



CITY *of* **EUREKA**

Water and Sewer Rate Study

February 21st 2017

Rate Study Elements

1 FINANCIAL PLAN / REVENUE REQUIREMENTS

Step 1: Compares current sources and uses of funds and determines the revenue needed from rates and projected rate adjustments.

2 COST-OF-SERVICE ANALYSIS

Step 2: Allocates revenue requirements to the customer classes in a "fair and equitable" manner that complies with Prop 218.

3 RATE DESIGN

Step 3: Considers what rate structure alternatives will best meet the City's need to collect rate revenue from each customer class.

▪ **Some Costs will be Identified as "Pass-Through" Costs**

- ✓ *Purchased Water Costs*

Provide Approval for the Following:

- Water:
 - ✓ Annual Rate Increases
 - ✓ Pass-Through Water Charges
 - ✓ Revised Rate Structure
- Sewer:
 - ✓ Choose Financial Plan Scenario with Annual Rate Increases
 - ✓ Revised Rate Structure

Water:

- Rate design: all customer classes have separate fixed charges
- Rate alternative: maintain current configuration of 67% fixed and 33% variable
- Implement pass-through for wholesale water purchase cost increases
- 4.75% annual revenue increases

Rate Study



Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		4.75%	4.75%	4.75%	4.75%	4.75%
Fixed Service Charge						
Monthly Fixed Service Charges:						
<i>Single Family Residential Fixed Service Charges:</i>						
5/8 inch	\$35.10	\$25.15	\$26.35	\$27.60	\$28.91	\$30.28
3/4 inch	\$35.10	\$25.15	\$26.35	\$27.60	\$28.91	\$30.28
1 inch	\$56.73	\$60.02	\$62.87	\$65.85	\$68.98	\$72.26
1 1/2 inch	\$92.80	\$187.85	\$196.77	\$206.12	\$215.91	\$226.16
2 inch	\$130.48	\$373.79	\$391.54	\$410.14	\$429.62	\$450.03
<i>Multi Family Residential Fixed Service Charges:</i>						
5/8 inch	\$35.10	\$33.10	\$34.67	\$36.32	\$38.04	\$39.85
3/4 inch	\$35.10	\$33.10	\$34.67	\$36.32	\$38.04	\$39.85
1 inch	\$56.73	\$79.88	\$83.67	\$87.65	\$91.81	\$96.17
1 1/2 inch	\$92.80	\$157.85	\$165.35	\$173.20	\$181.43	\$190.05
2 inch	\$130.48	\$251.42	\$263.36	\$275.87	\$288.97	\$302.70
3 inch	\$284.43	\$500.92	\$524.71	\$549.64	\$575.75	\$603.09
4 inch	\$464.81	\$781.61	\$818.74	\$857.63	\$898.37	\$941.04
6 inch	\$927.78	\$1,561.32	\$1,635.48	\$1,713.17	\$1,794.54	\$1,879.78
8 inch	\$1,470.53	\$2,496.97	\$2,615.57	\$2,739.81	\$2,869.95	\$3,006.27
Volumetric Charges for All Water Consumed						
Uniform Rate (per hcf) - Inside	\$2.06	\$2.15	\$2.25	\$2.36	\$2.47	\$2.59

Rate Study



Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		4.75%	4.75%	4.75%	4.75%	4.75%
Fixed Service Charge						
Monthly Fixed Service Charges:						
<i>Non-Residential Fixed Service Charges:</i>						
<i>Commercial</i>						
5/8 inch	\$35.10	\$47.38	\$49.64	\$51.99	\$54.46	\$57.05
3/4 inch	\$35.10	\$47.38	\$49.64	\$51.99	\$54.46	\$57.05
1 inch	\$56.73	\$115.60	\$121.09	\$126.84	\$132.87	\$139.18
1 1/2 inch	\$92.80	\$229.29	\$240.18	\$251.58	\$263.54	\$276.05
2 inch	\$130.48	\$365.71	\$383.08	\$401.28	\$420.34	\$440.31
3 inch	\$284.43	\$729.51	\$764.16	\$800.46	\$838.48	\$878.31
4 inch	\$464.81	\$1,138.79	\$1,192.88	\$1,249.54	\$1,308.90	\$1,371.07
6 inch	\$927.78	\$2,275.67	\$2,383.76	\$2,496.99	\$2,615.60	\$2,739.84
8 inch	\$1,470.53	\$3,639.92	\$3,812.82	\$3,993.92	\$4,183.64	\$4,382.36
Volumetric Charges for All Water Consumed						
Uniform Rate (per hcf) - Inside	\$2.06	\$2.15	\$2.25	\$2.36	\$2.47	\$2.59

*There may be additional pass-through charges added to volumetric consumption.
Additional charges will be determined on an annual basis.*

Sewer:

