

City of Lakeland

Water Utilities Revenue Sufficiency Analysis

Evaluation of Cost Recovery Strategy / Proposed Rate Design

Presented on July 15, 2021



Rate Study Tasks

- Update the financial forecast to establish utility rates for FY22-24
- Includes an evaluation of:
 - › Customers, sales, and revenues
 - › Operating and maintenance expenses
 - › Funding for ongoing capital repairs, rehabilitation, and replacements
 - › Funding for utility system upgrades and expansion
- Review adequacy of existing water and wastewater rates over the study period
- Develop a cost recovery and rate design option that maintains an affordable rate for essential water needs while encouraging the efficient use of water resources for discretionary purposes

Discussion Topics

Study Observations and Major Assumptions

Proposed Funding of the Capital Plan

Projected New Debt Service Payments

Sufficiency of Existing Water and Wastewater Rates

Cost Recovery Strategy and Proposed Rates

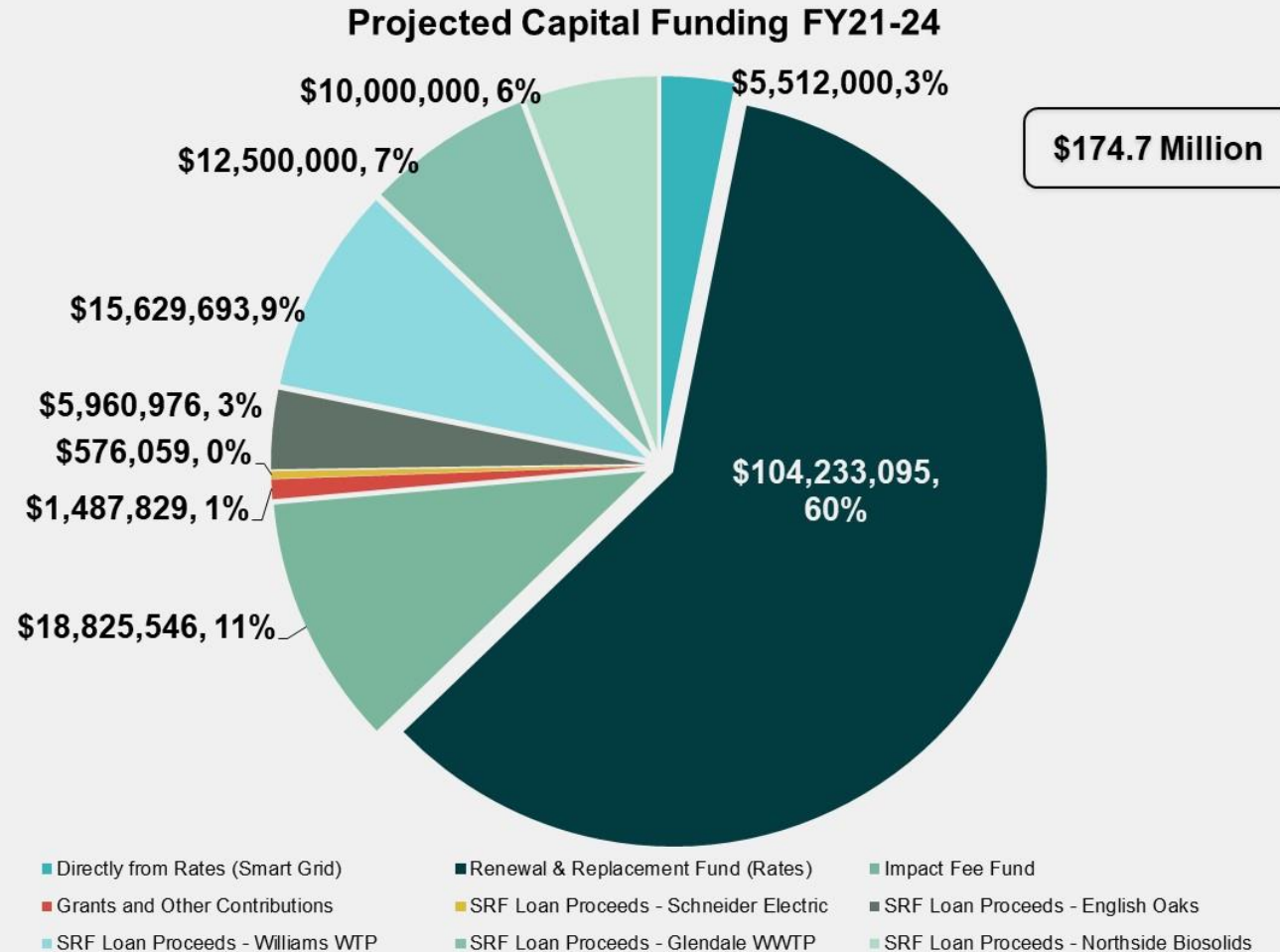
Study Observations and Major Assumptions

- FY20 actual revenues reflected significant increases in water demands, which may not be sustainable
 - › Projected revenues for FY21-24 based on historical average water demands per account
 - › After considering estimated customer growth, projected revenues under existing rates estimated to increase approximately 0.3% per year on average
- Operating expenses based on the proposed FY22 operating budget and reduced 7% to account for lower actual operating expenses when compared to the budget
 - › Amounts exclude any future Polk Regional Water Cooperative (PRWC) costs since the allocated project costs are still under review by PRWC
 - › After considering 11 additional personnel positions planned through FY24, operating expenses are projected to increase approximately 3% per year

Projected Capital Needs

- Water Utilities has completed a Water Asset Management Plan, and the City's Consulting Engineer recommends adding approximately \$15.4 million in additional water renewal and replacement projects to be completed by FY30
 - › Approximately \$6.4 million is included through FY24
- Total Projected Capital Improvements FY21-24: \$174.7 million
 - › Major projects funded with current and future State Revolving Fund (SRF) loans include:
 - Schneider Efficiency Improvements (Recently completed)
 - English Oaks Expansion
 - Williams Water Treatment Plant (Clearwell)
 - Glendale Effluent Pumps
 - Northside Biosolids
 - › Annual contributions to the R&R Funds were increased to approximately \$16 million per year on average
 - › \$95.4 million in total cash and investments were available on October 1, 2020 to help address any appropriated projects that were not completed by year-end while maintaining minimum reserve targets
- City staff plan to initiate a Wastewater Master Plan that may be completed during FY22 to better evaluate the wastewater capital requirements over the study period

Summary of Capital Funding Under Proposed Rates



Preliminary Financing Plan

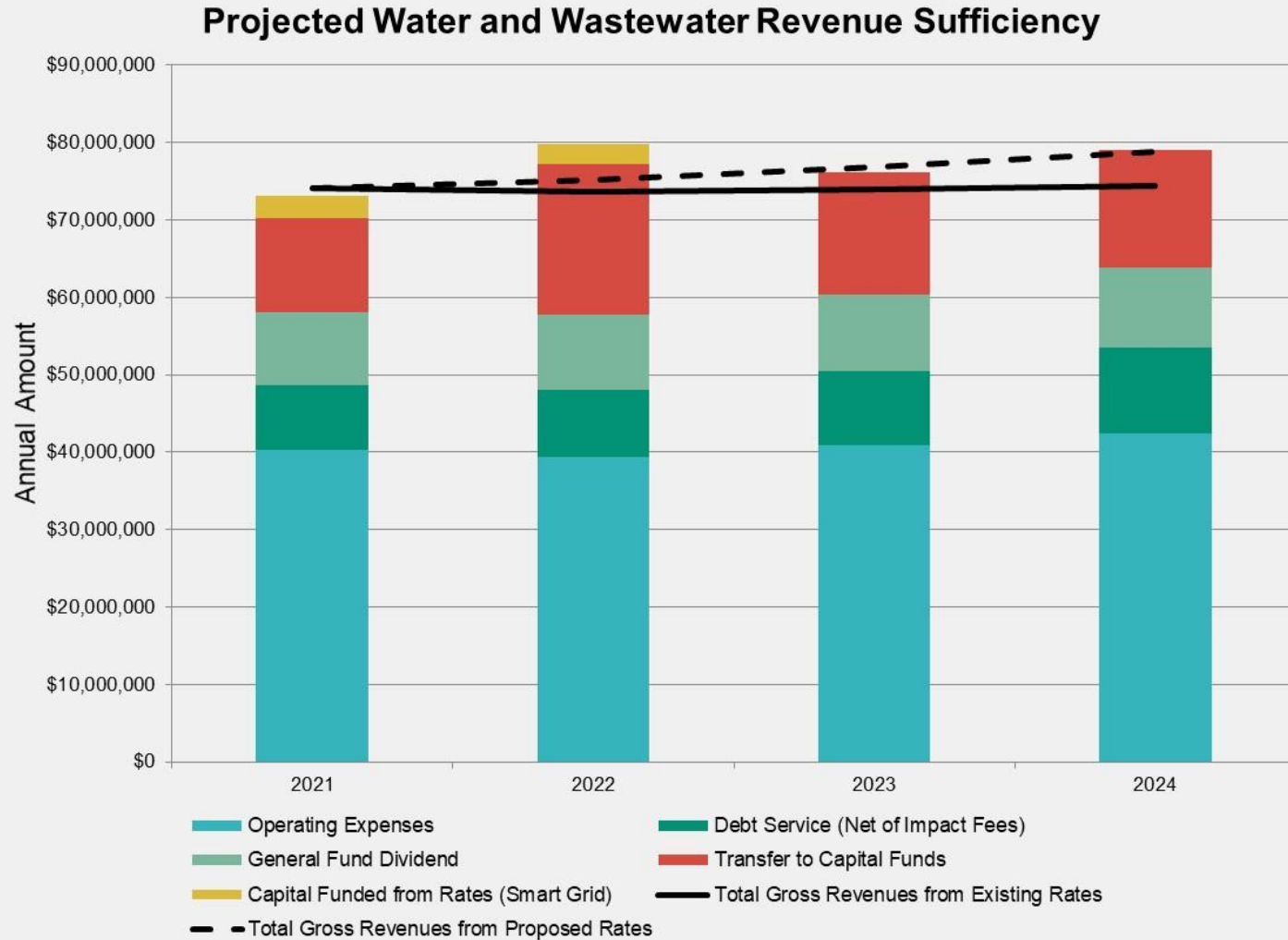
- Existing debts total approximately \$122.4 million, and include 4 SRF Loans that are in progress
 - › After considering 2 additional SRF Loans, less principal payments over the study period, the estimated balance in FY24 is projected to be \$117.3 million
 - › While annual debt service payments are projected to increase from \$8.4 million in FY21 to \$11.1 million in FY24 based on the existing and planned SRF Loans, the projected average debt per customer is projected to decline from \$2,311 in FY21 to \$1,939 by FY24
- Please note that Water Utilities has an existing 2015 Note with a \$4.4 million balloon payment due just beyond the study period in FY25
 - › \$3.9 million is assumed to be refunded over 10 years

