

City of Fernley

DRAFT

Utility Rates Study Update

All Figures and Numbers shown are Subject to Change while the Study is being conducted

Purpose of the Studies

- **Revenue Sufficiency** - Make sure sufficient money to operate the utilities (water and wastewater) and adhere to the City's reserve policy for the next 5 years to provide residents and business with clean, safe potable water and a reliable wastewater system that meets State and Federal regulatory standards
- **CIP** - Create adequate revenue for funding of capital improvement projects (CIP) for the water and wastewater systems
- **Meet Debt Covenants** – Ensure the City meets all existing debt obligations and those anticipated in the next 5 years

Key Assumptions for Both Utilities

- **New Growth**

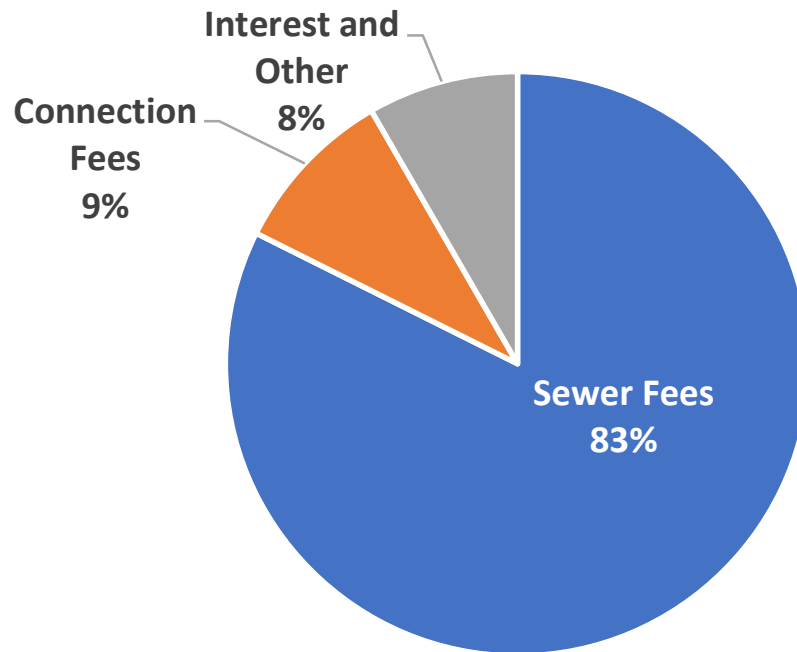
- 100 SF residential units and 10 commercial establishments per year

- **New Debt**

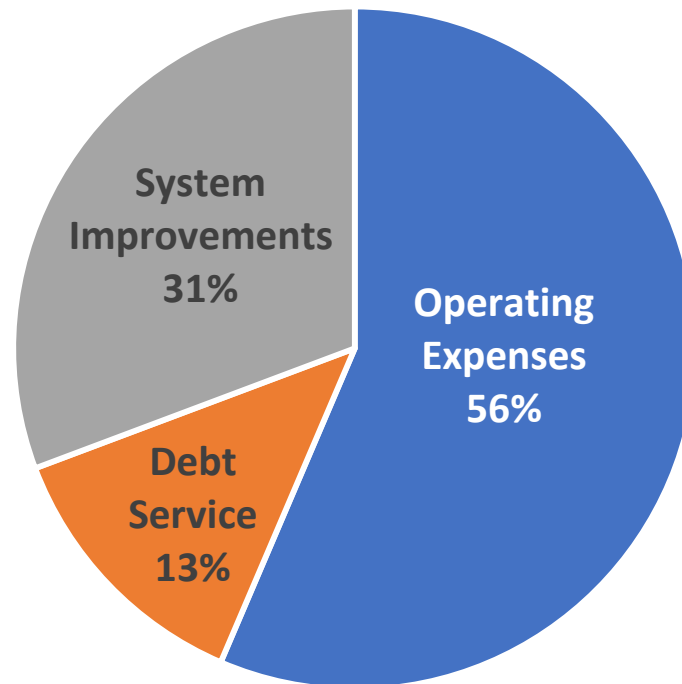
- Capital improvement projects greater than \$1 Million are paid for 25% with cash and 75% with new debt
- Actual bond sales will be determined as need arises

Wastewater (Sewer) Rate Study

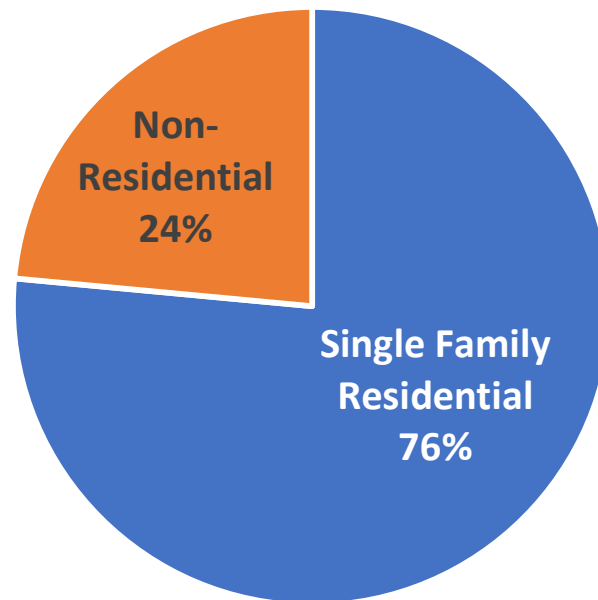
Wastewater Fund Revenues



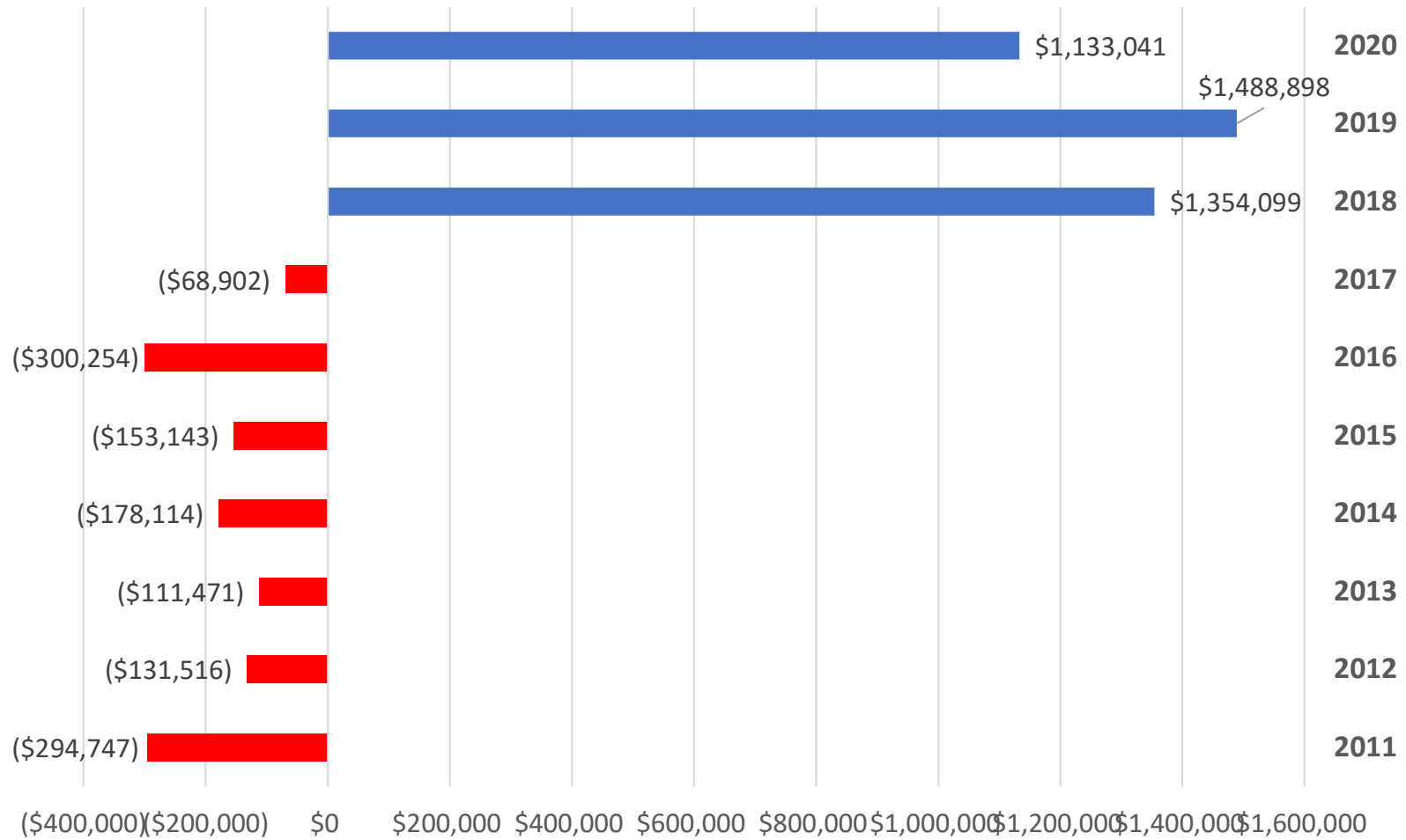
What are Monthly Fees Spent On?



