

# City of Richmond Wastewater Rate Study



February 4, 2020

# Issues Driving the Rate Study

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- Five years since last comprehensive rate study;
- Utility financial needs:
  - Increasing operating costs;
  - New debt service obligations;
  - Ongoing capital expenditures;
- Maintain reserves for future capital projects
- Enterprise self-sufficiency



# Rate Study Objectives

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The primary goals and objectives of the wastewater rate study include:

- Full cost recovery of utility expenditures;
- Cost-based rate structure;
- Equity among customer classes;
- Administrative efficiency;
- Incorporation of a 5-Year financial plan;
- Consistency with industry standards;
- Compliance with Proposition 218 requirements



# Rate-Setting Considerations

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- Industry standards
- Prop 218 compliance
- Existing rate structure
- Impact on existing customers
- Current economic conditions
- Comparability with neighboring utilities
- Impact on future economic development



# Existing Rate Structure

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**The existing wastewater rates utilize a rate structure as follows:**

- **Single Family Residential** – Flat fee amount applied annually per connection.
- **Multi-Unit Residential** – Flat fee amount applied annually per dwelling unit.
- **Commercial/Industrial** – Flow charge per IWU (Industrial Wastewater Unit), strength charges for BOD and TSS, with a minimum annual charge.



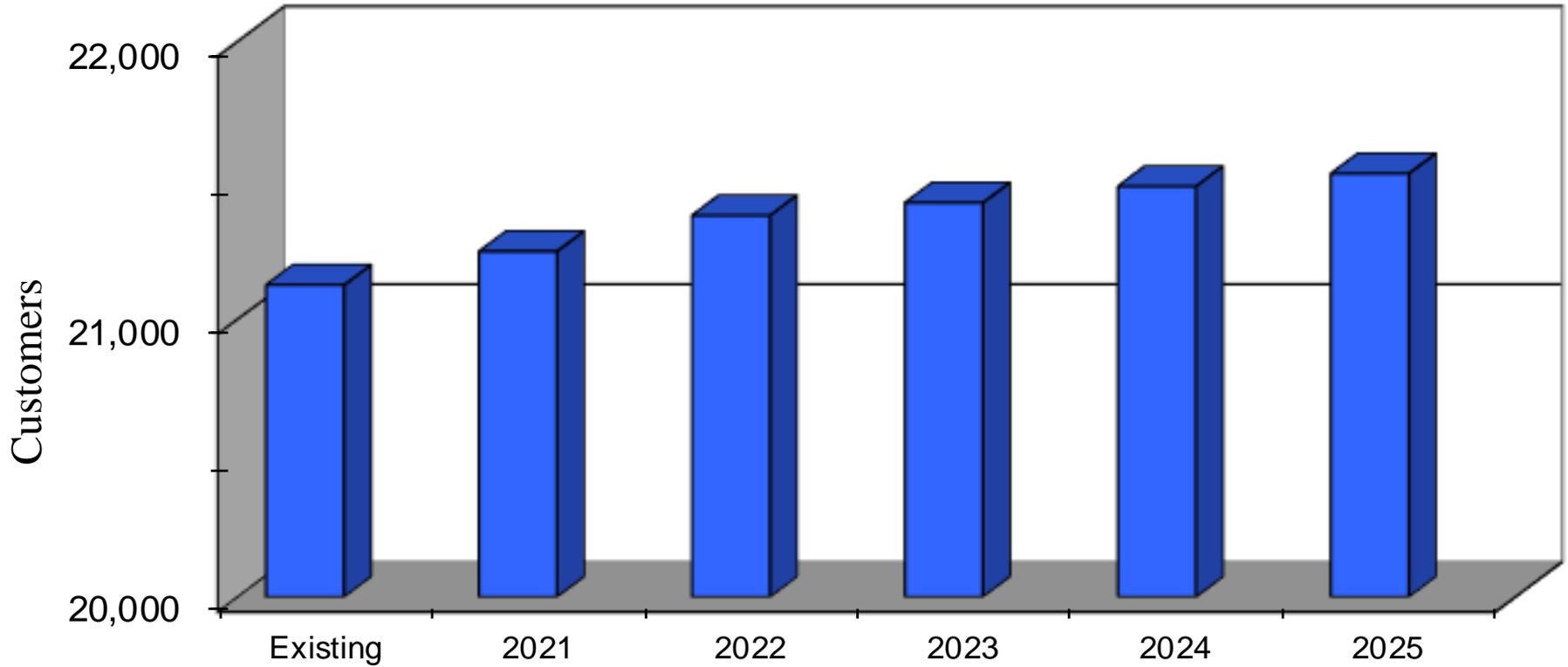
# Existing Rates – FY 2019/20

Description	Existing Rates	
	Wastewater	
<b>Single Family:</b>	\$	880.00
<b>Multiple Family (1):</b>	\$	707.00
<b>Commercial/Industrial:</b>		
Minimum Charge	\$	527.00
Flow Rate Per IWU	\$	63.81
Per LB of BOD	\$	1.35
Per LB of TSS	\$	0.63

