

# Immokalee Water and Sewer District

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## Water and Wastewater Rate and Fee Study

Summary of Board Alternatives: Revenue Sufficiency Analysis

Prepared on: July 21, 2022



# Background

- On July 20, 2022, the Board held a workshop to discuss Phase 1 of the rate and fee study to evaluate the adequacy of the existing monthly service rates
- Principal cost drivers include:
  - › Allowances and adjustments for future inflation
  - › Need for new staffing positions
  - › Proposed new debt to finance certain capital projects
  - › Need to maintain working capital to meet the operating needs of the system and to provide a contingency to respond to natural disasters or other unforeseen events
- The preliminary study results included a Recommended Base Case plus three additional scenarios to demonstrate the pros and cons of modifying the recommended annual rate increases
  - › The Base Case included the use of approximately \$3.1 million in unrestricted reserves from FY22 through FY25 to phase-in the rate adjustments for the first three years lowering the days of cash to approximately 222 days in FY25
  - › The Board requested additional scenarios between the 7% and 9.5% rate increase alternatives to better evaluate the use of reserves over the implementation period

# Proposed Cost Recovery Options (Days of Unrestricted Reserves)

Description	FY22	FY23	FY24	FY25	FY26	FY27
<b>Recommended Base Case – Phased Approach</b>						
Percent Rate Increase		7.00%	7.00%	7.00%	7.00%	7.00%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.4</u></b>	<b><u>\$8.6</u></b>	<b><u>\$7.5</u></b>	<b><u>\$7.7</u></b>	<b><u>\$9.1</u></b>
Days of Revenues Less Depreciation	406	336	279	222	208	226
<b>Scenario 1 – Start Early</b>						
Percent Rate Increase		8.00%	8.00%	8.00%	5.50%	5.50%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.6</u></b>	<b><u>\$9.0</u></b>	<b><u>\$8.2</u></b>	<b><u>\$8.6</u></b>	<b><u>\$10.0</u></b>
Days of Revenues Less Depreciation	406	336	284	237	231	249
<b>Scenario 2 – Start Early</b>						
Percent Rate Increase		8.50%	8.50%	8.50%	4.75%	4.75%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.6</u></b>	<b><u>\$9.1</u></b>	<b><u>\$8.6</u></b>	<b><u>\$9.1</u></b>	<b><u>\$10.5</u></b>
Days of Revenues Less Depreciation	406	336	287	244	242	261
<b>Scenario 3 – Start Early</b>						
Percent Rate Increase		9.00%	9.00%	9.00%	4.00%	4.00%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.7</u></b>	<b><u>\$9.3</u></b>	<b><u>\$9.0</u></b>	<b><u>\$9.6</u></b>	<b><u>\$11.0</u></b>
Days of Revenues Less Depreciation	406	336	290	250	253	273
<b>Scenario 4 – Start Early</b>						
Percent Rate Increase		9.50%	9.50%	9.50%	3.25%	3.25%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.7</u></b>	<b><u>\$9.5</u></b>	<b><u>\$9.4</u></b>	<b><u>\$10.1</u></b>	<b><u>\$11.4</u></b>
Days of Revenues Less Depreciation	406	336	292	257	263	285

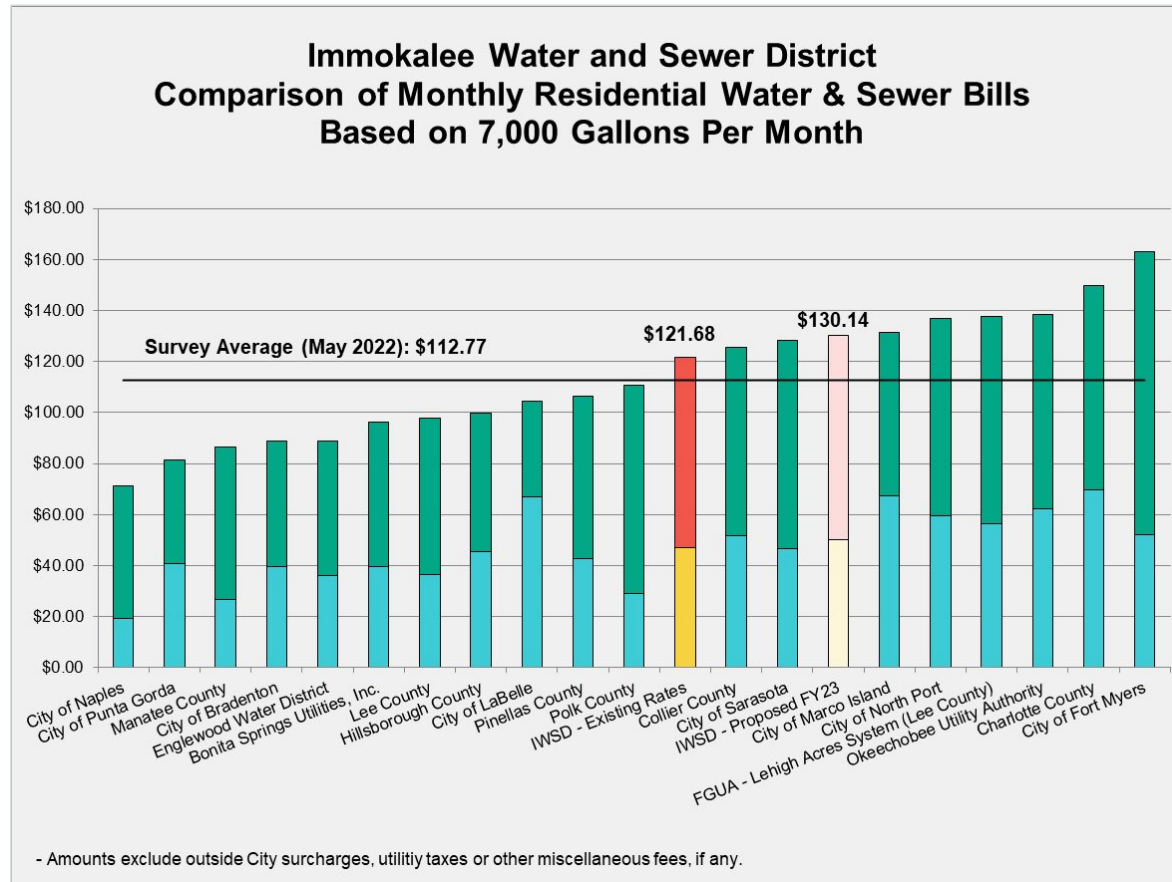
# Proposed Cost Recovery Options (Increases to Residential Monthly Bill)

