

2022 Sewer Rate Process

Rate-Setting 101

King County Wastewater Treatment
MWPAAC Rates & Finance

January 7, 2021

2022 Rate-Setting	Topic
August 6	Capital Funding Analysis
September 3	Operating Forecast
October 1	Rate Plan Strategy
November 5	COVID-19 Revenue Impact Estimates & Reserves Management
December 3	Adopted 2021-2022 Budget & 2022 Rate-Setting Goals
January 2021	Rate-Setting 101

Three Essential Questions for Rate-Setting



1. How much revenue is needed to build, maintain and operate the system? *Revenue Requirement*

2. Is there **equity** among customer classes? *Cost of Service*

3. What **pricing structure** best promotes policy goals and individual customer **equity**? *Rate Design*

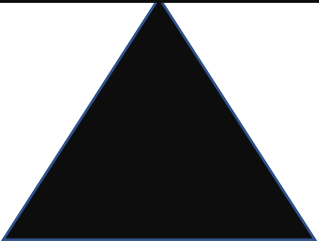
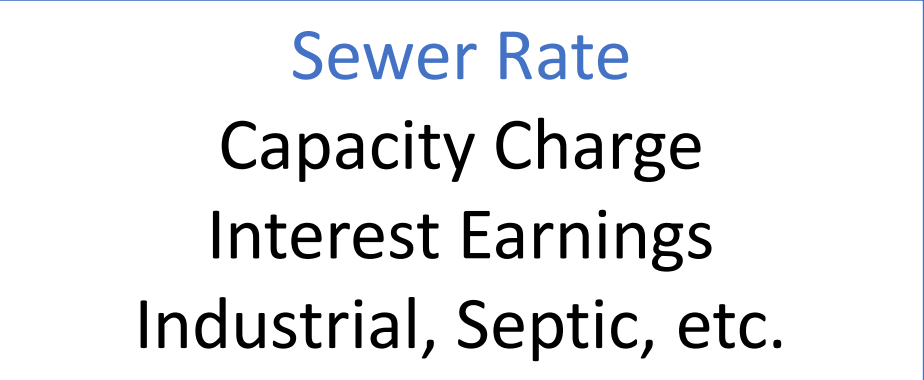
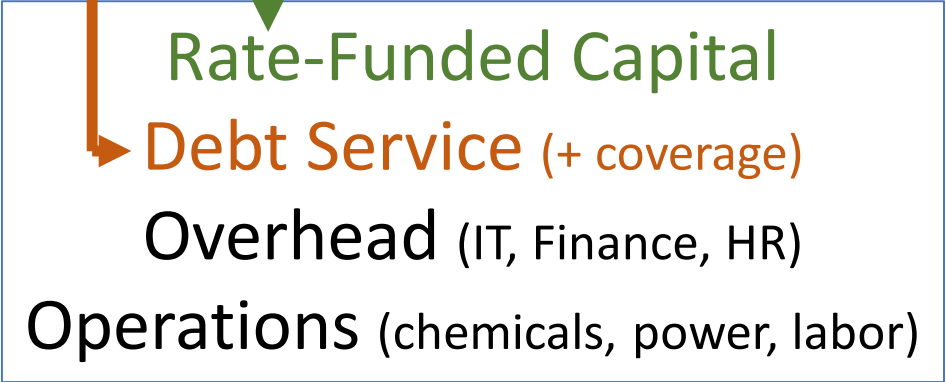
Revenue Requirement Overview