(1) Per Dwelling Unit



# Customer Growth Projections

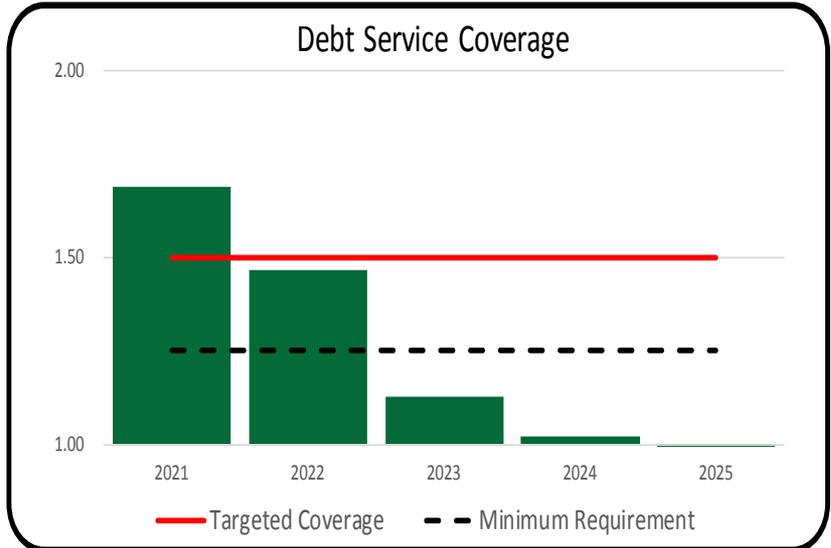
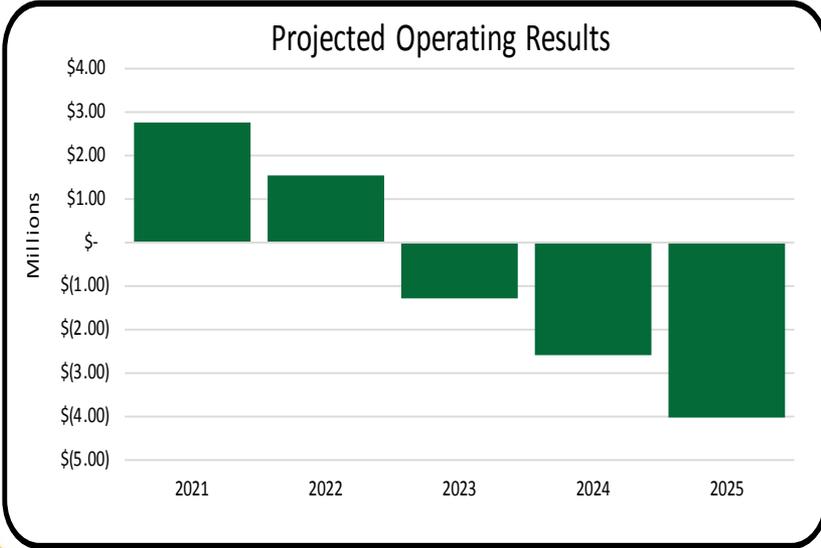
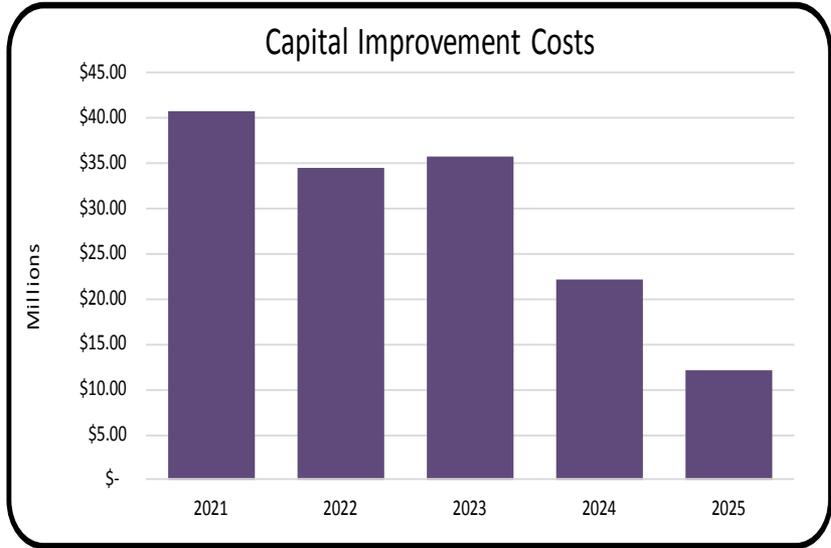
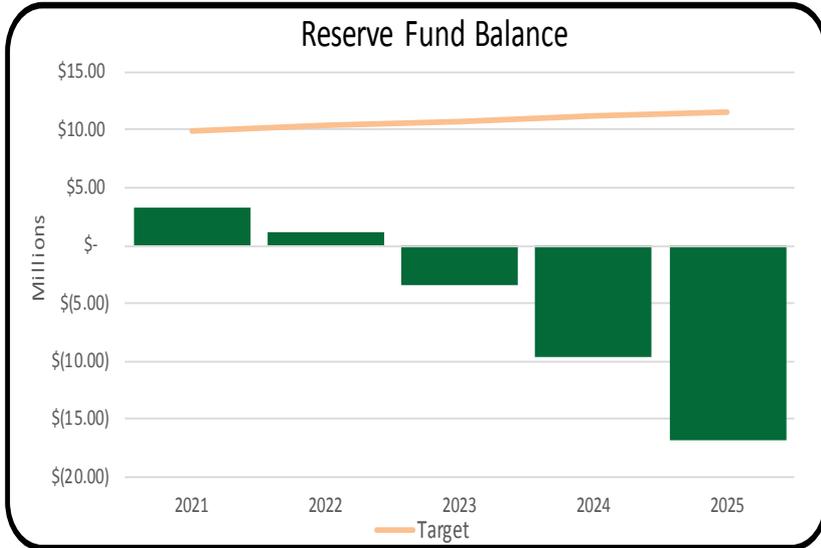


