

Wastewater Model Rate Results

March 5, 2020

Carson City Public Works

FARR WEST
ENGINEERING

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Wastewater Model Rate Results

To comply with the financial policies, the FCS Model suggested the following rate increases:

	FYE				
	2021	2022	2023	2024	2025
Model Suggested Increase to Generate Req. Revenue	3.84%	3.81%	2.97%	3.64%	1.92%

Farr West recommends a 3.5% yearly increase starting Jul 1, 2020

Wastewater Model Rate Results

3.5% yearly increases across-the-board to all customer classes starting Jul 1, 2020

- Meets financial goals and policies
 - Operating fund remains between 60 to 90 days of O&M expense
 - Capital fund remains above minimum target balance (2% of system fixed assets)
- Cash funds CIP through FY 2025
- Funds system reinvestment (depreciation) 100% by FY 2025

2020	2021	2022	2023	2024	2025
80%	83%	85%	88%	95%	100%
\$ 4,038,134	\$ 4,250,599	\$ 4,458,115	\$ 4,704,408	\$ 5,178,746	\$ 5,560,283

Wastewater CIP 2020-2025

Description	TOTAL FORECASTED PROJECT COSTS: FYE					
	2020	2021	2022	2023	2024	2025
Lift Station Reconstruction/Expansion	550,000	220,000			500,000	
Sewer Line Replacement / Rehab	2,084,750	2,337,000	2,497,500	2,490,000	2,544,000	2,500,000
Communications-Fiber-SCADA	40,000	40,000	40,000	40,000	40,000	40,000
WRRF Equipment Replacement	300,000	360,000	333,000	360,000	300,000	360,000
Facility Upgrade WRRF / Lines	225,000	175,000	175,000	175,000	175,000	175,000
Groundwater Protection-Sewer Maintenance	50,000	50,000	50,000	50,000	50,000	50,000
WRRF - Electrical Retrofit	100,000	1,190,000				
Reuse-Brunswick Canyon Reservoir Inlet/Outlet Rehab		350,000				
Reuse-Distribution System Rehab			500,000	500,000	650,000	1,108,000
Equipment & Fleet Replacement Program	220,000	105,000	195,000	235,000	65,000	100,000
Secondary Clarifier Effluent Pipeline Upsize			255,000			
Headworks-Screw Pump Rehab				182,000		
Dewatering System Rehab			580,000		126,000	
Primary Clarifier 2 Rehab						792,000
Facility Plan Update					250,000	
WRRF Expansion (Design) FY 29						
WRRF Expansion (Construction) FY 30						
WRRF Warehousing				650,000		
Clear Creek Sewer		1,000,000				
Total Capital Projects	3,569,750	5,827,000	4,625,500	4,682,000	4,700,000	5,125,000

Wastewater CIP 2020-2025

Sewer Line Replacement / Rehab

- Carson City wastewater collection system consists of 230 miles of pipeline.
- Approximately 44% is made of materials susceptible to wear and erosion from wastewater gases (i.e. not PVC).
- CIP funding based on addressing those lines over next 40 years.

WRRF Expansion

- Currently treating 5.2 mgd average, permitted for 6.9 mgd. Buildout of Carson City estimated at 8.3 mgd.
- Discharge Permit requires facility planning at 85% of capacity (5.9 mgd) to provide sufficient time for design and expansion before it's needed.
- Expansion anticipated to address flow capacity and possibly tightening regulations.

Clear Creek Sewer

- Carson City's share of replacement of the Clear Creek Sewer Main.
- Required if Special Assessment District moves forward.