Description	Existing	FY23	FY24	FY25	FY26	FY27
<b>Recommended Base Case – Phased Approach</b>						
Percent Rate Increase		7.00%	7.00%	7.00%	7.00%	7.00%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$8.46</u></b>	<b><u>\$9.09</u></b>	<b><u>\$9.75</u></b>	<b><u>\$10.42</u></b>	<b><u>\$11.19</u></b>
Existing/Projected Residential Bill	\$121.68	\$130.14	\$139.23	\$148.98	\$159.40	\$170.59
<b>Scenario 1 – Start Early</b>						
Percent Rate Increase		8.00%	8.00%	8.00%	5.50%	5.50%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$9.73</u></b>	<b><u>\$10.54</u></b>	<b><u>\$11.36</u></b>	<b><u>\$8.42</u></b>	<b><u>\$8.85</u></b>
Existing/Proposed Residential Bill	\$121.68	\$131.41	\$141.95	\$153.31	\$161.73	\$170.58
<b>Scenario 2 – Start Early</b>						
Percent Rate Increase		8.50%	8.50%	8.50%	4.75%	4.75%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$10.32</u></b>	<b><u>\$11.23</u></b>	<b><u>\$12.16</u></b>	<b><u>\$7.37</u></b>	<b><u>\$7.73</u></b>
Existing/Projected Residential Bill	\$121.68	\$132.00	\$143.23	\$155.39	\$162.76	\$170.49
<b>Scenario 3 – Start Early</b>						
Percent Rate Increase		9.00%	9.00%	9.00%	4.00%	4.00%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$10.96</u></b>	<b><u>\$11.99</u></b>	<b><u>\$13.05</u></b>	<b><u>\$6.29</u></b>	<b><u>\$6.54</u></b>
Existing/Projected Residential Bill	\$121.68	\$132.64	\$144.63	\$157.68	\$163.97	\$170.51
<b>Scenario 4 – Start Early</b>						
Percent Rate Increase		9.50%	9.50%	9.50%	3.25%	3.25%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$11.59</u></b>	<b><u>\$12.67</u></b>	<b><u>\$13.87</u></b>	<b><u>\$5.20</u></b>	<b><u>5.35</u></b>
Existing/Projected Residential Bill	\$121.68	\$133.27	\$145.94	\$159.81	\$165.01	\$170.36

# Observations

- Each option shown on Slides 3 and 4:
  - › Provides a break-even cash flow by FY27
  - › Exceeds the minimum debt service coverage requirements
  - › Maintains an unrestricted reserve balance above 180 days
- In order to phase-in smaller increases uniformly over the three-year period from FY23 through FY25, the Base Case includes the use of approximately \$3.1 million in unrestricted reserves
  - › The Base Case results in the lowest monthly bill as of FY25 or \$148.98 per month
- Scenario 3 at 9.0% per year uses \$1.6 million in reserves, or approximately half the amount when compared to the Base Case
  - › The monthly bill in FY25 under Scenario 3 is approximately \$8.70 per month more than the recommended charges under the Base Case, or \$157.68 per month

# Comparison of Proposed Residential Rates Under Base Case



# Appendix



# Immokalee Water and Sewer District

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## Water and Wastewater Rate and Fee Study

Phase 1: Revenue Sufficiency Analysis

Presented on: July 20, 2022





# Background

- The District last completed a revenue sufficiency study in April of 2019
  - › Water & Wastewater rate increases of 3.0% per year for FY20 through FY22 were adopted by the Board of Commissioners (Board)
- Subsequent to the rate study, the Board appointed a new Executive Director who reorganized the management team by creating new supervisory positions, including a new position for Finance Director

## Background (cont.)

- Recent staff accomplishments
  - › Timely completion of the 2021 Audit
  - › New budget format and review process
  - › Identification of capital needs assessment and funding
  - › Review of staffing needs, responsibilities, and salaries
  - › Refinancing and retirement of long-term debt
  - › Implementation of a new geographical information system (GIS)

# Background (cont.)

- Ongoing challenges
  - › Maintain service reliability and safeguard public health and safety by addressing:
    - Aging infrastructure associated with clay sewer pipes and other line replacements
    - Water system looping improvements
  - › Meet regulatory requirements enforced by FDEP through ongoing lift station upgrades and lining of manholes that mitigate sewer infiltration and inflow
  - › Increase service capacity within the distribution and collection systems / upsizing the system to meet the needs of new development
  - › Invest in new technology integration which may improve efficiencies throughout the system

# Study Objective and Tasks

- Based on the updated planning criteria, District staff requested that Raftelis evaluate the sufficiency of the current rates and fees
  - › Phase 1: Revenue Sufficiency Analysis
    - Develop a financial forecast through FY27, including a projection of:
      - Customers and revenues
      - Operating expenses
      - Capital improvement requirements and funding
      - Existing and future debt service payments and required transfers
    - Estimate the revenue requirements to be recovered from water and wastewater monthly service rates
    - Identify the need for rate adjustments during the study period
  - › Phase 2: Review the Adequacy of Miscellaneous Fees and Charges
    - *Review is ongoing / results and recommendations will be presented at a subsequent Board meeting*

# Discussion Topics

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Existing Financial Condition

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Major Study Assumptions

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Proposed Funding of the Capital Plan

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Projected New Debt Service Payments

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Rate Covenant Compliance

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Sufficiency of Existing Water and Wastewater Rates

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Working Capital Considerations / Cost Recovery Options

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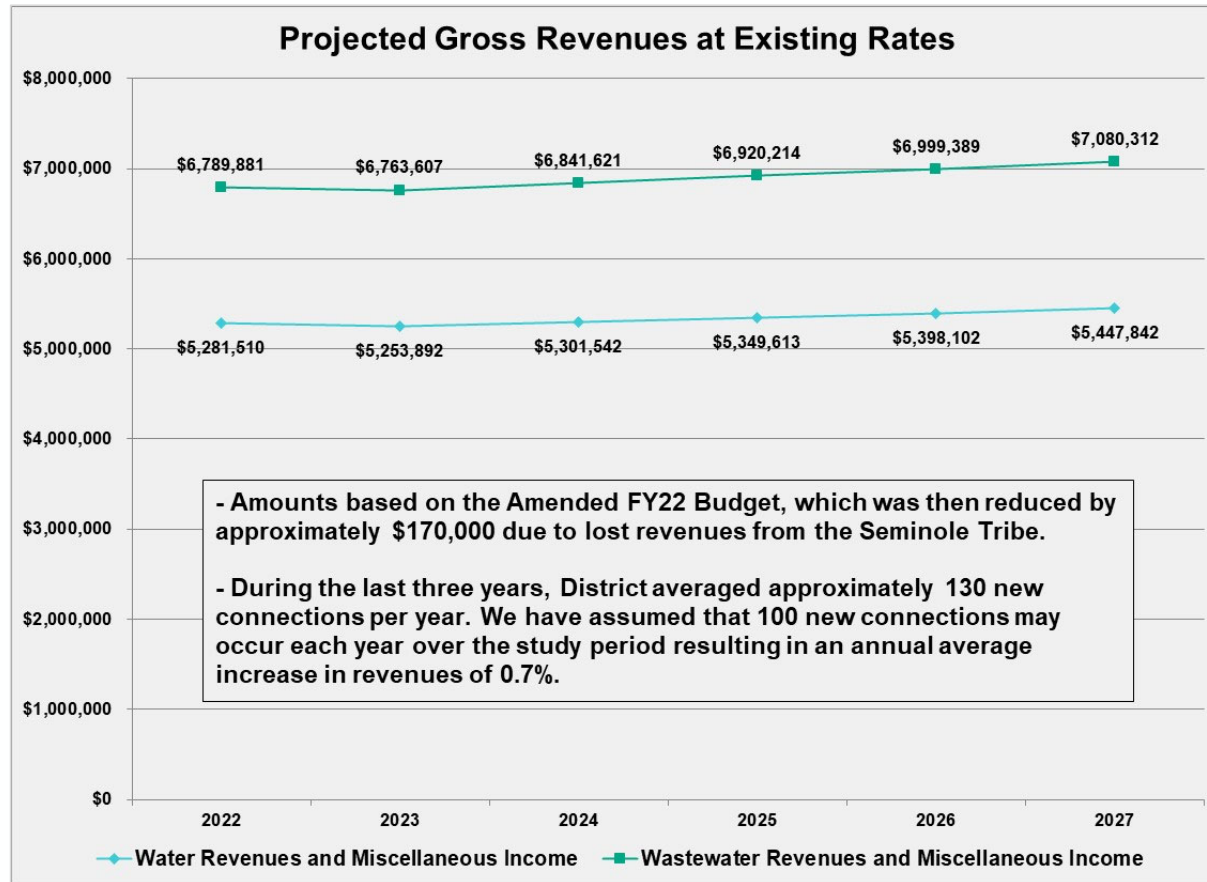
# Existing Financial Condition