# Financial Projection @ Existing Rates

Description	Existing Rates	Proposed Rates 2021				
		2021	2022	2023	2024	2025
<b>Revenues:</b>						
User Rate Revenues	\$25,652,023	\$25,788,631	\$26,181,463	\$26,322,263	\$26,502,487	\$26,643,287
Other Revenues	1,212,260	1,212,260	1,371,300	1,217,493	936,182	937,438
<b>Total Revenues</b>	<b>\$26,864,283</b>	<b>\$27,000,891</b>	<b>\$27,552,763</b>	<b>\$27,539,756</b>	<b>\$27,438,669</b>	<b>\$27,580,725</b>
<b>System Expenditures:</b>						
O&M Costs	\$13,279,750	\$13,279,750	\$13,782,290	\$14,311,460	\$14,859,587	\$15,433,141
Debt Service (P&I)	8,162,266	8,162,266	9,421,100	11,718,165	12,395,124	13,396,415
Cap Outlay/Auto Equip>5,000	44,000	44,000	44,000	44,000	44,000	44,000
Cap Outlay/Cap Prj In Progress	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Brick Manhole Lining Program	250,000	250,000	250,000	250,000	250,000	250,000
<b>Total Expenditures</b>	<b>\$24,236,016</b>	<b>\$24,236,016</b>	<b>\$25,997,390</b>	<b>\$28,823,625</b>	<b>\$30,048,711</b>	<b>\$31,623,556</b>
<b>System Revenue Excess (Deficiency):</b>						
\$ Amount	\$ 2,628,267	\$ 2,764,875	\$ 1,555,373	<b>\$ (1,283,869)</b>	<b>\$ (2,610,042)</b>	<b>\$ (4,042,831)</b>
Percentage	9.78%	10.24%	5.65%	-4.66%	-9.51%	-14.66%
<b>Debt Service Coverage</b>	<b>1.66</b>	<b>1.68</b>	<b>1.46</b>	<b>1.13</b>	<b>1.01</b>	<b>0.91</b>



# Graphic Illustration @ Existing Rates



## Sewer Projections



# Major Capital Expenditures Needs

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- Treatment Plant Rehabilitation
  - Headworks and Secondary Process Upgrades
  - Electrical, Biosolids, SCADA, etc.
- Significant Inflow/Infiltration (I/I)
- High number of Sanitary Sewer Overflows (SSOs)
  - Wet Weather Capacity
  - Dry Weather (roots, FOG, debris, pipe failure)
- Pipe condition scoring – NASSCO PACP



# 5-Year Capital Improvement Program

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## Fiscal Year

## Capital Expenditures

2021	\$ 40,682,100
2022	34,422,800
2023	35,822,000
2024	22,212,100
2025	12,110,500
Total	<hr/> <u>\$ 145,249,500</u>



# Proposed Rates – FY 2021

<b>Description</b>	<b>Proposed Rates</b> <b>Wastewater</b>	
<b>Single Family:</b>	\$	940.00
<b>Multiple Family (1):</b>	\$	752.00
<b>Commercial/Industrial:</b>		
Minimum Charge	\$	564.00
Flow Rate Per IWU	\$	67.45
Per LB of BOD	\$	1.57
Per LB of TSS	\$	0.71

