



# Washougal Rate Study



**CAC Meeting #2: Revenue Requirement**

**April 19, 2023**



# Welcome & Introductions

- **Welcome!**
- **Team Introductions**
- **CAC Introductions**



# Agenda

- **Welcome & Introductions**
- **CAC Role & Schedule**
- **Revenue Requirement Analysis**
  - » Water
  - » Sewer
  - » Stormwater
- **Wrap-up & Next Steps**



# CAC Role & Schedule

- Role in public process
- Meet 5 times: January – September 2023
- Represent the Community
- Provide input, feedback, and recommendations
- Discussion/Questions



# Operating Principles

1. I will come to each meeting with an open mind
2. I will focus on solutions
3. I will listen to what others have to say and do my best to understand
4. I will let others participate
5. I will treat others with respect
6. I will think before speaking
7. It's ok to disagree, but I will do my best to find common ground
8. I will stay on topic
9. I will explore interests, not positions
10. I will tackle the topic, not the person
11. I will work to reach consensus on all decisions

# Revenue Requirement



# Discussion Overview

- Background
- Overview of the rate setting process
- Financial policies
- Key assumptions
- Revenue requirement
  - » Key components
  - » Draft findings & discussion
- Input / questions / discussion
- Next steps

**NOTE: Results may change as end of year financials are finalized.**



# Background

- Rate study update commenced in 2022
- Public outreach workshop 11/5/2022
- CAC Meeting #1: Rate Setting Fundamentals 1/25/2023
  - » Role of CAC
  - » Rate setting overview
  - » Summary of prior rate studies
  - » Goals and objectives



# Overview of Rate Setting Process

## Fiscal Policies – Set the Management Foundation

Today's Focus

**Step 1:**  
**Revenue Requirement**  
(defining overall needs)

Revenue

Debt

O&M

Capital

Reserves

**Step 2:**  
**Cost of Service**  
(equity evaluation)

Define Customer Classes

Allocate Costs

**Step 3:**  
**Design Rates**  
(collect target revenue)

Fixed Charge

Variable Charge



# Revenue Requirement Objectives

- Determine the amount of annual revenue necessary to fund all financial obligations on a standalone basis
  - » Operating expenses
  - » Debt service (principal & interest)
  - » Capital costs and funding approach
- Meet financial parameters and targets
  - » Target debt service coverage ratios
  - » Maintain target reserve balances
- Evaluate revenue sufficiency over a multi-year period
- Develop rate plan to balance financial needs and minimize customer impacts



# Revenue Requirement Elements

Fiscal Policy  
Achievement



Forecast of  
Revenue at  
Existing Rates



Forecast of O&M

Planned Capital  
Costs



Existing & New  
Debt Service



**Annual Revenue  
Requirement**

# Financial Policies



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# Role of Financial Policies

## Performance & Budgeting

*How well are we financially performing compared to our standards and goals?*

## Contingency Planning

*Are we financially prepared to respond to disruptions (e.g., natural disaster, economic downturn, equipment failure)?*

## Decision Framework

*Do our financial and rate decisions align with our strategic goals, public priorities, and utility obligations?*

## Communication Tool

*Do our financial policies provide documentation of our management philosophy to customers and stakeholders?*