- Cash & Investment Balances - \$16.9 million (As of 09/30/2021)
  - › \$12.3 million unrestricted (approx. 471 days of revenue less depreciation)
  - › \$4.6 million restricted
- FY22 Gross Revenues - \$12.1 million
- FY22 Annual Expenditures - \$11.8 million
  - › Operating Expenses - \$8.8 million
  - › Debt Service Payments - \$1.7 million
  - › Capital Funded from Rates - \$1.3 million
- Projected \$300,000 cash flow surplus based on the amended budget assumptions or approximately 2.5% of gross revenues
- The Amended FY22 Budget served as the primary basis for the projected results over the study period among other planning assumptions provided by District staff

# Major Study Assumptions



# Summary of Projected Gross Revenues



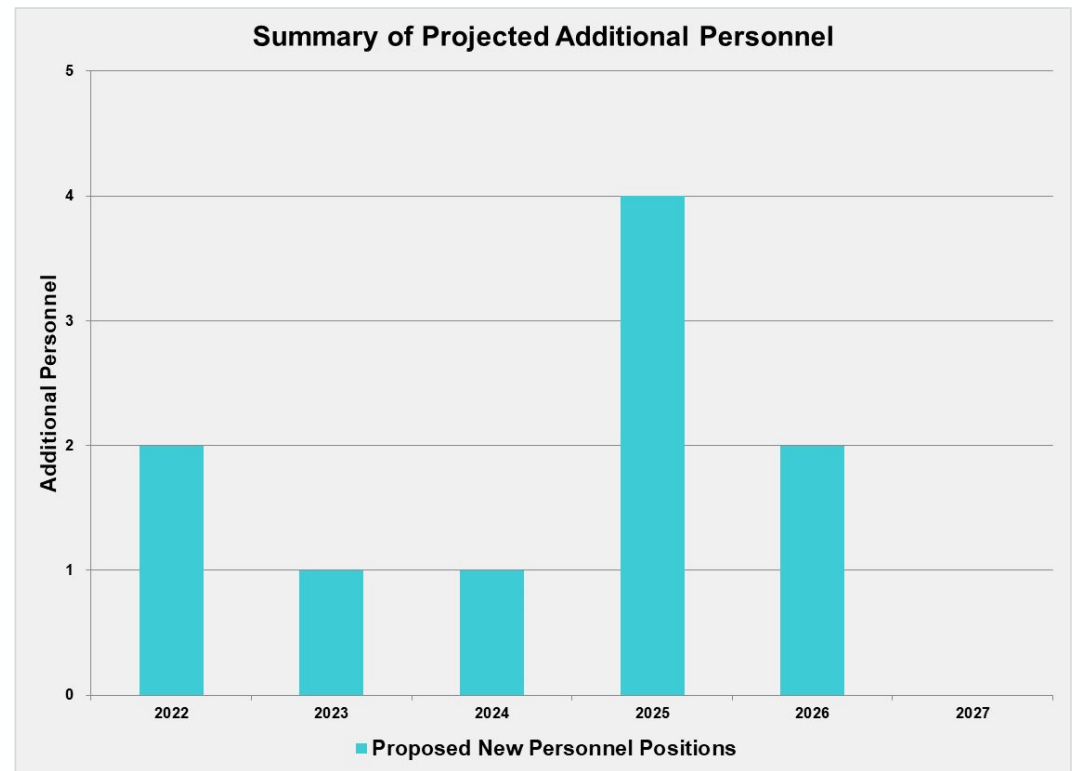


# Operating Expense Assumptions

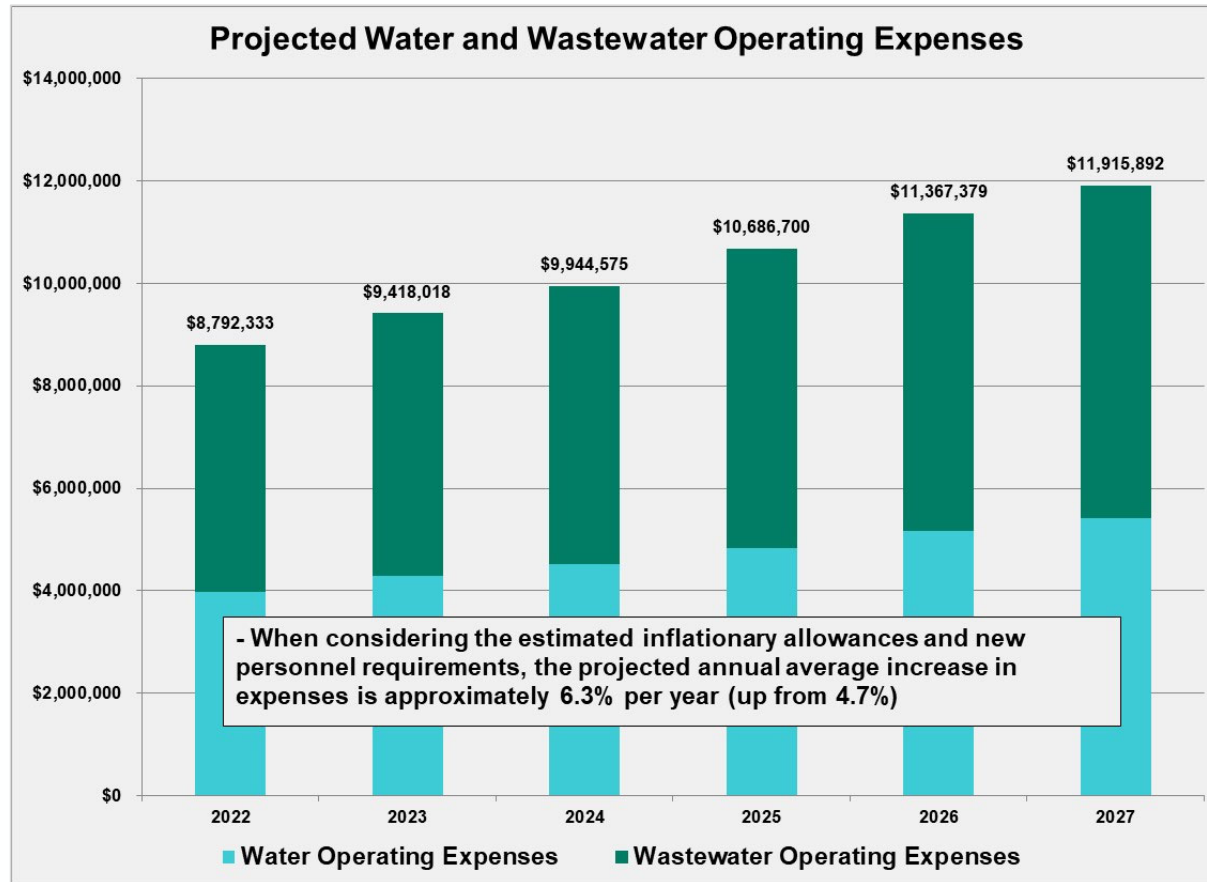
- Based on the Amended FY22 Budget
  - › Added an allowance for bad debt of 0.5% of revenues or approximately \$56,000
  - › No other operating contingencies have been assumed
- Amounts beyond FY22 estimated to increase by 4.7% per year on average based on the following inflationary allowances:
  - › Labor: 5% per year
  - › Health Insurance: 8% per year
  - › Workers' Compensation Insurance: 5% per year
  - › Property & Liability Insurance: 3% per year
  - › Utilities & Fuel: 5% per year + growth
  - › Chemicals: 8% per year + growth
  - › Repairs & Maintenance: 3% per year
  - › Consumer Price Index: 2.6% per year on average