(1) Per Dwelling Unit



# Customer Impact Analysis

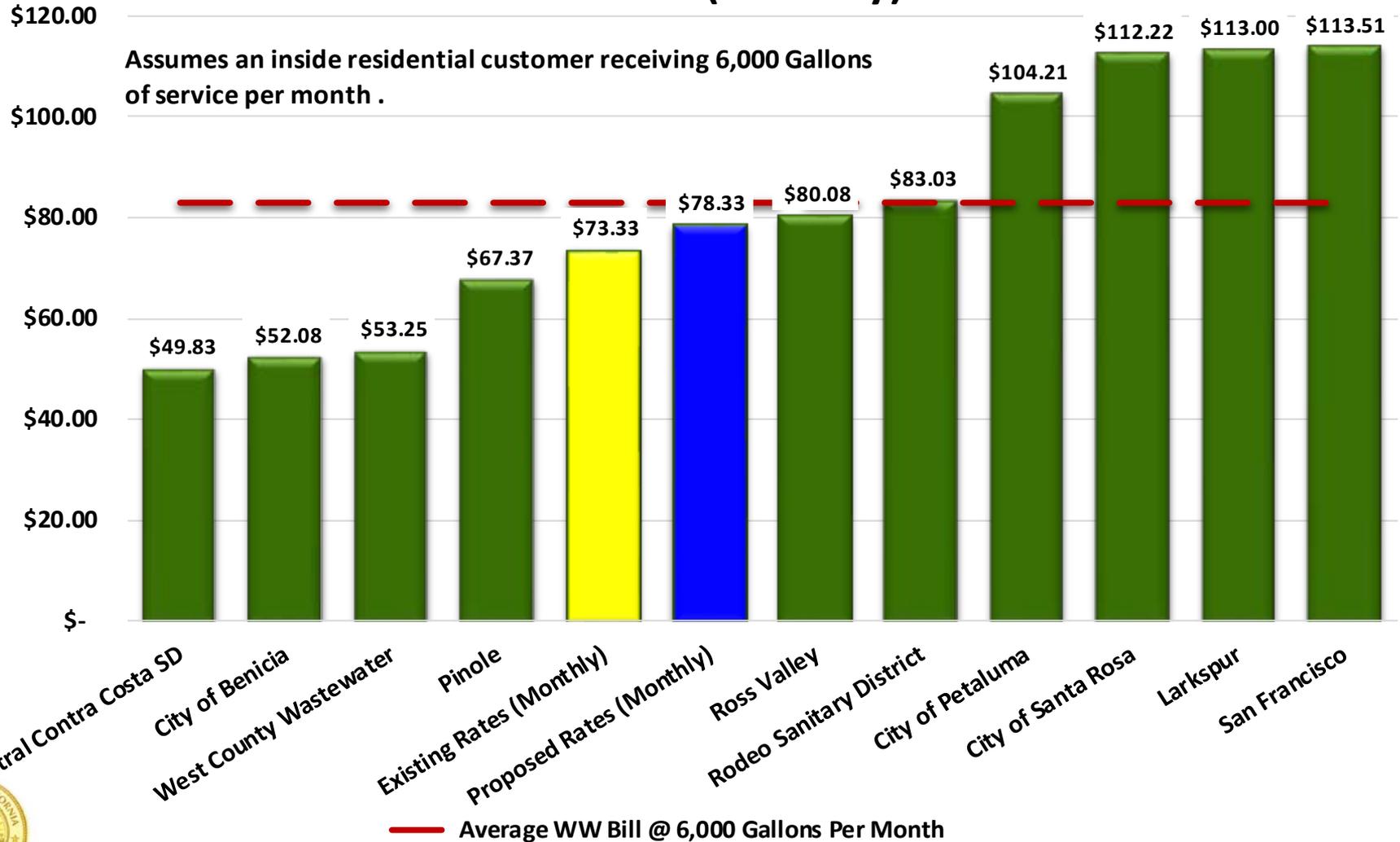
Description	Annual Charges		Difference	
	Existing	Proposed	Annual	Monthly
<b>Single Family:</b>	\$ 880.00	\$ 940.00	\$ 60.00	\$ 5.00
<b>Multiple Family (1):</b>	\$ 707.00	\$ 752.00	\$ 45.00	\$ 3.75
<b>Commercial/Industrial:</b>				
Minimum Charge	\$ 527.00	\$ 564.00	\$ 37.00	\$ 3.08
Flow Rate Per IWU	\$ 63.81	\$ 67.45	\$ 3.64	n/a
Per LB of BOD	\$ 1.35	\$ 1.57	\$ 0.22	n/a
Per LB of TSS	\$ 0.63	\$ 0.71	\$ 0.08	n/a