Projected Annual Rate Adjustments

Summary of Water and Wastewater Revenue Sufficiency			
Description	Proposed		
	FY22	FY23	FY24
Water System	2%	2%	2%
Wastewater System	2%	2%	2%

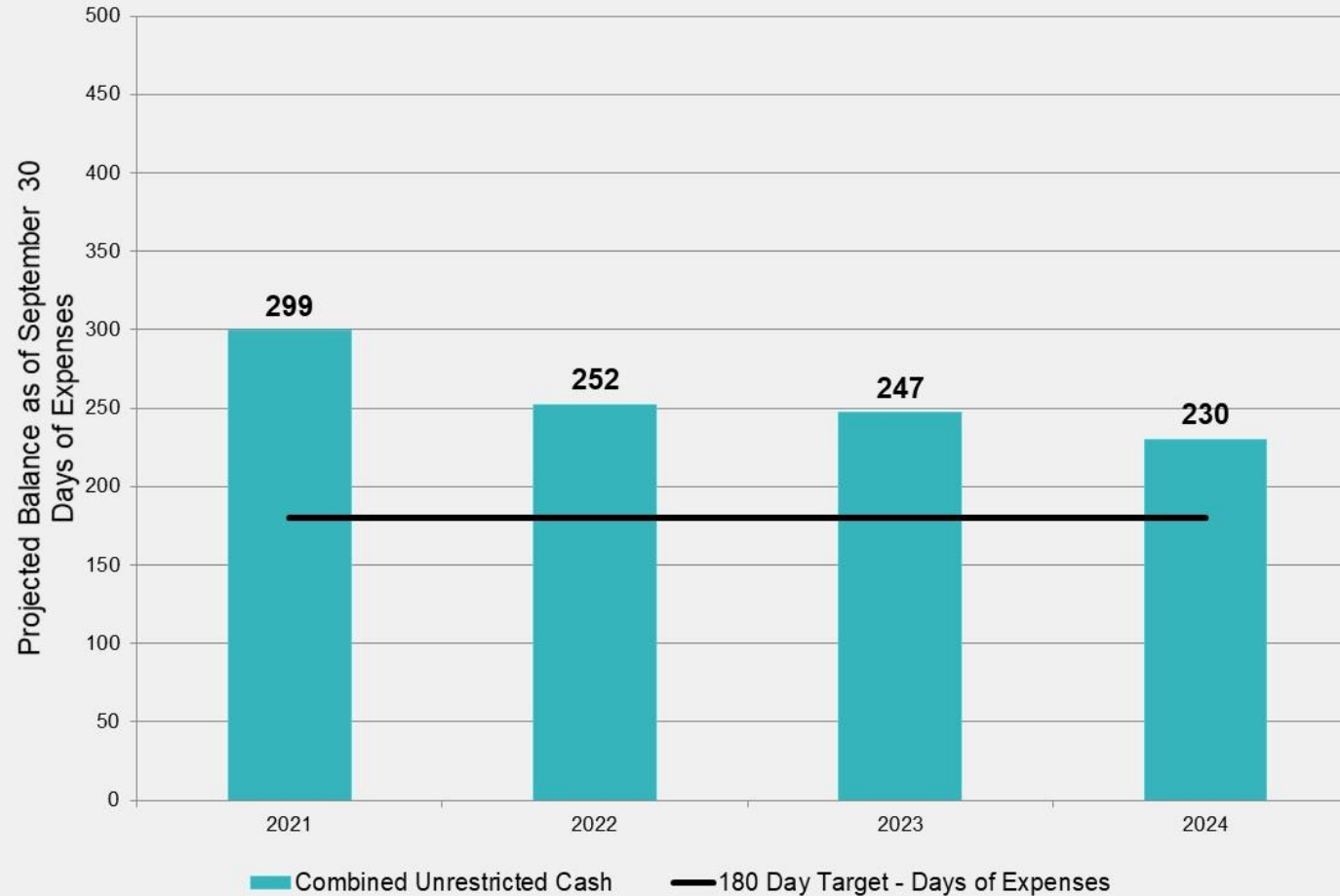
- The proposed rate adjustments for FY22-24 are “on plan”
- Preliminary estimates beyond FY24 indicate the need for rates adjustments above 2% per year but additional analysis is needed
 - › City staff is working with the Polk Regional Water Cooperative to identify the City’s share of estimated costs to develop alternative water supplies
 - › City staff also plans to initiate a Wastewater Master Plan to better evaluate the capital needs over time
- This plan will continue to be updated annually

Adequacy of Existing and Proposed Rates



Projected Unappropriated Reserve Funds

Projected Unappropriated Reserve Funds at Proposed Rates



Cost Recovery Strategy and Proposed Rates



Rate Design Objectives

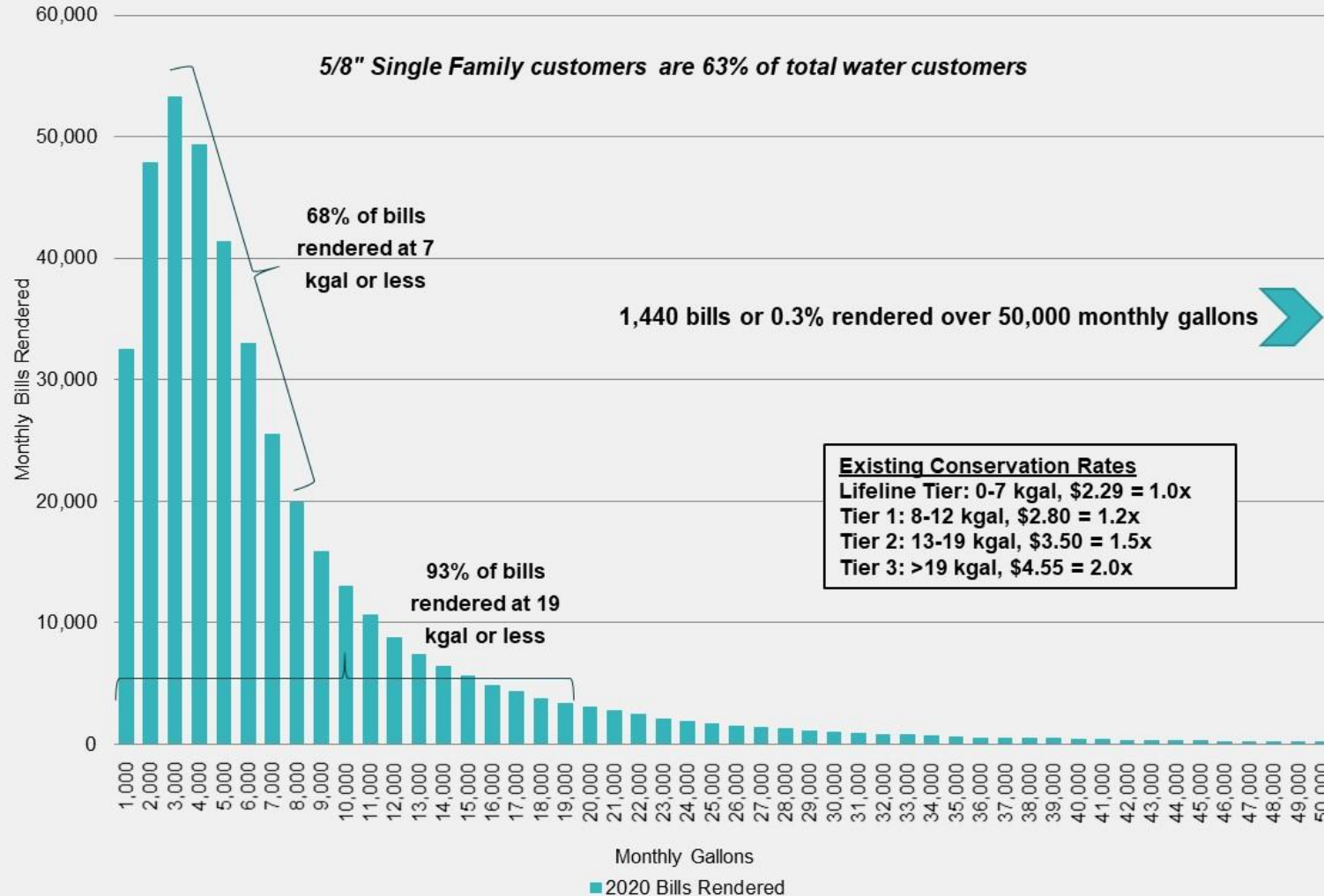
- Produce sufficient revenues to meet the projected revenue requirements
- Develop rates based on the full cost recovery of providing water and wastewater service
- Maintain strong revenue stability through the use of a monthly base charge
- Distribute cost of service more evenly across customer classes with similar uses with emphasis on encouraging water conservation
- Maintain competitive rates with neighboring utilities

