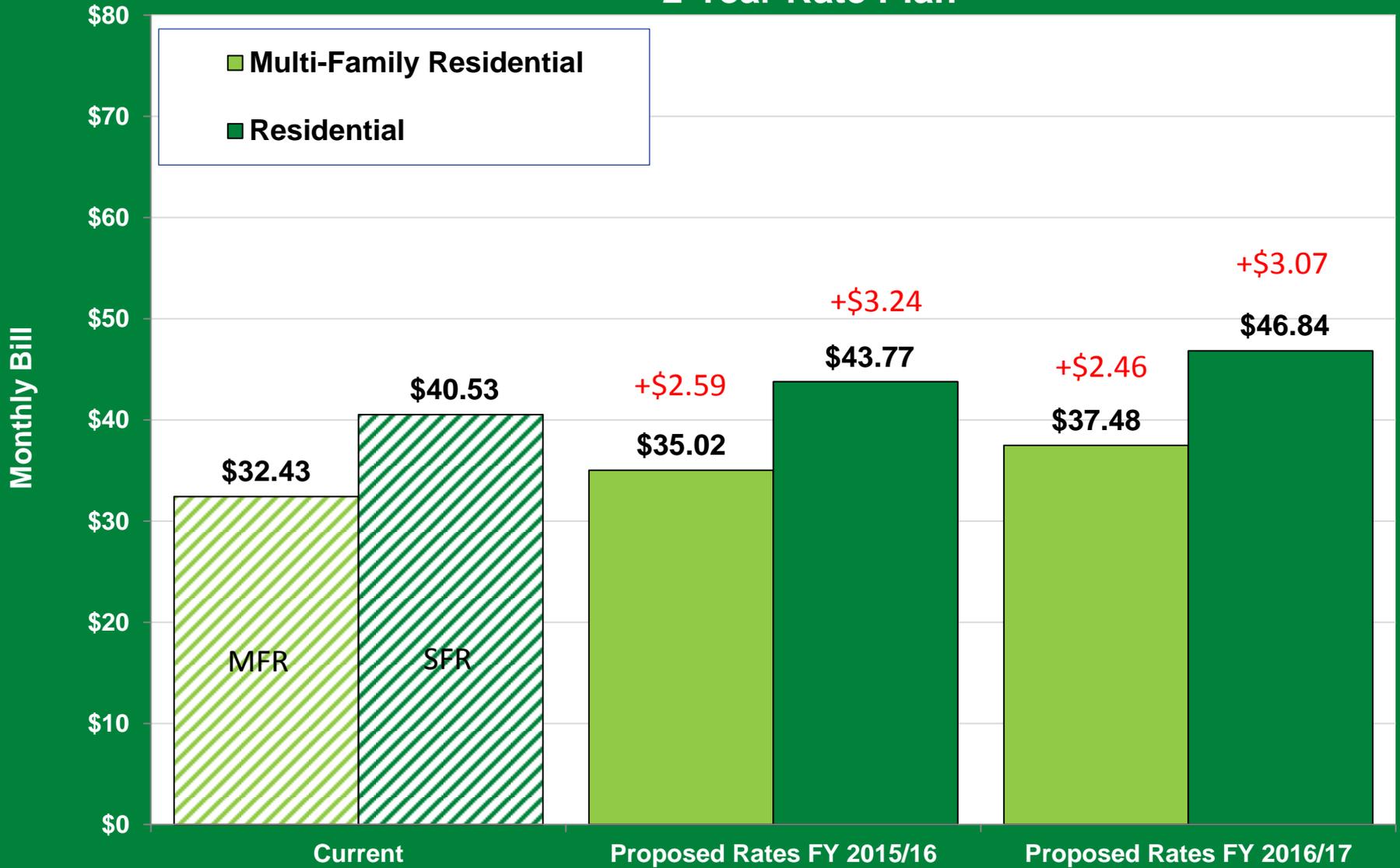


# Residential Wastewater Bill Comparison

## 5-Year Rate Plan – Option 2



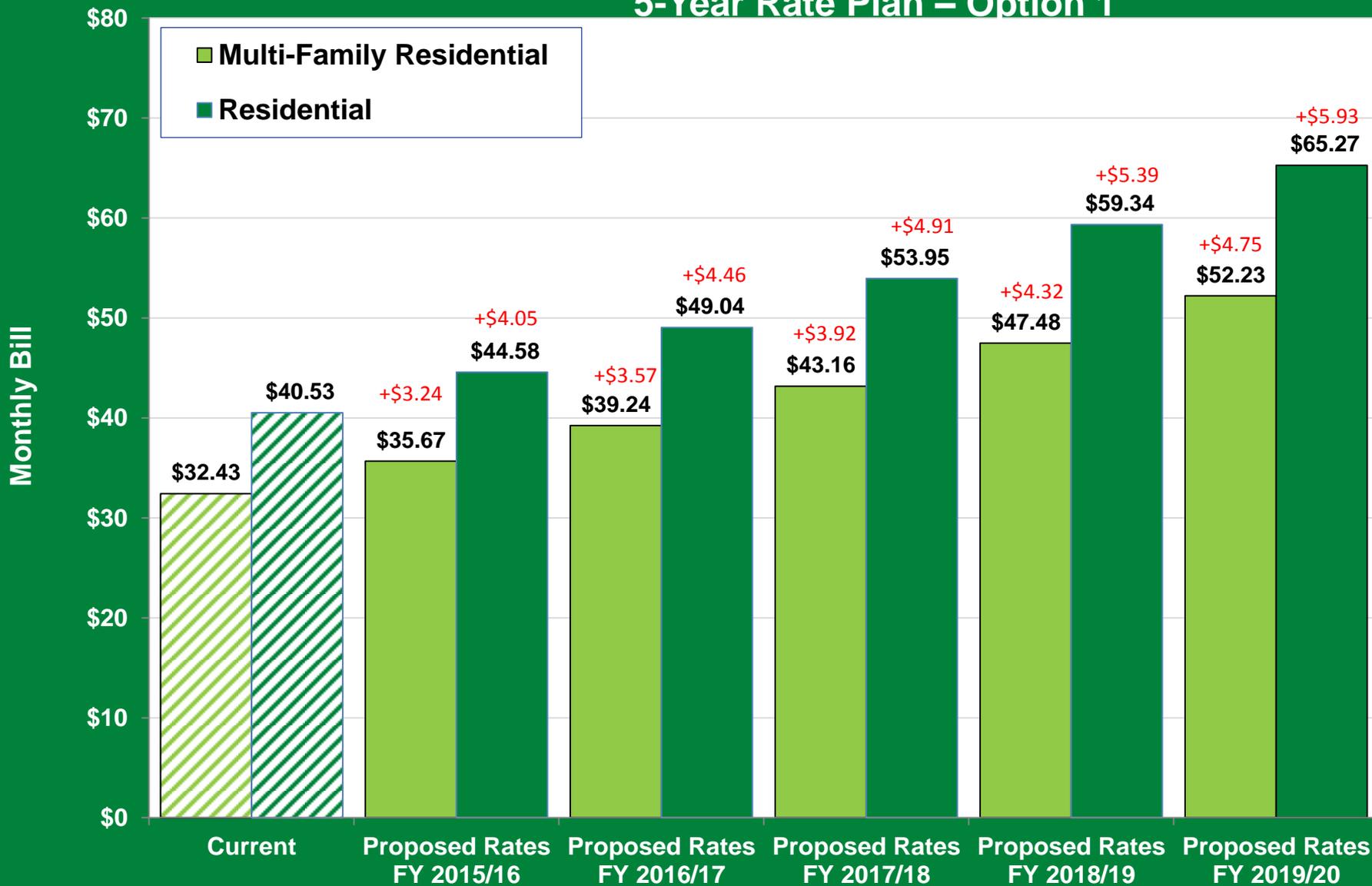
# Residential Wastewater Bill Comparison - SFR & MFR (Flat Rate) 2-Year Rate Plan