Wastewater Model Debt Services

\$19.2M in bond sales to fund CIP projects in 2030

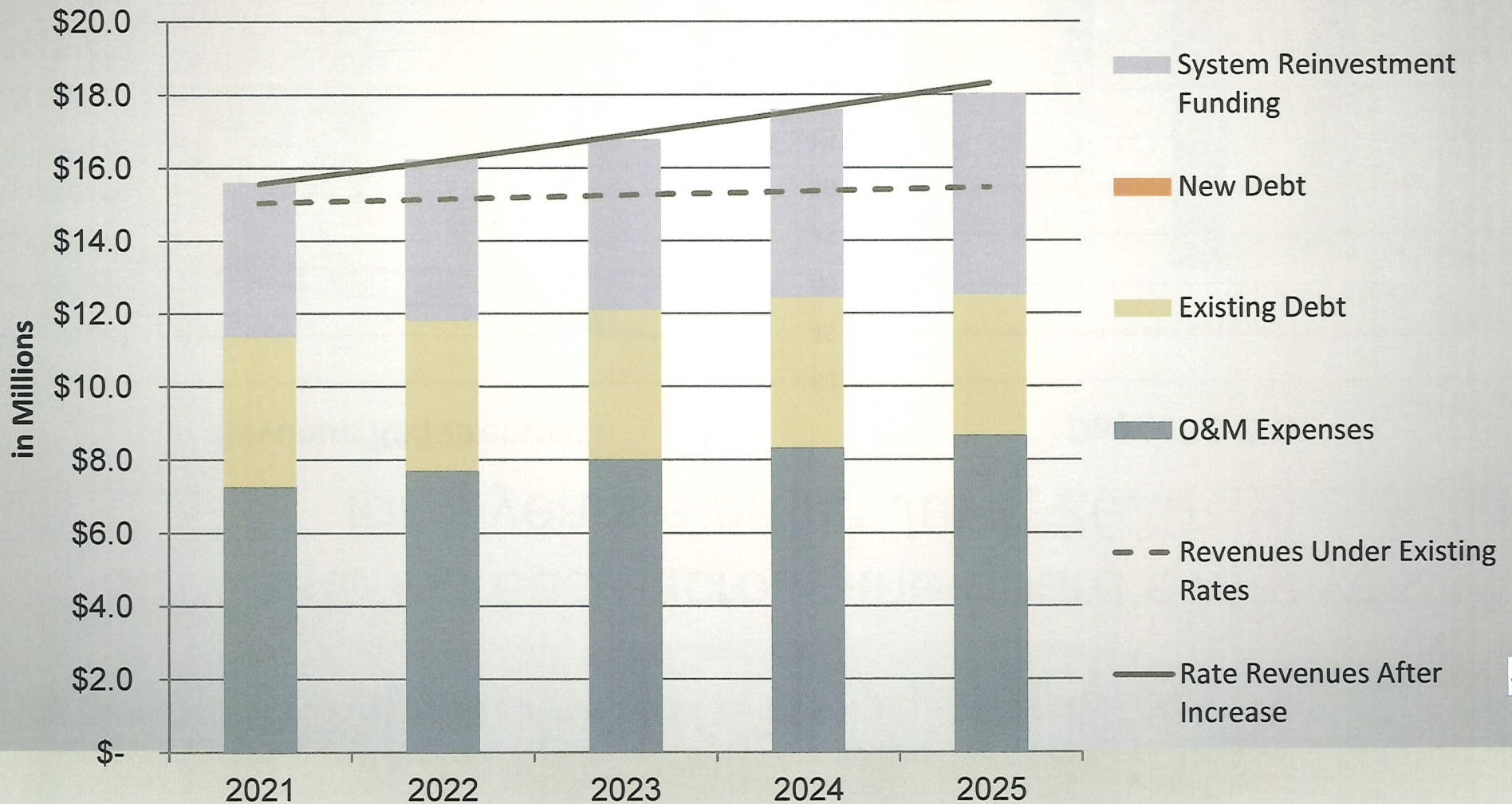
- WRRF Expansion anticipated design (2029) & construction (2030)

	2021	2022	2023	2024	2025	2026
Existing Debt Service Payment	4,085,892	4,085,932	4,078,077	4,095,901	3,810,658	3,813,173
Estimated New Debt Service Payment						
Total Estimated Debt Service	4,085,892	4,085,932	4,078,077	4,095,901	3,810,658	3,813,173

	2027	2028	2029	2030	2031	2032	2033
Existing Debt Service Payment	3,813,741	3,812,363	3,809,023	3,813,383	3,625,636	3,529,723	3,373,393
Estimated New Debt Service Payment				1,353,530	1,381,132	1,381,132	1,381,132
Total Estimated Debt Service	3,813,741	3,812,263	3,809,023	5,166,913	5,006,767	4,910,855	4,754,525