Rate Design Strategy to Address Affordability / Preservation of the Lifeline Rate

- The City's water use rates or volume charges provide a Lifeline Rate for up to 7,000 monthly gallons for essential water use at a reduced rate of \$2.29 per thousand gallons (per kgal)
 - › Under the City's water conservation rate structure, the price of discretionary water use increases above 7,000 monthly gallons
 - The usage rate doubles to \$4.55 per thousand gallons for residential water use in excess of 19,000 monthly gallons
 - › For water use of 20,000 gallons per month, a recent rate comparison showed that the City's charges are approximately 28% less than the survey average
 - The following slides summarize discretionary water use for FY20

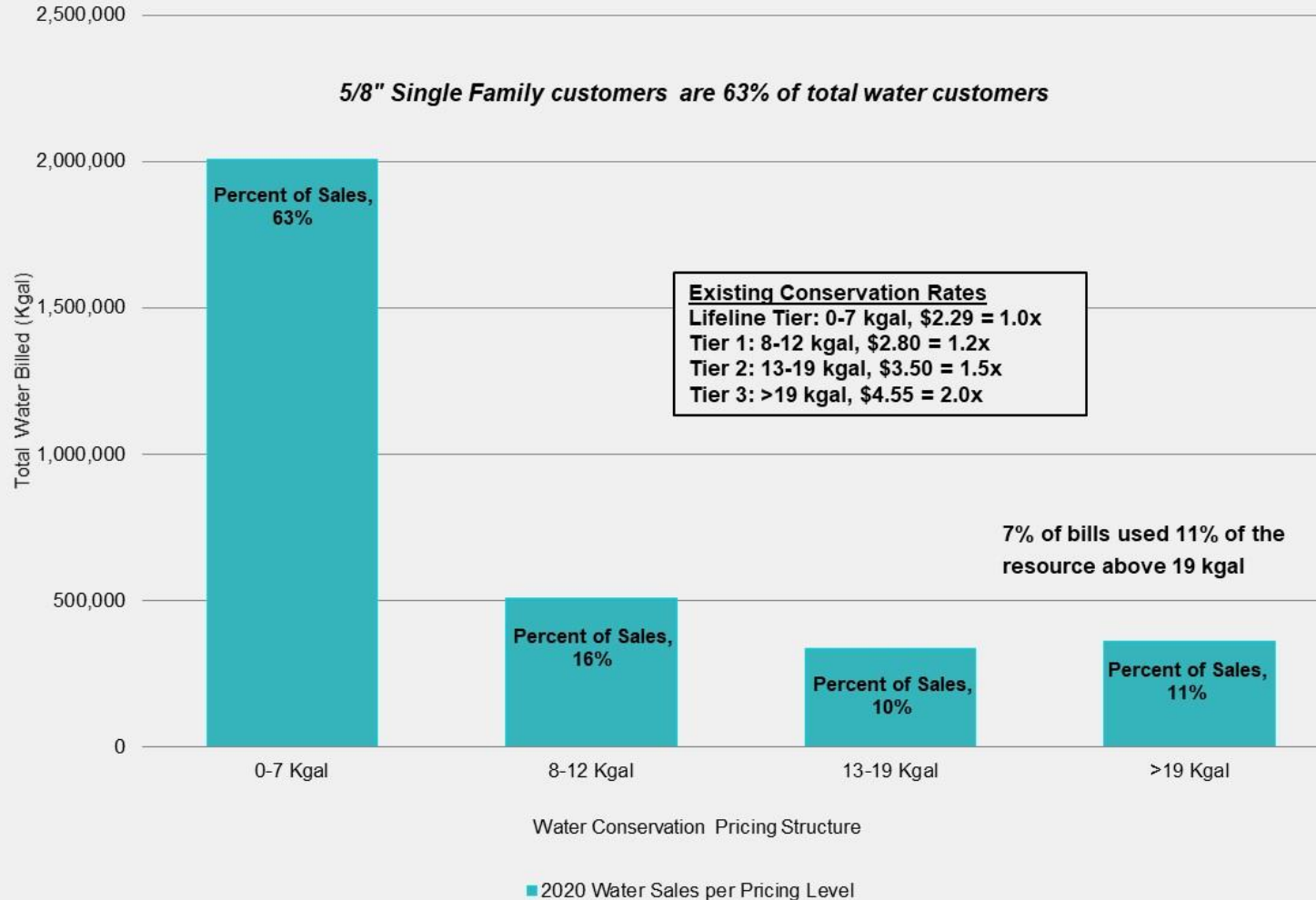
Bill Frequency – 5/8" Single Family

Analysis of Single Family Water Bills - 5/8" Water Meter



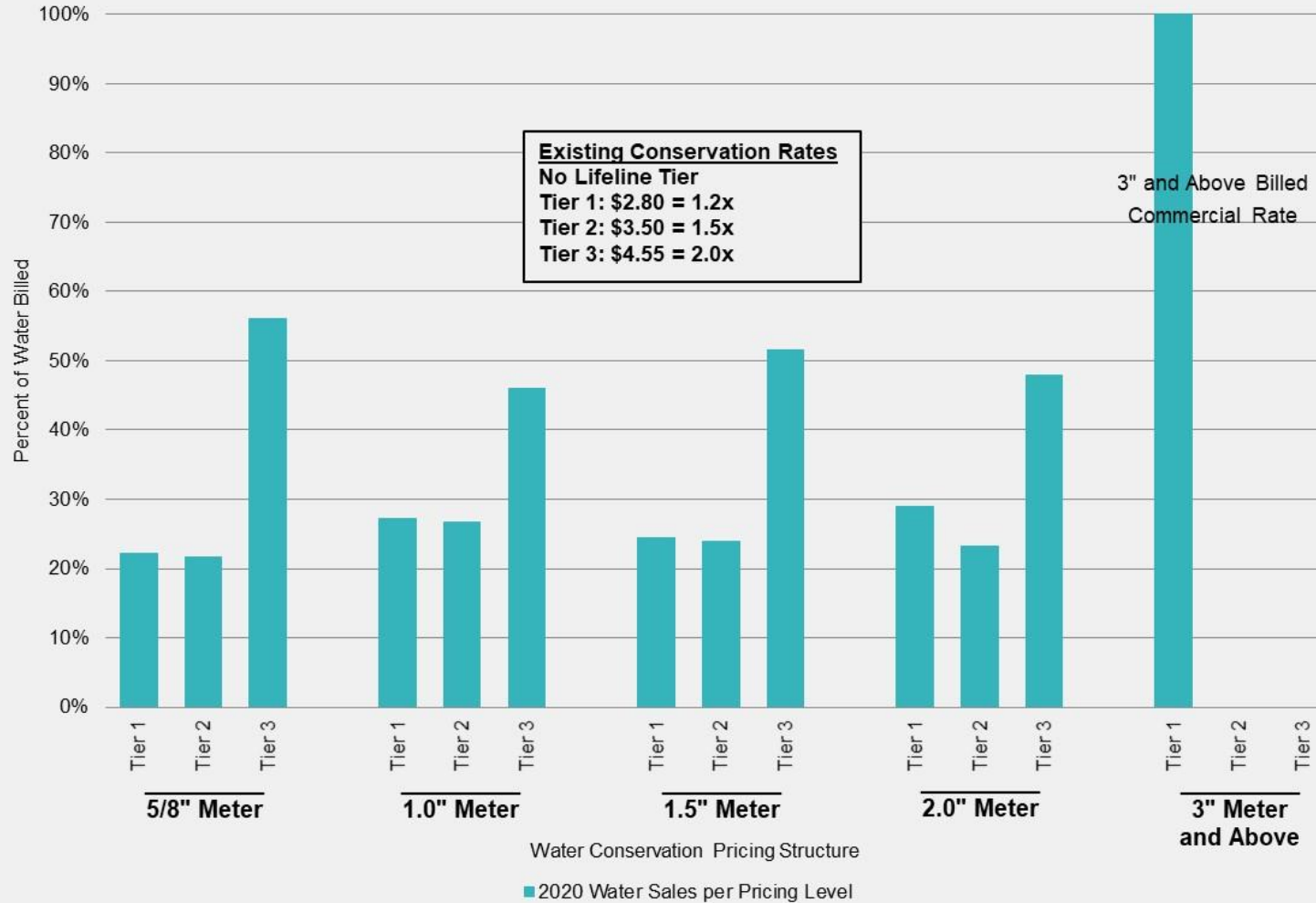
Water Sales By Tier – 5/8" Single Family