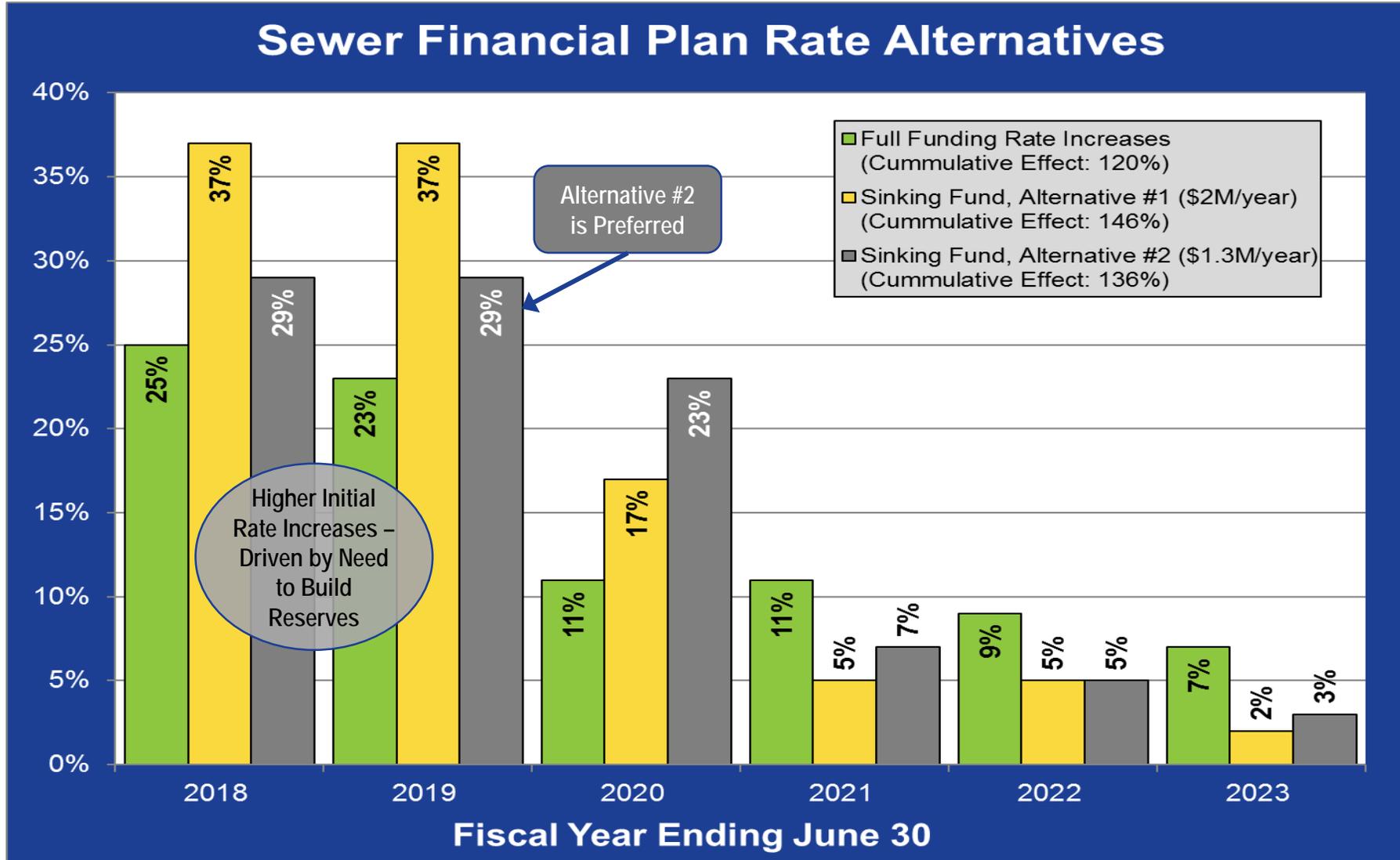
- Financial plan scenario:
 - Option 1: full funding rate increases
 - Option 2: \$2M annual sinking fund contribution
 - Option 3: \$1.3M annual sinking fund contribution
- Maintain existing customer classifications
- Maintain rate structure

Rate Study



Increase Rates Annually to:

1. Meet Revenue Requirements
2. Fund Capital R&R & Improvement
3. Maintain Appropriate Reserve Funds



Rate Study



Sewer Rate Schedule	Current Rates	Recommended Monthly Fixed Sewer Rates				
		FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		29.00%	29.00%	23.00%	7.00%	5.00%
Monthly Fixed Service Charges *						
Monthly Account Charge (<i>applies to all customer classes</i>)	--	\$1.61	\$2.08	\$2.56	\$2.74	\$2.88
Single Family Residential	\$11.54	\$13.69	\$17.66	\$21.72	\$23.24	\$24.40
Multi-Family Residential (per dwelling unit)	\$11.54	\$10.95	\$14.12	\$17.37	\$18.59	\$19.52
Commercial Light	\$11.54	\$13.69	\$17.66	\$21.72	\$23.24	\$24.40
Commercial Medium	\$14.04	\$13.69	\$17.66	\$21.72	\$23.24	\$24.40
Commercial Heavy	\$16.55	\$13.69	\$17.66	\$21.72	\$23.24	\$24.40
Volumetric Charge (\$/hcf) **						
Single Family Residential	\$5.07	\$5.15	\$6.64	\$8.17	\$8.74	\$9.18
Multi-Family Residential	\$5.07	\$5.15	\$6.64	\$8.17	\$8.74	\$9.18
Commercial Light	\$5.07	\$5.33	\$6.87	\$8.46	\$9.05	\$9.50
Commercial Medium	\$6.33	\$7.72	\$9.95	\$12.24	\$13.10	\$13.75
Commercial Heavy	\$7.58	\$11.35	\$14.65	\$18.01	\$19.27	\$20.24

* Current Rates are charged by HEU for Multi-Family only.

** One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons. Two units are included in the Base Charge.

Financial Plan:
Sinking Fund, Alternative #2

Why?