# Residential Wastewater Bill Comparison

## SFR & MFR (Flat Rate)

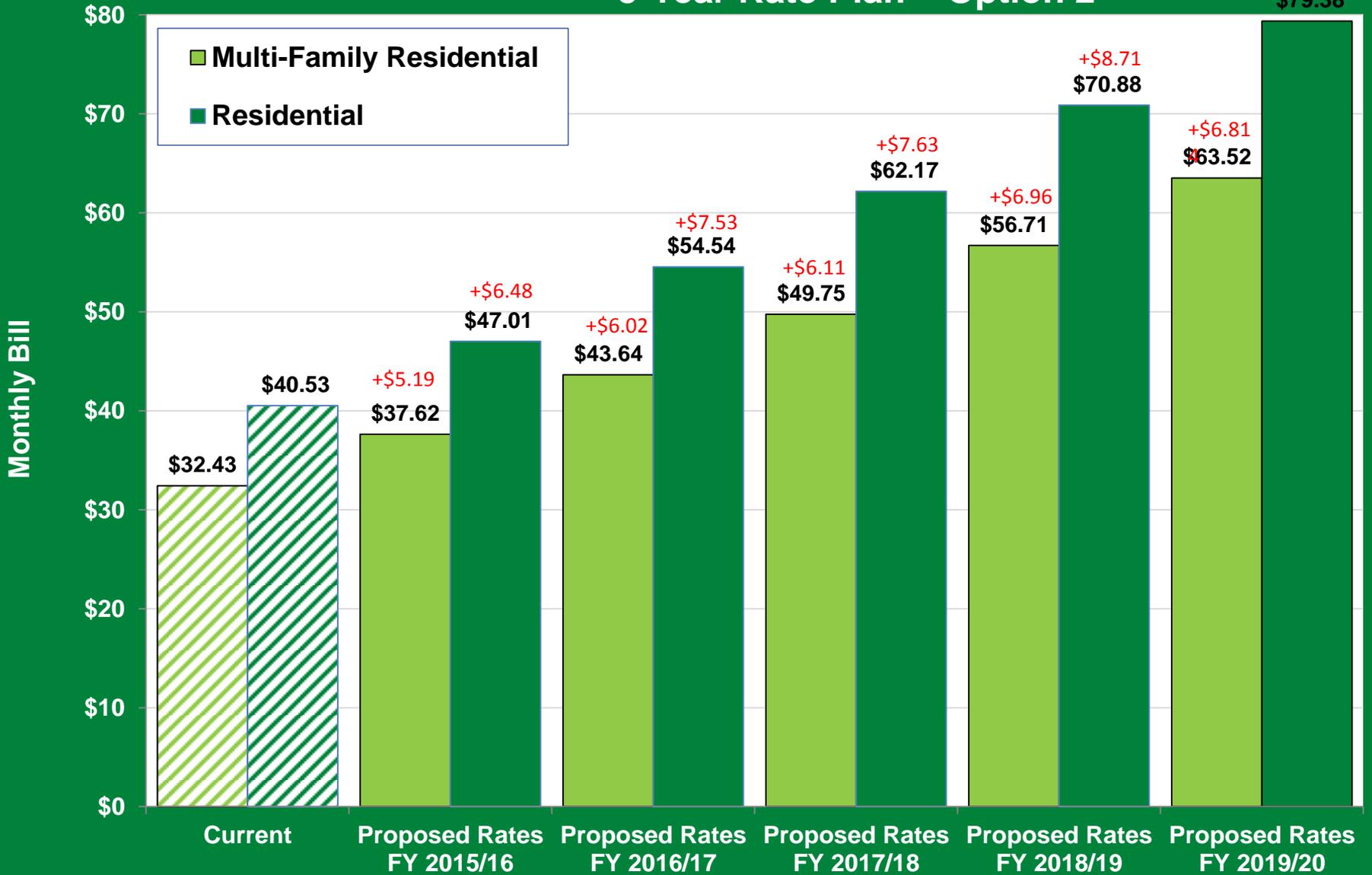
### 5-Year Rate Plan – Option 1



# Residential Wastewater Bill Comparison

## SFR & MFR (Flat Rate)

### 5-Year Rate Plan – Option 2



# Commercial Wastewater Bill Comparison

## Current vs. Proposed 2015/16 Rates (C-1, 2 inch meter)

### 2-Year Rate Plan



# Commercial Wastewater Bill Comparison

## Current vs. Proposed 2015/16 Rates (C-1, 2 inch meter)

### 5-Year Rate Plan – Option 