

City of Banning

City Council Briefing

For Discussion Purposes Only

August 23, 2022
Black & Veatch



BLACK & VEATCH

Agenda

- Background
- Rate Study Objectives
- Water Utility
- Wastewater Utility
- Benchmarking

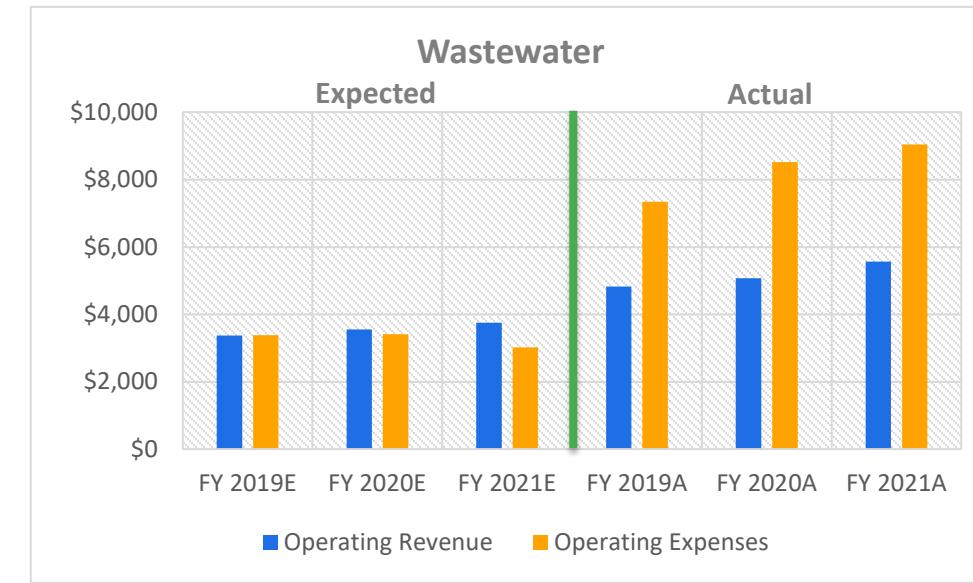
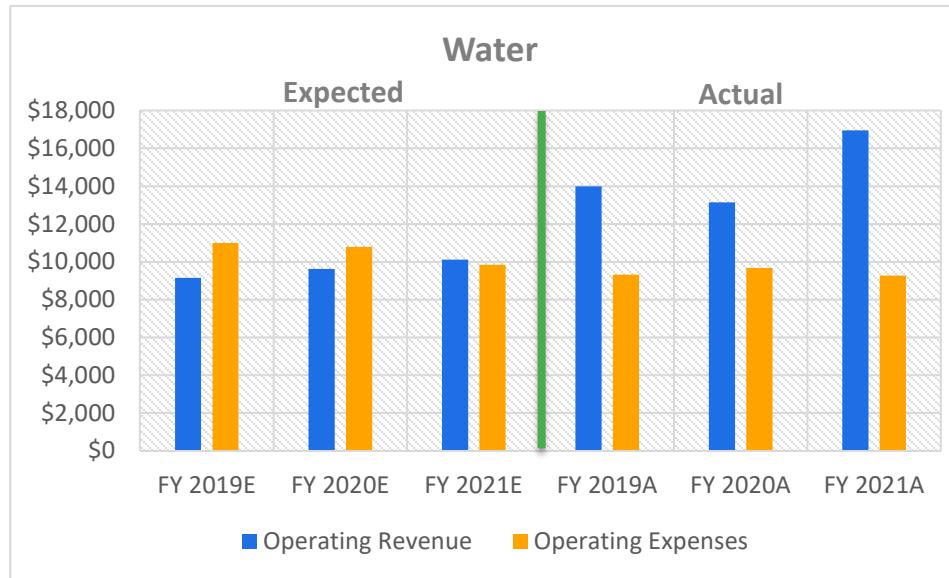
Background

- In 2016-17, the City engaged Willdan to perform a water and wastewater rate study. The recommendations for FY 2018 to FY 2023 were presented to City Council in 2017. These represented:
 - Water capital needs of \$95.75 million and cumulative increase of 62%
 - Wastewater capital needs of \$43.0 millions and cumulative increase of 29%
- City Council directed staff to re-evaluate projects and prioritize to allow for annual increases of 3% per year. This resulted in:
 - Water capital of \$7.07 million and cumulative increase of 15.9%
 - Wastewater capital of \$0.46 million and cumulative increase of 15.9%

Consumer Price Index had cumulative increase of 21.4% (July 2018 to July 2022)

Background

- Comparison of budgeted versus actual for FY 2019 to FY 2021.



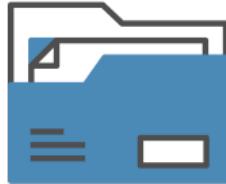
- In 2021, the City engaged Black & Veatch to conduct a new water and wastewater rate study.

Rate Study Objectives

- The City engaged Black & Veatch to perform independent water and wastewater rate study.
- Components of rate setting:



Financial Planning
Compare revenues and expenses and establish operating and capital financing plans that fully fund activities



Cost of Service
Equitably allocate the revenue requirements between the customer classes

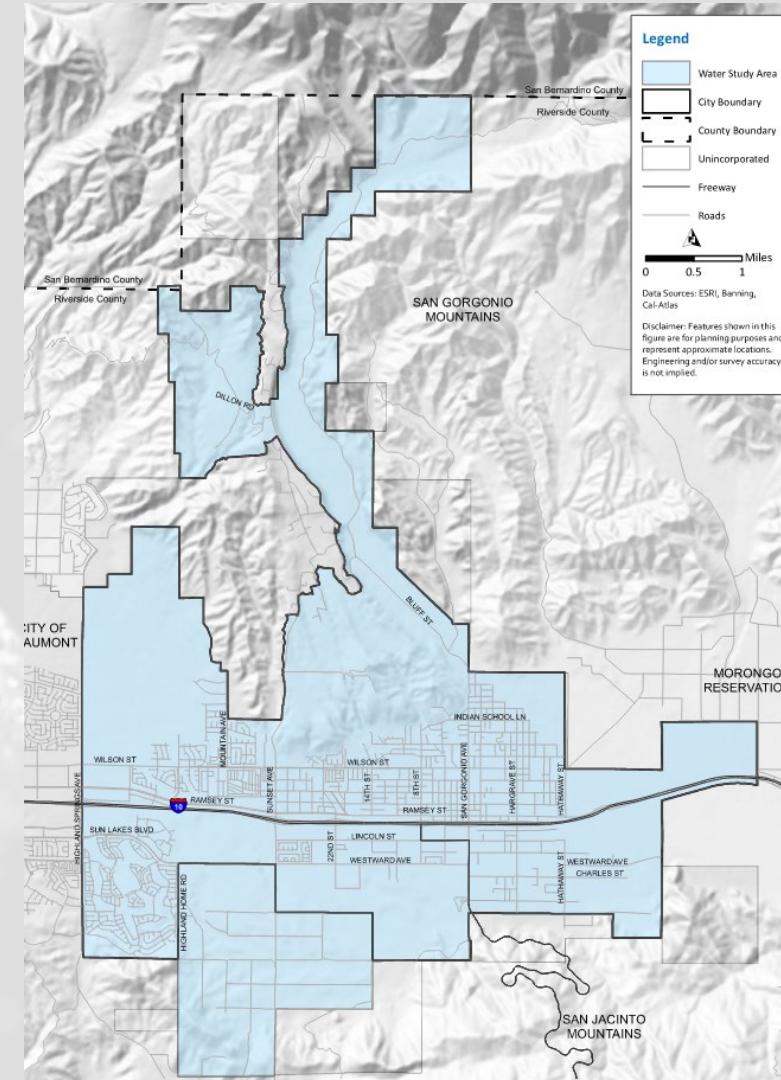


Rate Design
Review the existing rate structure and design proposed rates that provide adequate revenues