Wastewater Model Rate Results

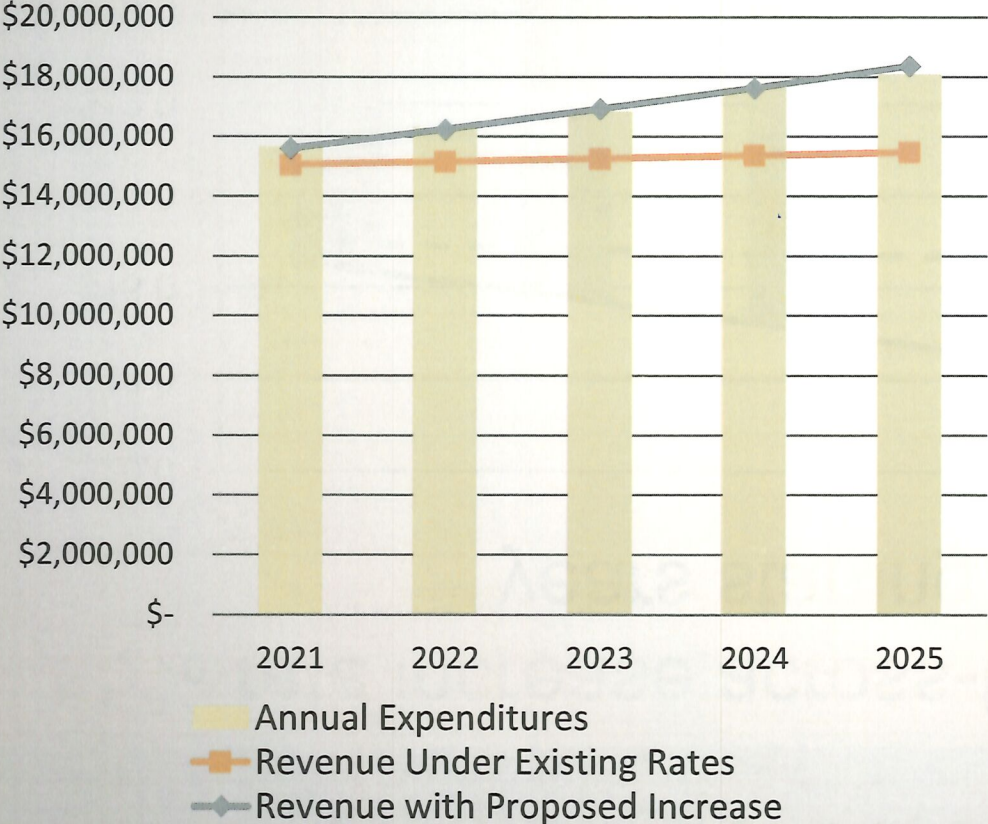
3.5% rate increase across-the-board every year for 5 years starting July 1, 2020