1



# Commercial Wastewater Bill Comparison

## Current vs. Proposed 2015/16 Rates (C-1, 2 inch meter)

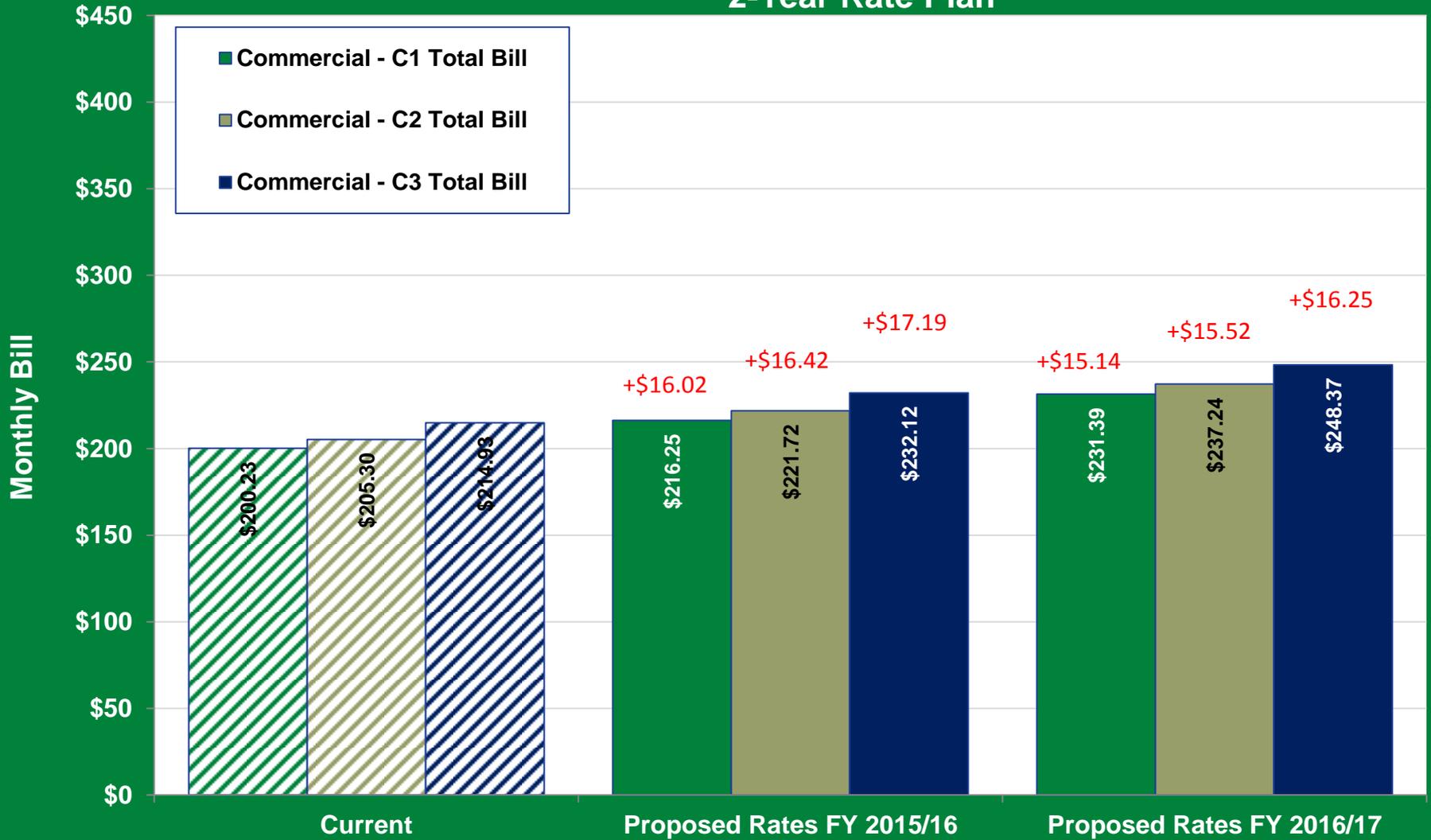
### 5-Year Rate Plan – Option 2



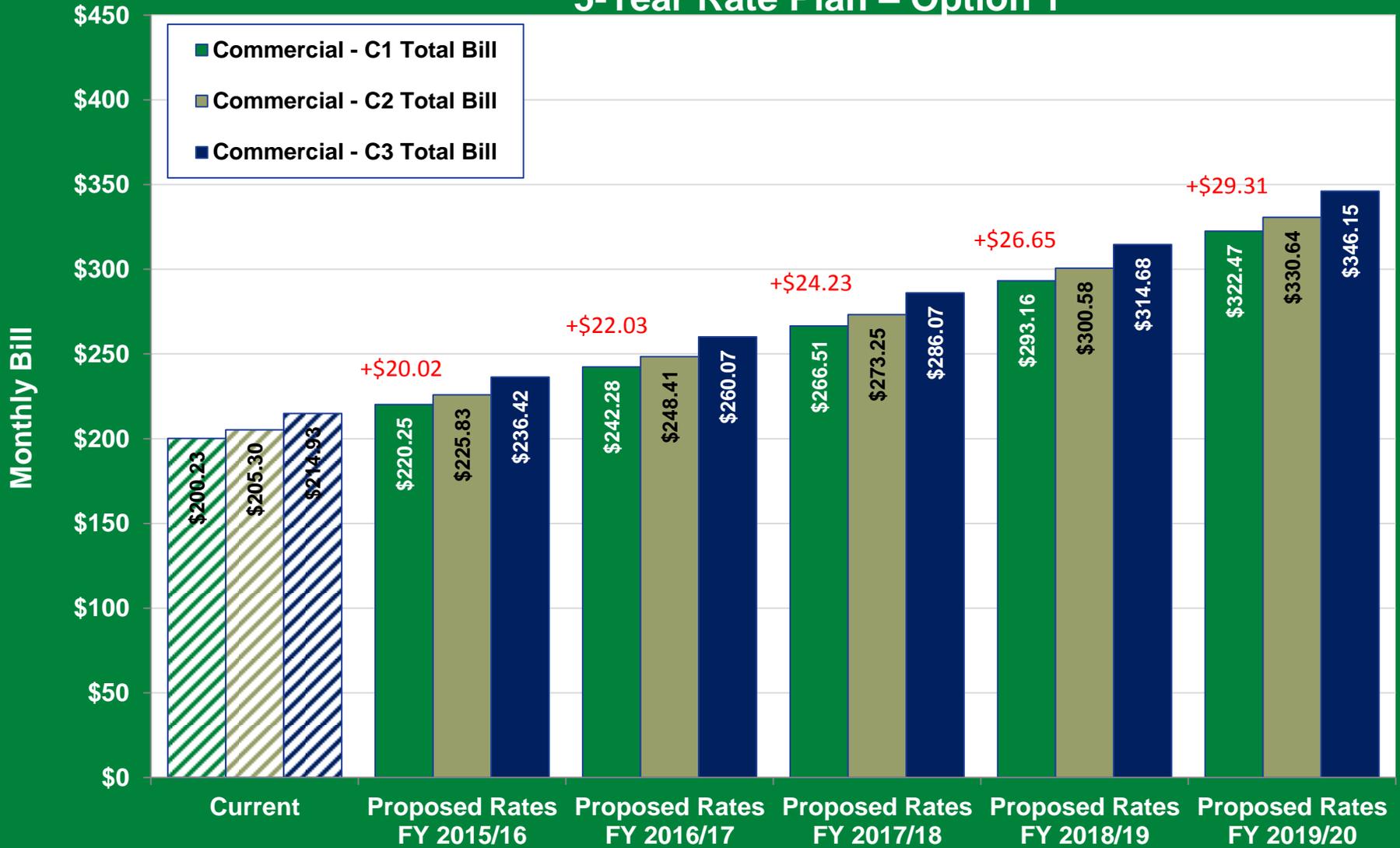
# Commercial Wastewater Bill Comparison

## C1, C2 & C3 (100 hcf/month)

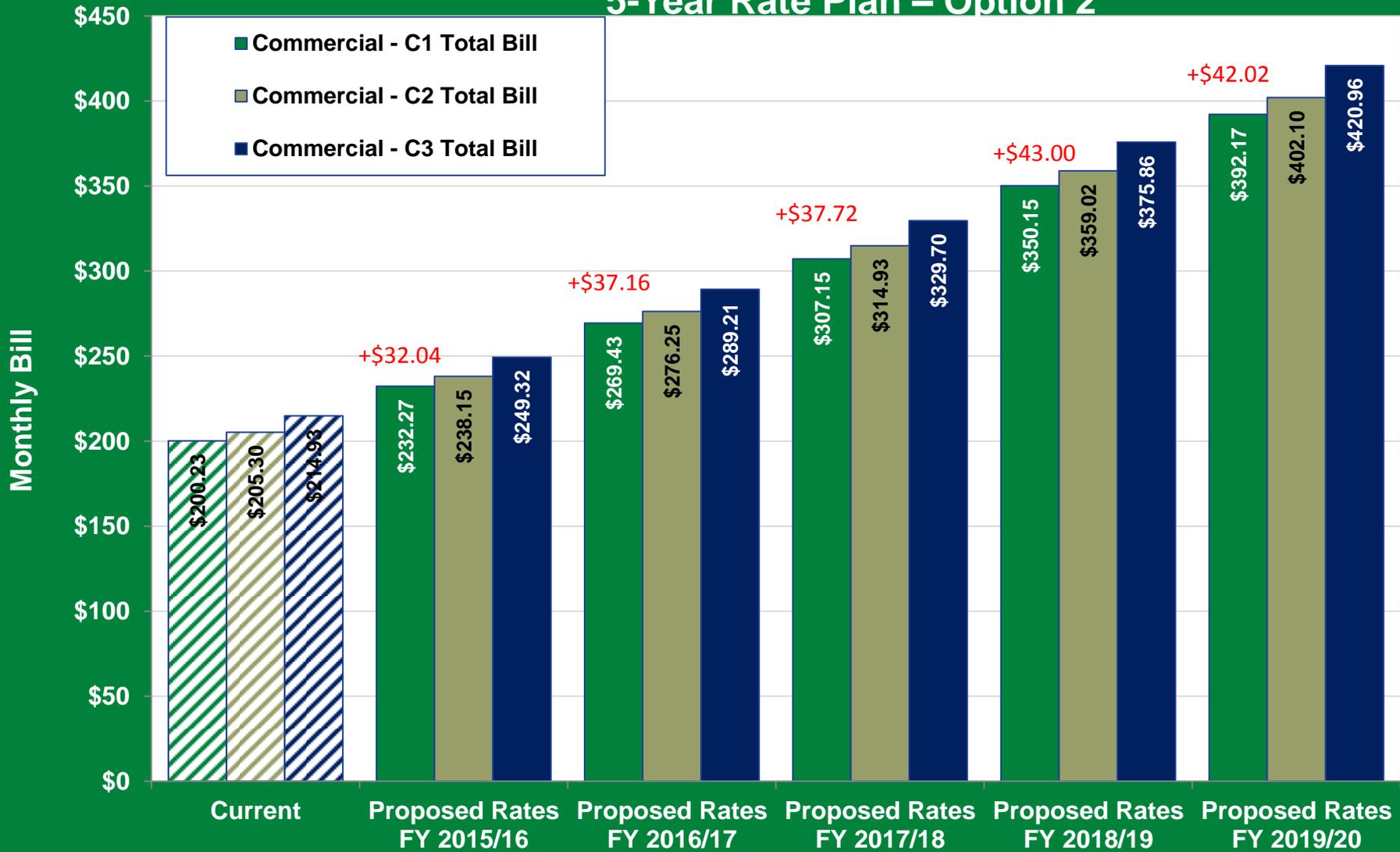
### 2-Year Rate Plan



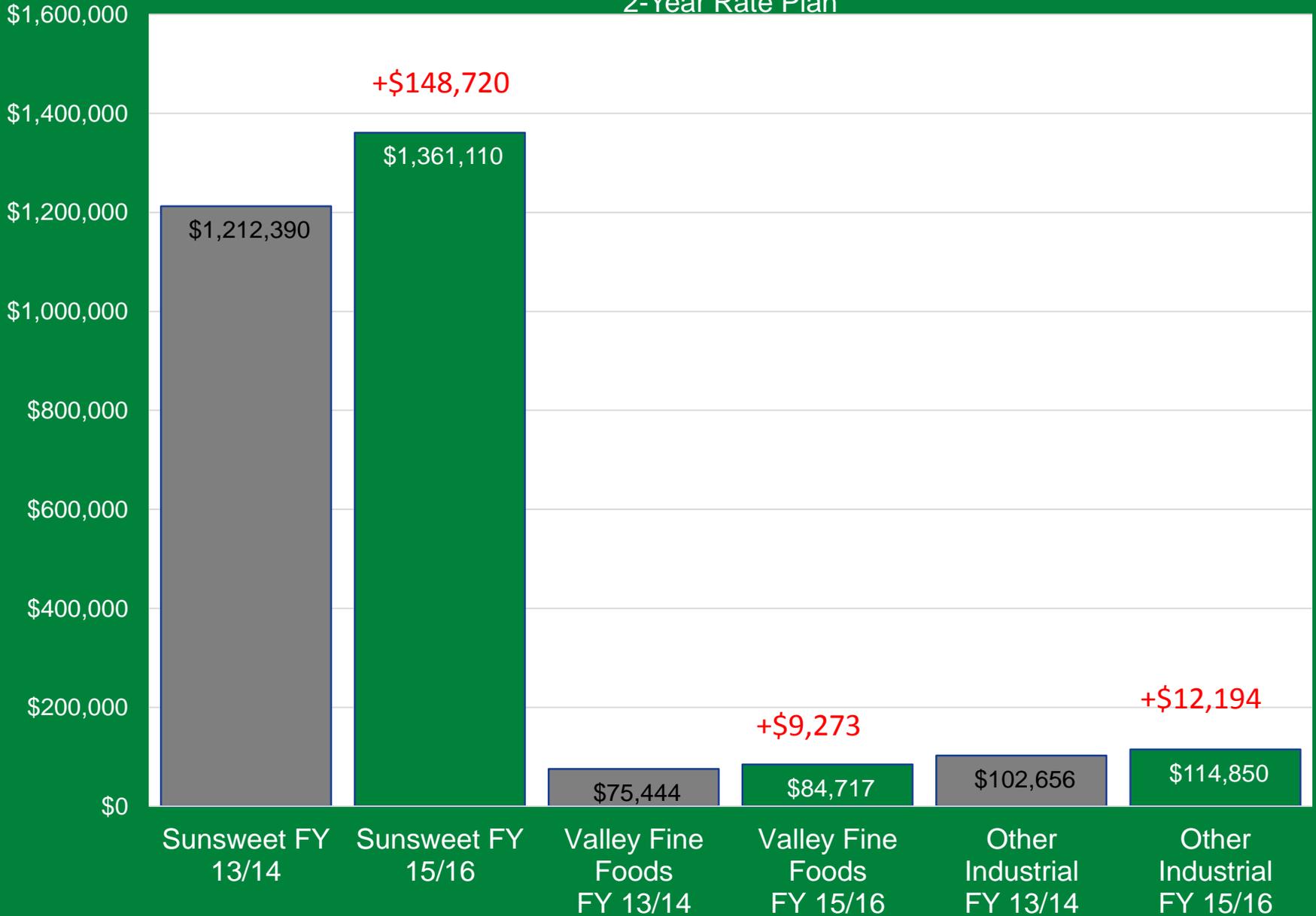
# Commercial Wastewater Bill Comparisons – C1, C2 & C3 (100 hcf/month) 5-Year Rate Plan – Option 1