Who Uses the Wastewater System?



Historical Annual Operating Income (Loss)



Findings

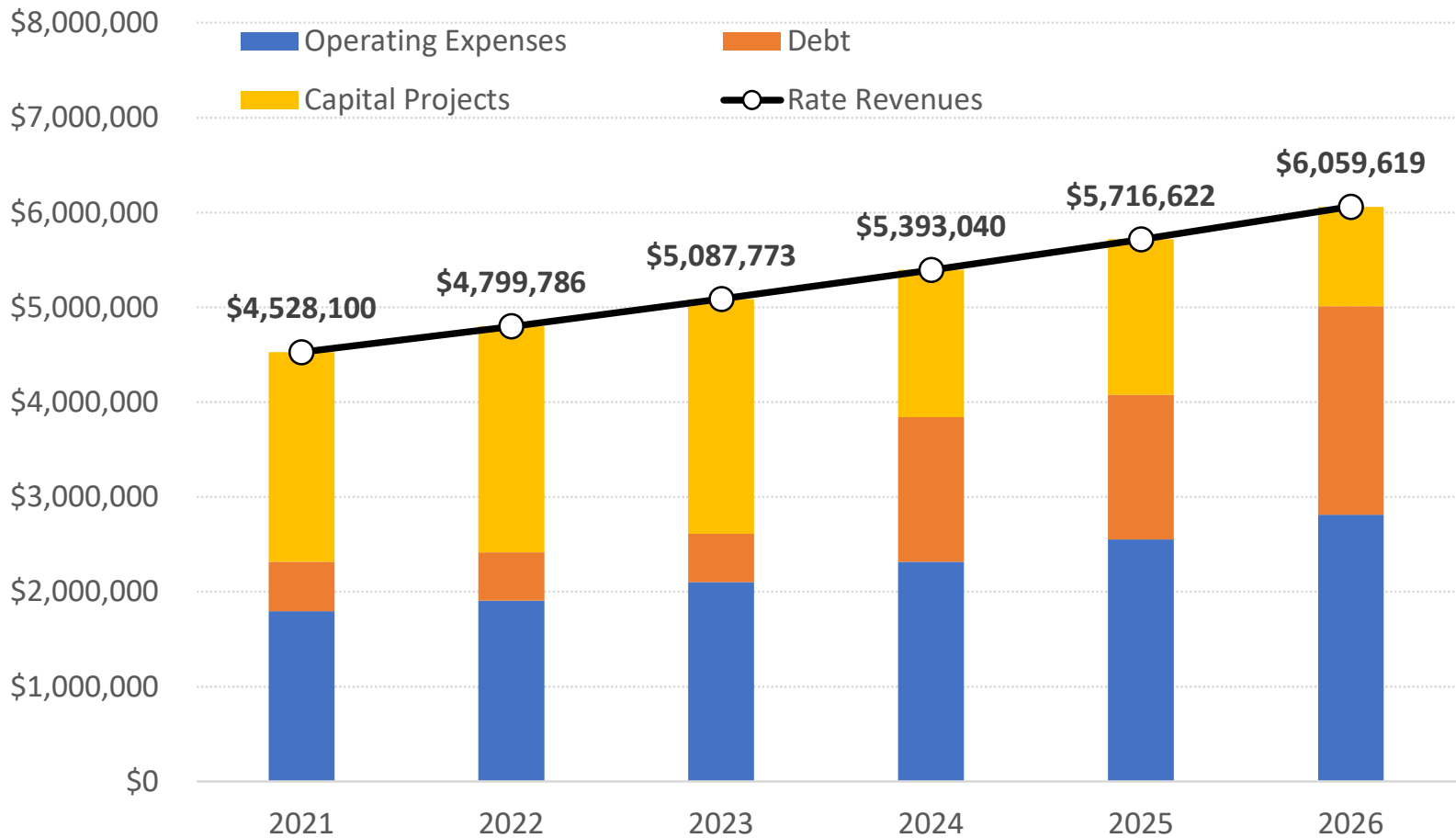
- Since the 2017 rate increases net revenues are positive and the City is able to work on system improvements and put some revenue aside for future major infrastructure needs
- There are major infrastructure needs in the next 5 years
- Amount of revenue needed increases 6.0% per year over the next 5 years

Projected Revenue Requirement

Determines amount to be collected in monthly fees

- Operating Costs
 - Increase 8% per year
- Debt Service
 - About \$530,000 per year currently
 - New debt for projects greater than \$1 Million to complete the CIP
- System Improvements
 - Collection for depreciation (replacement of existing assets)
- Less Credits
 - Interest earnings, credit card fees and connection fees

Projected Revenue Requirement



Capital Improvement Projects

Improvements	Current \$	Inflated \$
Collection		
Pipelines	\$6,920,000	\$7,547,000
Lift Stations	\$4,550,000	\$4,936,000
South Arm Interceptor	\$3,850,000	\$3,973,000
Treatment		
Plant Upgrade	\$10,000,000	\$11,000,000
Other Plant	\$910,000	\$910,000
Fleet & Other		
Crane Truck	\$90,000	\$90,000
Sewer Master Plan	\$75,000	\$75,000
Total Estimated Costs	\$26,395,000	\$28,531,000

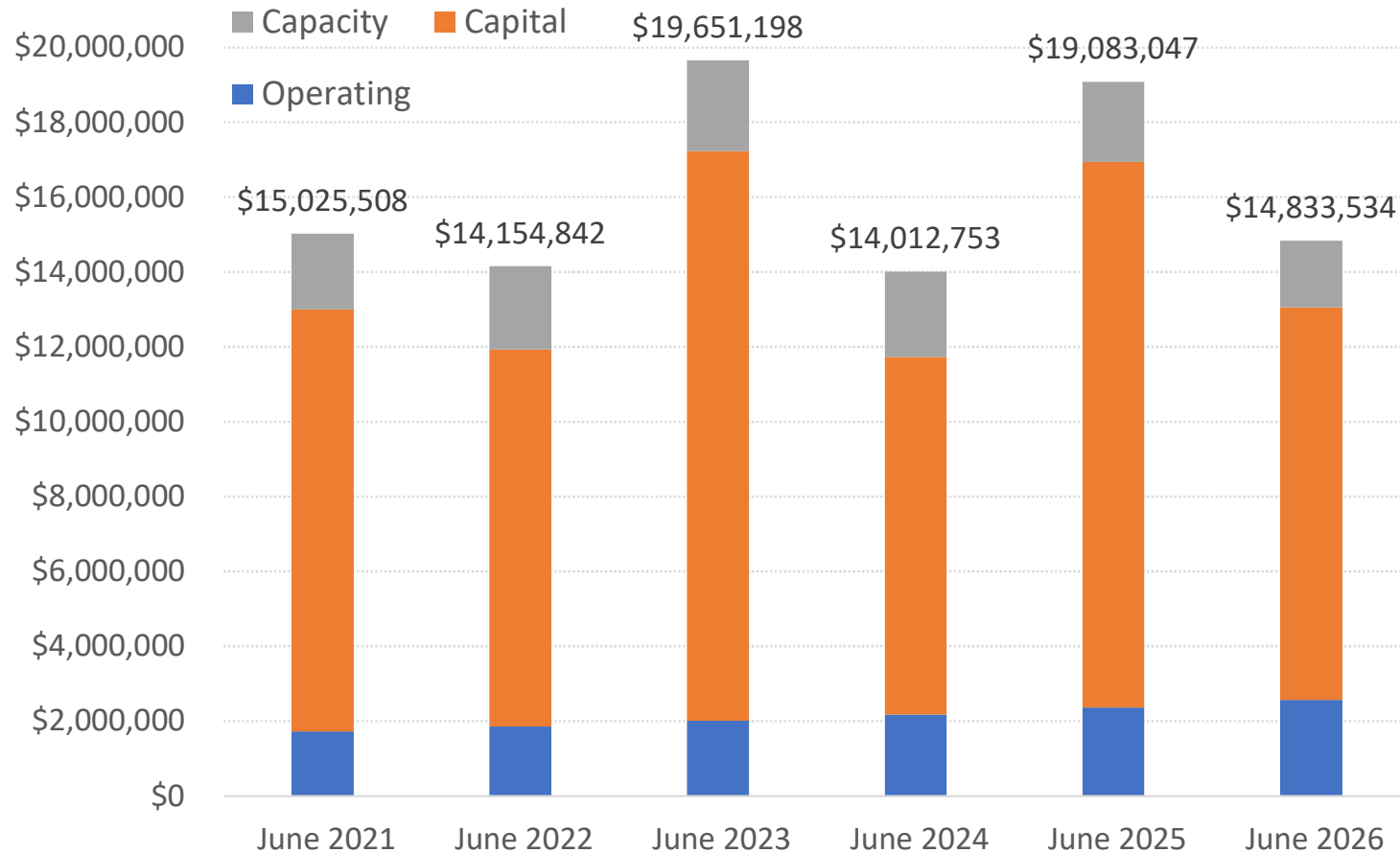
CIP Funding Plan

Source of Funds	5-Year Est. Total	Fiscal Year Ending				
		2022	2023	2024	2025	2026
Capital Reserve	\$9,147,221	\$3,075,000	\$2,234,000	\$1,792,813	\$875,349	\$1,170,060
Capacity Reserve	\$1,250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Bond Proceeds	\$18,134,044	\$0	\$5,433,750	\$5,363,423	\$3,076,692	\$4,260,179
Total Funding	\$28,531,265	\$3,325,000	\$7,917,750	\$7,406,235	\$4,202,041	\$5,680,239