Capital Funding Analysis

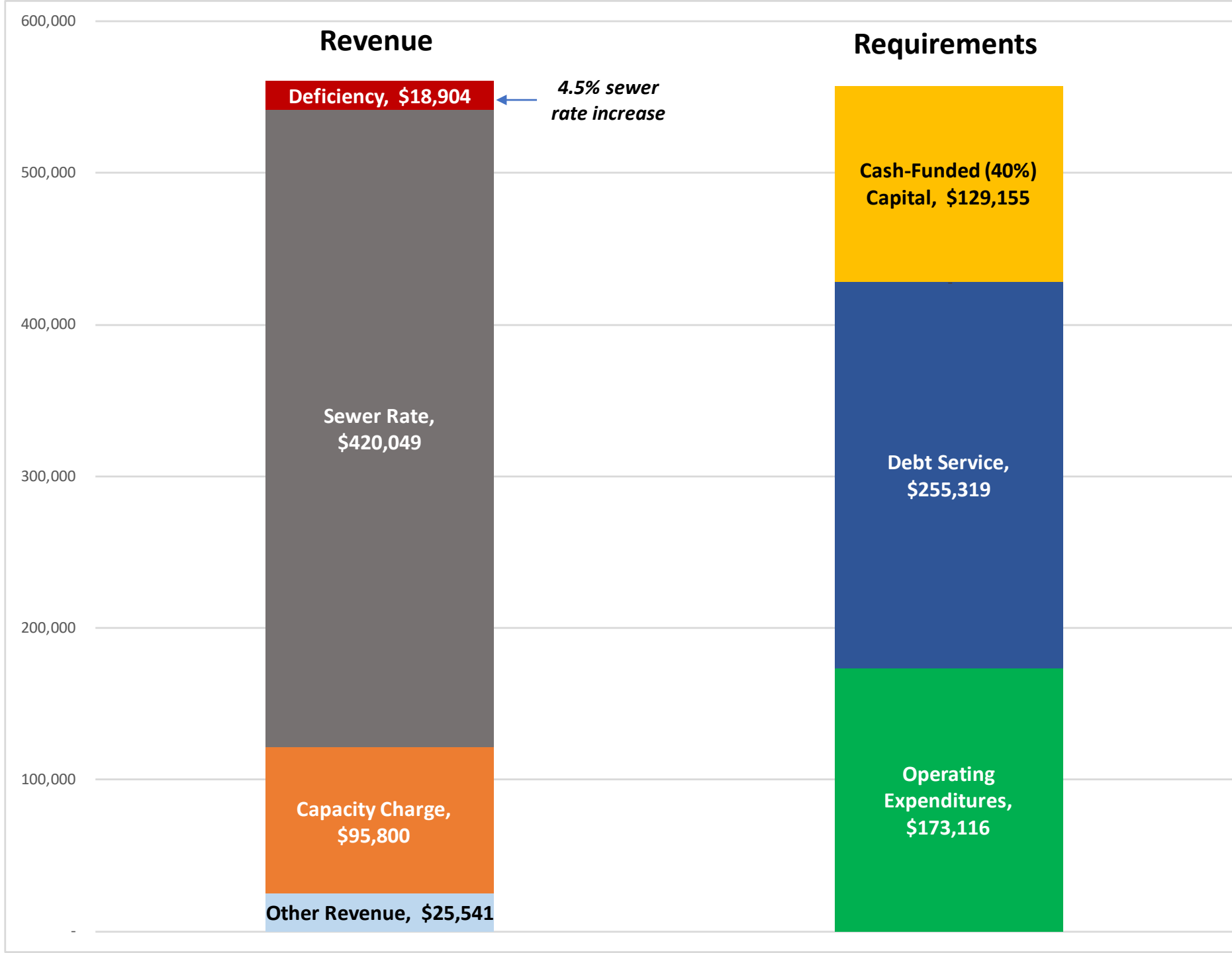


Rate drivers are dependent on outcomes from the capital funding analysis.