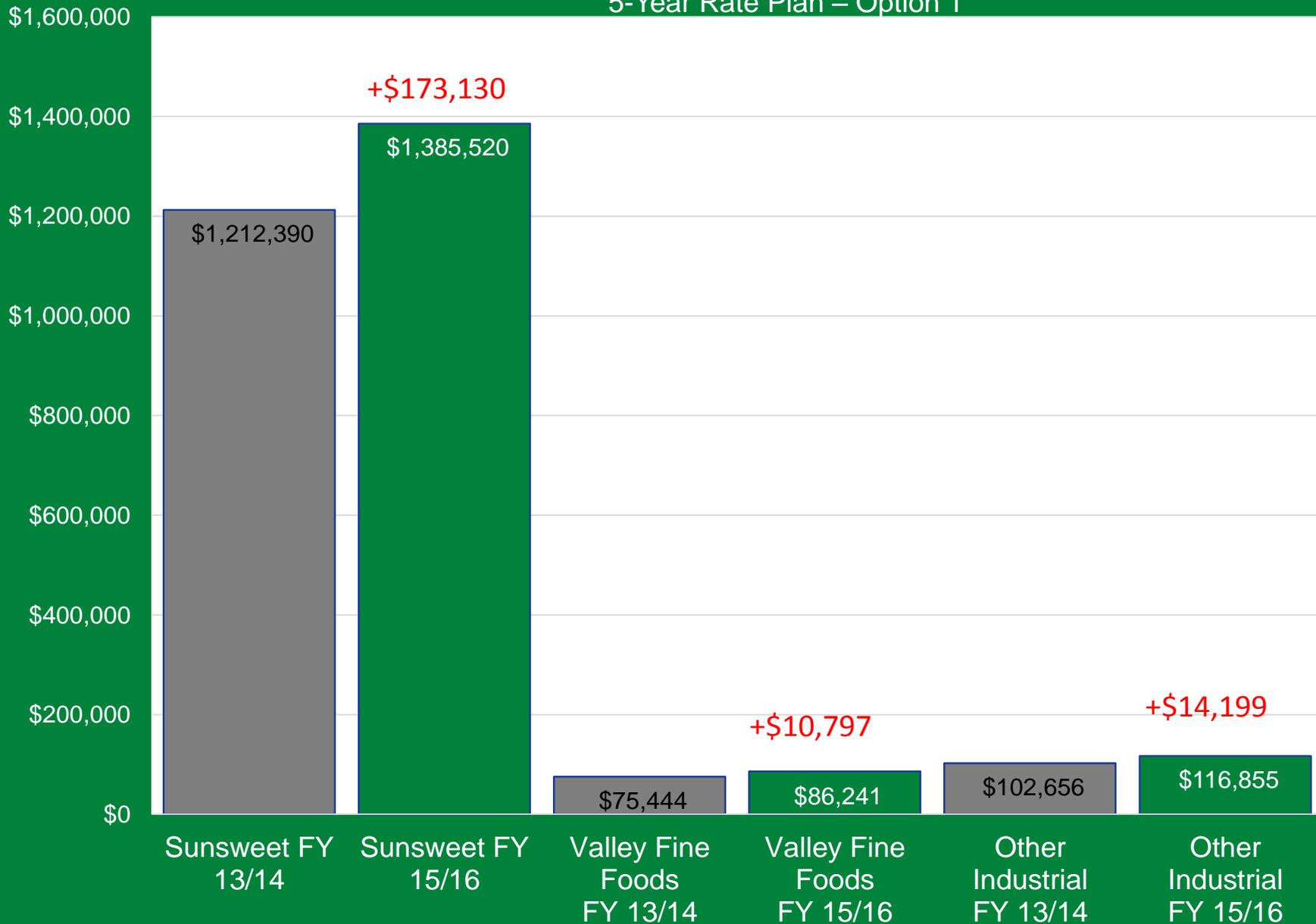
# Commercial Wastewater Bill Comparison C1, C2 & C3 (100 hcf/month) 5-Year Rate Plan – Option 2



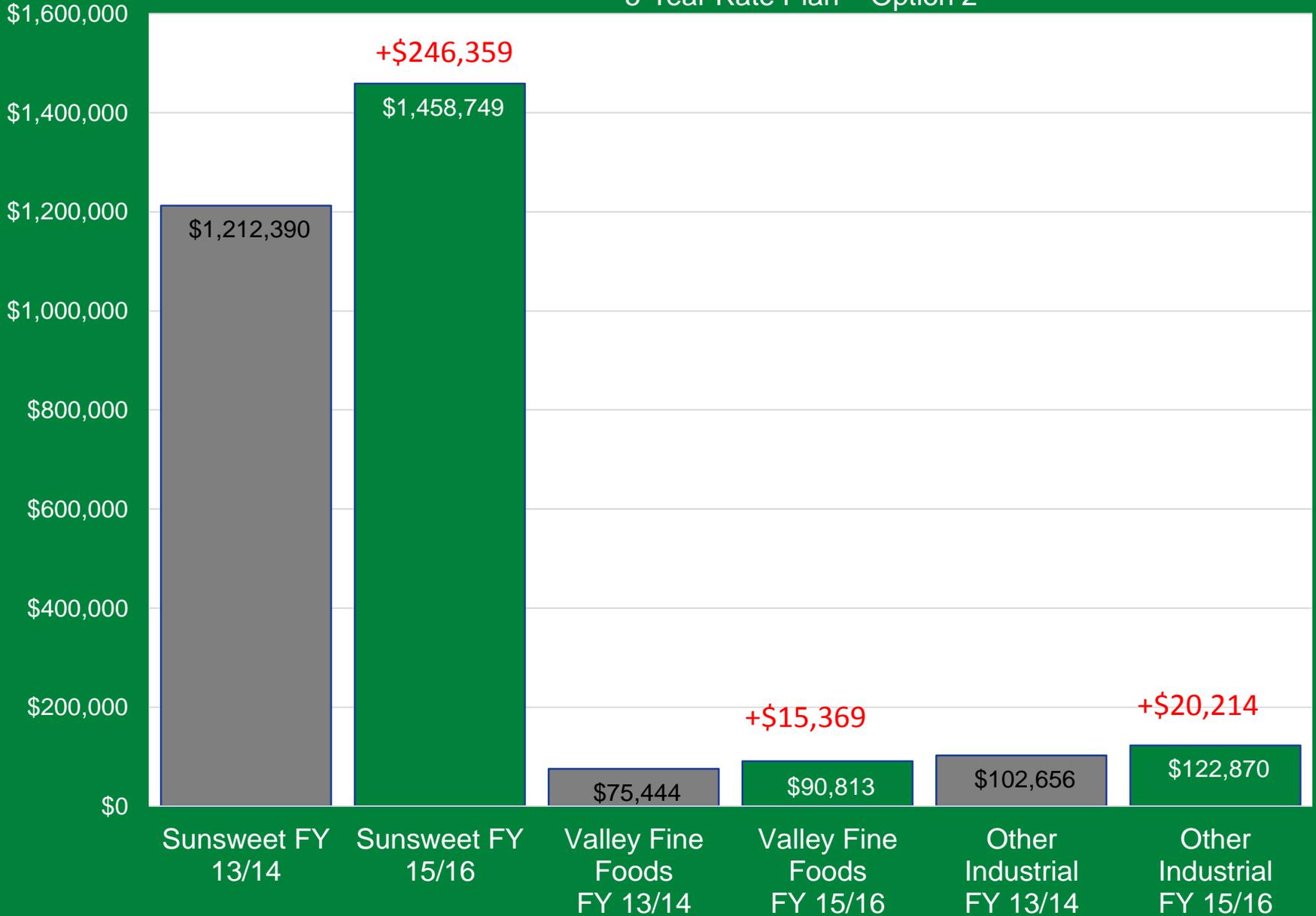
Industrial Wastewater Revenue Comparison  
(Annual, FY 2013/14 vs FY 2015/16)  
2-Year Rate Plan



Industrial Wastewater Revenue Comparison  
(Annual, FY 2013/14 vs FY 2015/16)  
5-Year Rate Plan – Option 1



Industrial Wastewater Revenue Comparison  
(Annual, FY 2013/14 vs FY 2015/16)  
5-Year Rate Plan – Option 2