# Operating Expense Assumptions (cont.)

- New Water Positions
  - › WTP Operator (1)
  - › Distribution Technician (2)
- New Wastewater Positions
  - › WWTP Operator (1)
  - › Collections Technician (2)
- New Shared Resources
  - › Executive Assistant (1) – Recent new hire
  - › Project Engineer (1) – Hiring in progress
  - › Customer Service Rep. (1)
  - › IT / Procurement (1)



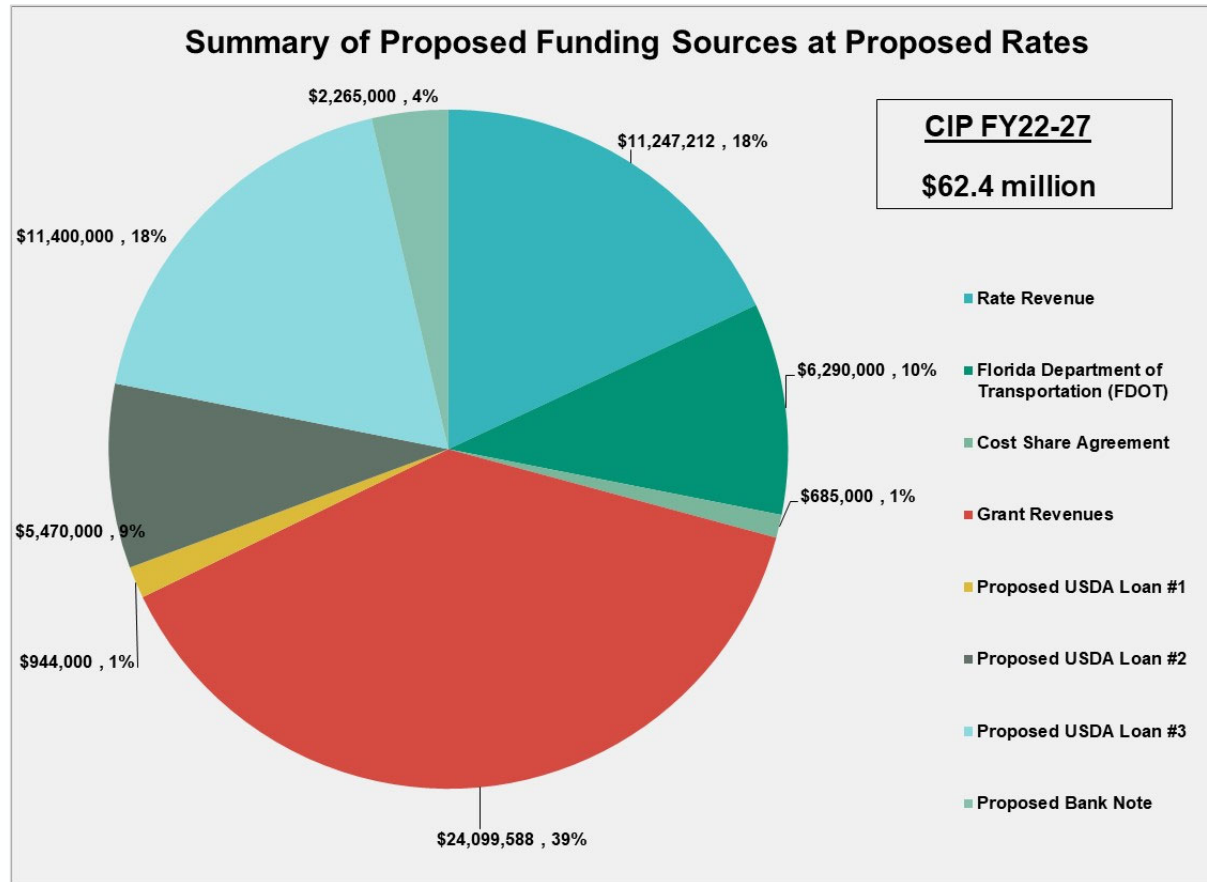
# Summary of Projected Operating Expenses