(1) Per Dwelling Unit



# Neighboring Utility Comparison

## COMPARISON WITH OTHER UTILITY SYSTEMS RESIDENTIAL (Monthly)



# Projected Future Rate Adjustments

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**Description**

**Projected Rate  
Adjustment**

**Projection Period:**

FY 2021	7.00%
FY 2022	7.00%
FY 2023	7.00%
FY 2024	7.00%
FY 2025	7.00%

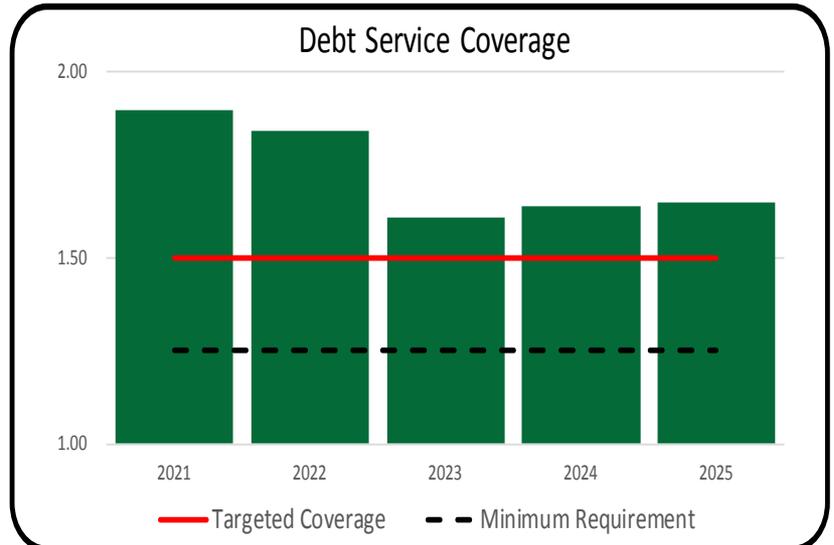
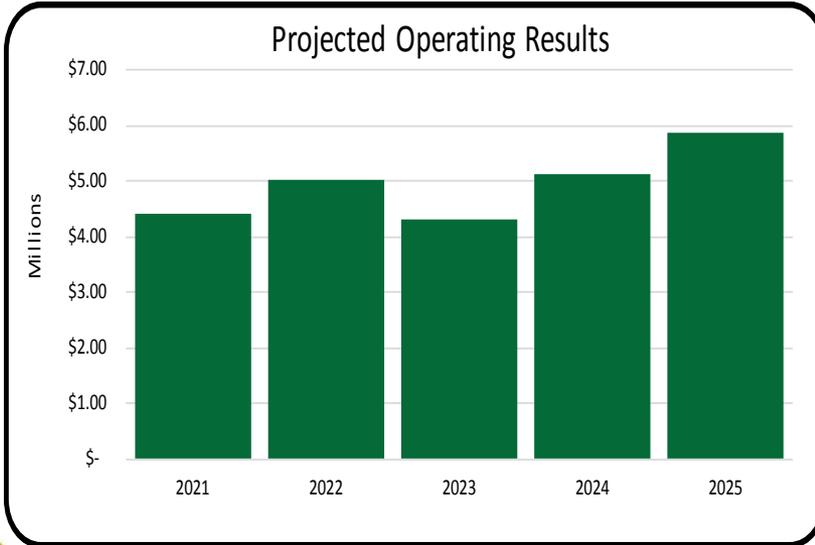
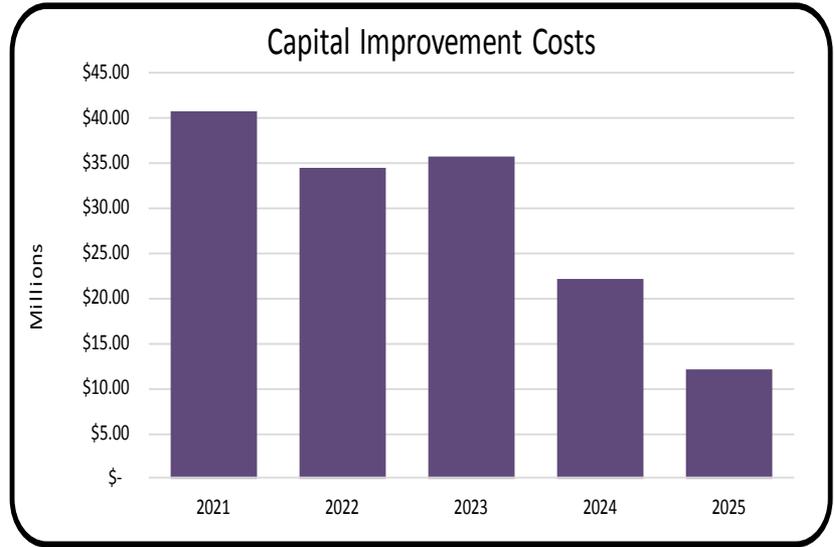
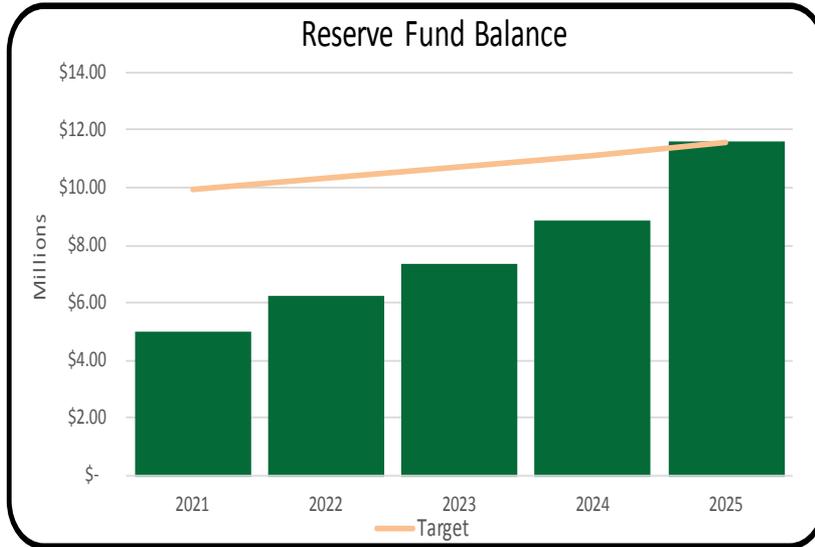