Analysis of Single Family Water Sales - 5/8" Water Meter



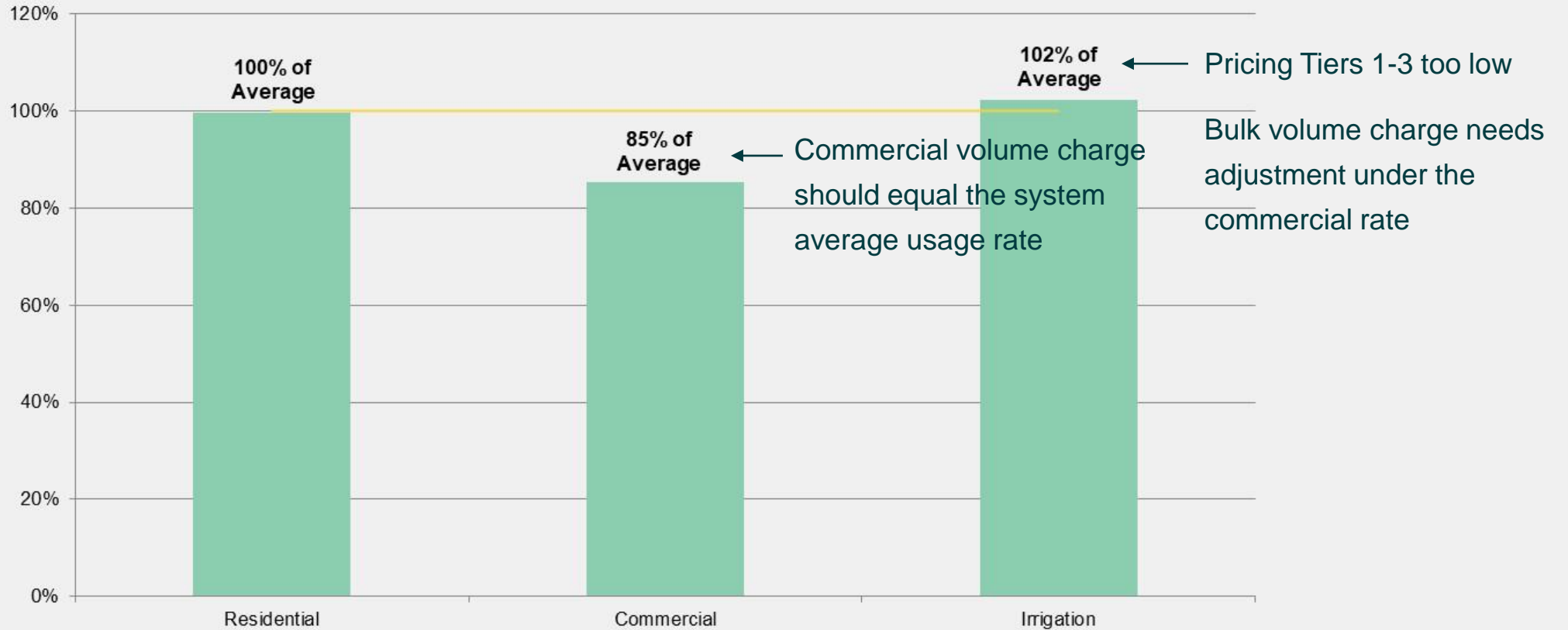
Irrigation Use by Tier

Analysis of Irrigation Sales



Existing Revenue Contribution by Class

Revenue Contribution by Class
Percent of Existing Average Water Revenue Per Kgal



Proposed Water Rate Design Options FY22-24

- Base Case
 - › City has historically applied annual rate adjustments uniformly to the monthly base charges and all volume charges
 - › This approach would increase all monthly service rates 2% per year
- Proposed Rate Design Alternative
 - › Apply a 2% annual increase to all wastewater charges, hydrant and fire protection fees, and industrial surcharges and monitoring fees
 - › Increase the monthly water base charges by 2% per year to help maintain revenue stability
 - › No increase in the Lifeline Rate up to 7,000 monthly gallons for FY22-24
 - › Increase the water conservation rates to strengthen the pricing signal to use less discretionary water
 - › Phase in adjustments to the commercial volume charge to then equal the average system usage rate by FY24

Comparison of Water Rate Options

Summary of Proposed Residential Water Rate Options – Inside City				
Description	Existing	FY22	FY23	FY24
Base Case				
Water Monthly Base Charge	\$10.40	\$10.61	\$10.82	\$11.04
Water Volume Charges				
Lifeline Rate (0-7 kgal)	\$2.29	\$2.34	\$2.39	\$2.44
Tier 1 (8-12 kgal)	\$2.80	\$2.86	\$2.92	\$2.98
Tier 2 (13-19 kgal)	\$3.50	\$3.57	\$3.64	\$3.71
Tier 3 (Above 19 kgal)	\$4.55	\$4.64	\$4.73	\$4.82
Proposed Rate Design Alternative				
Water Monthly Base Charge	\$10.40	\$10.61	\$10.82	\$11.04
Water Volume Charges				
Lifeline Rate (0-7 kgal)	\$2.29	\$2.29	\$2.29	\$2.29
Tier 1 (8-12 kgal)	\$2.80	\$2.86	\$2.98	\$3.09
Tier 2 (13-19 kgal)	\$3.50	\$3.66	\$3.89	\$4.12
Tier 3 (Above 19 kgal)	\$4.55	\$4.95	\$5.31	\$5.73

Comparison of Water Rate Options (cont.)

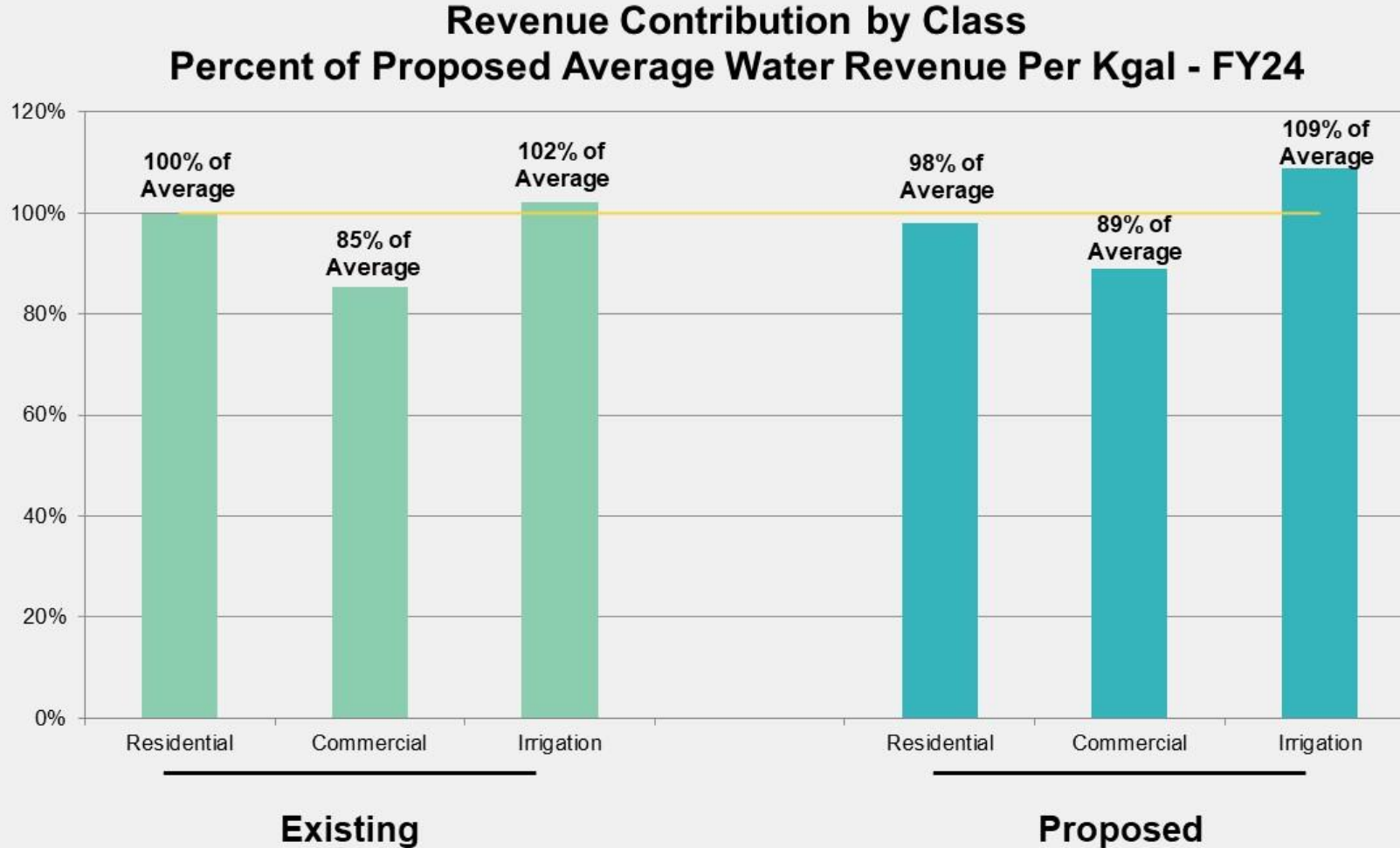
Comparison of Monthly Single Family
Water and Wastewater Bill Options
8,000 Gallons of Water Usage