Projects – FY 2016/17

- **Water Supply**
 - Mad River Pipeline Phase 6
 - Water Improvement Project (Buhne, Harrsion to S street)
 - Lundbar Hills Pump Station Upgrade

- **Wastewater Collection**
 - Old Town Sewer Repair
 - 3rd and Y Lift Station Backup Generator

Projects – FY 2016/17



- Wastewater Treatment
 - Digester Cover Replacement
 - Trickling Filter Pump Replacement
 - Motor Control Center Upgrade Project
 - Facultative Sludge Lagoon Cleaning
 - Crosstown Interceptor Cathodic Protection Analysis
 - Recycled Water Pumps Replacement

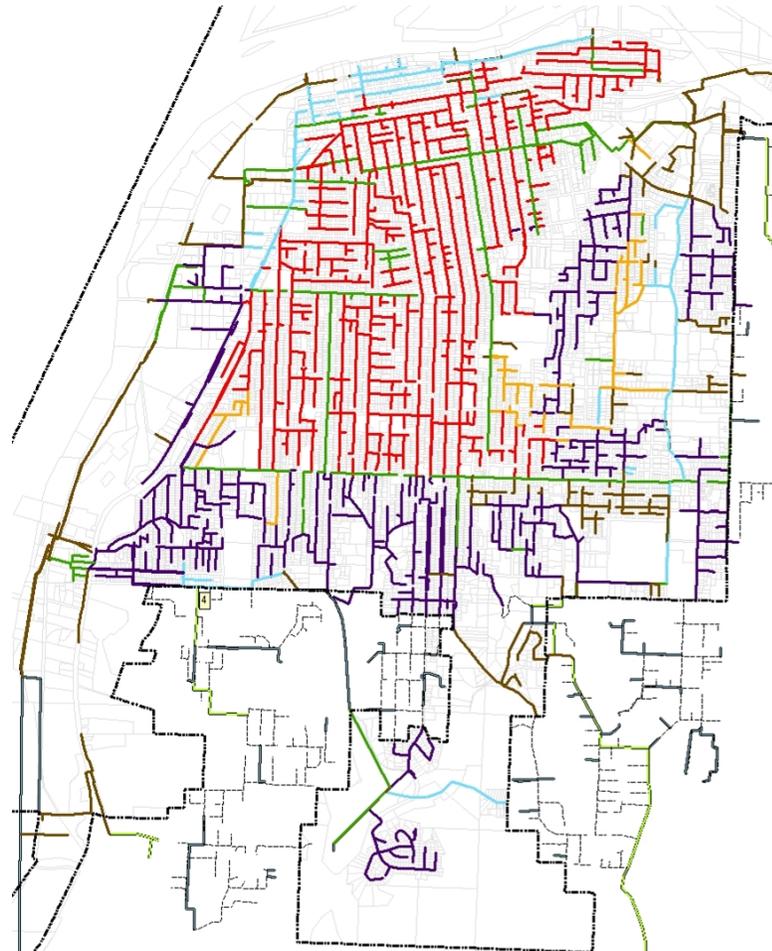
Water Supply Facilities

Capital Improvement Program 2017/18 FIVE YEAR SUMMARY	
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WATER SUPPLY

Page #	Project Name	(Thousands of Dollars)					
		Total Project Cost	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		2017 Dollars	17-18	18-19	19-20	20-21	21-22
PG. 5-3	WATER DIST'N SYSTEM ANNUAL MAINTENANCE & REPAIR	\$ 2,500	\$ 515	\$ 530	\$ 545	\$ 560	\$ 575
PG. 5-5	RESERVOIR MAINTENANCE & SECURITY PROGRAM	\$ 422	\$ 422	\$ -	\$ -	\$ -	\$ -
PG 5-6	LUNDBAR HILLS BOOSTER PUMP STATION REHABILITATION	\$ 206	\$ 206	\$ -	\$ -	\$ -	\$ -
PG 5-7	HIGH TANK PUMP STATION REPLACEMENT	\$ 360	\$ -	\$ 66	\$ 360	\$ -	\$ -
PG 5-8	CORROSION CONTROL WATER STORAGE TANKS	\$ 30	\$ 30	\$ -	\$ -	\$ -	\$ -
PG 5-9	AUTOMATED METER READ (AMR) UPDATE	\$ 3,000	\$ -	\$ -	\$ -	\$ 3,278	\$ -
TOTAL		\$ 6,518	\$ 1,173	\$ 596	\$ 905	\$ 3,838	\$ 575

Wastewater & Sewer



System age

- Before 1920
- 1921-1950
- 1950-1970
- 1970-1990
- 1990-Present
- Unknown

Pipe Age	Total Feet	% of System
Before 1920	193,585	35%
1921 - 1950	21,874	4%
1950 - 1970	175,739	32%
1970 - 1990	39,145	7%
1990 - Present	48,861	9%
Unknown	74,376	13%

Wastewater & Sewer

Capital Improvement Program 2017/18 FIVE YEAR SUMMARY	
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WASTEWATER - COLLECTION