Budget & Finance Committee

- Rate study results were presented to the Budget & Finance Committee in April and June of 2022.
- Recommendations from Committee:
 - Increase operating reserve from 45 days to 90 days of operating expenses to be consistent with industry standards.
 - Examine the possibility of different tier break points and the addition of a fourth tier.
 - Incorporate drought surcharges that only apply should the City experience drought cutback.
 - Separate residential and commercial customer rates for wastewater.

Water Utility



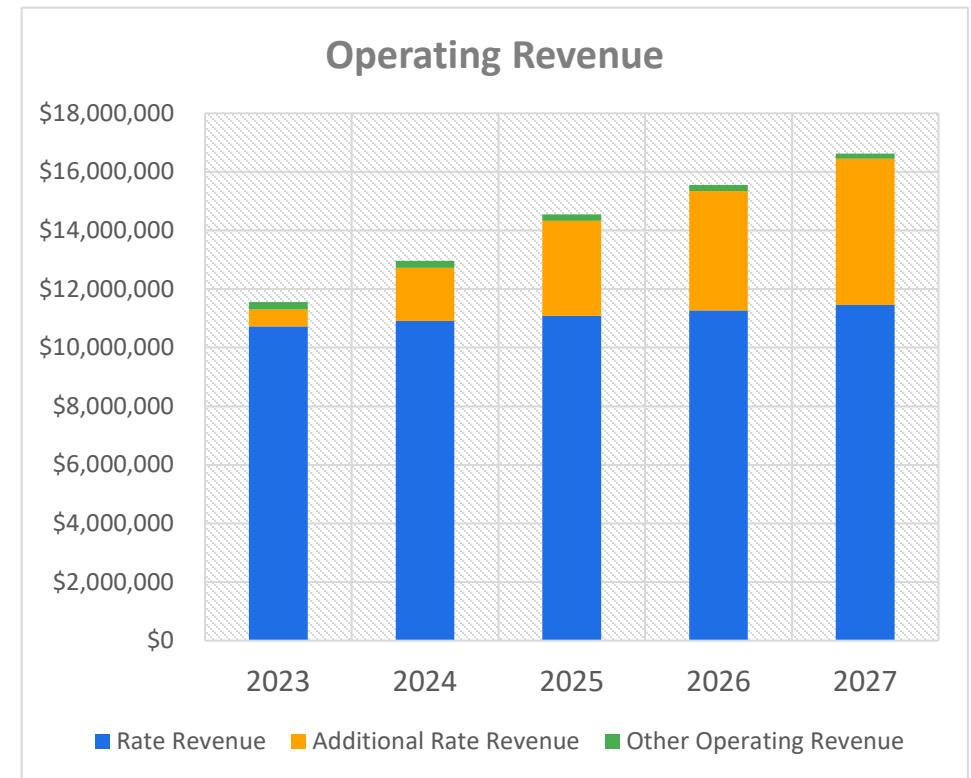
Water Operating Revenue

Water operating revenue:

- The 5-year operating revenues are composed of:
 - **Reserves**: The use of \$12.8M of operating funds on hand to minimize rate impacts to the extent possible while maintaining reserve levels
 - **Rates**: Revenue from existing rates are expected to generate \$55.5M and an additional \$14.7M is expected from rate increases
 - **Other Operating Revenue**: Other operating income such as meter installations and connections, delinquent reconnect fees, backflow charges, interest income, etc. is expected at \$1.1M

Water capital funds:

- The 5-year capital financing are composed of:
 - **Reserves**: The use of \$5.4M of capital funds on hand to help cover the costs of CIP
 - **Rates**: Transfer in \$5.0M from operating rate revenue
 - **Grants**: Future grant funding of \$1.0M



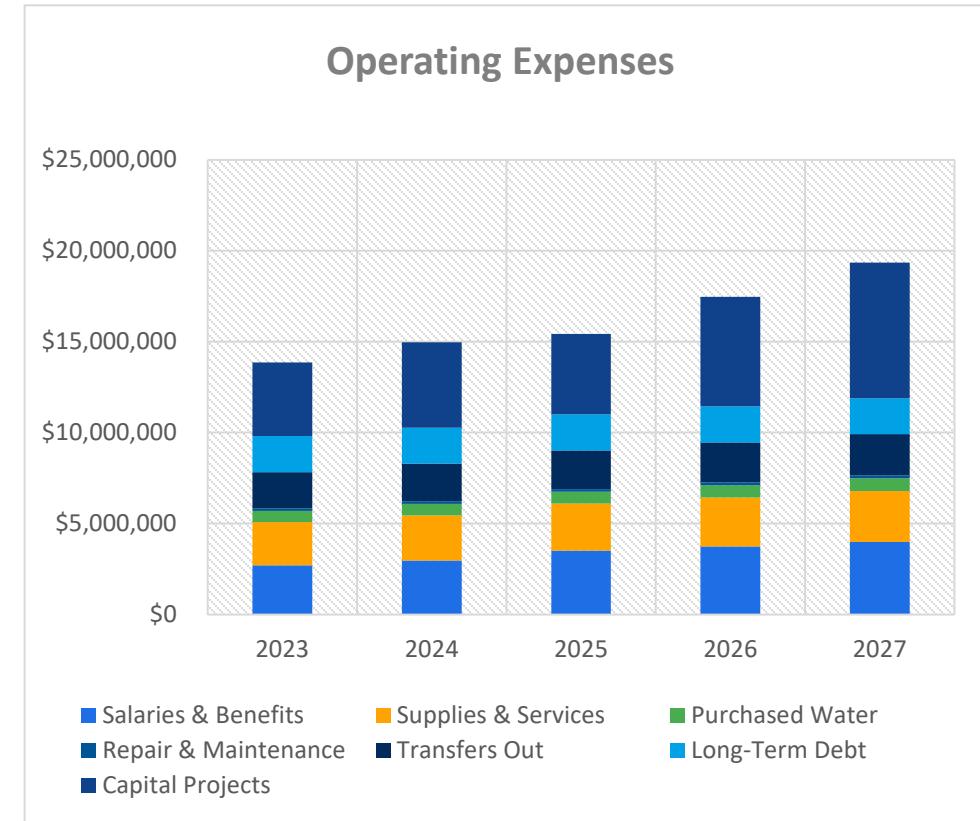
Water Operating and Capital Needs

Water operating needs:

- The 5-year O&M costs identified is \$44.9M
- Major operating cost increases planned for in the next 5-years:
 - Add 10 new staffing positions starting FY 2023
 - Increase in water purchases from SGPWA and BCVWD
 - Increase in special program – water rebates

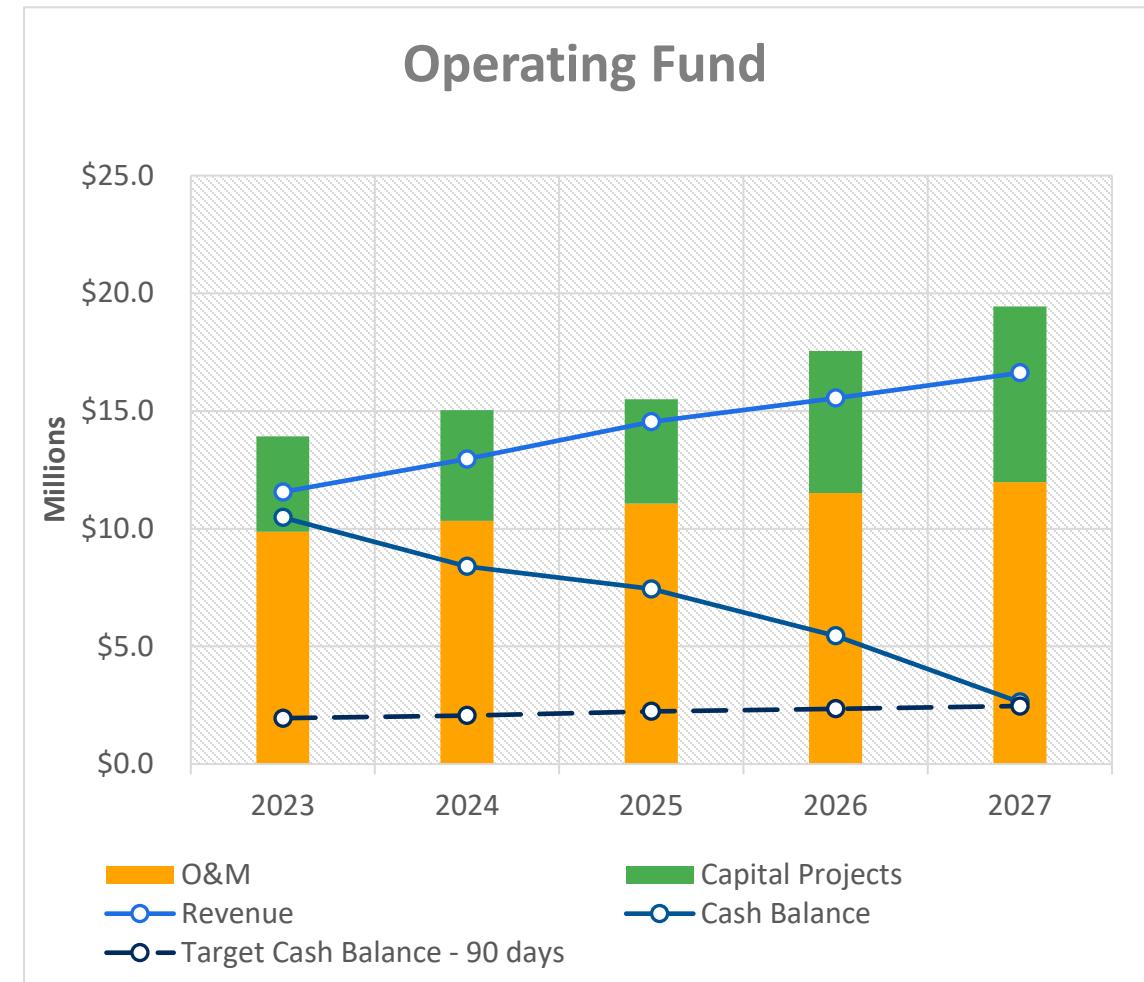
Water capital needs:

- The 10-year CIP identifies over \$52.4M of improvements needed
- Major projects planned for in the next 5-years total \$31.0M:
 - Annual Water Main Replacements
 - Needed to replace aging infrastructure as required by AB 1668 and SB 606
 - Needed to reduce water losses (13% water loss)
 - Fire Flow improvements
 - Needed to ensure sufficient fire flow capacity and storage to meet fire demand needs
 - Well Rehabilitation and Upgrades
 - Needed to keep well production reliable and cost effective