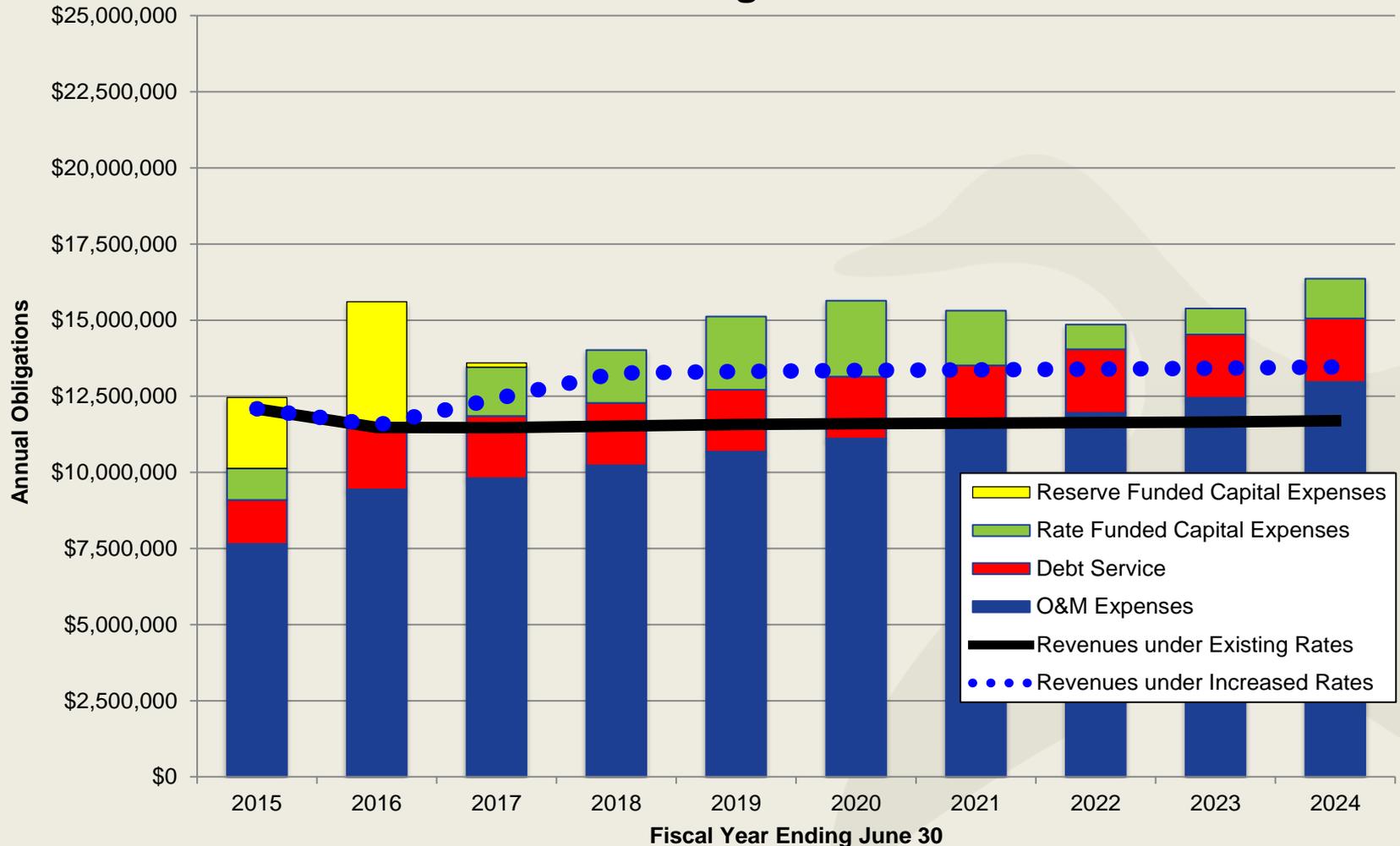


# Funding Allocation Over Time

## 2-Year Rate Plan



### Wastewater Revenue Requirements vs. Revenue Under Existing and Increased Rates

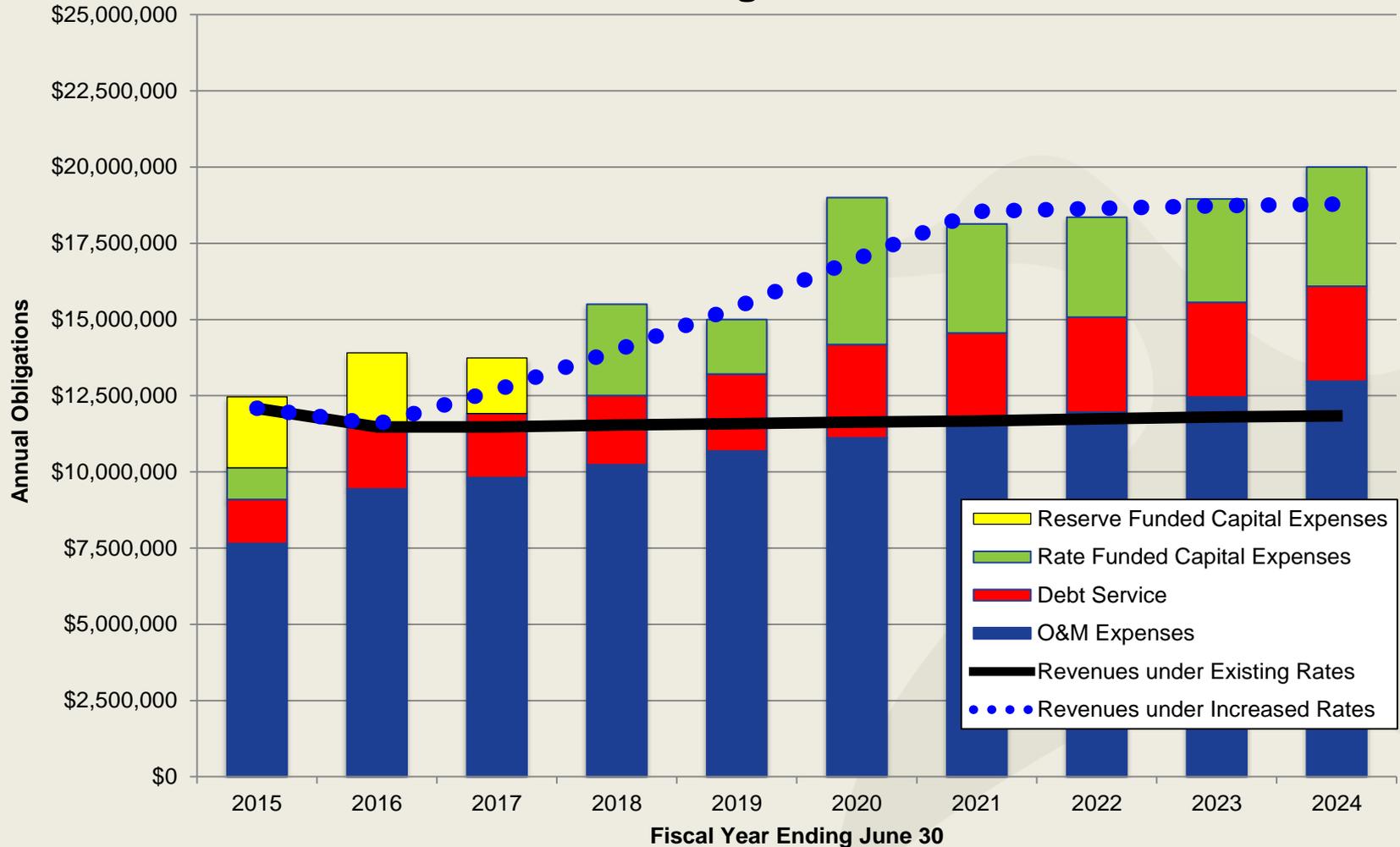


# Funding Allocation Over Time

## 5-Year Rate Plan – Option 1



### Wastewater Revenue Requirements