Summary of Proposed Alternative

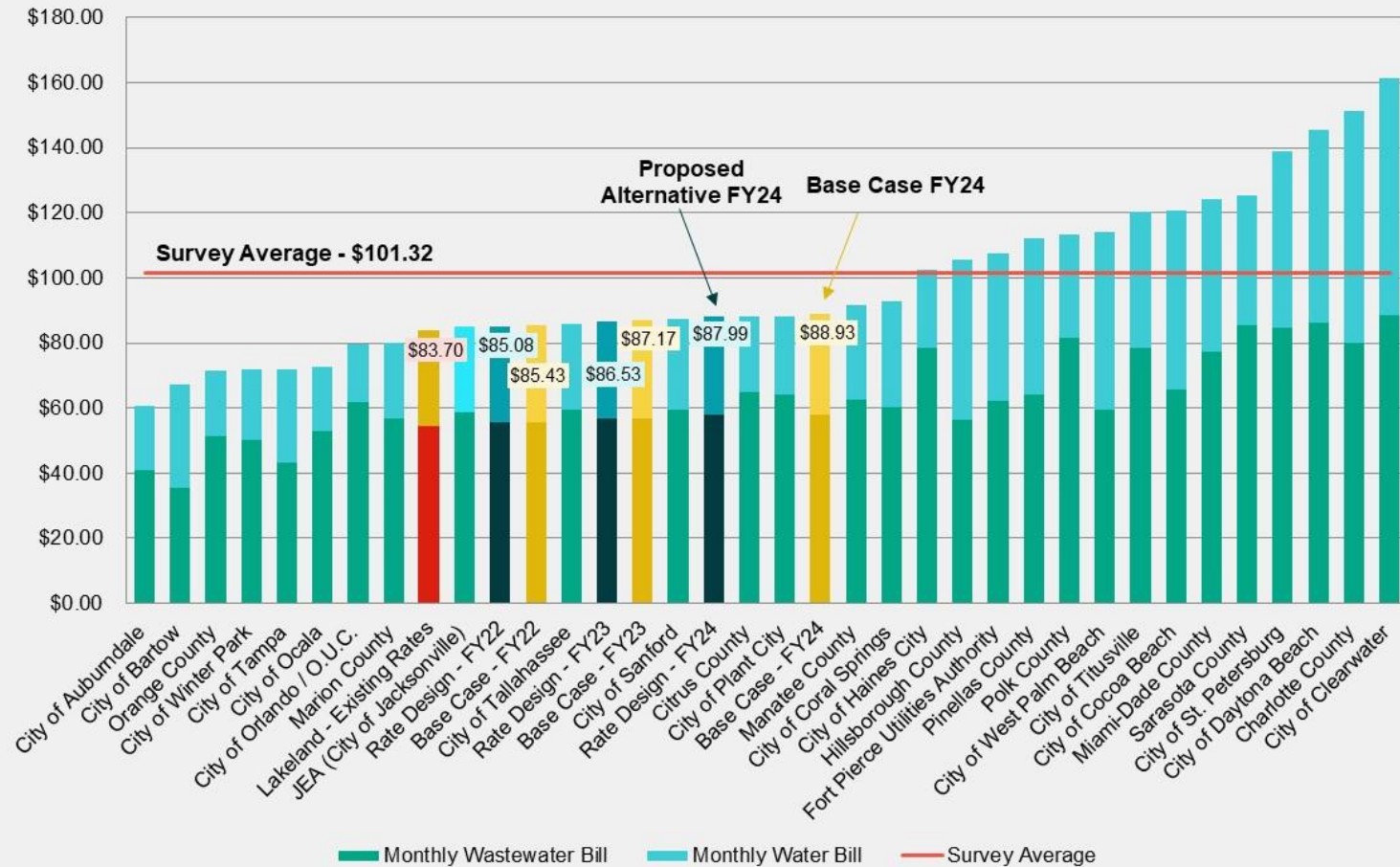
Rate Design Alternative				
Summary of Proposed Water and Wastewater Bill Changes – Inside City				
Description	Existing	FY22	FY23	FY24
Residential 5/8" – 8 kgal	\$83.70	\$85.08	\$86.53	\$87.99
Proposed Increase		\$1.38 / 1.6%	\$1.45 / 1.7%	\$1.46 / 1.7%
Residential 5/8" – 20 kgal	\$141.43	\$144.93	\$149.19	\$153.48
Proposed Increase		\$3.50 / 2.5%	\$4.26 / 2.9%	\$4.29 / 2.9%
Multi-family 2" / 30 Units – 120 kgal	\$1,434.28	\$1,462.61	\$1,495.08	\$1,527.23
Proposed Increase		\$28.33 / 2.0%	\$32.47 / 2.2%	\$32.15 / 2.2%
Commercial 5/8" – 5 kgal	\$64.81	\$66.66	\$68.42	\$70.30
Proposed Increase		\$1.85 / 2.9%	\$1.76 / 2.6%	\$1.88 / 2.7%
Commercial 2" – 72 kgal	\$801.25	\$825.42	\$848.07	\$872.37
Proposed Increase		\$24.17 / 3.0%	\$22.65 / 2.7%	\$24.30 / 2.8%
Irrigation 1" – 24 kgal	\$102.95	\$106.09	\$110.74	\$115.30
Proposed Increase		\$3.14 / 3.1%	\$4.65 / 4.4%	\$4.56 / 4.1%