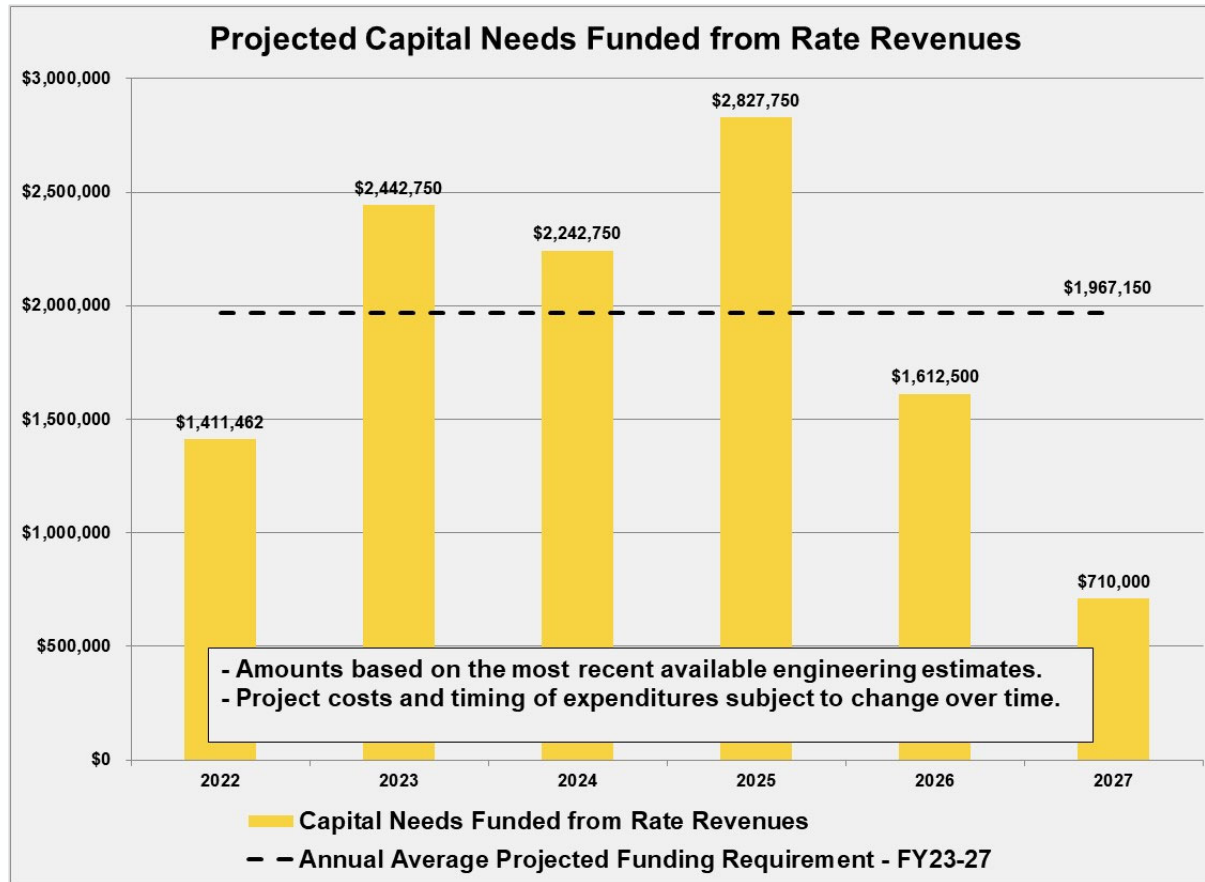
# Major Capital Needs

- Total capital needs FY22-27 estimated at \$62.4 million
- Major improvements include, but not limited to, the following:
  - › Water Softening
  - › Rehab Existing Clarifiers
  - › Relining Existing Clay Sewer Pipes
  - › Legacy Lots & Water Main Looping
  - › Automated Metering Infrastructure (AMI)
  - › New Reverse Osmosis Water Treatment Plant
  - › Lift Station Upgrades and Force Main Extensions

# Proposed Capital Funding



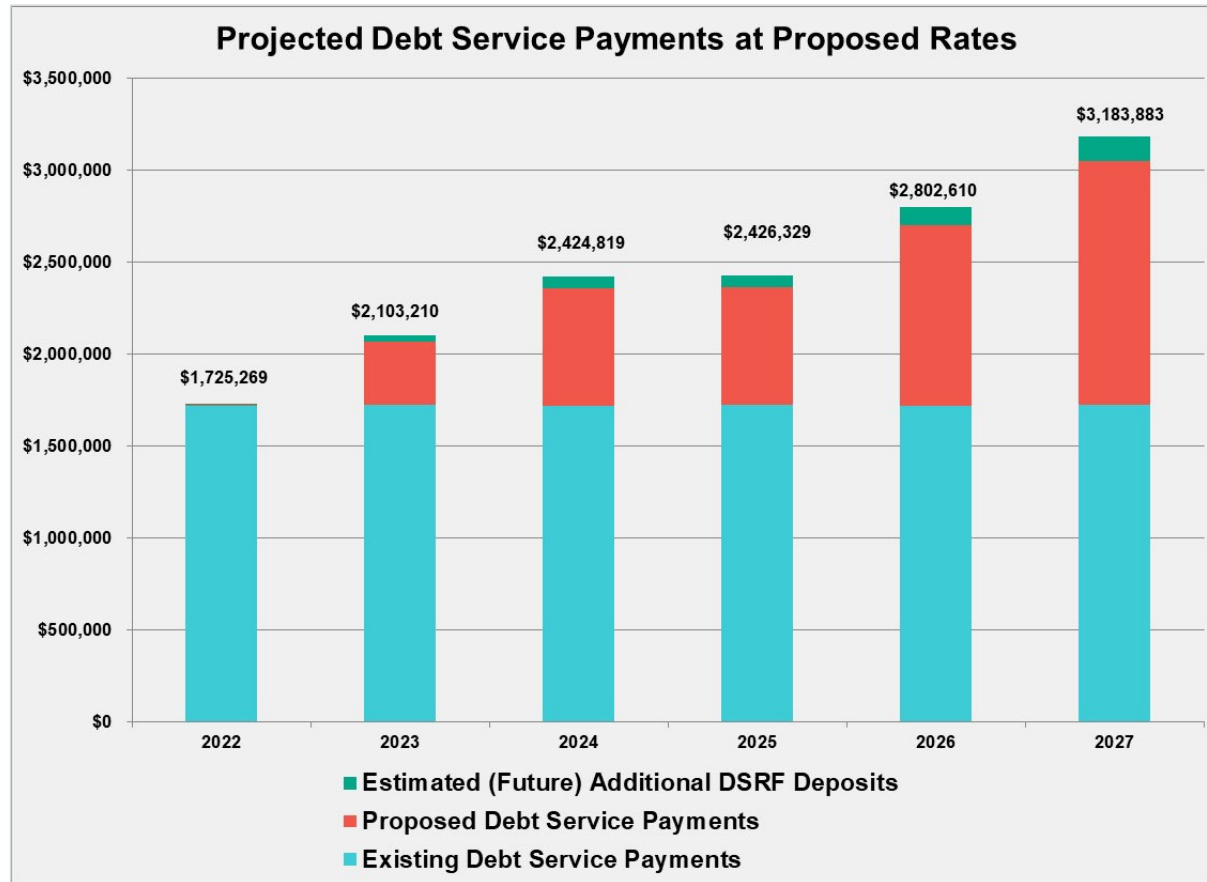
# Summary of Capital Needs Funded from Rates



# Future Debt Assumptions

- Existing Debt Service Payments - \$1.7 million per year
  - › Senior Lien - \$1,675,000 per year
  - › Junior Lien - \$50,000 per year
- Proposed Debt Service Payments - \$1.3 million per year by FY27
  - › 40-yr. USDA Loan #1 (Clarifiers) - \$49,000 per year starting (late) FY22
  - › 40-yr. USDA Loan #2 (Water Softening) - \$296,000 per year starting (mid) FY23
  - › 40-yr. USDA Loan #3 (RO WTP) - \$685,000 per year starting (mid) FY26
  - › 10-yr. Bank Loan (Admin Bldg.) - \$296,000 per year (mid) FY23
- Future Debt Service Reserve Fund (DSRF) Deposits assumed due over time equal to 1/10<sup>th</sup> of each annual payment or \$133,000 per year by FY27