vs. Revenue Under Existing and Increased Rates

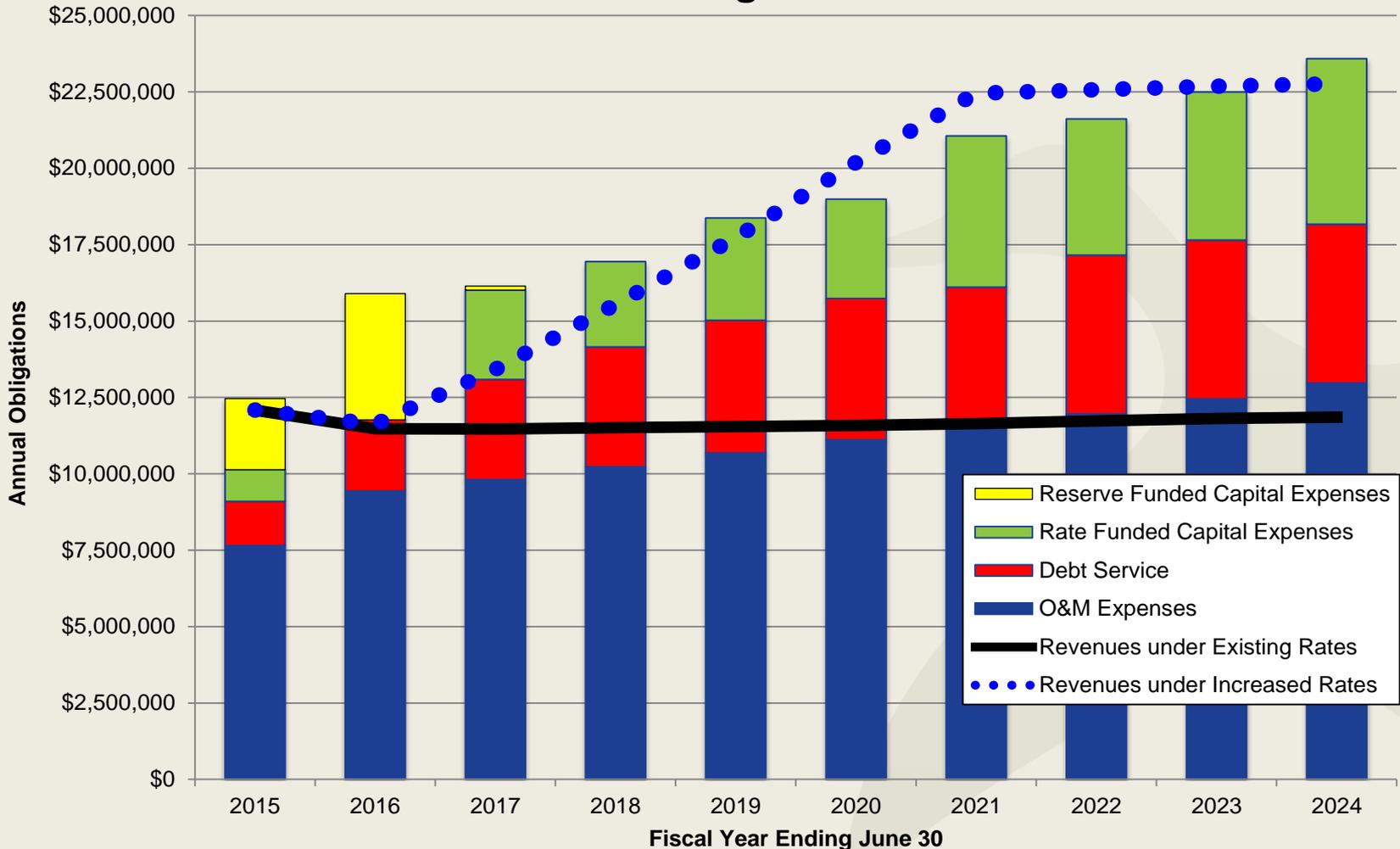


# Funding Allocation Over Time

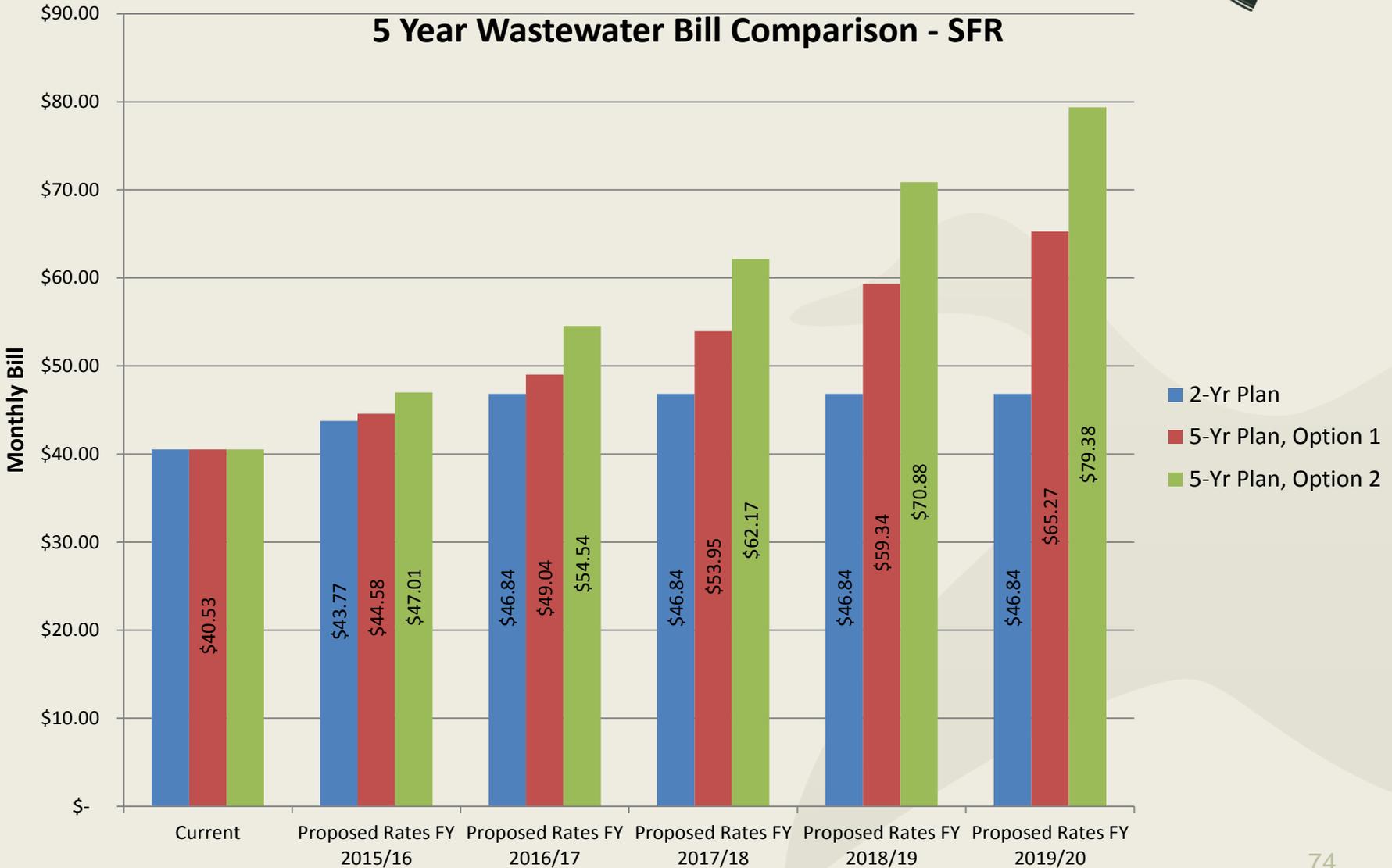
## 5-Year Rate Plan – Option 2



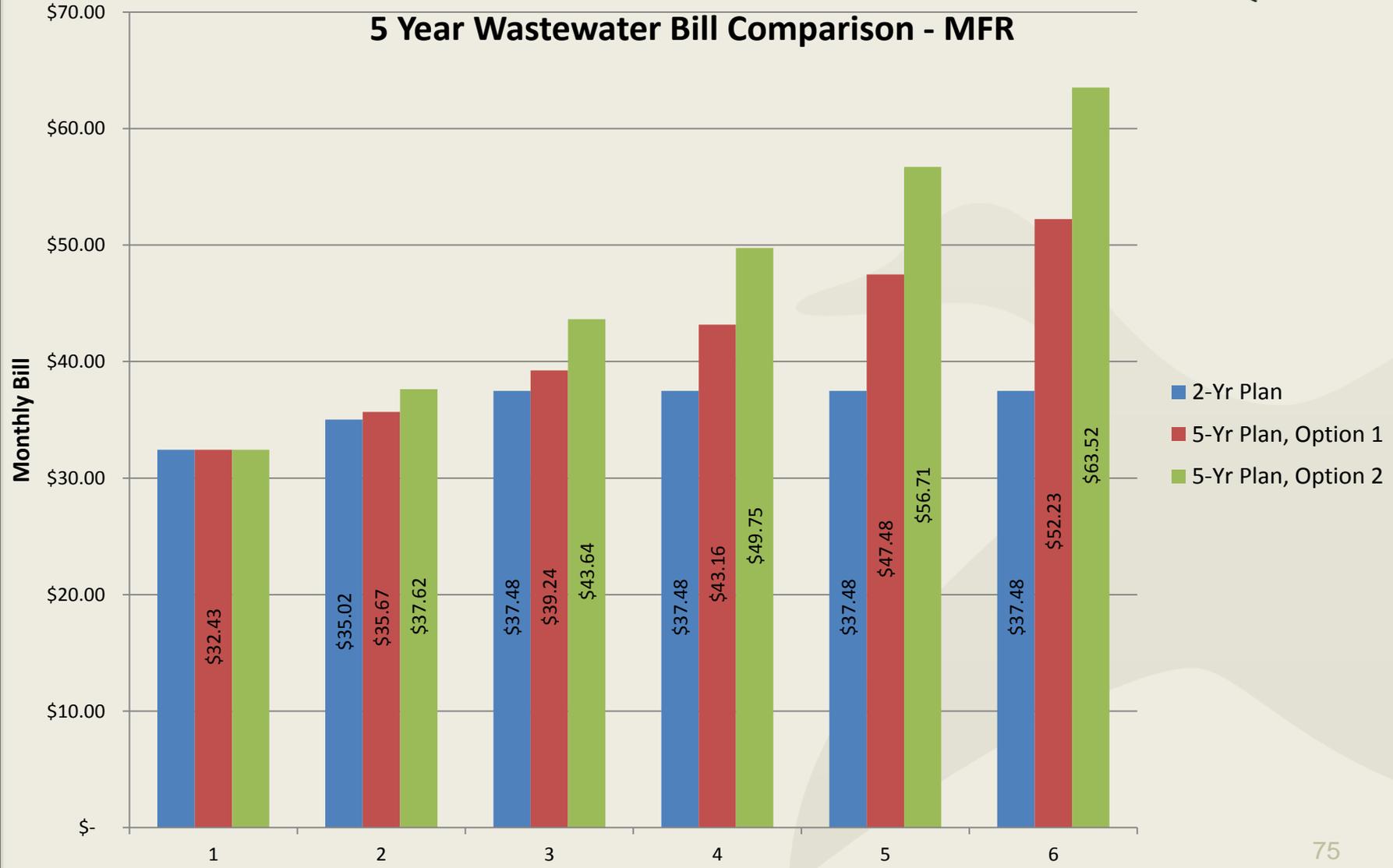
### Wastewater Revenue Requirements vs. Revenue Under Existing and Increased Rates