# Projected Operating Results - Summary

Description	Existing Rates	Proposed Rates 2021				
		2021	2022	2023	2024	2025
<b>Revenues:</b>						
User Rate Revenues	\$25,652,023	\$27,448,593	\$29,655,884	\$31,902,582	\$34,235,114	\$36,548,809
Other Revenues	1,212,260	1,212,260	1,371,300	1,217,493	936,182	937,438
<b>Total Revenues</b>	<b>\$26,864,283</b>	<b>\$28,660,853</b>	<b>\$31,027,184</b>	<b>\$33,120,075</b>	<b>\$35,171,296</b>	<b>\$37,486,247</b>
<b>System Expenditures:</b>						
O&M Costs	\$13,279,750	\$13,279,750	\$13,782,290	\$14,311,460	\$14,859,587	\$15,433,141
Debt Service (P&I)	8,162,266	8,162,266	9,421,100	11,718,165	12,395,124	13,396,415
Cap Outlay/Auto Equip>5,000	44,000	44,000	44,000	44,000	44,000	44,000
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<b>Total Expenditures</b>	<b>\$24,236,016</b>	<b>\$24,236,016</b>	<b>\$25,997,390</b>	<b>\$28,823,625</b>	<b>\$30,048,711</b>	<b>\$31,623,556</b>
<b>System Revenue Excess (Deficiency):</b>						
\$ Amount	\$ 2,628,267	\$ 4,424,837	\$ 5,029,794	\$ 4,296,450	\$ 5,122,586	\$ 5,862,691
Percentage	9.78%	15.44%	16.21%	12.97%	14.56%	15.64%
<b>Debt Service Coverage</b>	<b>1.66</b>	<b>1.88</b>	<b>1.83</b>	<b>1.61</b>	<b>1.64</b>	<b>1.65</b>