# Summary of Projected Debt Service

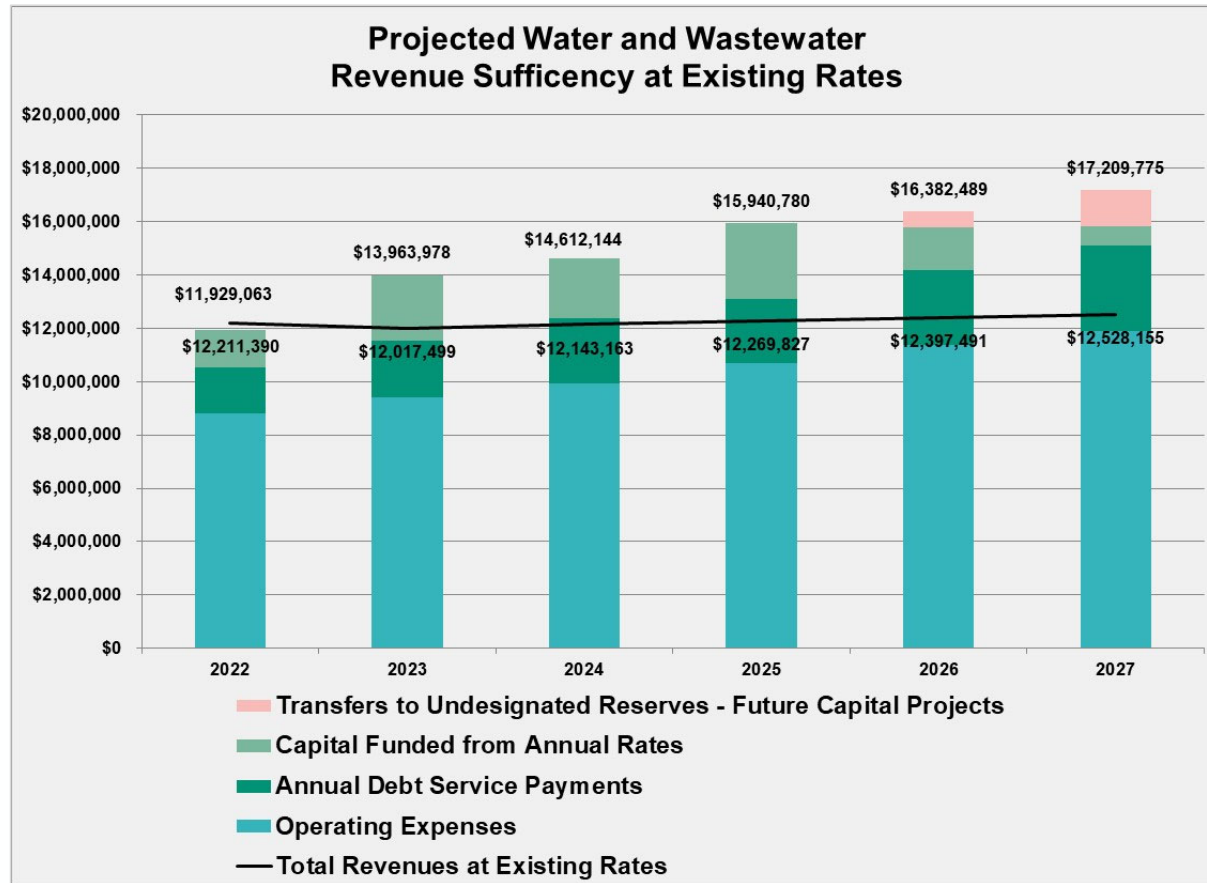




# Minimum Rate Covenant Compliance

- Based on the existing USDA Loan Agreements:
  - › Senior Lien Coverage Test – Gross Revenues after payment of Operating & Maintenance Expenses must equal 110% of the Senior Lien Annual Debt Service
- AND
- › Budget Covenant – Gross Revenues in each year must equal 100% of:
  - Operating & Maintenance Expenses
  - Senior Lien Annual Debt Service
  - Annual Debt Service Reserve Deposits, if any
  - Minimum Required Transfer to the Maintenance Reserve Fund
  - And any other required transfers, if any
- Without the proposed rate increases, the minimum requirements may not be met beginning in FY24

# Projected Adequacy of Existing Rates



# Working Capital Considerations

- Days of Cash Reserves - Bond Rating Criteria by Fitch Ratings
  - › Compares unrestricted cash and investments to annual operating expenses less depreciation
    - Strong financial position: 365+ days
    - Midrange financial position: 180 days
    - Weaker financial position: Less than 90 days
- Based on the District's current policy, rate plan targets a minimum unrestricted reserve balance of not less than 180 days of revenues less depreciation
  - › Such target is equal to more than 200 days of operating expenses less depreciation
  - › Provides a realistic goal considering that some appropriations are carried forward each year
  - › Target satisfies USDA's expectations for managing the system
- Unrestricted reserves as of 09/30/2021 exceeded 470 days of revenue less depreciation
  - › Excess reserves above the minimum target used to help phase in the required rate adjustments to the extent practicable

# Proposed Maintenance of Reserve Funds

- Minimum unrestricted reserve balance of not less than 180 days of revenues less depreciation consisting of the following amounts:
  - › Designated Emergency Reserve Fund – Not to exceed \$1.0 million
  - › Designated Vehicle Replacement and Capital Equipment Fund – Not to exceed 1-year's need or approximately \$600,000
  - › Designated Maintenance Reserve Fund – Not to exceed 1-year's depreciation expense or approximately \$2.5 million
  - › Operating Reserve Fund – Maintain working capital between 90 and 120 days of revenue less depreciation
    - Includes \$1.9 million of excess funds from the designated accounts that were assumed to be transferred to the Operating Reserve Fund to help phase-in rate adjustments

# Proposed Cost Recovery Options (Days of Unrestricted Reserves)

Description	FY22	FY23	FY24	FY25	FY26	FY27
<b>Recommended Base Case – Phased Approach</b>						
Percent Rate Increase		7.00%	7.00%	7.00%	7.00%	7.00%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.4</u></b>	<b><u>\$8.6</u></b>	<b><u>\$7.5</u></b>	<b><u>\$7.7</u></b>	<b><u>\$9.1</u></b>
Days of Revenues Less Depreciation	406	336	279	222	208	226
<b>Scenario 1 – 1-Year Delay</b>						
Percent Rate Increase		3.00%	13.50%	13.50%	3.00%	3.00%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.0</u></b>	<b><u>\$8.4</u></b>	<b><u>\$8.5</u></b>	<b><u>\$9.3</u></b>	<b><u>\$10.8</u></b>
Days of Revenues Less Depreciation	406	334	267	230	241	266
<b>Scenario 2 – 2-Year Delay</b>						
Percent Rate Increase		3.00%	3.00%	30.00%	1.25%	1.25%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.0</u></b>	<b><u>\$7.2</u></b>	<b><u>\$7.8</u></b>	<b><u>\$9.0</u></b>	<b><u>\$10.6</u></b>
Days of Revenues Less Depreciation	406	334	256	204	228	260
<b>Scenario 3 – Start Early / Upfront Adjustments</b>						
Percent Rate Increase		9.50%	9.50%	9.50%	3.25%	3.25%
<b>Projected Year-end Unrestricted Reserves (Millions)</b>	<b><u>\$10.6</u></b>	<b><u>\$9.7</u></b>	<b><u>\$9.5</u></b>	<b><u>\$9.4</u></b>	<b><u>\$10.1</u></b>	<b><u>\$11.4</u></b>
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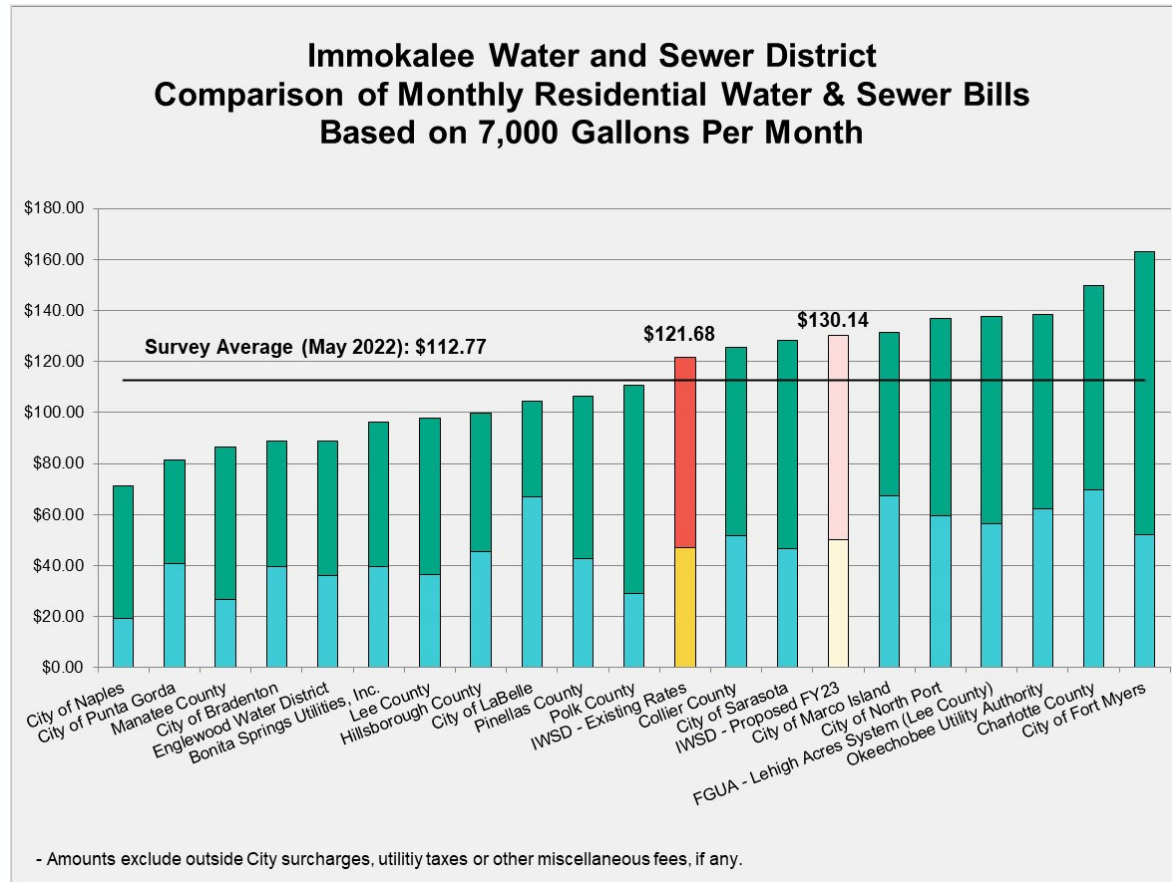
***Scenario results based on achieving a similar break-even cash flow by FY27***