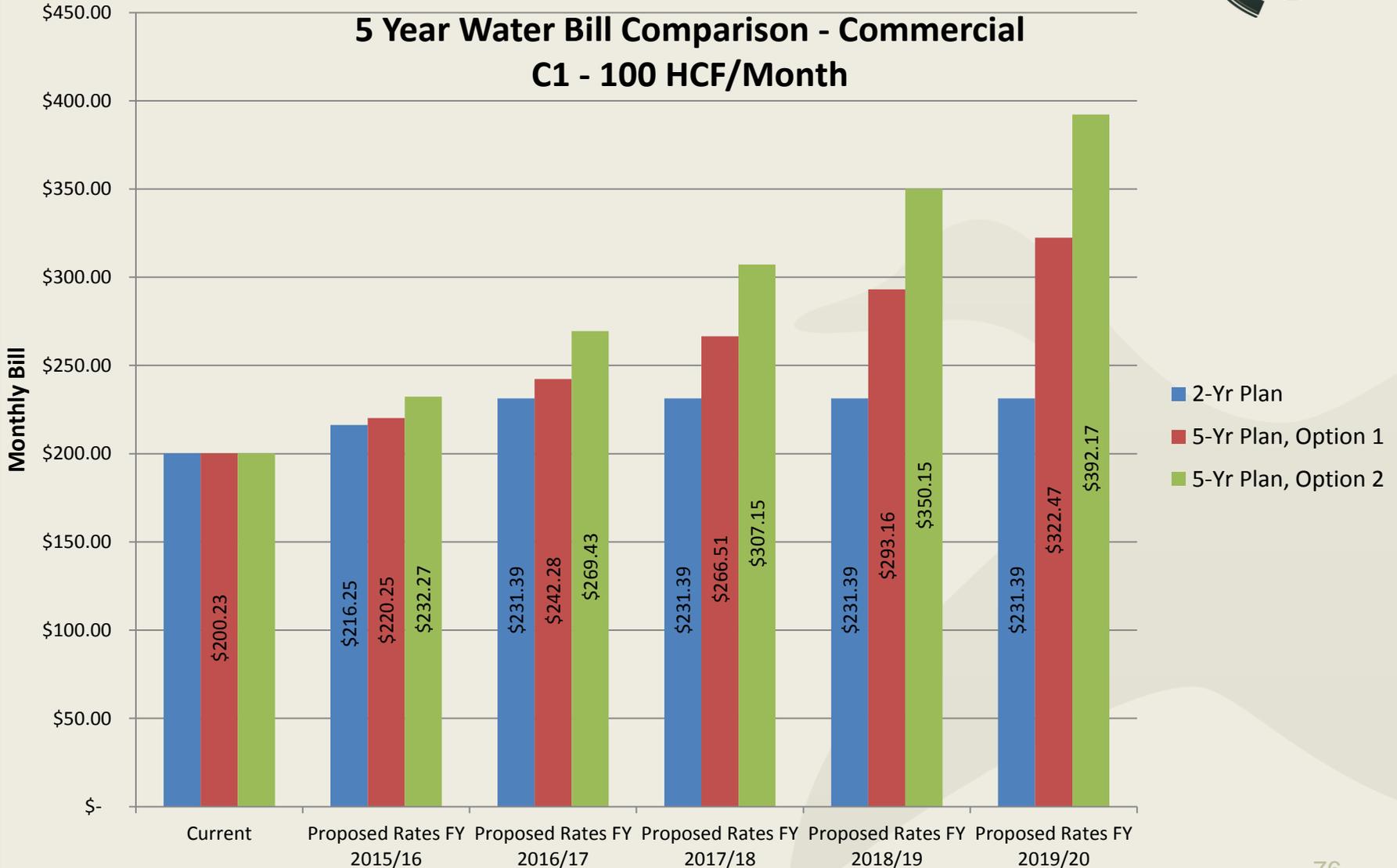
# Summary of Wastewater Rate Options – Single Family Residential



# Summary of Wastewater Rate Options – Multi-Family Residential



# Summary of Wastewater Rate Options – Commercial – C1 (100 HCF/Month)



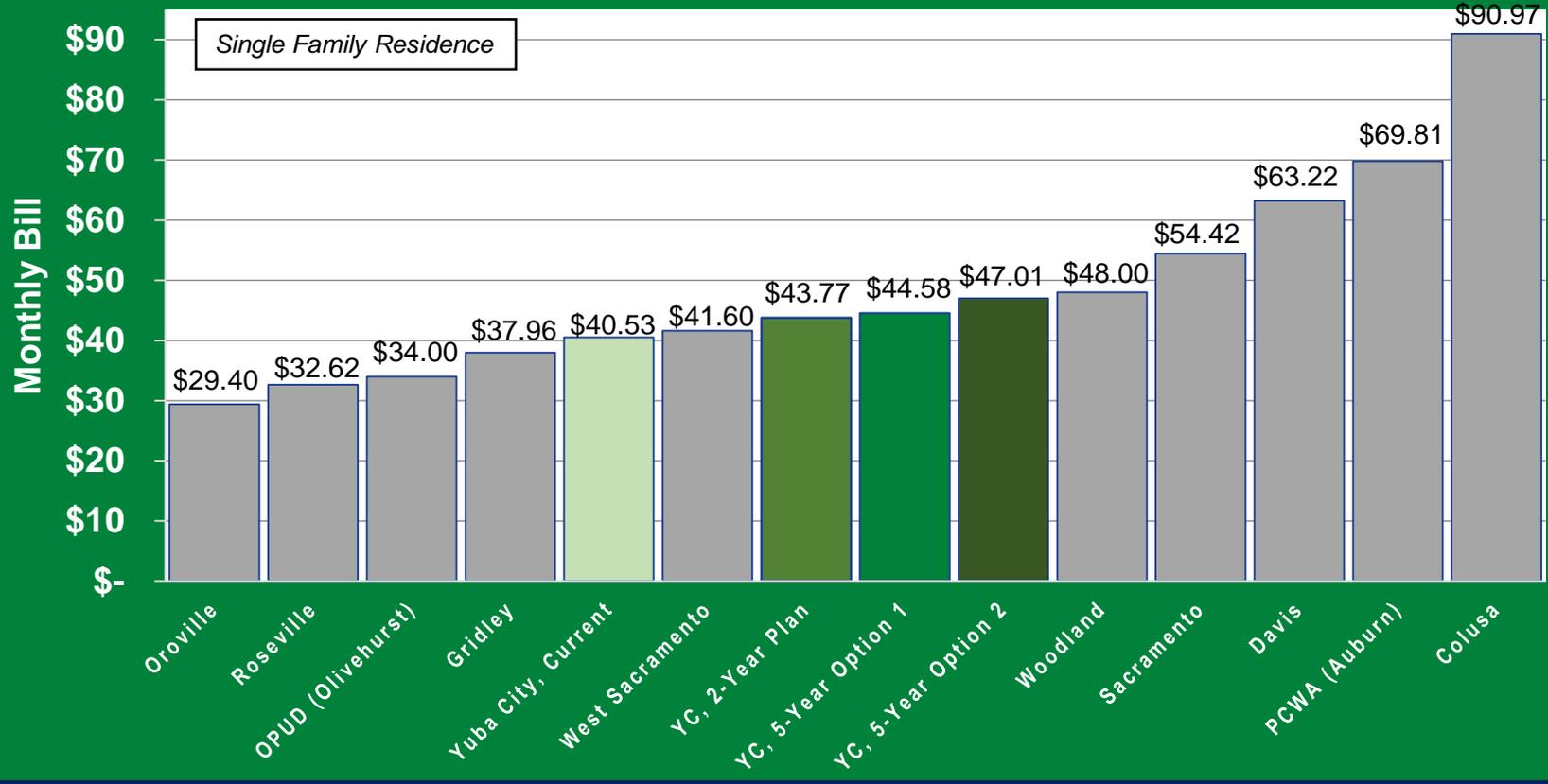
# Summary of Wastewater Rate Options – Industrial