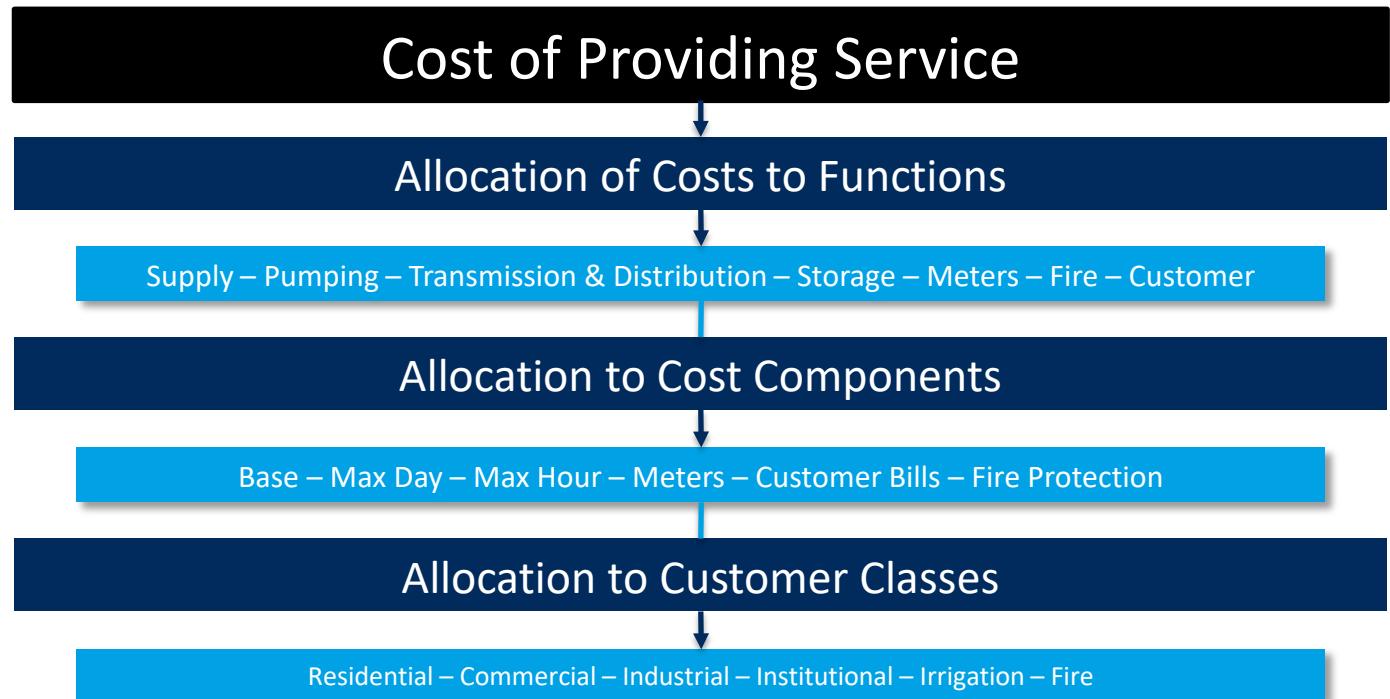
Water Financial Plan

- The utility needs revenue increases of:
 - 10.75% per year from 1/1/2023 to 1/1/2027
- City transitioned to Level 2 of the Water Shortage Contingency Plan
 - Level 2 requires 20% water conservation (or 10% more than Level 1)
- Updated O&M escalation factors due to inflation
- The utility will draw down in funds on hand for the 5-year period
- The utility will increase the operating reserve requirement from 10% of O&M expenses and debt service payments to 90 days (~25%) of O&M expenses



Cost of Service Analysis

- Cost of Service is the process of determining the level of revenue required from rates and charges to properly and prudently operate, maintain, and develop the system
- The cost-of-service analysis follows ratemaking guidelines in AWWA M1 and allocates costs to the customer groups based on demand characteristics of each customer group



Water Rates (Fixed Fee)

The following describes the fixed charges:

- Existing Rate Structure
 - Fixed charge based on meter size
 - No fixed private fire protection
- Proposed Rate Structure
 - Fixed charge based on meter size
 - New fixed private fire protection charge based on connection size
- Cost elements included in fixed charge
 - Meters & Services
 - Customer Billing
 - Public Fire Protection

Description	Existing 2022	Proposed 2023
Monthly Fixed Charge (\$/Month)		
5/8"	24.28	25.84
3/4"	24.28	25.84
1"	36.81	38.53
1-1/2"	68.10	70.24
2"	105.66	108.29
3"	193.33	209.76
4"	318.60	323.92
6"	631.56	641.03
8"	1,007.21	1,021.56
Monthly Fixed Fire Protection (\$/Month)		
2"	1.15	
4"	7.12	
6"	44.07	
8"	128.00	
10"	272.78	
12"	490.55	

Water Rates (Volumetric Fee)

The following describes the volumetric charges:

- Proposed Rate Structure:
 - Three tier inclining rate structure for all customers
 - The three-tier structure reduces the consumption allowance in each tier
 - First tier break point is based on 3.3 people x 55 gallons per capita per day for 30.4 days
 - Second tier break point is based on average typical usage for SFR inside city
 - Removal of uniform rate structure for parks and city
 - Drought surcharge can be imposed should the City impose additional water consumption restrictions
 - Cost elements included in fixed charge
 - Base Costs (Average Day Flow)
 - Peaking Costs (Max Day and Max Hour)

Customer Class	Existing 2022*	Proposed 2023
Consumption Charge (\$/HCF)		
All Customers		
Tier 1 (0-7 HCF)	2.13	2.43
Tier 2 (8-15 HCF)	2.71	2.62
Tier 3 (16+ HCF)	3.06	3.16

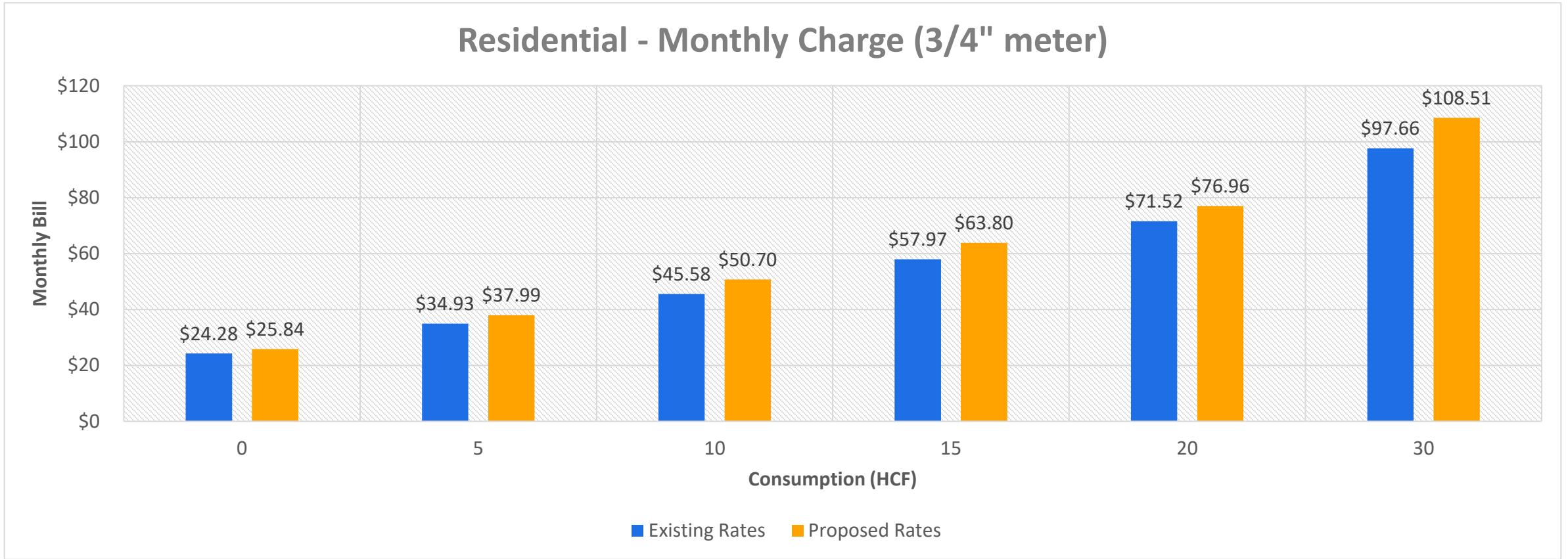
* Existing rates based on Tier 1 (0-12 HCF),
Tier 2 (13-25 HCF), Tier 3 (26+ HCF)

Description**	Proposed 2023*
Drought Surcharge Charge (\$/HCF)	
10% Reduction	0.19
20% Reduction	0.42
30% Reduction	0.71
40% Reduction	1.11
50% Reduction	1.66
+50% Reduction (Capped at 60%)	2.50

*Applied to all tiers equally.