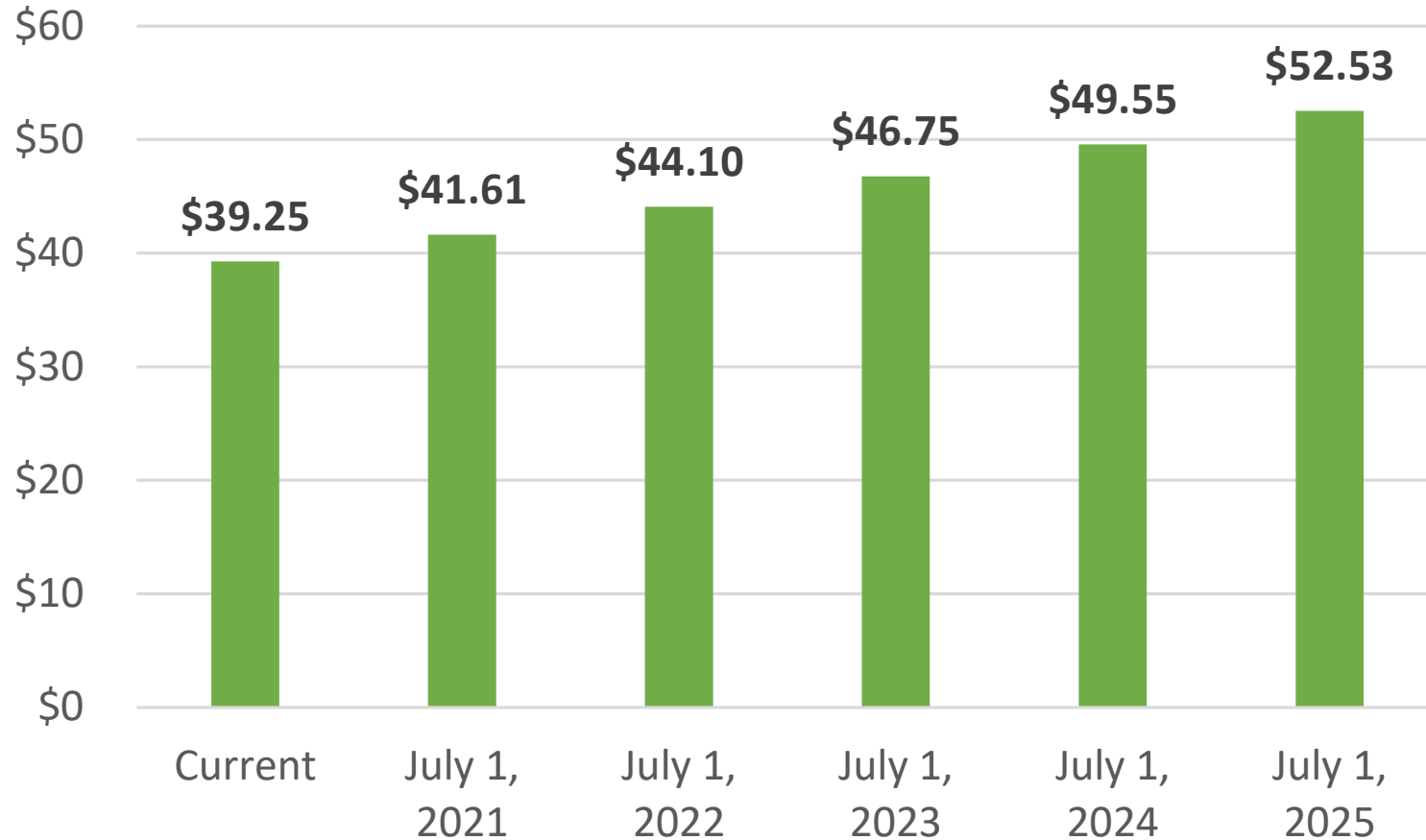
New Wastewater Rate Schedule

Customer Type	Current	Fiscal Year Ending				
		2022	2023	2024	2025	2026
	<i>New Rates Effective</i>	<i>July 1, 2021</i>	<i>July 1, 2022</i>	<i>July 1, 2023</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>
	Percentage Increase	6.0%	6.0%	6.0%	6.0%	6.0%
Residential						
Flat Monthly Charge per Unit	\$39.25	\$41.61	\$44.10	\$46.75	\$49.55	\$52.53
Non-Residential						
Use Charge per 1,000 Gallons	\$2.73	\$2.89	\$3.06	\$3.25	\$3.44	\$3.65
Flat Monthly Charge by Meter Size						
3/4"	\$66.04	\$70.00	\$74.20	\$78.65	\$83.37	\$88.38
1"	\$81.38	\$86.26	\$91.44	\$96.92	\$102.74	\$108.90
1.5"	\$130.90	\$138.75	\$147.08	\$155.90	\$165.26	\$175.17
2"	\$244.03	\$258.67	\$274.19	\$290.64	\$308.08	\$326.57
3"	\$630.78	\$668.63	\$708.74	\$751.27	\$796.35	\$844.13
4"	\$1,017.50	\$1,078.55	\$1,143.26	\$1,211.86	\$1,284.57	\$1,361.64
6"	\$1,627.02	\$1,724.64	\$1,828.12	\$1,937.81	\$2,054.08	\$2,177.32

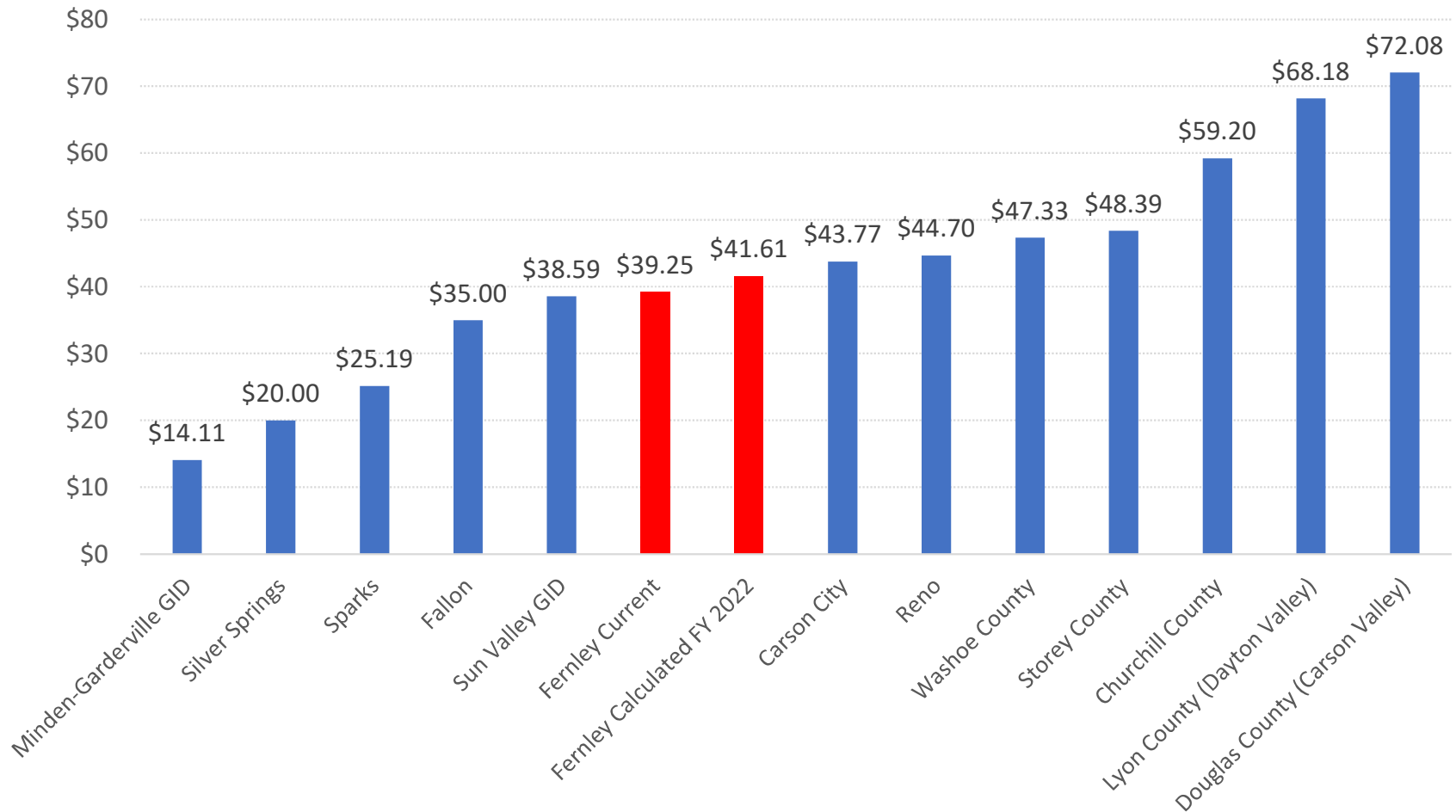
Projected Cash Reserves with New Rates and New Debt