Proposed Revenue Contribution by Class



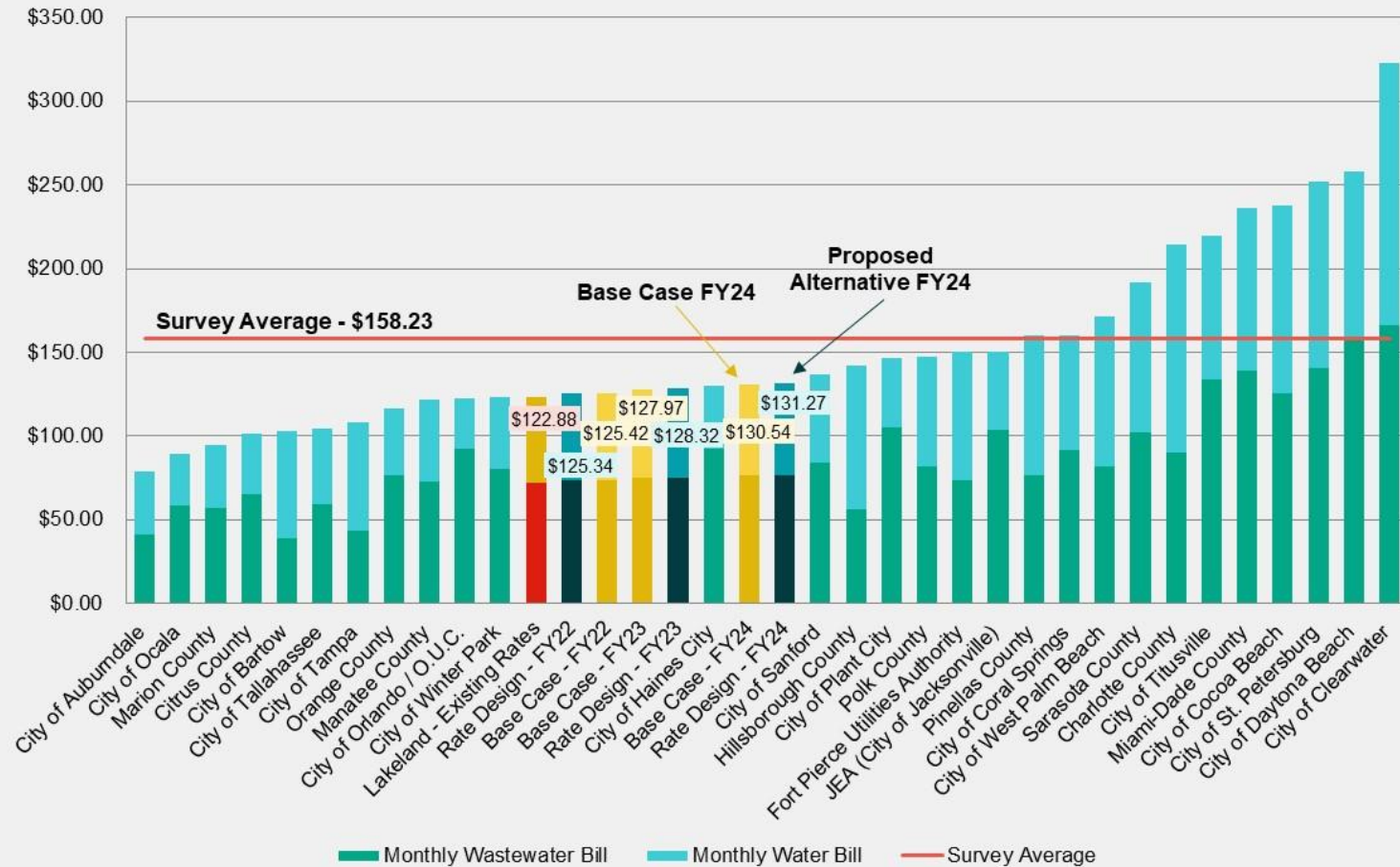
Residential Rate Comparison – 8 kgal

Comparison of Monthly Single Family Water and Wastewater Bills
8,000 Gallons of Water Usage



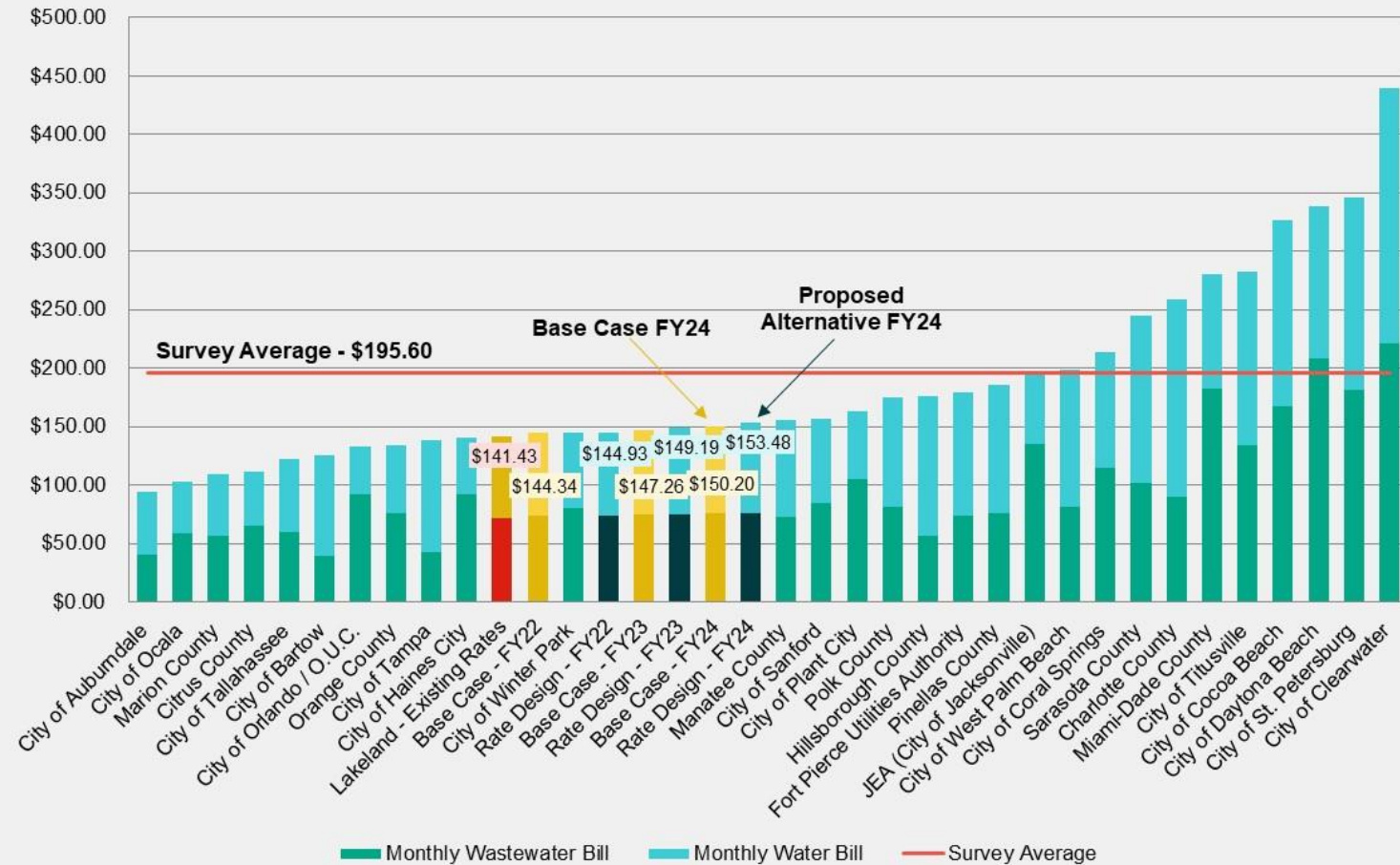
Residential Rate Comparison – 15 kgal

Comparison of Monthly Single Family Water and Wastewater Bills
15,000 Gallons of Water Usage



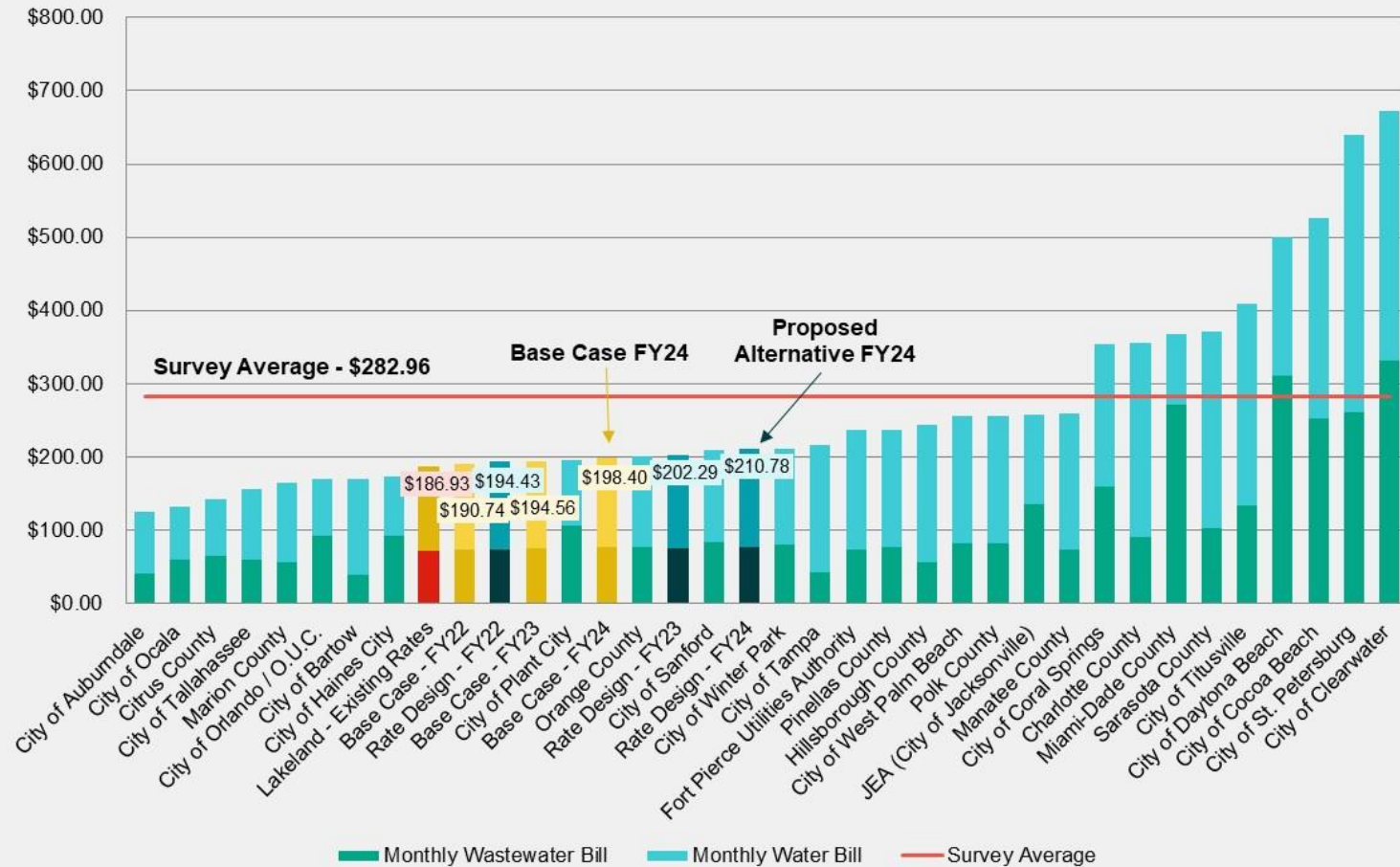
Residential Rate Comparison – 20 kgal

Comparison of Monthly Single Family Water and Wastewater Bills
20,000 Gallons of Water Usage