**The reduction is an additional savings from the projected water consumption.

Customer Impact - Residential



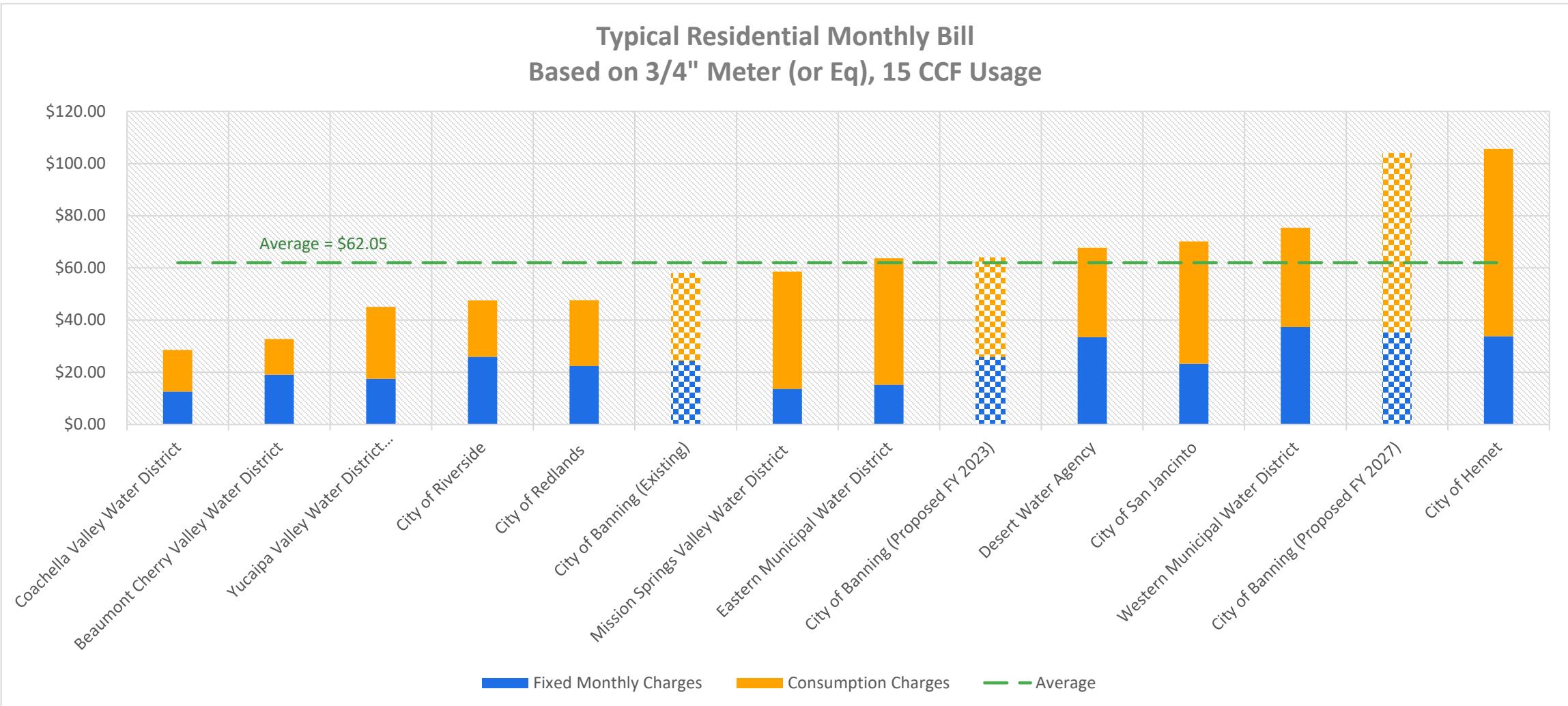
- 95% of residential customer are for a 3/4" meter or smaller
- 94% of customers are residential and the average residential monthly usage is 15 HCF
- The increase in monthly bill will be \$5.83 for a residential customer with 15 HCF in FY 2023

Schedule of Water Rates

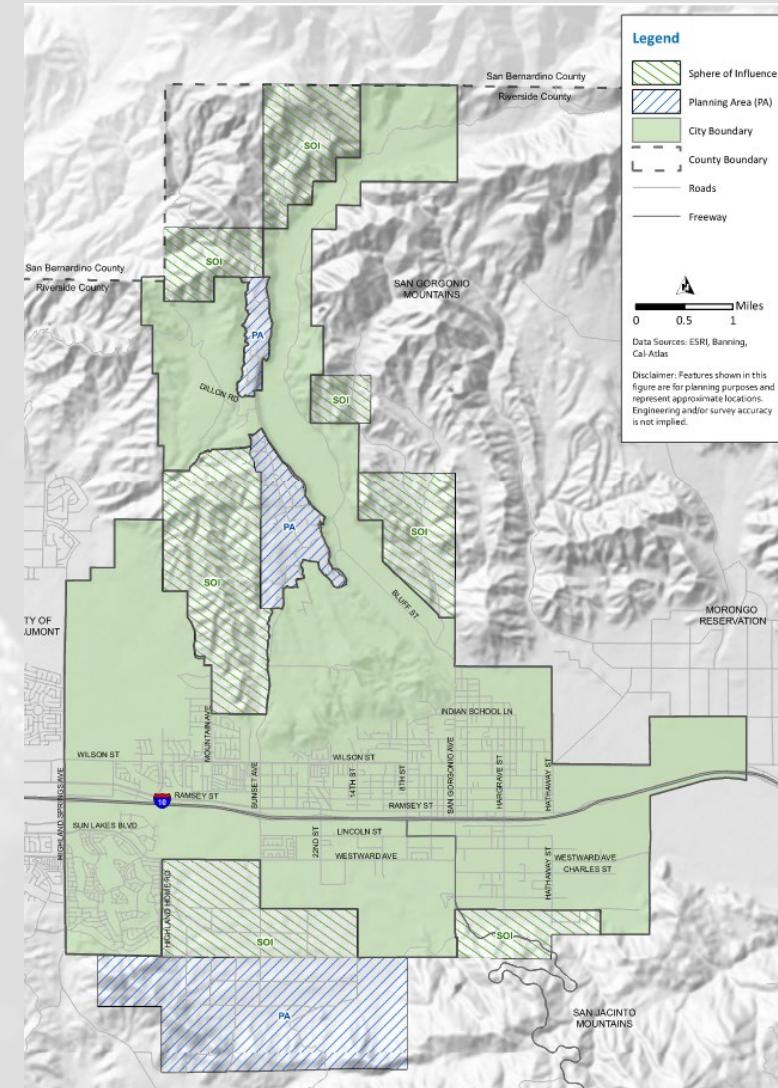
Description	Existing 2022	Proposed 2023	Proposed 2024	Proposed 2025	Proposed 2026	Proposed 2027
Monthly Fixed Charge (\$/Month)						
5/8"	24.28	25.66	27.65	30.79	33.28	35.31
3/4"	24.28	25.66	27.65	30.79	33.28	35.31
1"	36.81	38.23	40.91	44.64	48.58	51.44
1-1/2"	68.10	69.64	74.05	79.26	86.84	91.77
2"	105.66	107.34	113.83	120.79	132.75	140.16
3"	193.33	207.87	219.90	231.57	255.17	269.19
4"	318.60	320.96	339.23	356.18	392.89	414.36
6"	631.56	635.10	670.70	702.34	775.46	817.61
8"	1,007.21	1,012.08	1,068.46	1,117.73	1,234.54	1,301.51
Monthly Fixed Fire Protection (\$/Month)						
2"	24.11	25.28	25.39	28.86	30.50	
4"	38.58	40.45	40.63	46.18	48.80	
6"	77.15	80.91	81.26	92.35	97.60	
8"	120.55	126.42	126.97	144.30	152.50	
10"	241.10	252.84	253.93	288.61	304.99	
12"	385.76	404.54	406.29	461.77	487.99	
Consumption Charge (\$/HCF)						
All Customers						
Tier 1 (0-7 HCF)	2.13	2.43	2.77	3.11	3.49	3.97
Tier 2 (8-15 HCF)	2.71	2.62	2.97	3.32	3.74	4.24
Tier 3 (16+ HCF)	3.06	3.16	3.52	3.89	4.32	4.85