Residential Home Bill Impacts



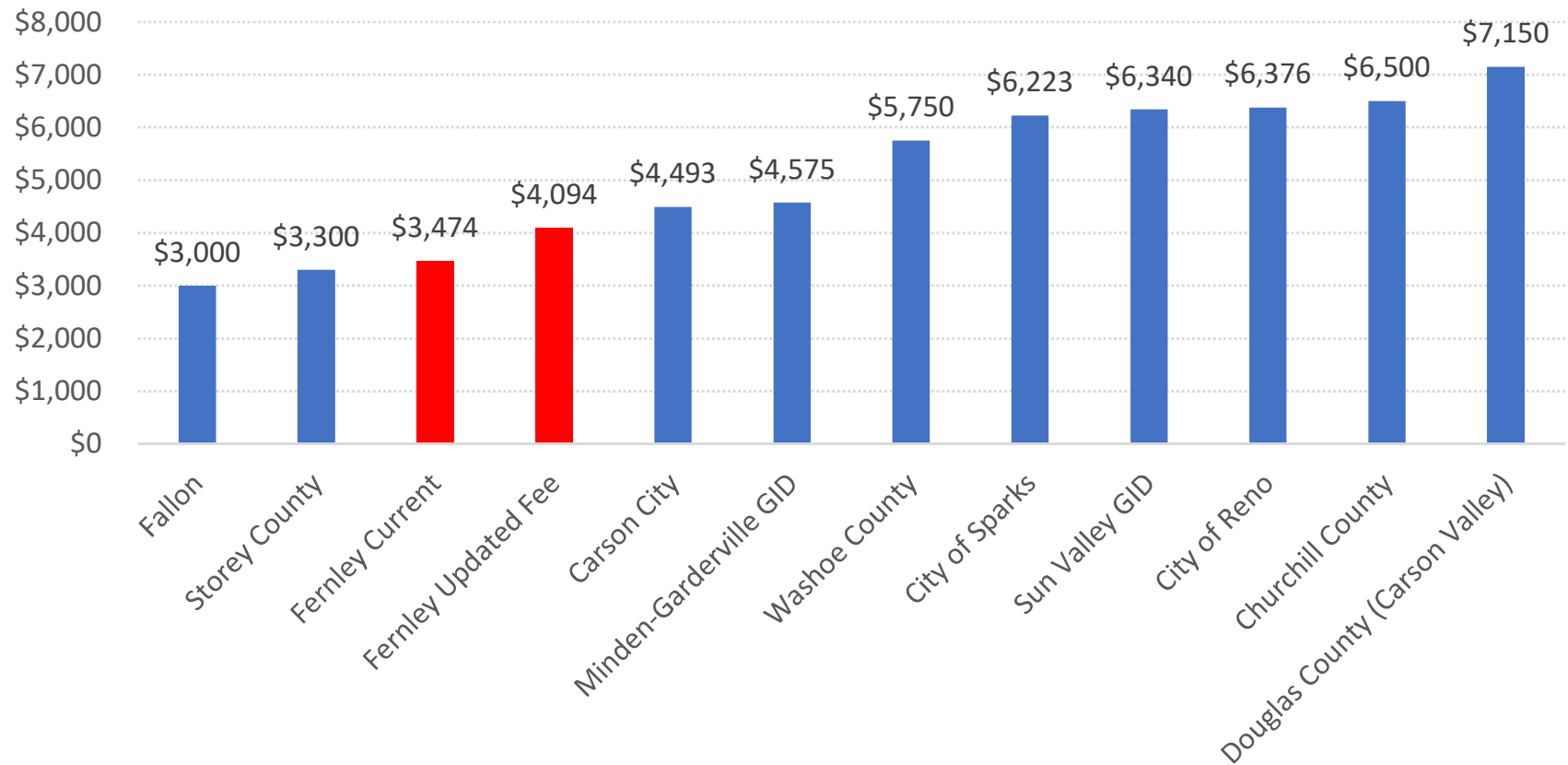
Wastewater Bill Comparison for a Single Family Home



Wastewater Connection Fee

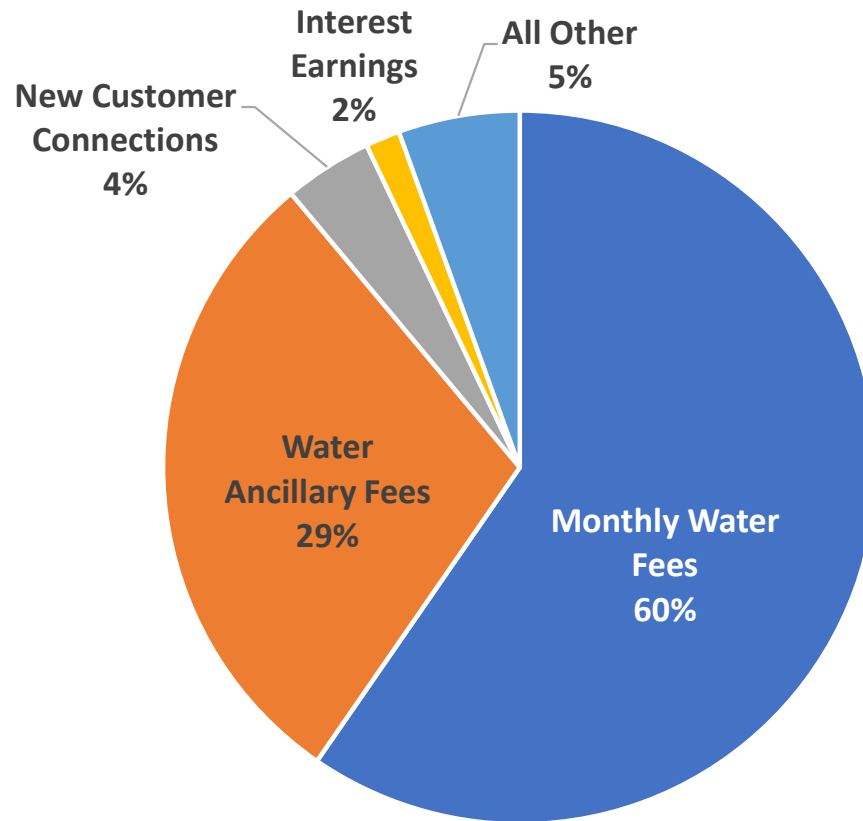
- Not been increased since 2014 (7 years)
- Needs to increase to include new growth's share of system rehabilitation and new infrastructure
- Includes a buy-in and new facilities fee
- Recommended increase from \$3,474 to \$4,094 per EDU
- Recommended automatic annual inflator