# Graphic Illustration @ Projected Rates

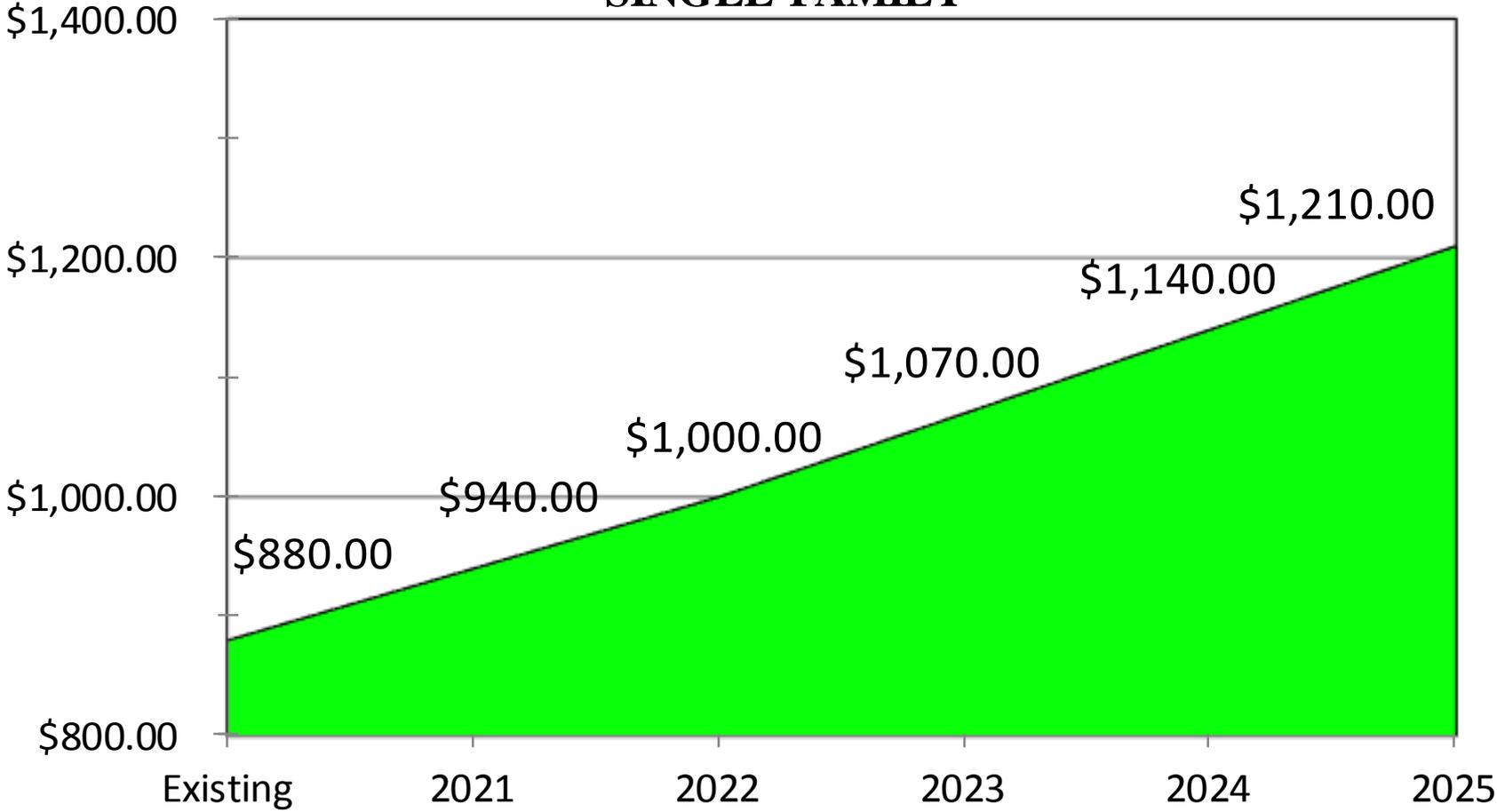


## Sewer Projections



# Projected Rate Path – Single Family

## PROJECTED 5-YEAR RATE PATH SINGLE FAMILY



# Next Steps

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- The timing for the following remaining tasks is TBD:
  - Prepare and present rate report
  - Set date for Public Hearing
  - Prepare and mail Public Hearing/Rate Increase notices at least 45 days prior to Hearing date
  - Conduct Public Hearing
  - Adopt rates - assuming there is no majority written protest



# Conclusions

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- Rate adjustments proposed to meet utility operating needs and expenditure requirements
- Planned new debt service obligations incorporated into analysis
- Ongoing capital improvement needs
- Increasing energy, fuel & chemical costs
- Rising Personnel Costs (labor, benefits, etc.)
- Consider annual rate analysis updates in order to adapt assumptions and funding requirements