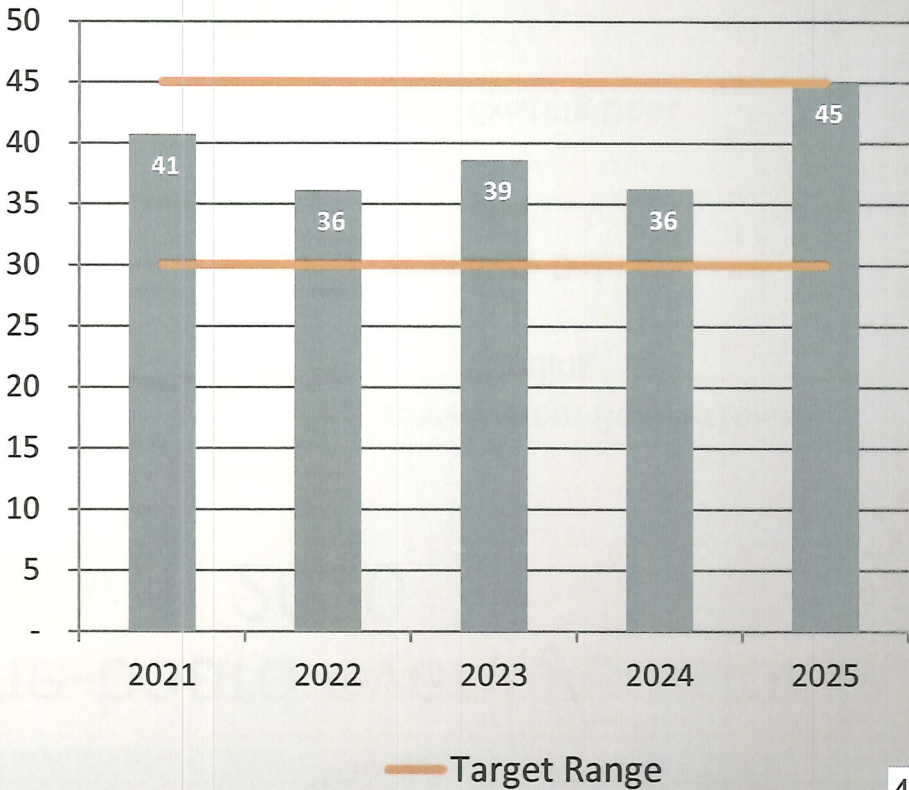
Wastewater Rates Model Results

3.5% rate increase across-the-board every year for 5 years starting Jul 1, 2020

Revenue Requirement



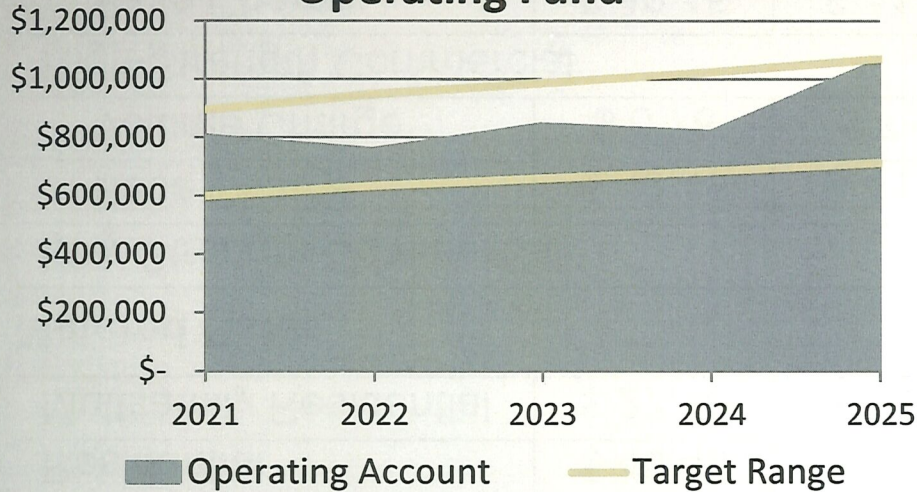