Wastewater Connection Fee Comparison for a Single Family Home

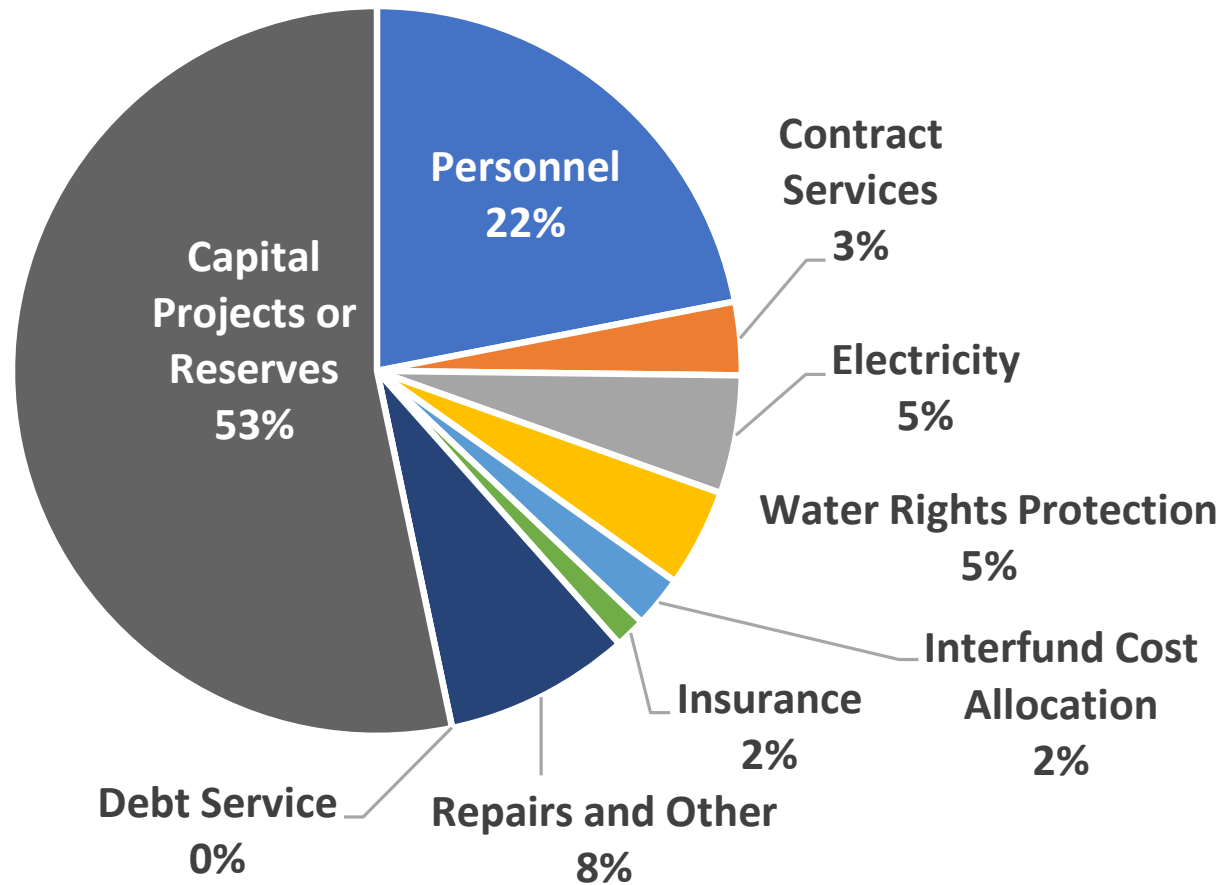


Water Rate Study

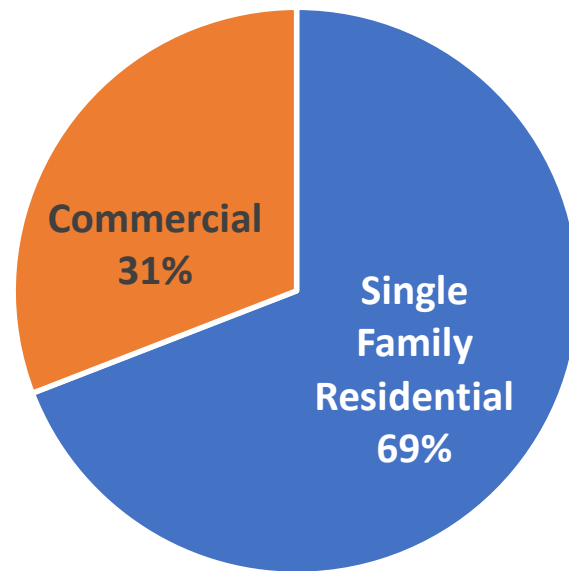
Water Fund Revenues



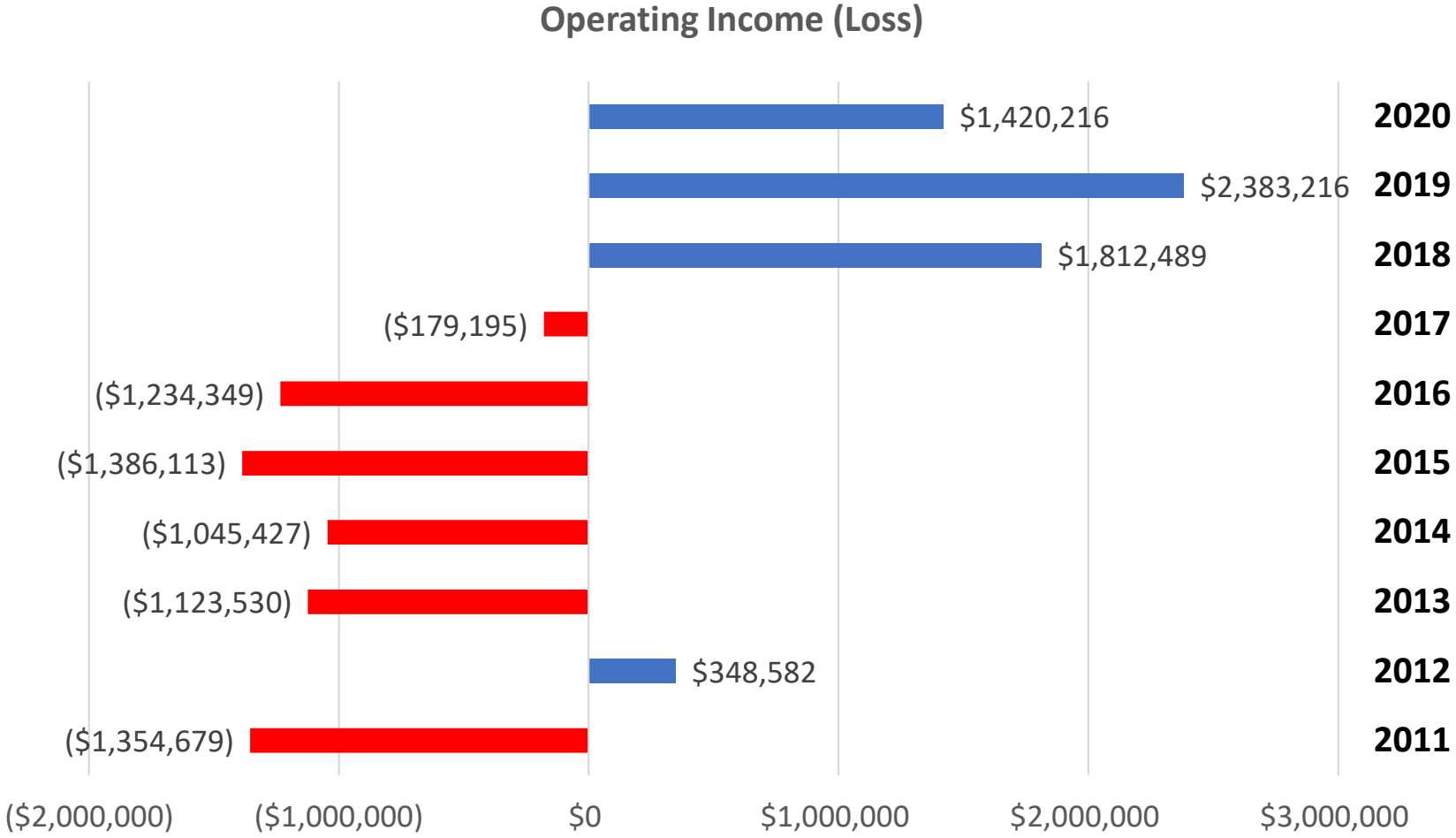
What are Monthly Fees Spent On?



Who uses the Water System?



Historical Annual Operating Income (Loss)



Findings

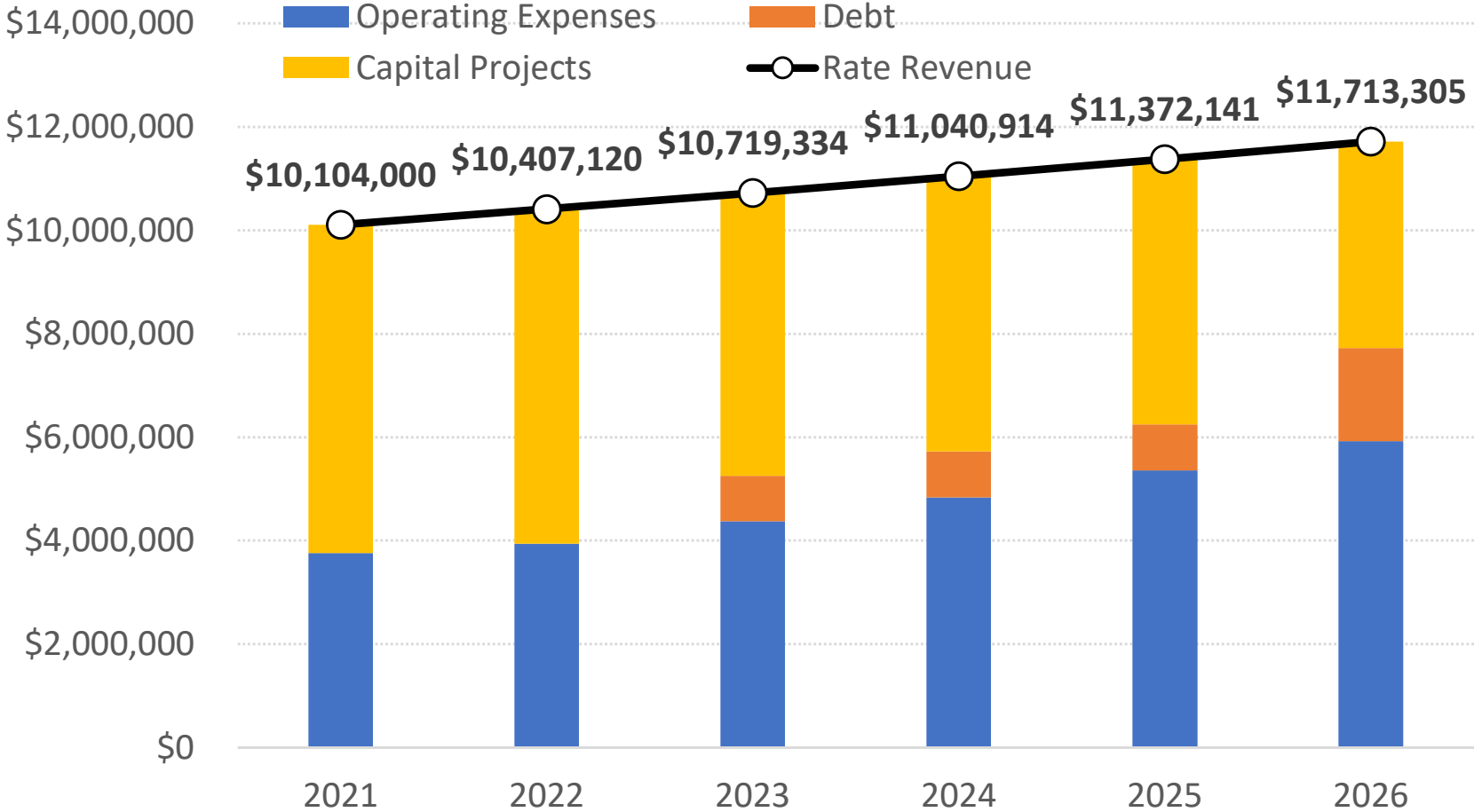
- Since the 2017 rate increases net revenues are positive and the City is able to work on system improvements and put some revenue aside for future major infrastructure needs
- Amount of money raised through rates needs to increase 3.0% per year to support additional operations costs and capital costs