# Comparison to Other Agencies



## CITY OF YUBA CITY - REGIONAL COMPARISON MONTHLY SEWER BILL

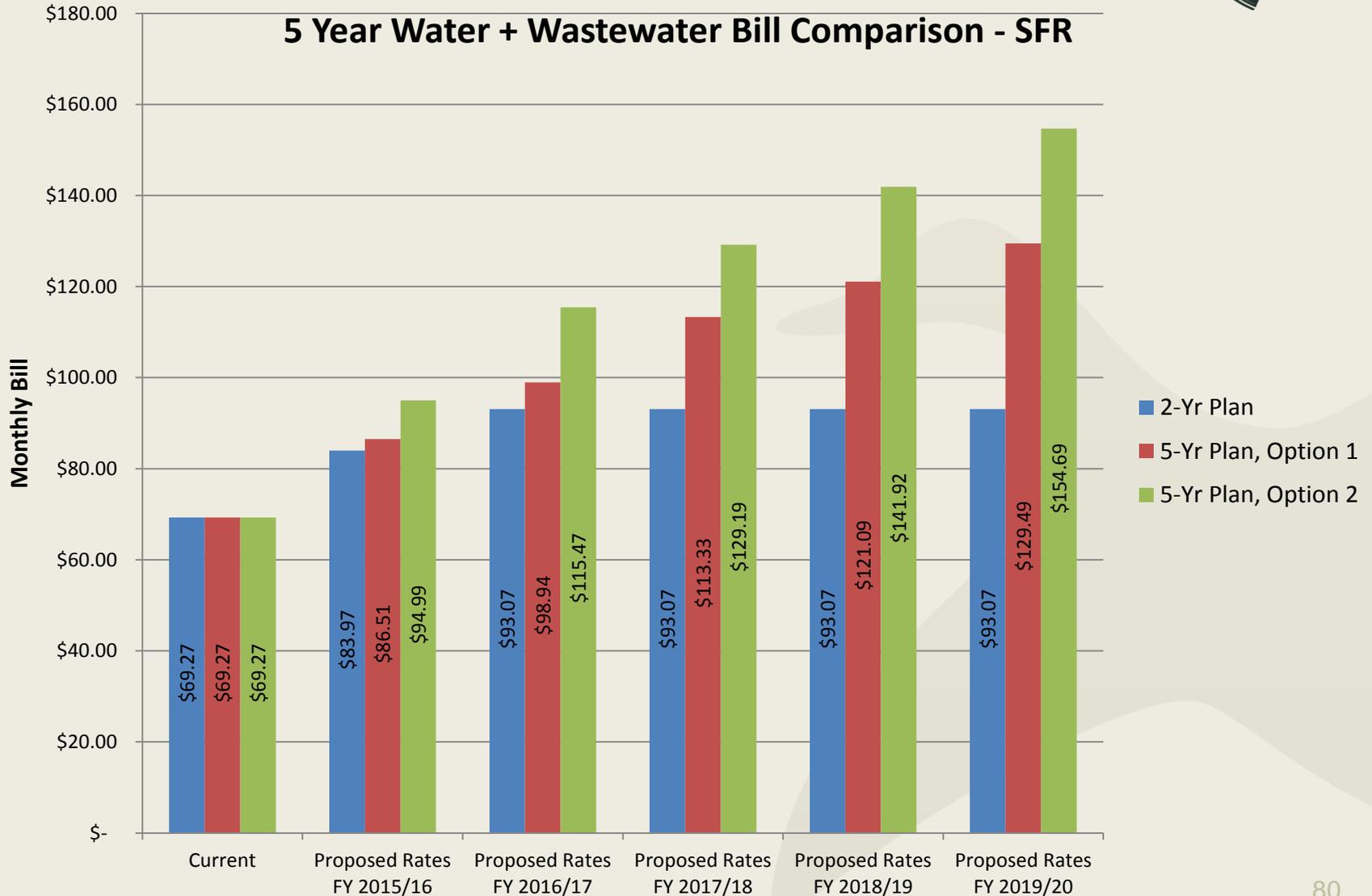


# Key Decision Point – Wastewater

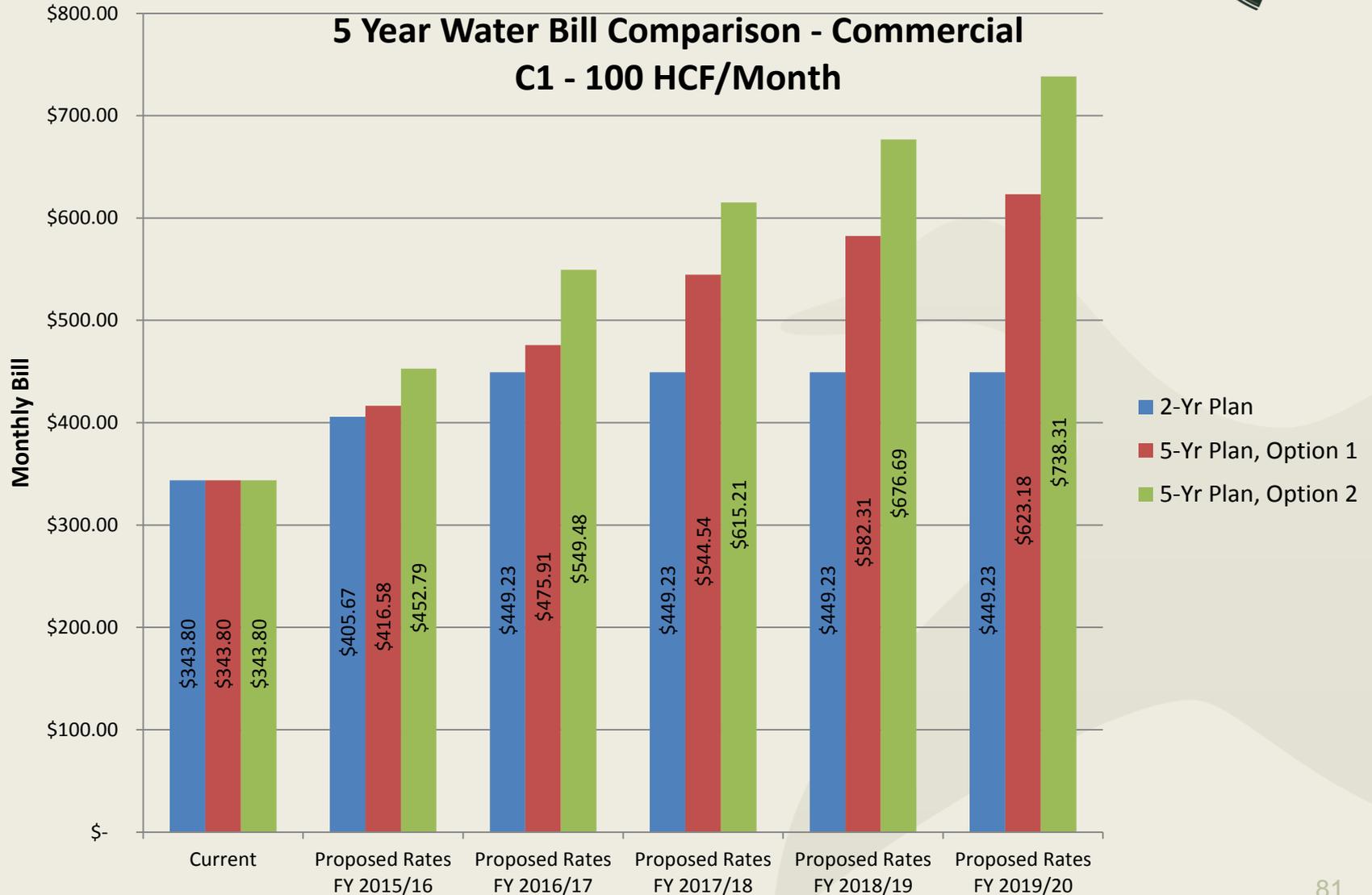


- Rate Plan
  - 2 Year Rate Plan
    - O&M Expenses + Debt Service
  - 5 Year Rate Plan – Option 1
    - O&M Expenses + Debt Service + Priority 1 & 2 Projects
  - 5 Year Rate Plan – Option 2
    - O&M Expenses + Debt Service + All Projects

# Water + Wastewater - Residential

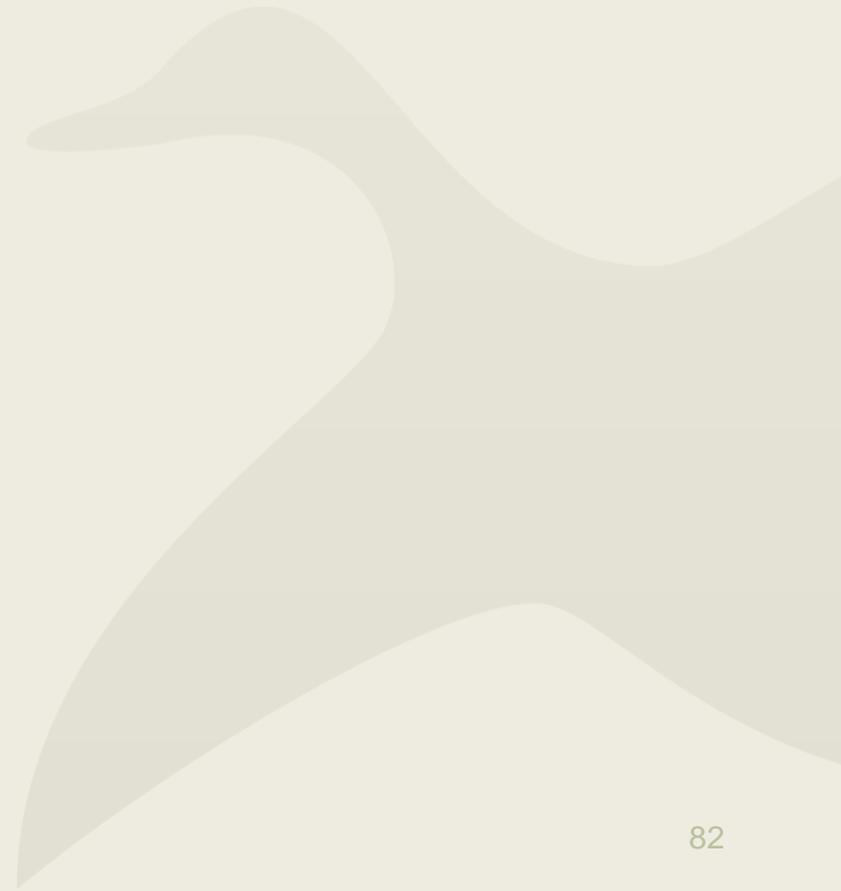


# Water + Wastewater – Commercial



# Water + Wastewater – Industrial

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# PROPOSITION 218 PROCESS

# Proposition 218 Process



- Approved “Guidelines for the Submission and Tabulation of Protests”
- Mail Notice of Public Hearing for Proposed Water and Wastewater Rate Increases at least 45 days prior to Protest Hearing
- Hold Protest Hearing
- Rate Increase is approved if written protests do not exceed 50% of the property owners or customers

# WRAP UP

# Next Steps

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- March 1 City Council Meeting
  - Accept and Adopt Rate Study
  - Approve Guidelines for the Submission and Tabulation of Protests
  - Set the Protest Hearing Date
  - Approve Notices for Proposition 218 Protest Hearing