# Proposed Cost Recovery Options (Increases to Residential Monthly Bill)

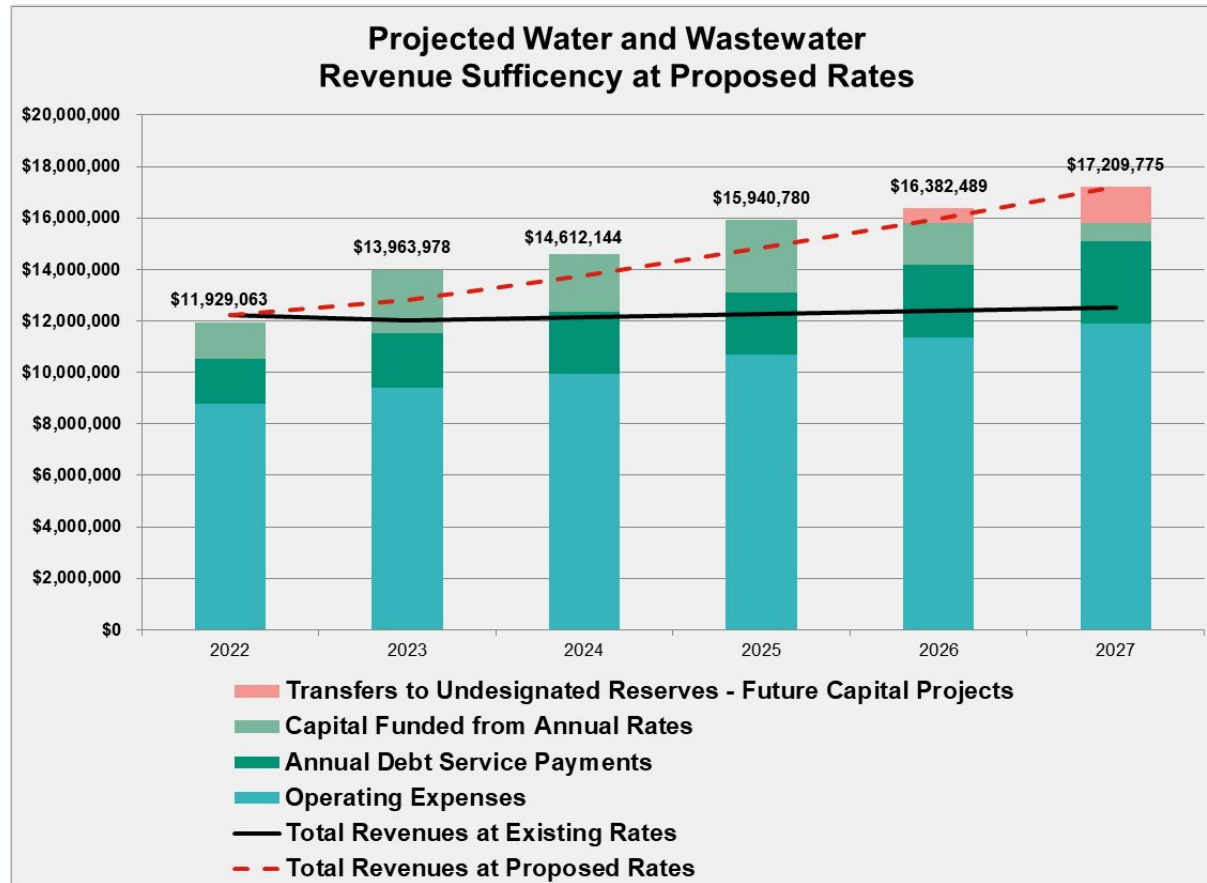
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<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$8.46</u></b>	<b><u>\$9.09</u></b>	<b><u>\$9.75</u></b>	<b><u>\$10.42</u></b>	<b><u>\$11.19</u></b>
Existing/Projected Residential Bill	\$121.68	\$130.14	\$139.23	\$148.98	\$159.40	\$170.59
<b>Scenario 1 – 1-Year Delay</b>						
Percent Rate Increase		3.00%	13.50%	13.50%	3.00%	3.00%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$3.63</u></b>	<b><u>\$16.95</u></b>	<b><u>\$19.22</u></b>	<b><u>\$4.83</u></b>	<b><u>\$5.03</u></b>
Existing/Proposed Residential Bill	\$121.68	\$125.31	\$142.26	\$161.48	\$166.31	\$171.34
<b>Scenario 2 – 2-Year Delay</b>						
Percent Rate Increase		3.00%	3.00%	30.00%	1.25%	1.25%
<b>Increase in Residential Water and Wastewater Bill (7,000 Gallons)</b>		<b><u>\$3.63</u></b>	<b><u>\$3.75</u></b>	<b><u>\$38.74</u></b>	<b><u>\$2.12</u></b>	<b><u>\$2.13</u></b>
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Existing/Projected Residential Bill	\$121.68	\$133.27	\$145.94	\$159.81	\$165.01	\$170.36