Projected Revenue Requirement

Determines amount to be collected in monthly fees

- Operating Costs
 - Increases 9% per year
- Debt
 - New debt issued for projects greater than \$1 Million
- System Improvements
 - Collection for depreciation (replacement of existing assets)
- Less Credits
 - Credits include WTP debt assessments, connection fees, interest earnings, water rights leases, and other

Projected Revenue Requirement



Capital Improvement Projects

Improvements	Current \$	Inflated \$	Funded Costs (inflated \$)
Source Water *	\$9,395,000	\$10,451,000	\$3,683,000
Treatment	\$12,170,000	\$12,527,000	\$12,527,000
Storage	\$5,850,000	\$6,620,000	\$6,620,000
Transmission *	\$18,450,000	\$20,682,000	\$12,075,000
Meters & Services	\$1,312,000	\$1,413,000	\$1,413,000
Fleet	\$128,000	\$127,000	\$127,000
Total Estimated Costs	\$47,305,000	\$51,820,000	\$36,445,000

* Unfunded projects include development of Brady's Hot Springs and Projects 10 and 11 of the Water Master Plan. These are growth-induced projects that are not anticipated to be needed in the next 5 years.

CIP Funding Plan

Sources of Funds	5-Year Est. Total	Fiscal Year Ending				
		2022	2023	2024	2025	2026
Source of Funds						
Capital Reserve	\$13,857,457	\$3,697,000	\$2,887,950	\$2,030,433	\$1,649,311	\$3,592,762
Capacity Reserve [1]	\$3,000,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
Bond Proceeds	\$19,587,295	\$3,937,500	\$3,718,238	\$2,028,954	\$3,047,588	\$6,855,016
Total Funding	\$36,444,752	\$8,234,500	\$7,206,188	\$4,659,387	\$5,296,900	\$11,047,778
Unfunded Projects						
WMP Project 10 [2]	\$2,524,551	\$0	\$0	\$0	\$0	\$2,524,551
WMP Project 11 [2]	\$6,081,872	\$0	\$0	\$0	\$0	\$6,081,872
Other Unfunded Projects [3]	\$6,768,723	\$0	\$0	\$0	\$3,326,154	\$3,442,569
Total Unfunded Projects	\$15,375,145	\$0	\$0	\$0	\$3,326,154	\$12,048,992
Total Costs	\$51,819,897	\$8,234,500	\$7,206,188	\$4,659,387	\$8,623,053	\$23,096,769

Source: City of Fernley CIP and HEC 2021 rate study.

cip fund

[1] Connection fees put toward Master Plan Storage Project 12.

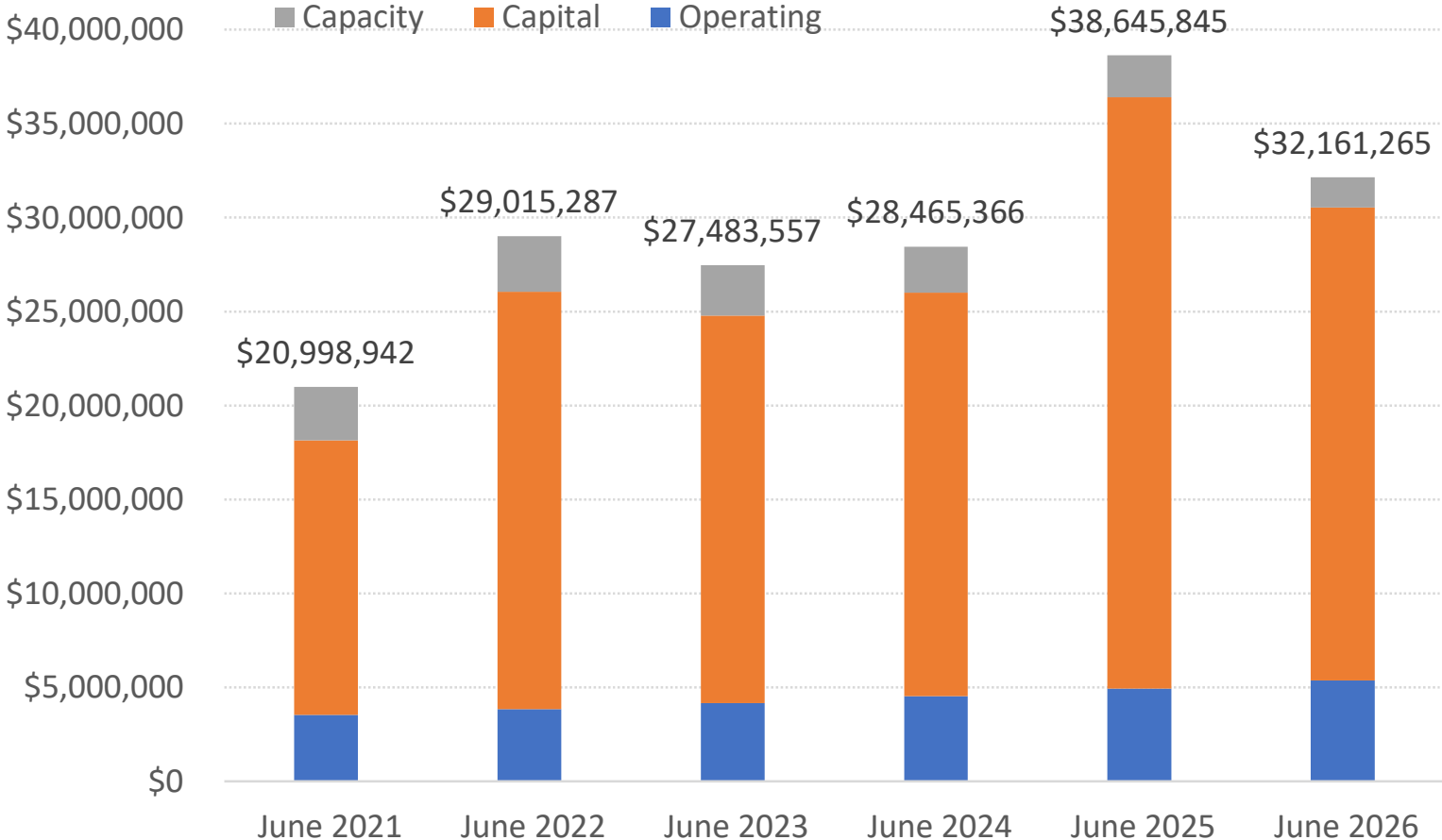
[2] These are growth-induced transmission projects.

[3] Development of Brady's Hot Springs.