* Existing rates based on Tier 1 (0-12 HCF), Tier 2 (13-25 HCF), Tier 3 (26+ HCF)

Benchmarking



Wastewater Utility



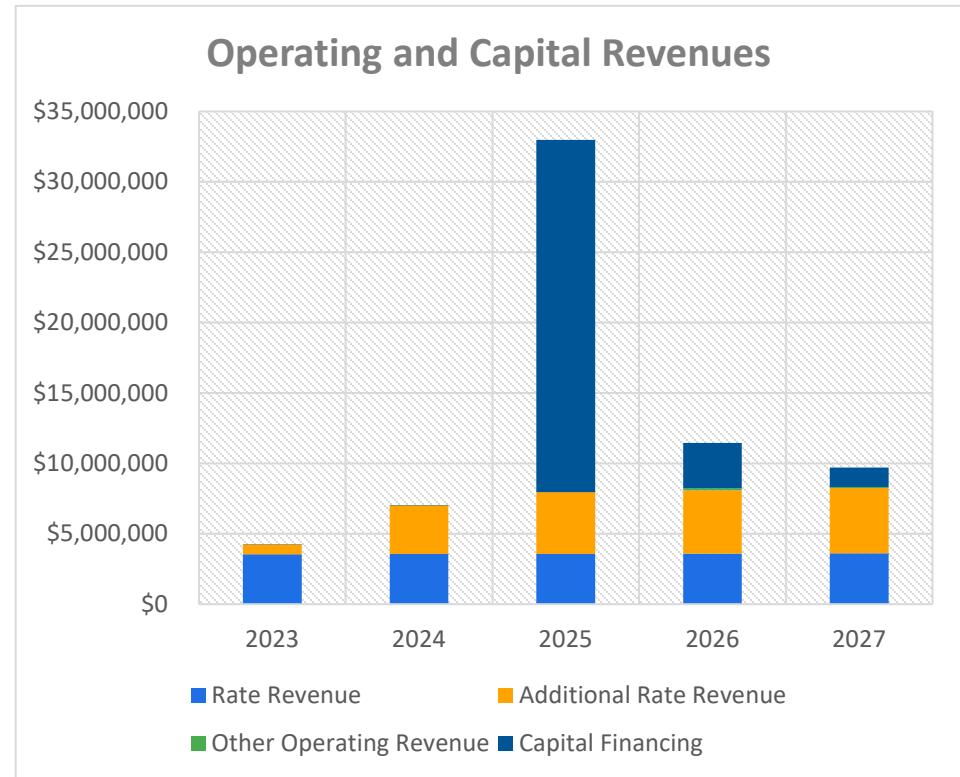
Wastewater Operating Revenue

Wastewater operating revenue:

- The 5-year operating revenues are composed of:
 - **Reserves**: There is no expected operating funds on hand
 - **Rates**: Revenue from existing rates are expected to generate \$17.9M and an additional \$17.7M is expected from rate increases
 - **Other Operating Revenue**: Other operating income such as interest income, etc. is expected at \$183k
 - **Grants**: Future grant funding of \$4.7M
 - **Revenue Bonds**: Expected debt issuance of \$25.0M

Wastewater capital funds:

- The 5-year capital financing are composed of:
 - **Reserves**: The use of \$10.3M of capital funds on hand to help cover the costs of CIP
 - **Rates**: Transfer in \$5.0M from operating rate revenue
 - **Grants**: Future grant funding of \$3.8M



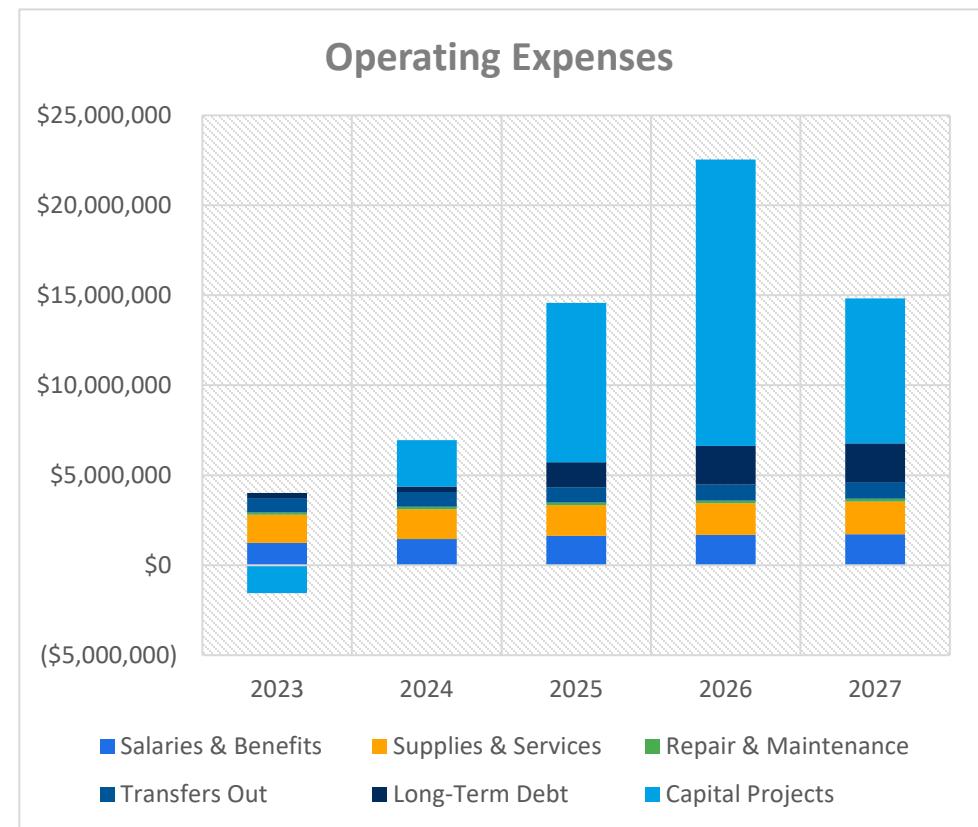
Wastewater Operating and Capital Needs

Wastewater operating needs:

- The 5-year operating costs identifies over \$21.1M of costs
- Major operating cost increases planned for in the next 5-years:
 - Add 4 new staffing positions starting FY 2023
 - Increase in WWTP contract services

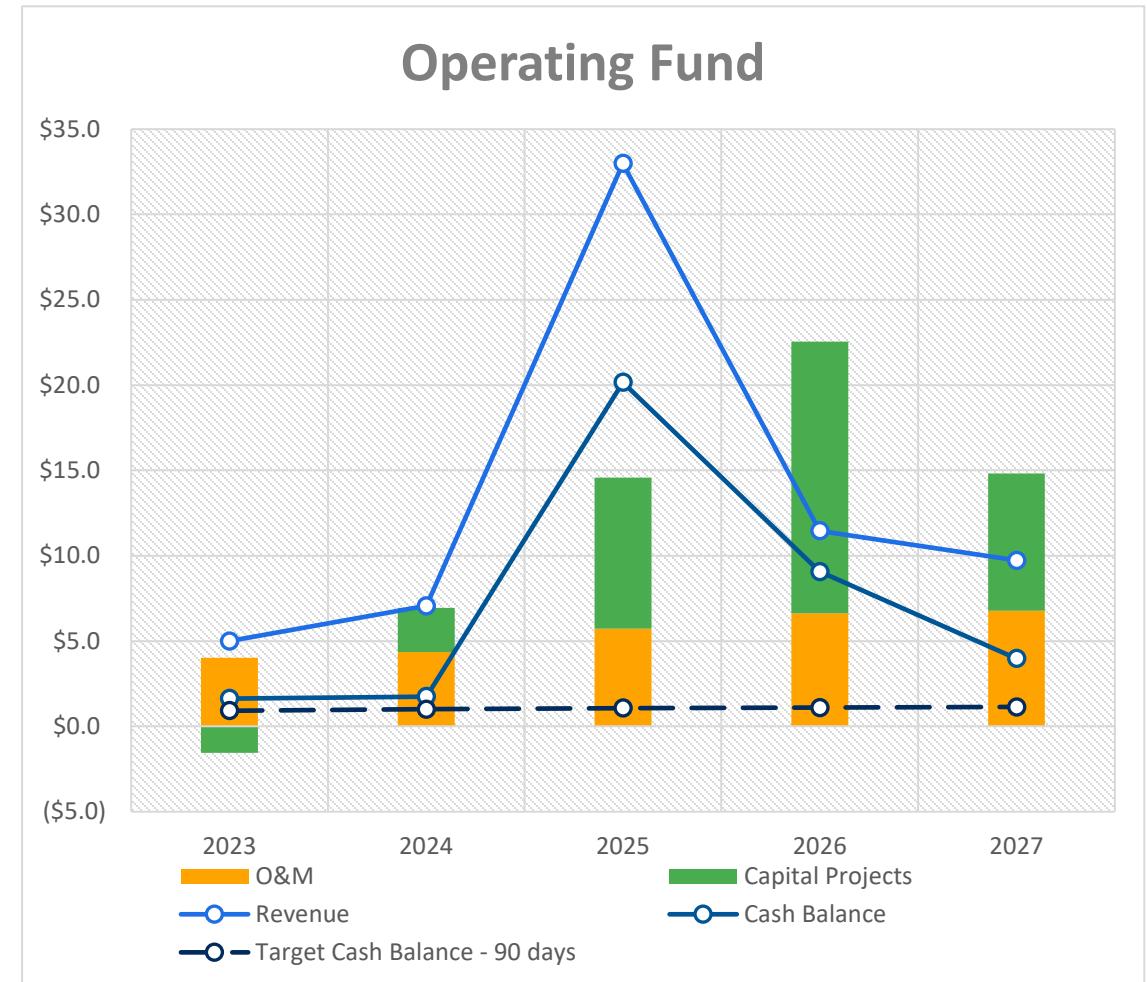
Wastewater capital needs:

- The 10-year CIP identifies over \$68.2M of improvements needed
- Major projects planned for in the next 5-years of \$59.2M:
 - Wastewater Treatment Plant 3.6 MGD upgrade
 - Planning is starting now
 - Construction expected in Fiscal Year 2026
 - Needed to meet compliance with nitrogen removal regulations and to produce Title 22 recycled water
 - Gravity Main and Collection System Improvements
 - Needed to replace aging infrastructure and reduce the risk of sewer system overflows