Page #	Project Name	(Thousands of Dollars)					
		Total Project Cost	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		2017 Dollars	17-18	18-19	19-20	20-21	21-22
PG. 6-3	WASTEWATER INFLOW & INFILTRATION REDUCTION PROGRAM	\$ 6,000	\$ 2,000	\$ 1,030	\$ 1,070	\$ 1,110	\$ 1,140
PG. 6-4	WASTEWATER COLLECTION SYSTEM MAINTENANCE	\$ 2,000	\$ -	\$ 516	\$ 530	\$ 546	\$ 560
PG. 6-5	WASTEWATER LIFT STATION UPGRADE PROGRAM	\$ 928	\$ 258	\$ 212	\$ 273	\$ 225	\$ -
TOTAL \$		8,928	\$ 2,258	\$ 1,758	\$ 1,873	\$ 1,881	\$ 1,700

Rate Study

Wastewater & Sewer



Capital Improvement Program 2017/18 FIVE YEAR SUMMARY	
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WASTEWATER - TREATMENT

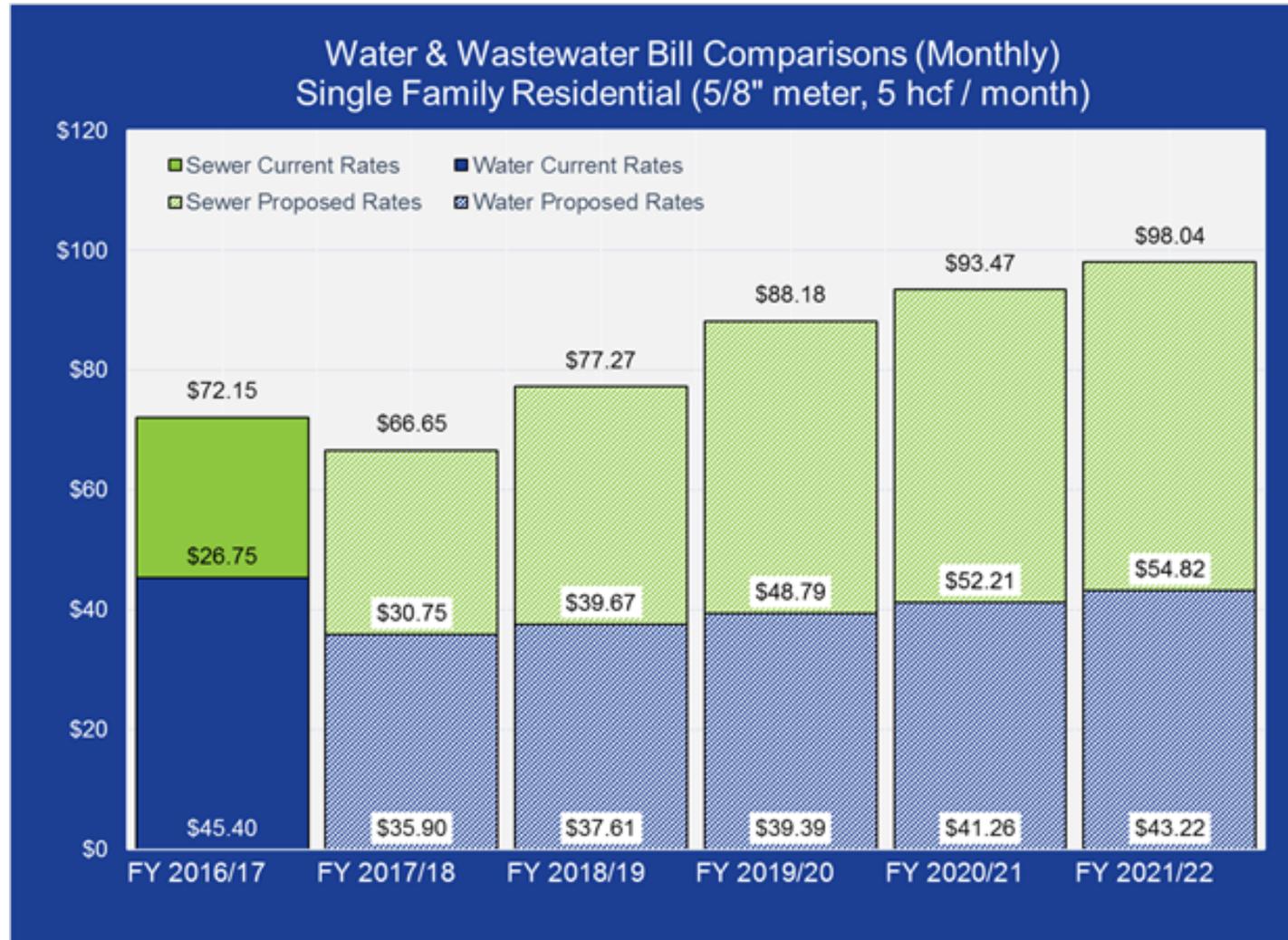
Page #	Project Name	(Thousands of Dollars)					
		Total Project Cost	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		2017 Dollars	17-18	18-19	19-20	20-21	21-22
PG 6-6	CROSS TOWN INTERCEPTOR MAINTENANCE	\$ 525	\$ 60	\$ 479	\$ -	\$ -	\$ -
PG 6-7	WWTP ROOF REPLACEMENT	\$ 200	\$ 100	\$ 103	\$ -	\$ -	\$ -
PG 6-8	ODOR CONTROL TOWER REPAIR	\$ 396	\$ 396	\$ -	\$ -	\$ -	\$ -
PG 6-9	WASTEWATER PUMP STATION UPGRADE PROGRAM	\$ 775	\$ -	\$ 232	\$ 239	\$ 405	\$ -
PG 6-10	WATER PUMPS WWTP	\$ 35	\$ -	\$ -	\$ -	\$ 38	\$ -
PG 6-11	WWTP COMBINED HEAT & POWER REPLACEMENT PROJECT	\$ 3,050	\$ 50	\$ -	\$ 3,183	\$ -	\$ -
PG 6-12	SECONDARY CLARIFIER MAINTENANCE	\$ 1,100	\$ 50	\$ 1,082	\$ -	\$ -	\$ -
PG 6-13	WWTP BIOSOLIDS MANAGEMENT	\$ 545	\$ 145	\$ 103	\$ 106	\$ 109	\$ 112
PG 6-14	PRIMARY CLARIFIER EQUIPMENT	\$ 200	\$ 200	\$ -	\$ -	\$ -	\$ -
PG 6-15	WWTP OVERFLOW MARSH VEGETATION REMOVAL	\$ 100	\$ 100	\$ -	\$ -	\$ -	\$ -
PG 6-16	GRIT CLASSIFIER WWTP	\$ 90	\$ 90	\$ -	\$ -	\$ -	\$ -
TOTAL		\$ 7,016	\$ 1,191	\$ 1,999	\$ 3,528	\$ 552	\$ 112