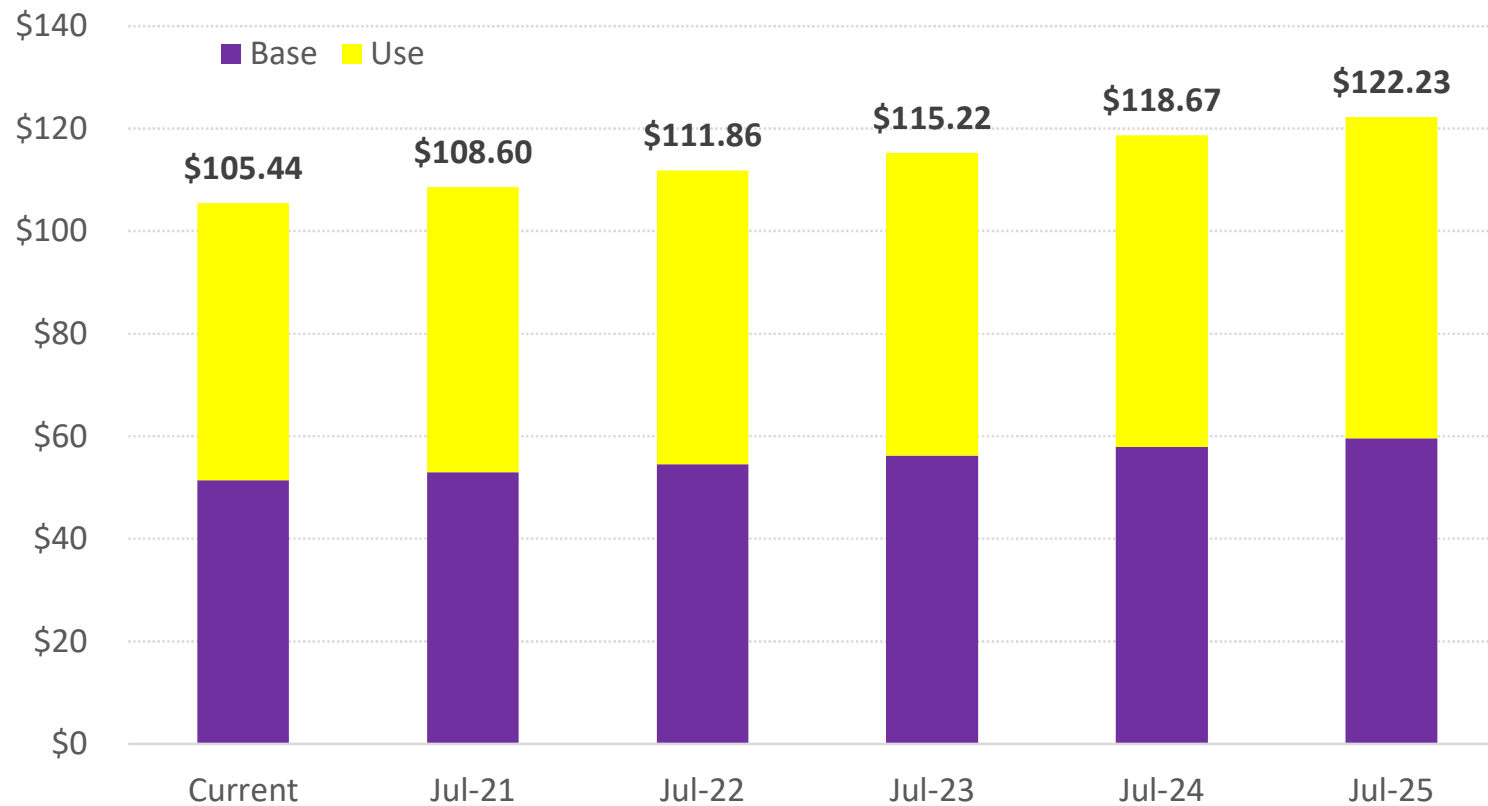
Water Rates Projection

	Current	7/1/2021	7/1/2022	7/1/2023	7/1/2024	7/1/2025
	<i>Percentage Increase</i>	3.0%	3.0%	3.0%	3.0%	3.0%
Service Charge						
			Charge per Month			
3/4"	\$51.44	\$52.98	\$54.57	\$56.21	\$57.90	\$59.63
1"	\$85.31	\$87.87	\$90.51	\$93.22	\$96.02	\$98.90
1.5"	\$202.93	\$209.02	\$215.29	\$221.75	\$228.40	\$235.25
2"	\$320.23	\$329.84	\$339.73	\$349.92	\$360.42	\$371.23
3"	\$732.52	\$754.50	\$777.13	\$800.44	\$824.46	\$849.19
4"	\$1,018.08	\$1,048.62	\$1,080.08	\$1,112.48	\$1,145.86	\$1,180.23
6"	\$2,272.70	\$2,340.88	\$2,411.11	\$2,483.44	\$2,557.94	\$2,634.68
Other Service Charges						
			Charge per Month			
Standby Fire Line (any size)	\$51.44	\$52.98	\$54.57	\$56.21	\$57.90	\$59.63
Hydrant Meter	\$83.12	\$85.61	\$88.18	\$90.83	\$93.55	\$96.36
Well & Key	\$49.87	\$51.37	\$52.91	\$54.49	\$56.13	\$57.81
Treated Water Use Charges						
Rate per 1,000 gallons	\$3.60	\$3.71	\$3.82	\$3.93	\$4.05	\$4.17
Raw Water Use Charges						
Rate per 1,000 gallons	\$0.98	\$1.01	\$1.04	\$1.07	\$1.10	\$1.14