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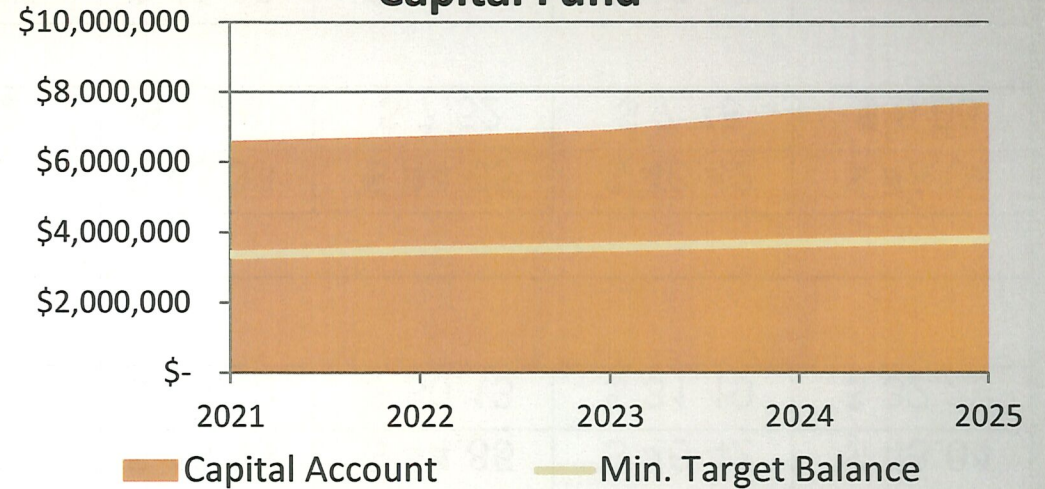
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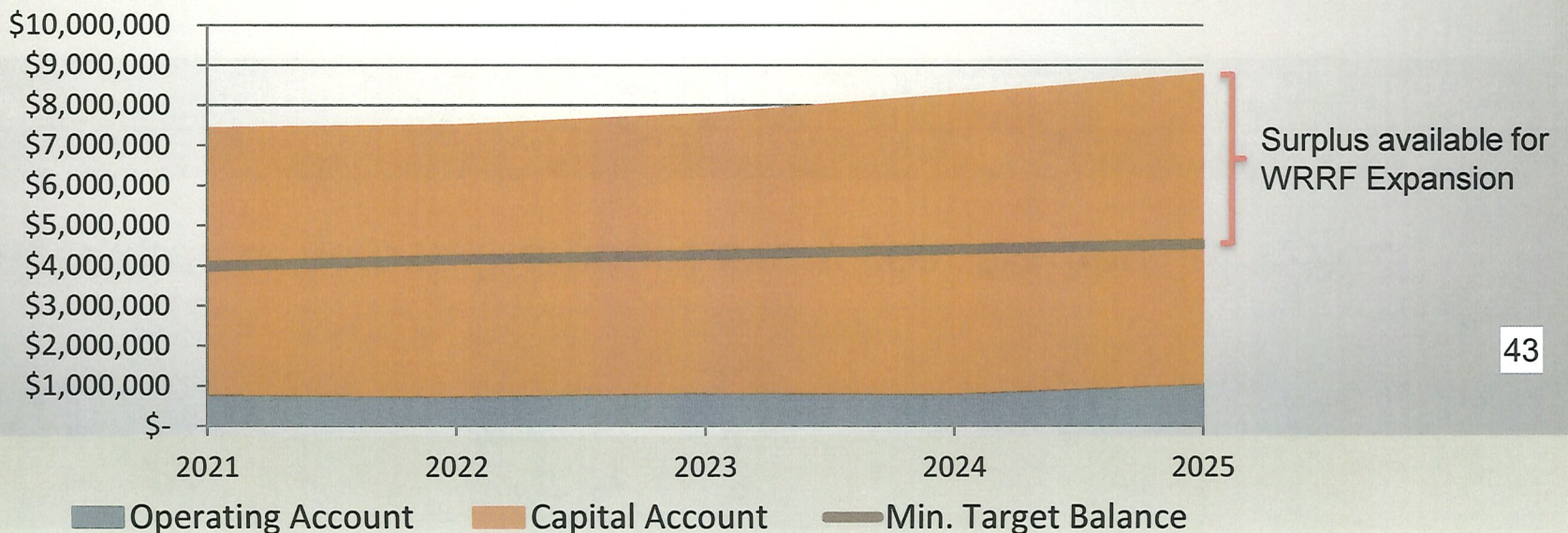
Operating Fund