Documentation of Policies is Ideal

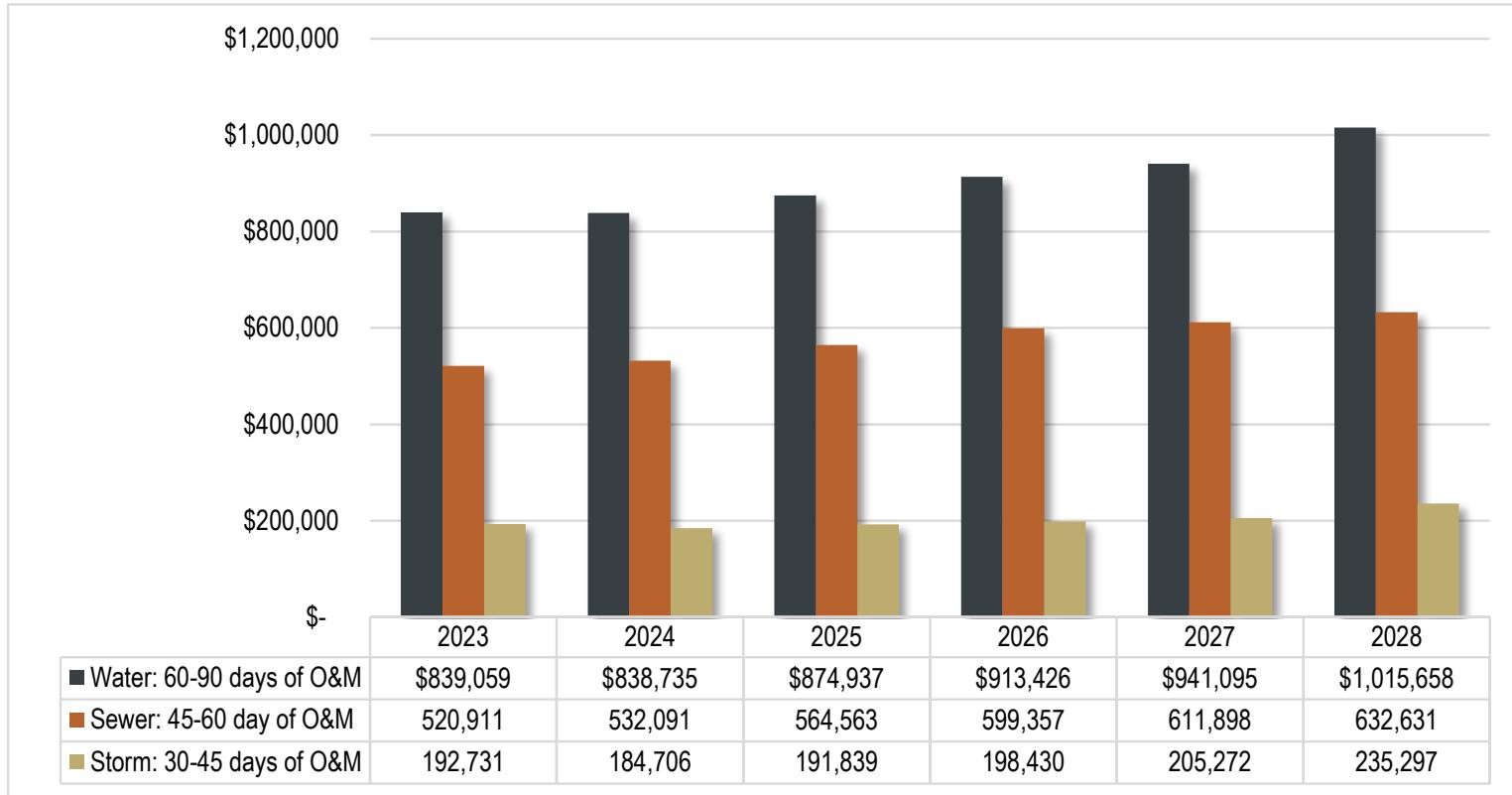


# Financial Policies

Policy	Purpose	Target
<b>Operating Reserve</b>	Liquidity cushion to accommodate cyclical cash flow fluctuations	Water: 60-90 days O&M Sewer: 45-60 days of O&M Stormwater: 30-45 days of O&M
<b>Capital Contingency Reserve</b>	To meet emergency repairs, unanticipated capital, and project cost overruns	1% of assets value
<b>Replacement Reserve Funding (RRF)</b>	Promote ongoing system replacement through reinvestment in the system	Phase-in towards annual depreciation expense
<b>Debt Service Coverage (DSC)</b>	Compliance with existing loan/debt covenants and maintain credit worthiness for future debt issuance	Target 2.00; Minimum Requirement 1.25
<b>Rate Setting</b>	A multi-year financial plan	Five-year plan 2024-2028
<b>Revenue Sufficiency</b>	Set rates to meet the total annual financial obligations of each utility and be self supporting	Rates shall be set to cover O&M, debt service and fiscal policy achievement