Residential Rate Comparison – 30 kgal

Comparison of Monthly Single Family Water and Wastewater Bills
30,000 Gallons of Water Usage



Conclusions and Recommendations

- The City's existing water and wastewater monthly service rates are not adequate to meet the projected operating, capital, and debt service requirements of each utility system, and rate adjustments are recommended for FY22-24
- To help encourage the efficient use of discretionary water, we recommend that the City implement the Proposed Rate Design Alternative which will:
 - › Apply a 2% annual increase to all wastewater charges, hydrant and fire protection fees, and industrial surcharges and monitoring fees
 - › Increase the monthly water base charges by 2% per year to help maintain revenue stability
 - › Provide no increase in the Lifeline Rate up to 7,000 monthly gallons for FY22-24
 - › Increase the water conservation rates to strengthen the water conservation pricing signal
 - › Phase in adjustments to the commercial volume charge to then equal the average system usage rate by FY24

Conclusions and Recommendations (cont.)

- The projected revenues under the proposed rates assume that customers will use less water over time, which may (slightly) reduce the City's total investment in future water supplies
 - › Based on the proposed increases to the water conservation rates and enhancements to the City's water conservation program, we have assumed that total system water sales may decline approximately 2.7% by FY24 or 198 million gallons for the year
 - › Actual customer responses to the City's water conservation message will vary
 - › If additional revenues are derived from a lack of consumer response to the City's water conservation efforts, the City may deposit the revenues in an Alternative Water Supply Fund or Rate Stabilization Fund to help reduce the costs of developing new water resources
- The proposed rates for Fiscal Years 2022 through 2024 are recommended to be effective on October 1st of each Fiscal Year
- The sufficiency of the proposed rate plan should continue to be reviewed annually



Thank you!