Capital Fund



Combined Fund Balances



Wastewater Rates Model Results

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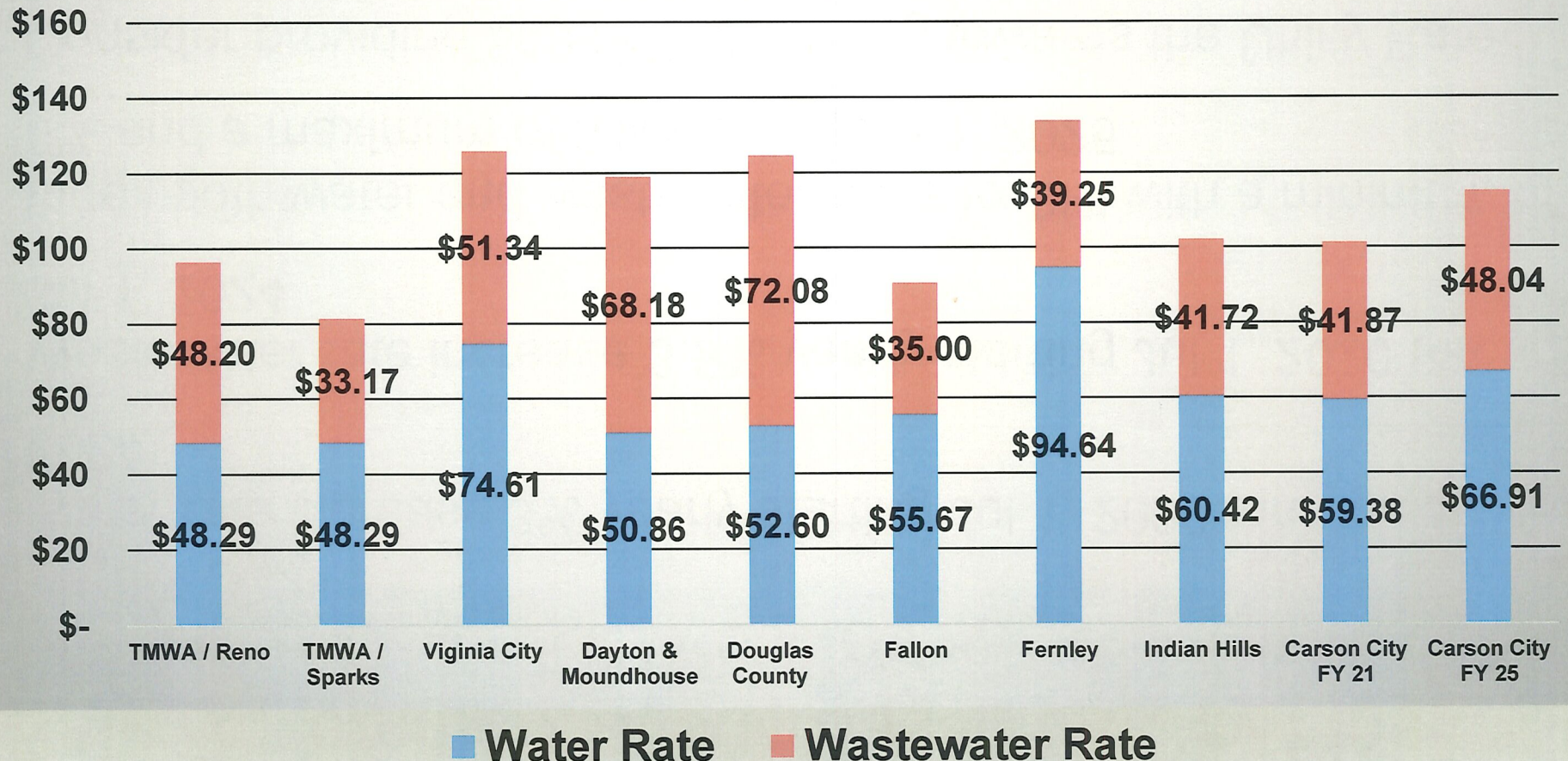
Customer Class	Existing Rate ⁱ	2021 Rates	2022 Rates	2023 Rates	2024 Rates	2025 Rates
Flat Rates						
Single Family Residential	\$ 40.45	\$ 41.87	\$ 43.33	\$ 44.85	\$ 46.42	\$ 48.04
Multifamily Residential	\$ 27.18	\$ 28.13	\$ 29.12	\$ 30.13	\$ 31.19	\$ 32.28
Metered Rates						
Low-Strength Commercial						
Base Charge	\$ 40.45	\$ 41.87	\$ 43.33	\$ 44.85	\$ 46.42	\$ 48.04
Volume Charge	\$ 6.78	\$ 7.02	\$ 7.26	\$ 7.52	\$ 7.78	\$ 8.05
High-Strength Commercial						
Base Charge	\$ 40.45	\$ 41.87	\$ 43.33	\$ 44.85	\$ 46.42	\$ 48.04
Volume Charge	\$ 11.98	\$ 12.40	\$ 12.83	\$ 13.28	\$ 13.75	\$ 14.23

i – Existing rates are effective Jul 1, 2017

Rate Comparisons

- Water rate for smallest residential meter size & 12 kgal consumption
- All rates are effective Jul 1, 2020 except for Carson City FY 25, TMWA (Oct 1, 2019), Fallon (Jan 1, 2019), & Douglas County (Jul 1, 2019)

Residential Rate



Rate Recommendations Based on City Financial Policies

- Water rate increase 3% yearly starting Jul 1, 2020 through Jul 1, 2024
- Wastewater rate increase 3.5% yearly starting Jul 1, 2020 through Jul 1, 2024
- Index both water and wastewater rates to CPI with a minimum of 0% and a maximum of 3% starting Jul 1, 2025
- Consider providing \$10,000 of funding towards the Utility Rate Payer Assistance Program (URAP)
- Maintain updated rate models throughout study periods to track impacts to both utilities
- Conduct rate refreshes every 5 years to ensure that indexed rates are meeting the operating and capital needs for both utilities

Next Steps

If the rate changes are approved, next steps include:

- Draft and submit a business impact statement
- Draft municipal code revisions for approval

Questions & Discussion

Thank you!