*Scenario results based on achieving a similar break-even cash flow by FY27*

# Comparison of Proposed Residential Rates Under Base Case

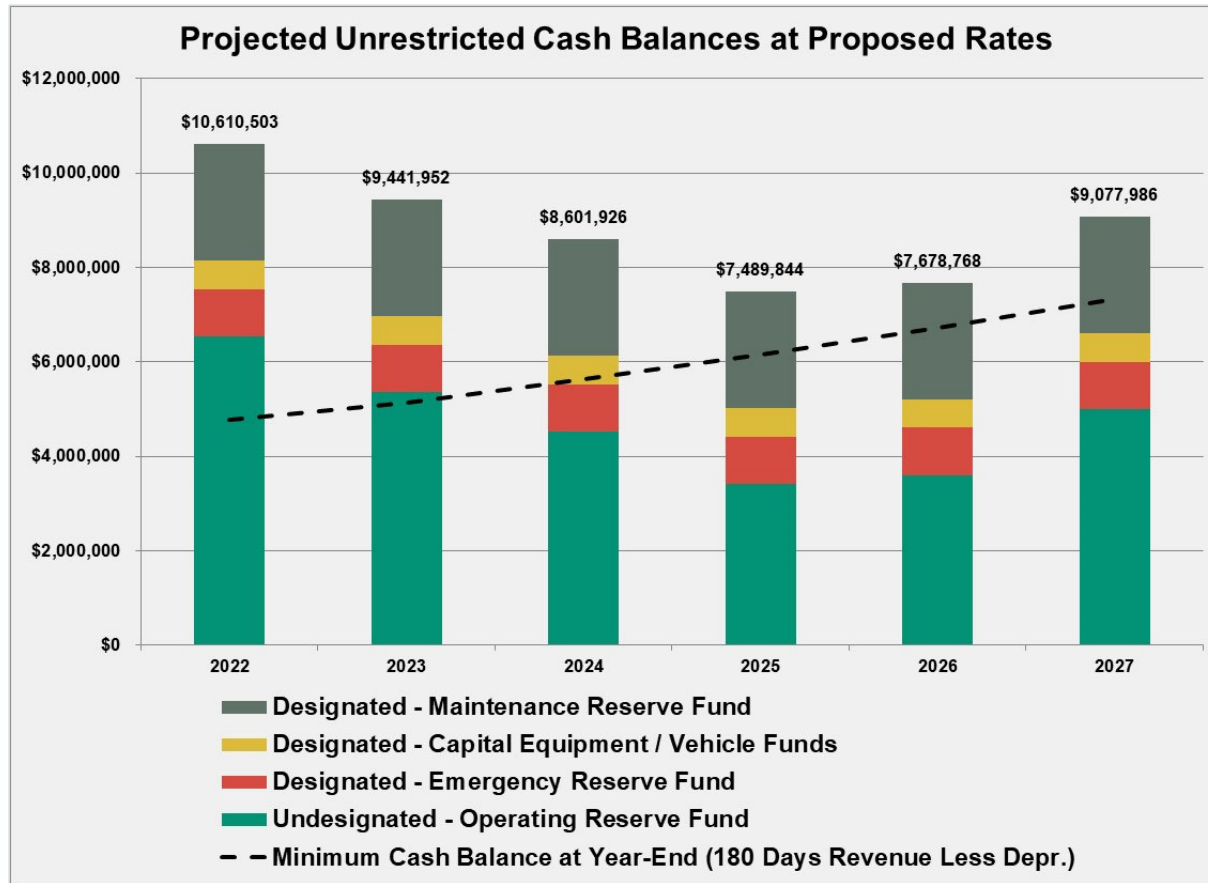


# Projected Adequacy of Proposed Rates Under Base Case

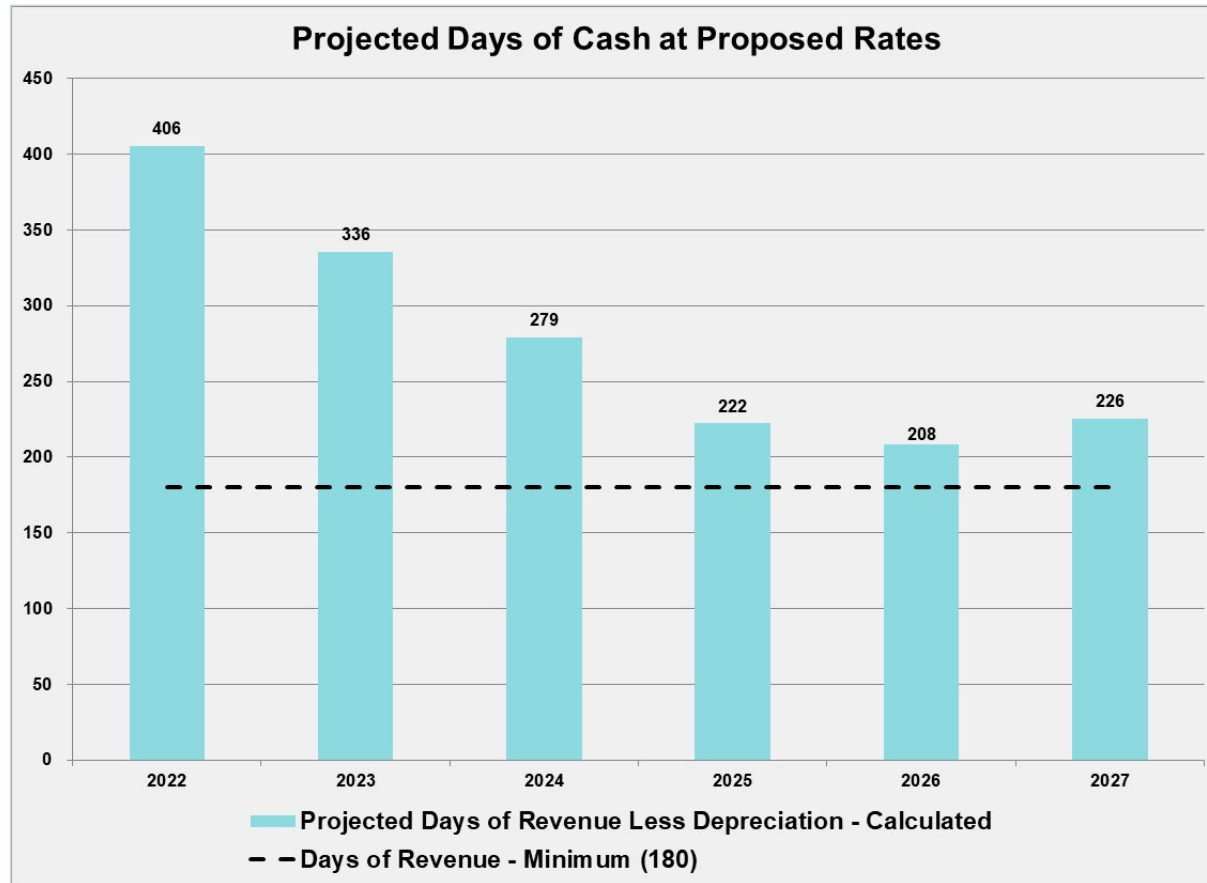




# Projected Reserve Balances Under Base Case



# Projected Days of Cash Under Base Case



# Conclusion and Recommendations

- The District's existing rates are not adequate to meet the projected revenue requirements and proposed debt service coverage commitments over the study period
  - › Without adequate increases in revenue, the District may not meet the minimum coverage requirements beginning in FY24 or maintain its minimum reserve fund target
    - Principal cost drivers include:
      - Allowances and adjustments for future inflation
      - Need for new staffing positions
      - Proposed new debt to finance certain capital projects
      - Need to maintain working capital to meet the operating needs of the system and to provide a contingency to respond to natural disasters or other unforeseen events

## **Conclusion and Recommendations (cont.)**

- The Board of Commissioners should consider adopting the proposed rates under the Base Case effective on or after October 1, 2022 (FY23) and for each year thereafter through FY25
  - › Alternatives related to the miscellaneous utility fees and charges under Phase 2 need to be finalized, and will be presented to the Board at a subsequent meeting
- This study should be updated at least within three years or when actual results and/or planning assumptions may differ significantly from the projections

# Q&A



# Thank you!

**Contact:** Murray Hamilton or Nick Smith  
407 628 2600