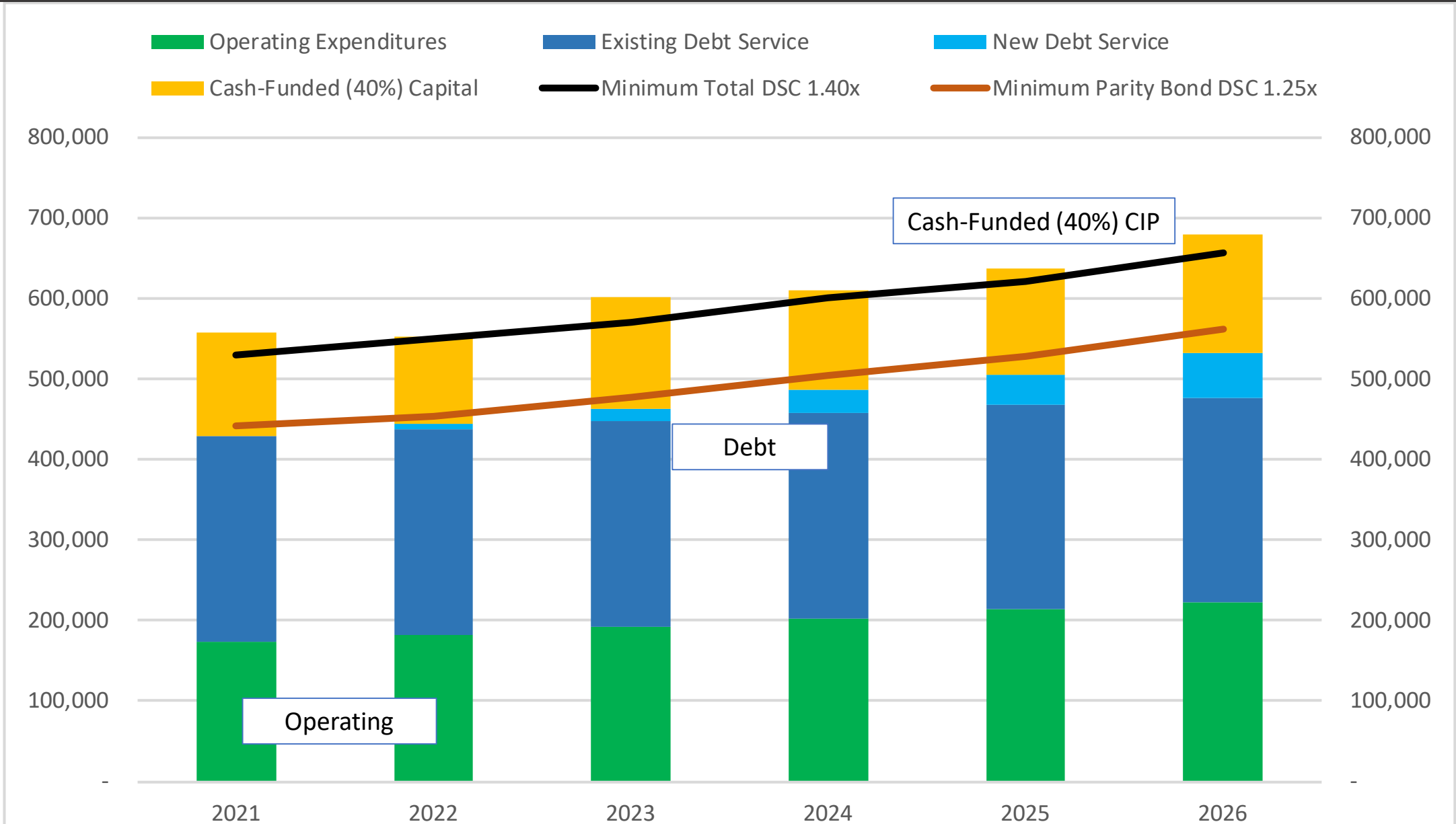
Sewer Rate Revenue Requirement



2021 Revenue Requirement Components (\$ in 1,000s)



Adopted Rate Plan – 2021 Rate Setting in 2020

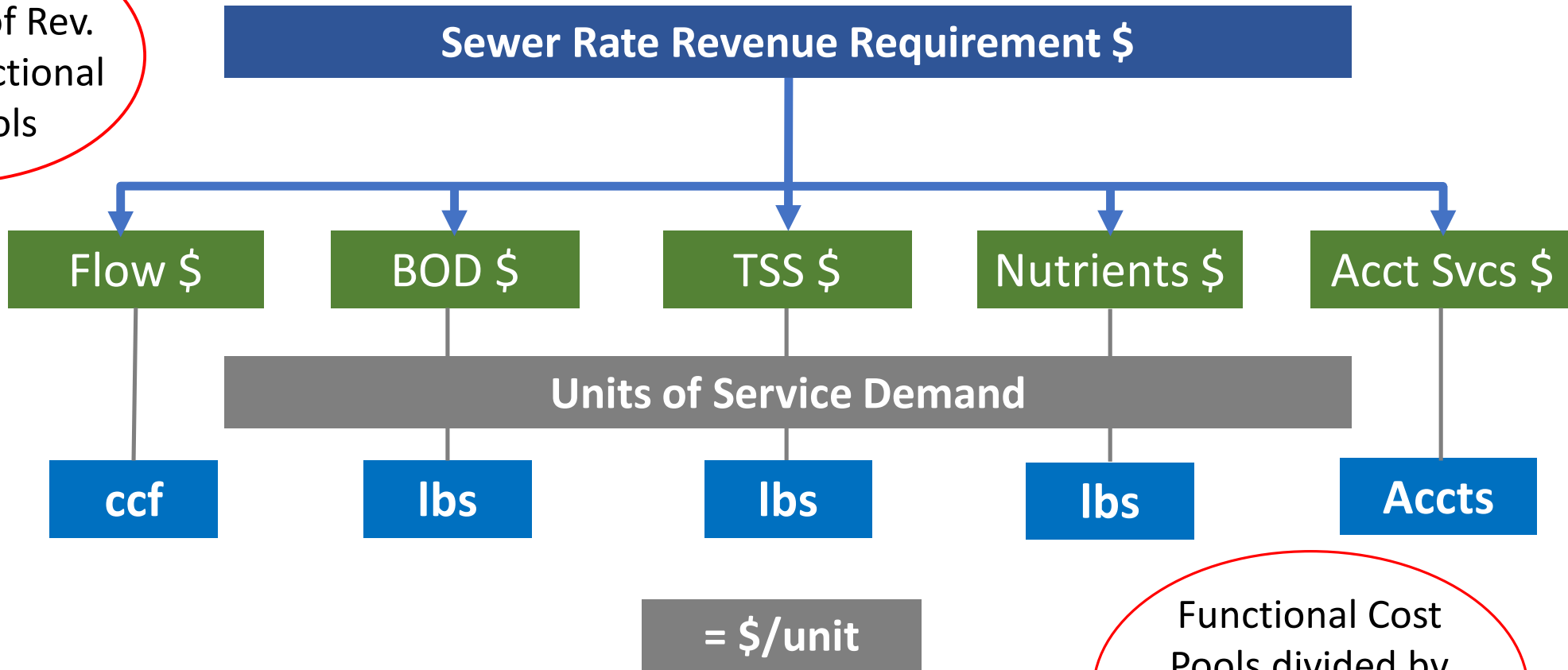


Cost of Service and Rate Design

- Cost of service allocation and rate design are defined in the contracts for the Sewer Rate utilizing a Residential Customer Equivalent (RCE) flow equivalency to allocate costs among single family and all other customers.
- Calculation of the Industrial and Septage rates include the cost of service and rate design steps.

Cost of Service – Functional Unit Costs

Line-item
allocation of Rev.
Req. to Functional
Cost Pools



Functional Cost
Pools divided by
demand units = cost
per unit

**This step utilized for industrial and septage rate analysis*

Allocation to Classes

*Sample **Flow**
Cost Pool
Allocation to
Classes*

$$\frac{\text{Flow Cost Allocation } \$400,000,000}{\text{Total Annual Flow } 500,000 \text{ ccf}} = \$8.00 \text{ per ccf}$$

Class	Flow ccf	\$	%
Single Family Residential	250,000	\$ 2,000,000	50%
Multifamily Residential	100,000	800,000	20%
Commercial	150,000	1,200,000	30%
Total	500,000	\$ 4,000,000	100%

Sample Single Family Residential Sewer Rate Structures



Fixed

KC WTD	\$45.33 per acct
District	<u>56.93</u> per acct
Sewer Bill	\$102.26

Volume

City Sewer Rate	\$15.55 per ccf
Winter Average	5 ccf
Sewer Bill	\$77.75

Combination

Basic Charge KC WTD	\$45.33
City Minimum (3ccf/mo)	<u>16.47</u>
Minimum Sewer Bill	\$61.80
Winter Avg Charge per ccf	\$5.49 per ccf
Winter Average	5 ccf
Volume Charges (net of min)	\$10.98
Sewer Bill	\$72.78

Sample Data Request

1. System plan
2. Capital Improvement Plan
3. Budget
4. Financial statements
5. Existing rate schedule
6. Current customer base / billing system data
7. Historical actuals