Wastewater & Sewer

- \$16M in capital projects in the next five years
- Significant upgrades at WWTP
- Ongoing maintenance at WWTP as components and the facility itself near the end of their useful lives
- Unknown additional projects in subsequent years

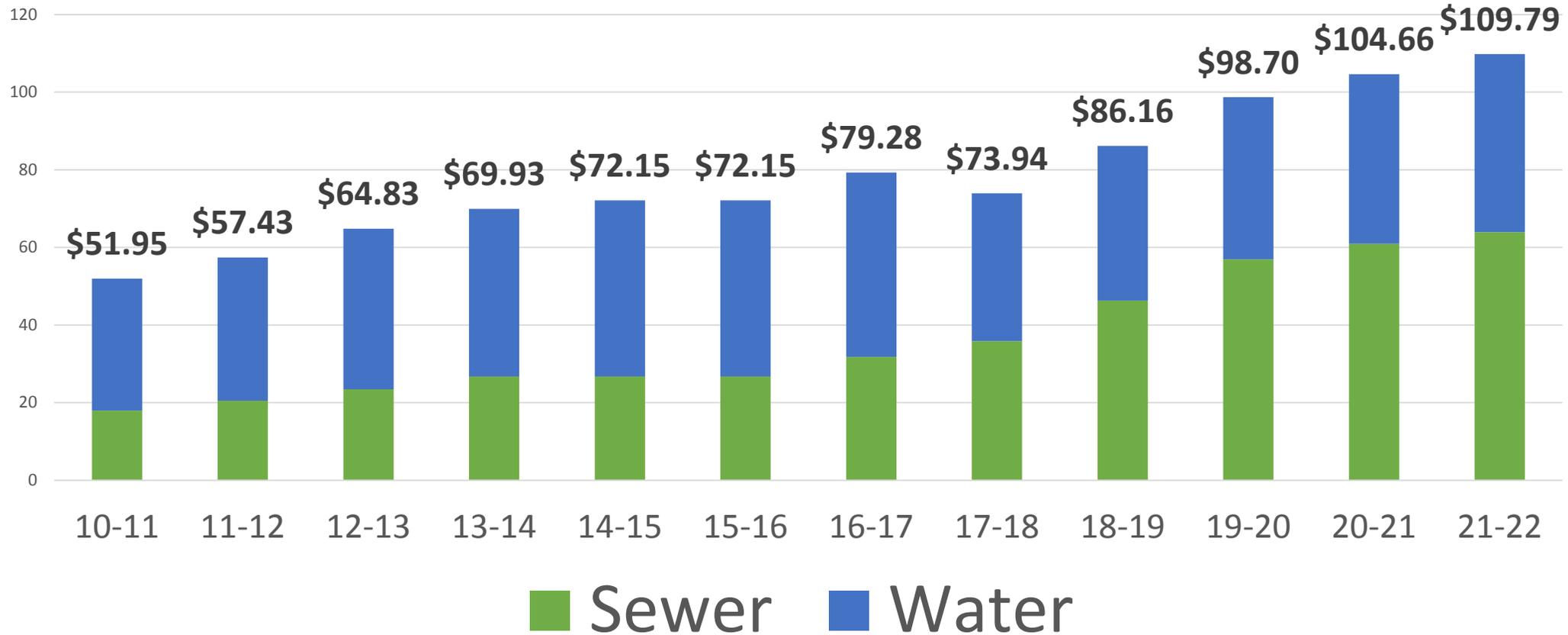