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Supplemental Information

Projected Financial Results By System

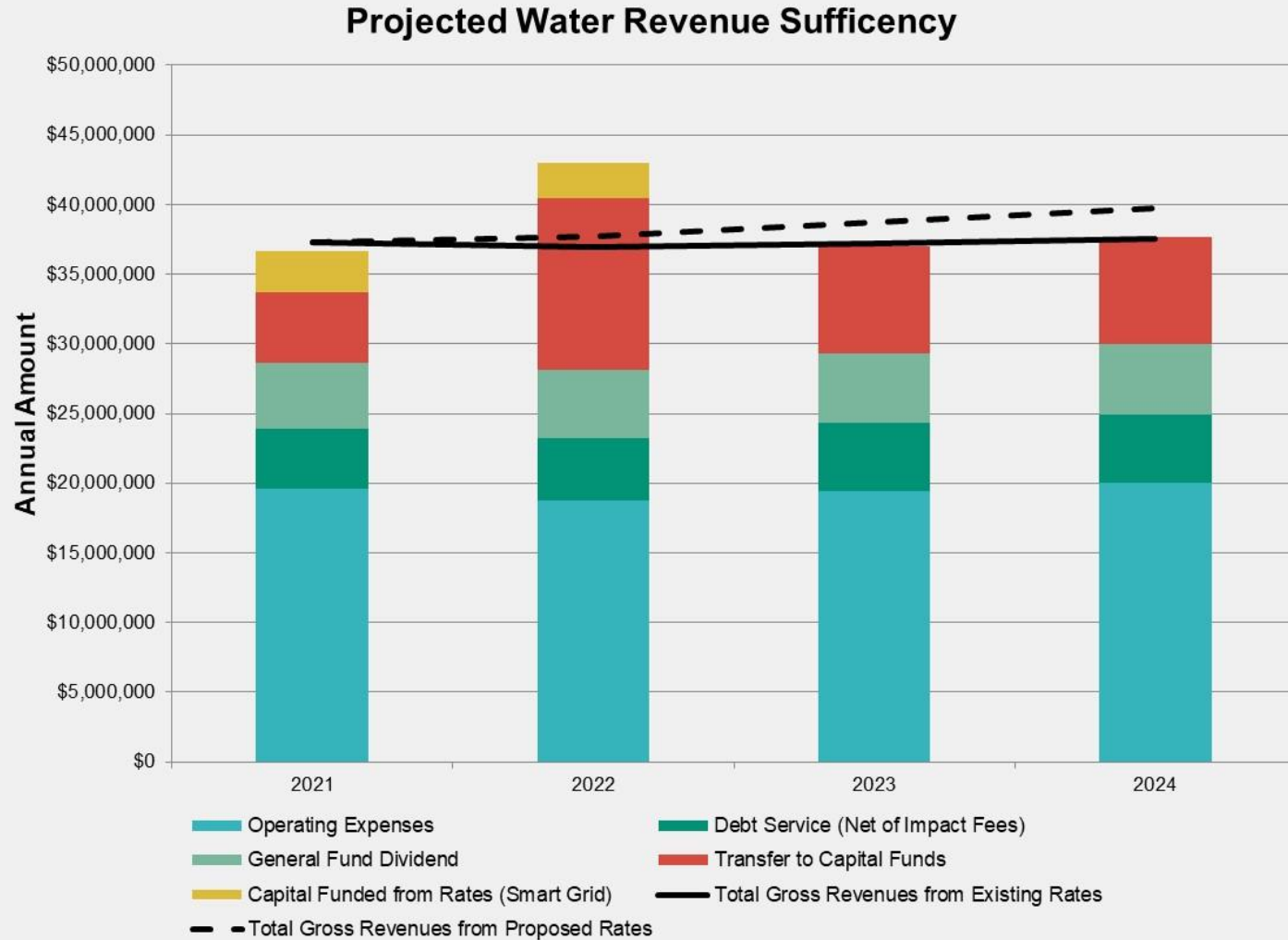


Projected Annual Rate Adjustments

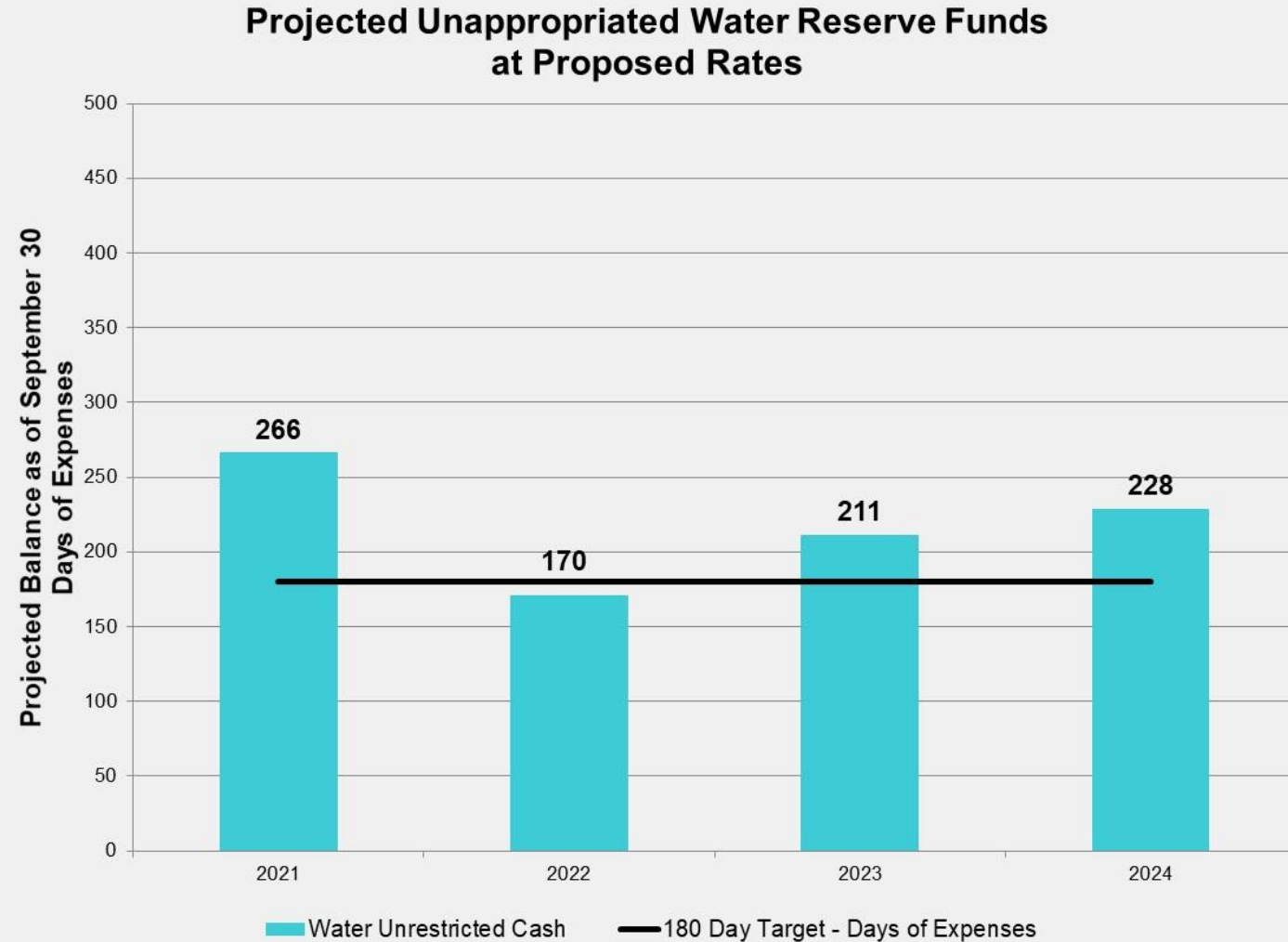
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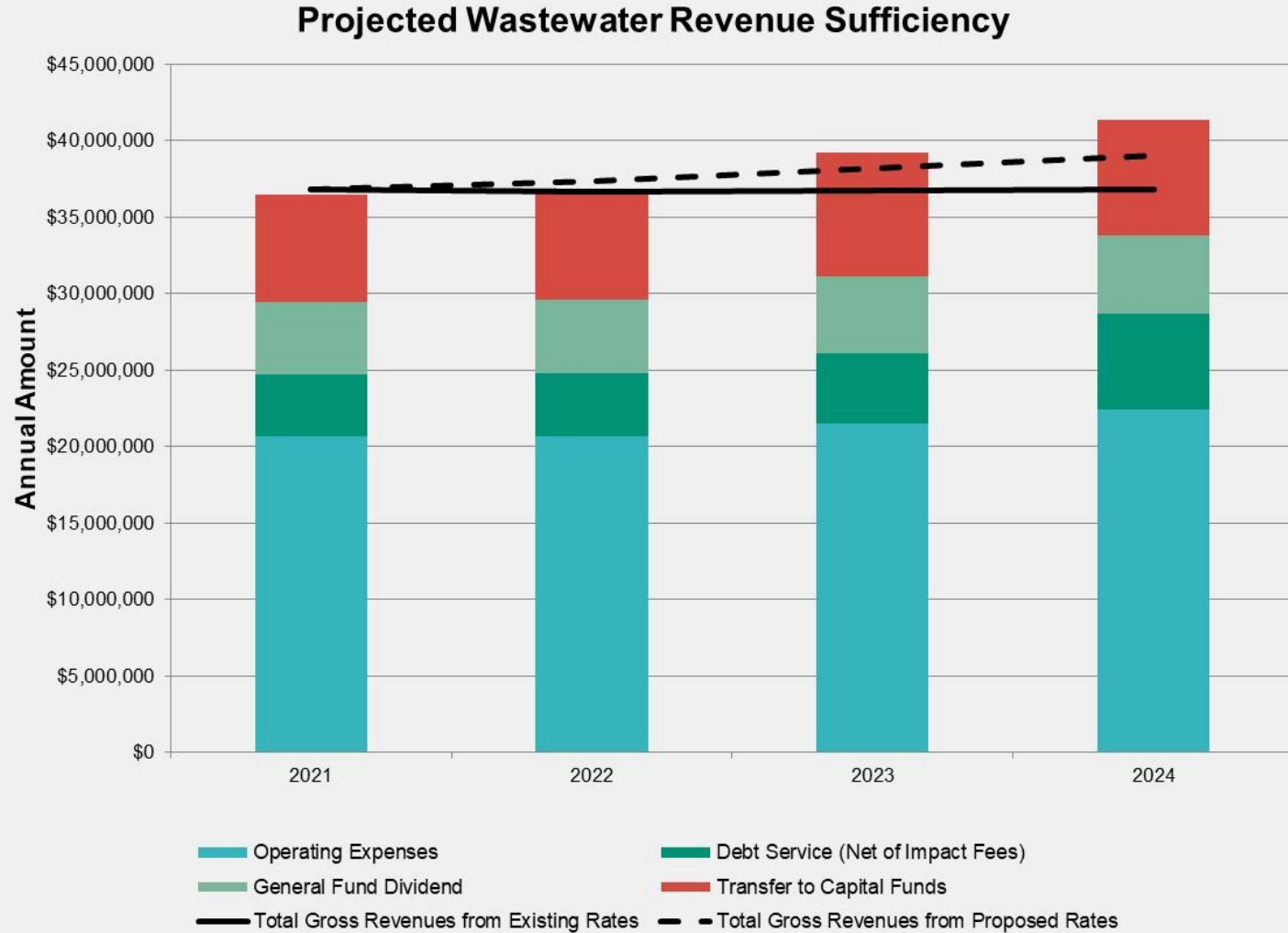
Adequacy of Existing and Proposed Rates



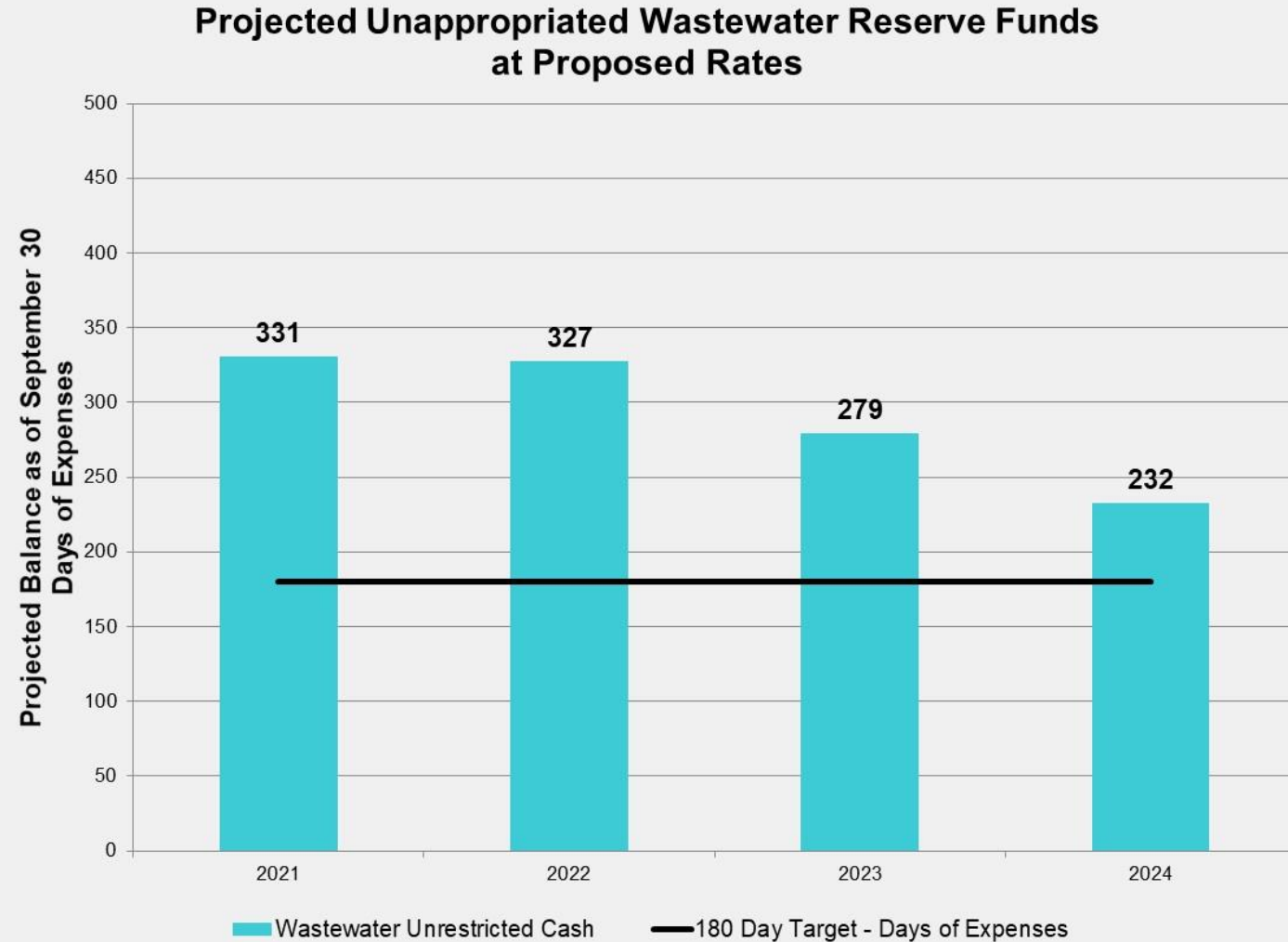
Projected Unappropriated Reserve Funds



Adequacy of Existing and Proposed Rates



Projected Unappropriated Reserve Funds



Attachments

Proposed Rates



Q / A