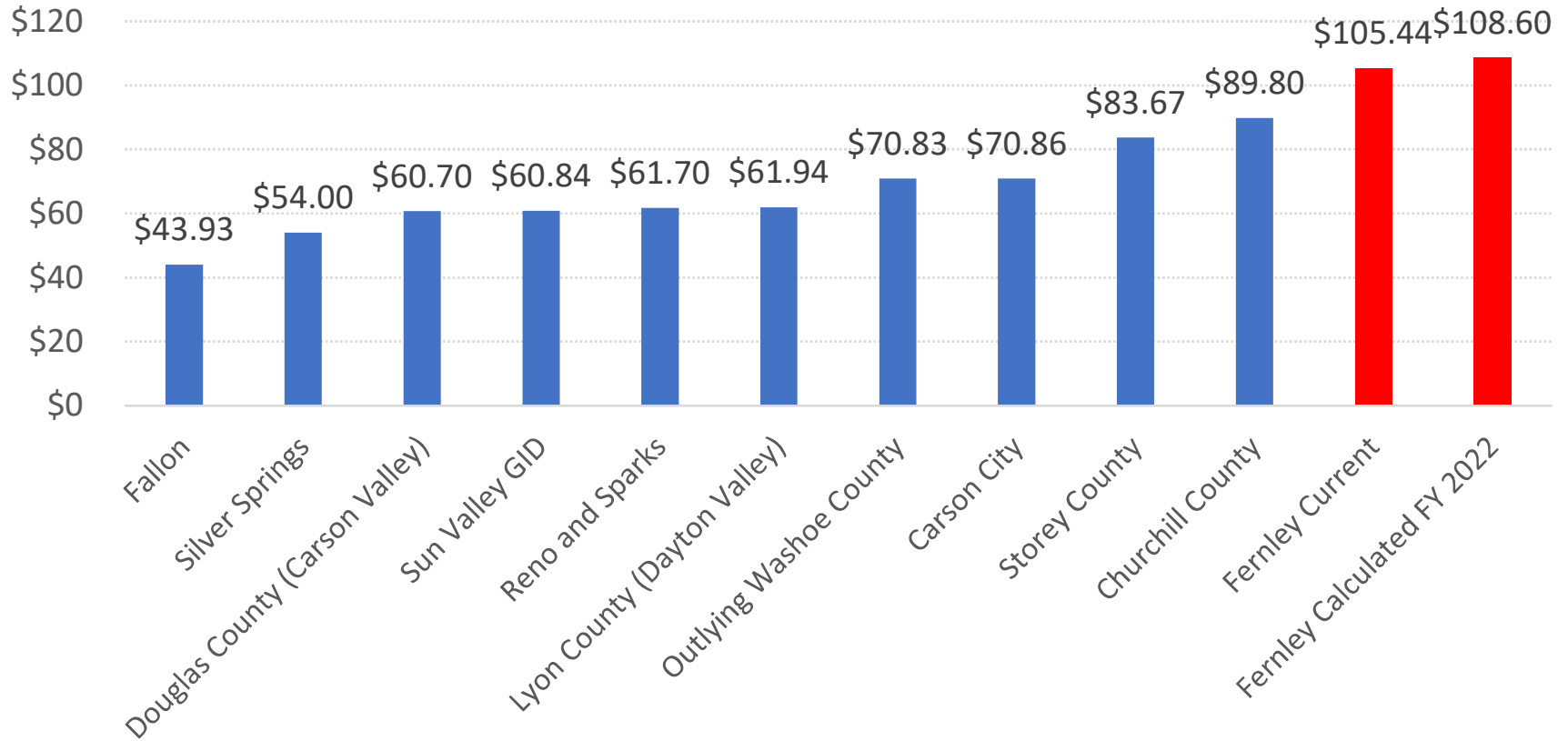
Projected Cash Balance with New Rates



Projected Bill - Residential Home using 15,000 Gallons



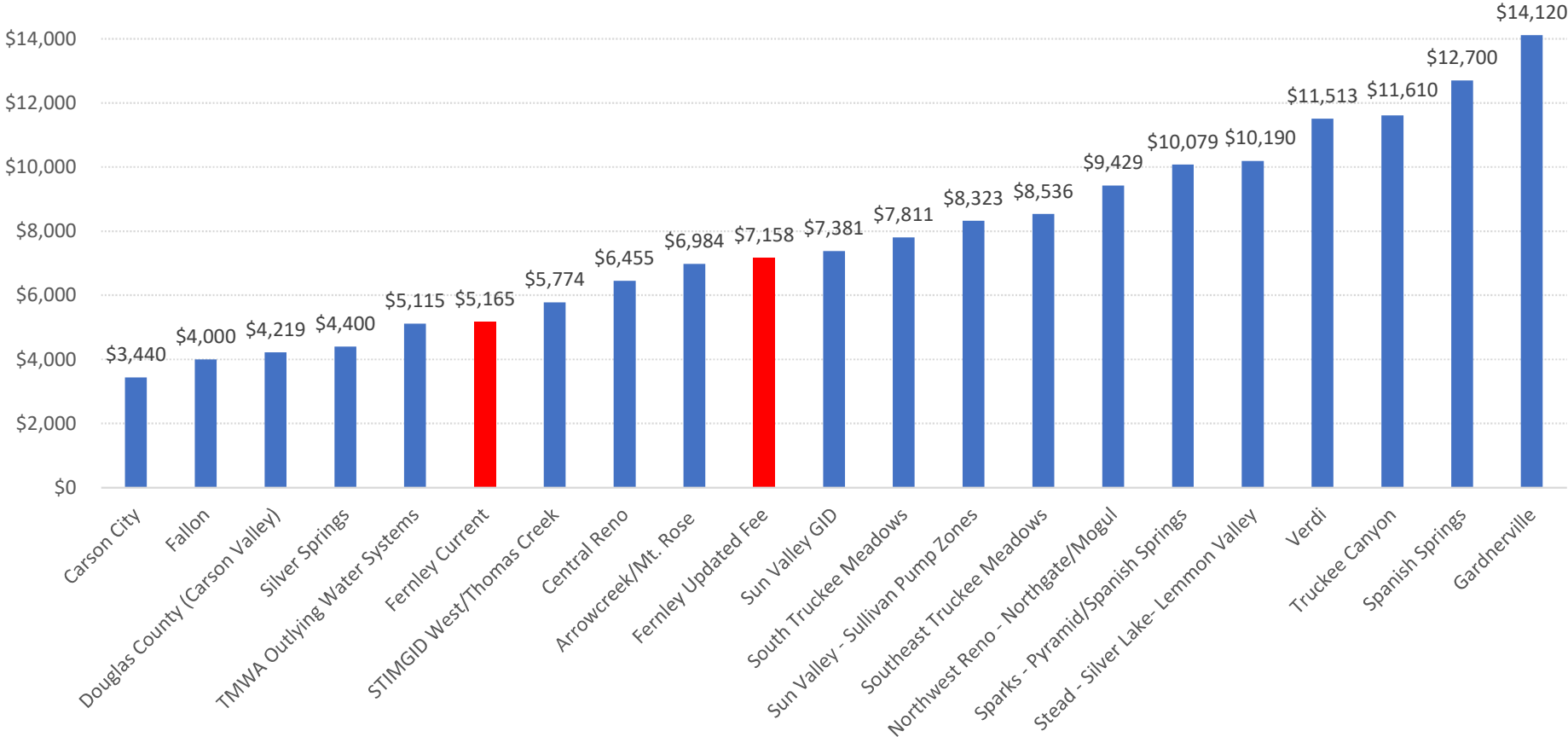
Water Bill Comparison for ¾" Meter using 15,000 Gallons



Water Connection Fee

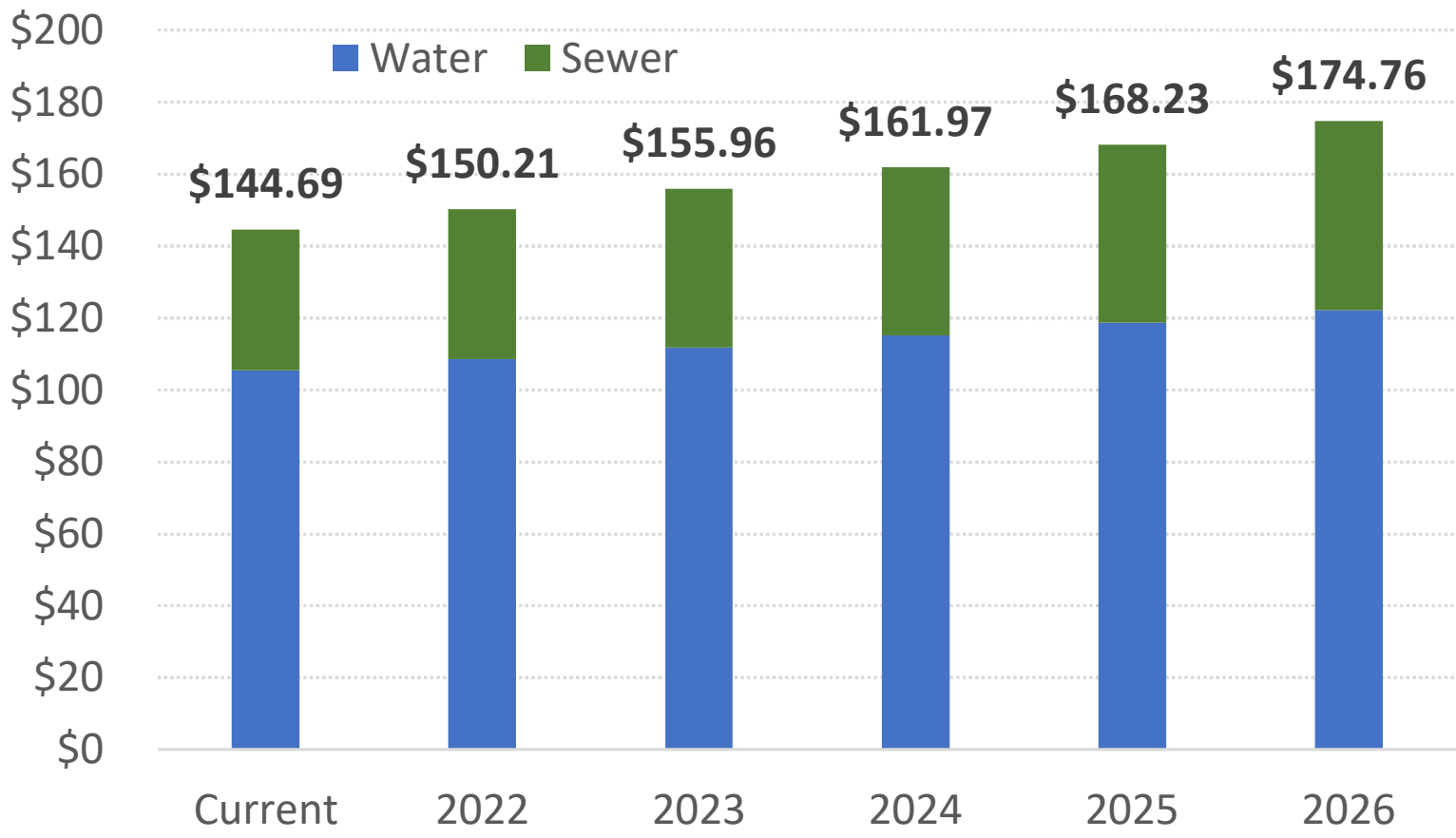
- Not been increased since 2014 (7 years)
- Needs to increase to include new growth's share of system rehabilitation and new infrastructure
- Includes a buy-in and new facilities fee
- Recommended increase from \$5,165 to \$7,158 per EDU
- Recommended automatic annual inflator

Water Connection Fee Comparison for a Single Family Home



Combined Bill Impacts

Residential Home Combined Bill Impacts



Water and Wastewater Bill Affordability

Utility	Current	Jul-21
Water		
Base Charge	\$51.44	\$52.98
Use Charges (15,000 galls)	\$54.00	\$55.62
Total Water Bill	\$105.44	\$108.60
Wastewater Bill	\$39.25	\$41.61
Total Water and Wastewater Bill	\$144.69	\$150.21
Increase in Bill		\$5.52
Percentage Increase		3.8%
<hr/>		
Fernley Median Household Income (MHI)	\$5,030	\$5,030
Bills as % of MHI [1]	2.9%	3.0%

Source: HEC 2021 rate study.

comb

[1] The EPA considers combined water and wastewater bills that are less than 4.5% of MHI to be affordable.

Summary of Calculated Rate Changes

- Wastewater (sewer) rates increase 6.0% per year
- Water rates increase 3.0% per year
- The calculated rate increases are in sync with the national trend in rate increases
 - *In May 2019, the American Water Works Association released an article, “Rate survey: water cost increases outpacing other U.S. goods and services” in which it reported between 2014 and 2018 **water rates increased 5.1% per year and wastewater rates increased 5.6% per year.***
 - *In June 2020 the National Association of Clean Water Agencies determined that the **cost of wastewater service more than doubled the rate of inflation over the past twelve months, the 18th consecutive year that the increase in charges has outpaced inflation.***