***What does it
mean?***

SRF Bill Comparison – Water & Sewer

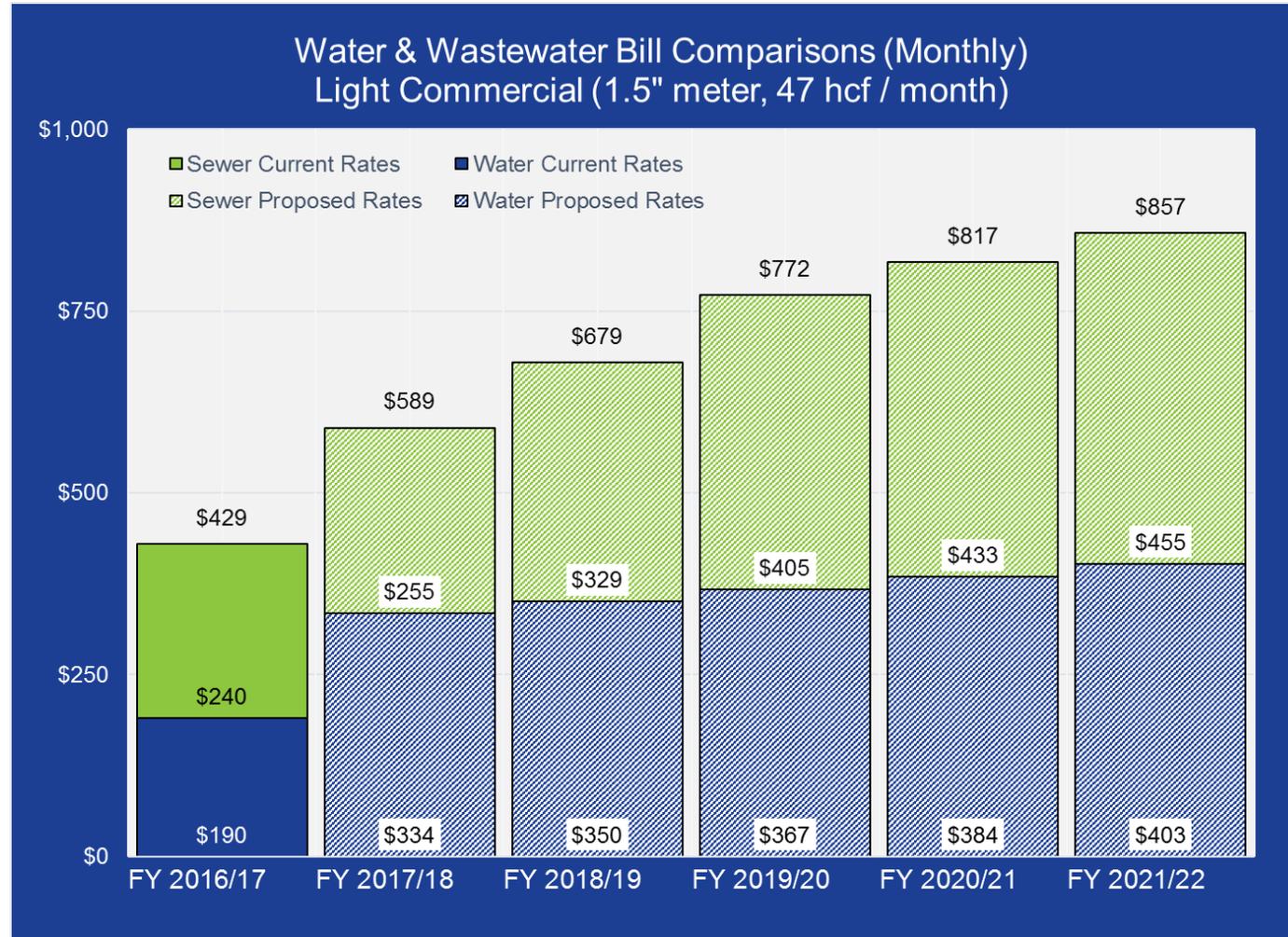


SRF Bill 10-YR Trend – Water & Sewer

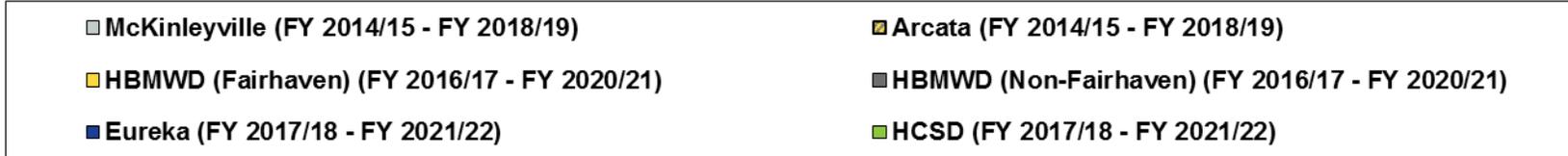
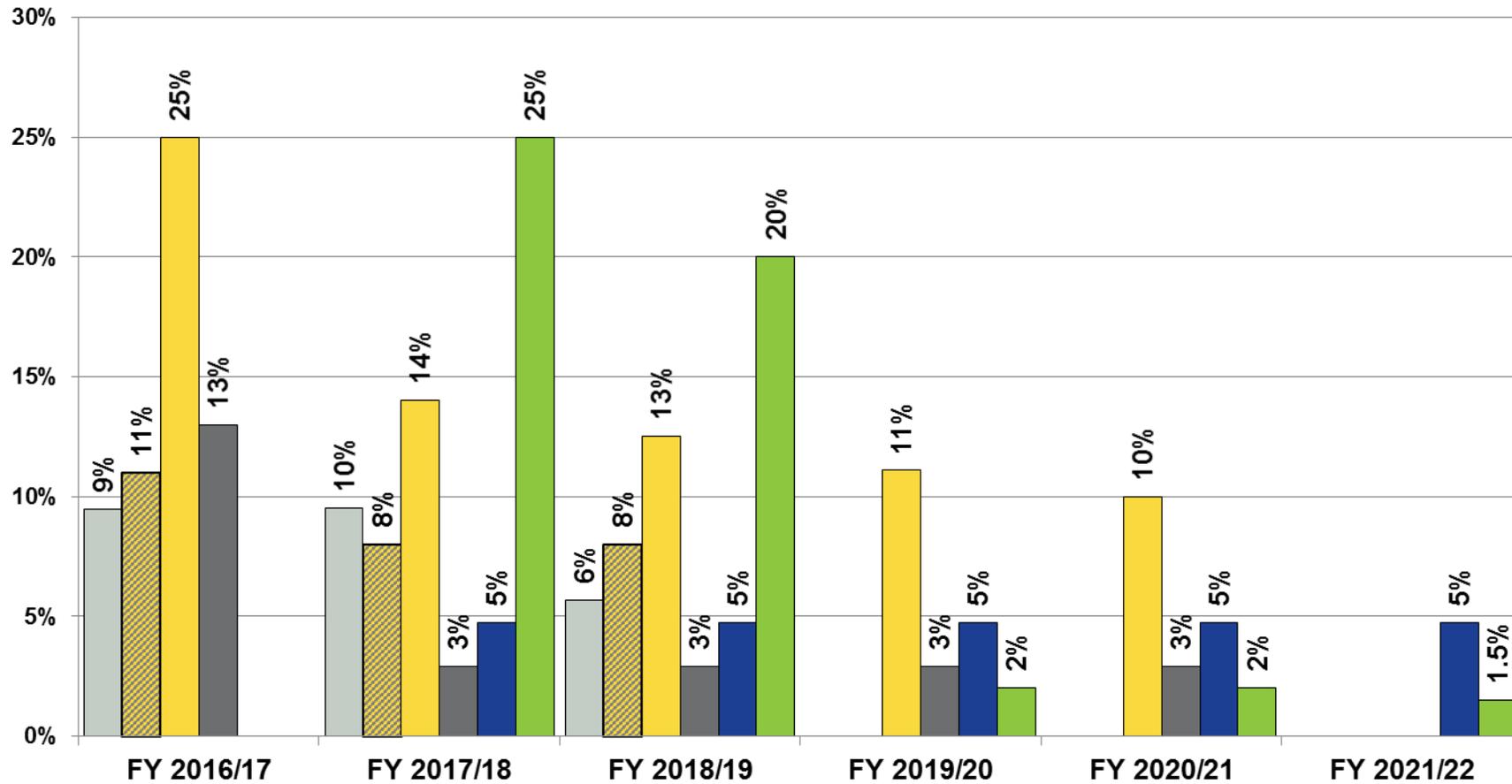
Total Bill Comparison SFR (6 Units Consumption)