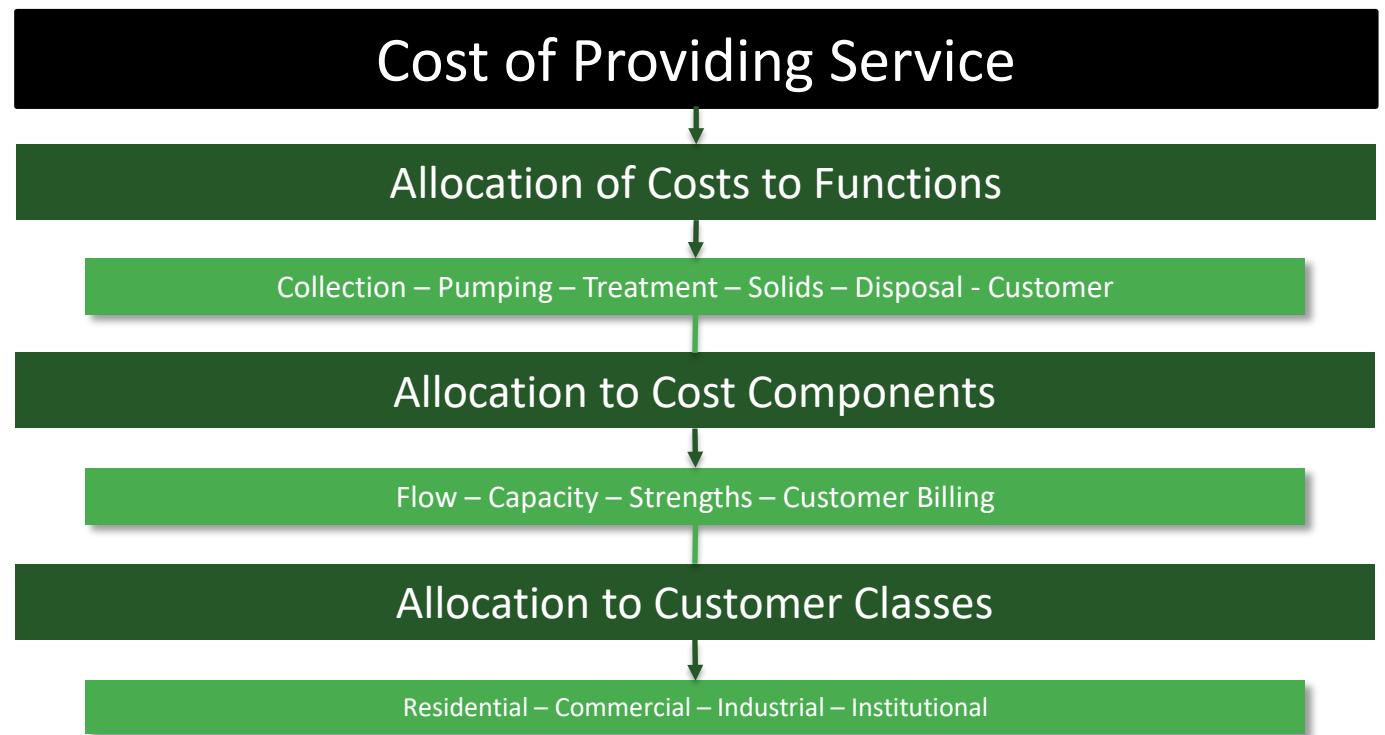
Wastewater Financial Plan

- The utility needs revenue increases of:
 - 40.0% on 1/1/2023
 - 25.0% on 7/1/2023
 - 25.0% on 1/1/2024
 - 3.0% per year from 1/1/2025 to 1/1/2027
- Revised O&M escalation factors due to inflation
- The utility will build up funds on hand for the 5-year period
- The utility will increase the operating reserve requirement from 10% of O&M expenses to 90 days (~25%) of O&M expenses



Cost of Service Analysis

- Cost of Service is the process of determining the level of revenue required from rates and charges to properly and prudently operate, maintain, and develop the system
- The cost-of-service analysis follows ratemaking guidelines in WEF MoP 27 and allocates costs to the customer groups based on demand characteristics of each customer group



Wastewater Rates

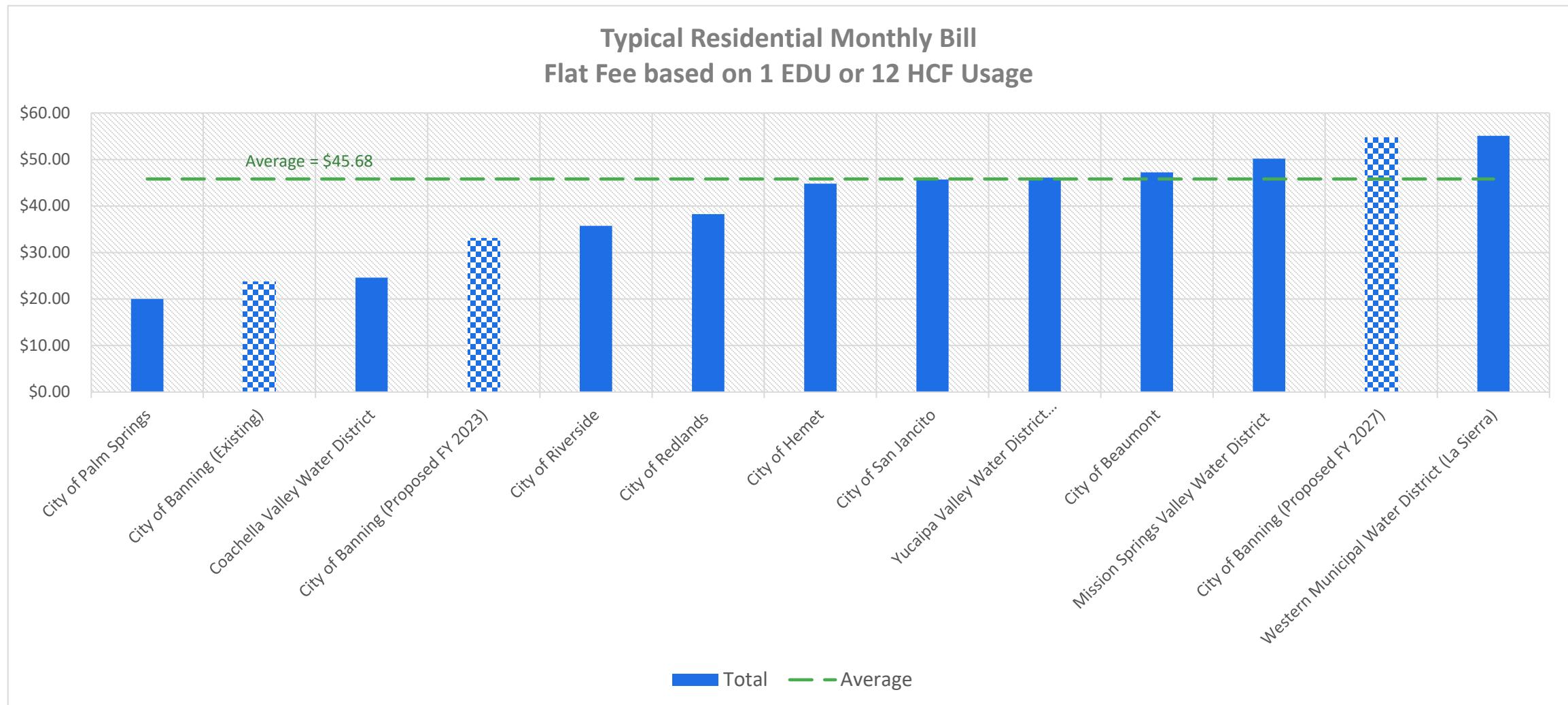
- Existing wastewater rates consist of fixed monthly charges based on equivalent dwelling units (EDU)
 - An EDU is defined as a single-family household using 225 gallons per day
- There is an existing tertiary surcharge based on EDUs
 - Surcharge used to upgrade WWTP to tertiary standard and develop new recycled water source
- Proposed wastewater rates consist of:
 - Separate residential and commercial customers and develop independent fixed EDU charges plus the tertiary surcharge

Customer Class	Existing 2022	Proposed 2023	Increase
(\$/month/EDU)			
Residential	21.42	30.20	8.78
Commercial	21.42	32.81	11.39
Surcharge	2.32	2.32	2.32

Schedule of Wastewater Rates

Customer Class	Existing 2022	Proposed 2023	Proposed 2024	Proposed 2024	Proposed 2025	Proposed 2026	Proposed 2027
(\$/month/EDU)							
Residential	21.42	30.20	37.75	47.12	49.01	49.69	51.35
Commercial	21.42	32.81	41.01	51.57	51.03	56.06	56.98
Surcharge	2.32	2.32	2.32	2.32	2.32	2.32	2.32

Benchmarking



Next Steps

Next Steps

- Proceed with sending out Proposition 218 public notices
- Wait 45 days after public notices sent to receive formal protest
- Conduct a public hearing
- Adopt or reject proposed water and wastewater rates
- Make changes to customer billing system as needed
- Rates become effective on January 1

Questions?