Next Steps – 2022 Sewer Rate Process

WTD Sewer Rate Process Timeline Summary - MWPAAC Input Opportunities

Rate Process Major Elements	2020					2021			
	August	September	October	November	December	January	February*	March	April
2021 Rate Proposal Legislation Transmitted to Council									
Budget Development - July 1 Submittal									
WTD/MWPAAC Engagement Sessions	Capital Funding Analysis	Operating Forecast	Rate Strategy	COVID-19 Estimates & Reserves	TBD				
Financial Plan Updates for COVID19 Impacts and Other Changing Financial Conditions									
Preliminary Draft Rate Plan Alternatives and Policy Development WTD/DNRP									
Project Manager Cost Projection Updates Based on Actuals									
Potential Early MWPAAC Briefing and Engagement on WTD Alternatives in Development									
Finalize Forecast + WTD/DNRP/Executive Team Review & Input									
Executive Review & Selection of Executive's Recommended Rate Proposal									
MWPAAC Feedback to Executive regarding Recommended Rate Proposal									
Draft Legislation Package Completed for Department and Executive Staff Review									
Executive Office's Review and Final Approval of Recommended Proposal									
2022 Rate Proposal Legislation Transmitted to Council									

*Highly compressed timeline preparing rate strategy alternatives and impact briefings in response to input from WTD & DNRP leadership and the Executive Team.

Rate-Setting Process – Revenue Requirement

1. Meet with stakeholders and management to discuss priorities, challenges, risk, and strategy
 - Identify scenarios that could be tested to assess & mitigate risk and customer impact
2. Data collection and validation – revenue price-out
 - Prepare a data collection list and work with sources for clarity and completeness
 - Multiply customer billing data (volume, accounts, residential equivalents) by rates and validate that it reasonably matches reported revenue.
3. Identify forecast assumptions
 - Growth in customer base and demand, operating cost inflation, capital cost inflation, interest earnings, cost of debt, etc.
4. Prepare the Revenue Requirement forecast baseline
 - Identify projected revenue deficiencies and prepare a rate strategy that considers customer impacts.
 - Test alternative strategies and summarize impacts for stakeholders and management.

Rate-Setting Process – Cost of Service & Design

1. Compare updated cost allocations to existing revenue collection by class
 - Identify shifts in cost burden by class
 - Prepare phase-in alternatives for significant cost shifts
 - Evaluate potential consolidation or break out of customer classes based on demand criteria variation
2. Prepare rate design alternatives
 - Summarize risk and equity trade-offs for alternative balancing of fixed and variable fee components
3. Summarize findings and impacts for stakeholders and management
 - Identify proposed changes that might warrant customer outreach and communication strategies.



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Appendix

Debt Service Coverage (DSC)

WHAT is it?

- DSC answers for bond holders “How many times can your net revenue cover the debt service you owe me?” 1.00x (times) equals the debt service, factors above 1.00x, i.e. 1.25x demonstrate a cushion. $(\text{Operating Revenues} - \text{Operating Expenses}) / (\text{Debt Service})$

WHY do we measure it?

- Investors and rating agencies value higher DSC ratios because they reduce the risk that agencies will not having sufficient revenue to pay debt service.
- Bond covenants and debt ordinances define the minimum annual DSC requirement, as well as an additional DSC threshold required to issue new debt.

HOW does it affect rates?

- Rate setting threshold of minimum 1.40x established in 2017 based on MWPAAC/WTD debt review recommendations. The revenue associated with a factor above 1.00x stays with the agency and often “nests” with the cash-funded capital target.

	Minimum Covenants/Code	Minimum for Rate-Setting	2019 Actual	Rating Agencies Recom. for Aa		2018 Median for Aa Sewer Utilities
				Moody's	S&P ¹	
All-in Debt Service Coverage	1.15x	1.40x	1.57x	>1.70x	>1.40x	2.20x

¹S&P's guidance is based on a 1 to 5 points scale, instead of rating. We use their recommendation based on 2 points as comparison

Model Inputs

Revenue Forecast

Existing Revenues

- Capacity Charge
- Industrial Waste
- Septage
- RINs and others

Sewer Rate Demand Factors

- RCE Current Year Forecast
- RCE Future Growth

Expenditures

Operating

- Biennial Budget + Supplementals
- Long-term Growth Assumptions
- Operating Related to New Projects

Capital

- Biennial Budget + Supplementals
- 6-year plan
- 2030 plan & Clean Water Plan (2060)
- Future Growth Assumptions

Debt & Cash Management

Debt

- Long-term Bond Rate
- Variable Debt Rate
- Low Cost Funding Alternatives (SRF, WIFIA)

Cash & Reserves

- Interest Earnings Rate (KC OEA)
- Investment Income
- Reserve Requirements
- Rate Stabilization Fund & Other Reserves