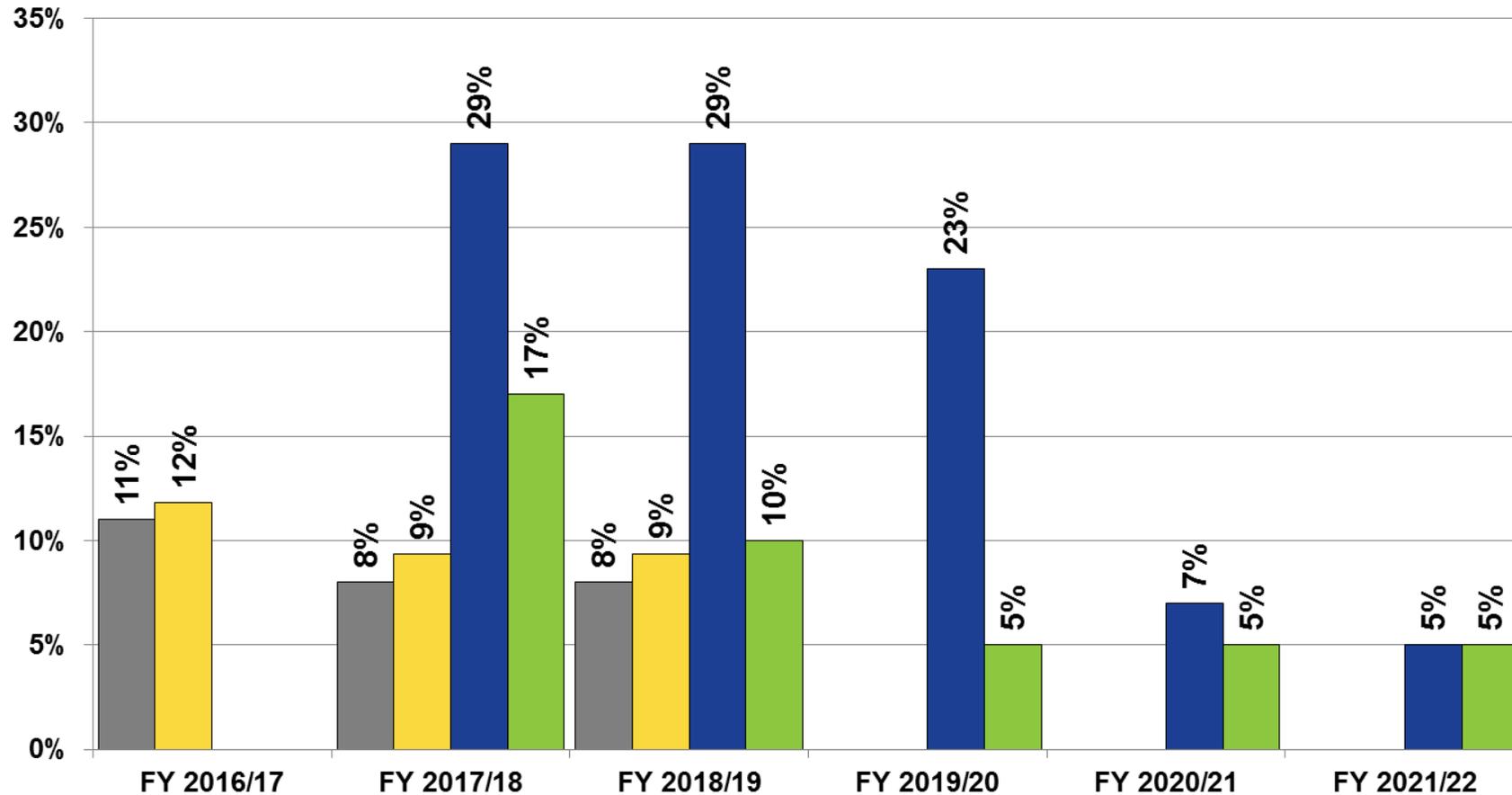
Comm. Bill Comparison – Water & Sewer



Projected Regional Rate Increases - Water

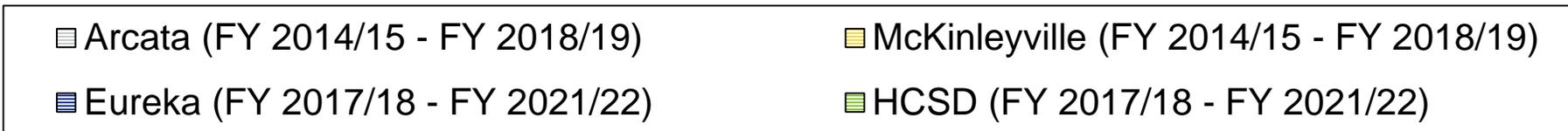
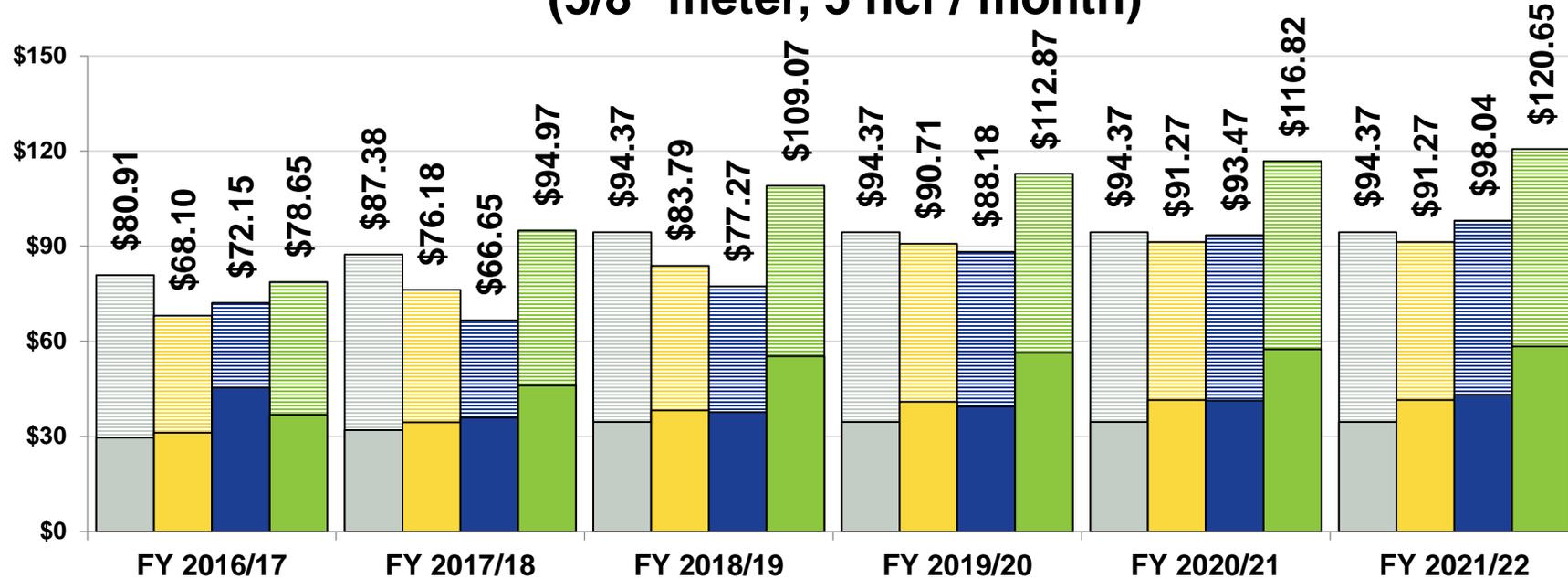


Projected Regional Rate Increases - Sewer



Projected Regional Increases

Regional Water & Wastewater Bill Comparisons (Monthly) Single Family Residential (5/8" meter, 5 hcf / month)



Solid portion represents water bill; shaded portion represents sewer bill. HCSD rates subject to change. Rates calculated using available,

Rate Study



Next Steps:

- Key customer outreach
- Proposition 218 process

Questions?