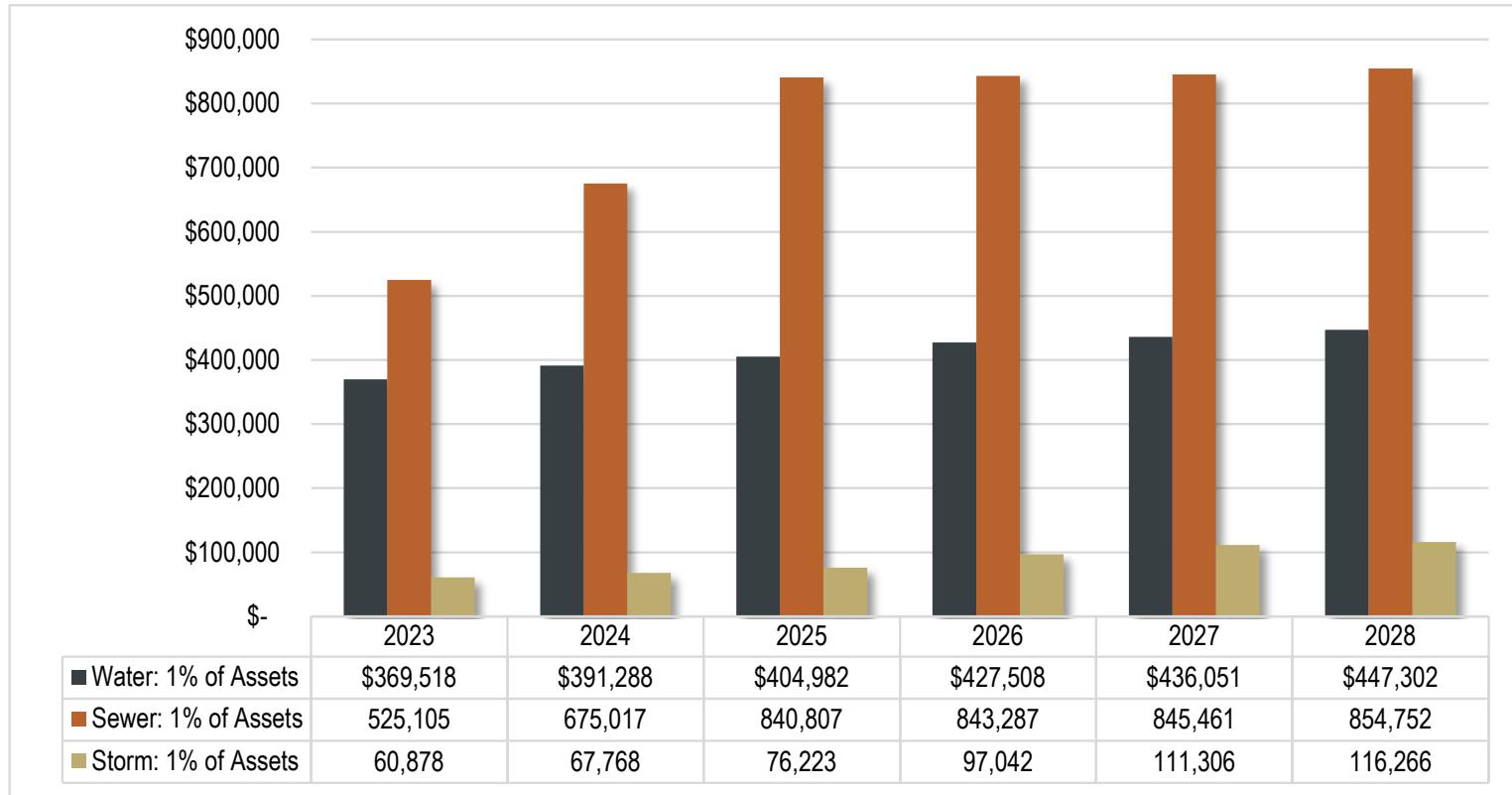
# Operating Reserves Targets



- **Water utility reserves set higher due to volatility of revenue from impacts of weather**



# Capital Reserves Targets



- **Sewer utility infrastructure is more expensive and requires higher reserves**



# Replacement Reserve Funding

- Utilities must build, maintain, and replace infrastructure
- Long lived assets require long-term management
  - » Operational management: condition assessments & maintenance
  - » Financial management: saving money for repair and replacement





# Decline in Federal Spending for Utilities

Figure 3

Federal Contribution to Total Infrastructure Spending

Water Utilities

Highways

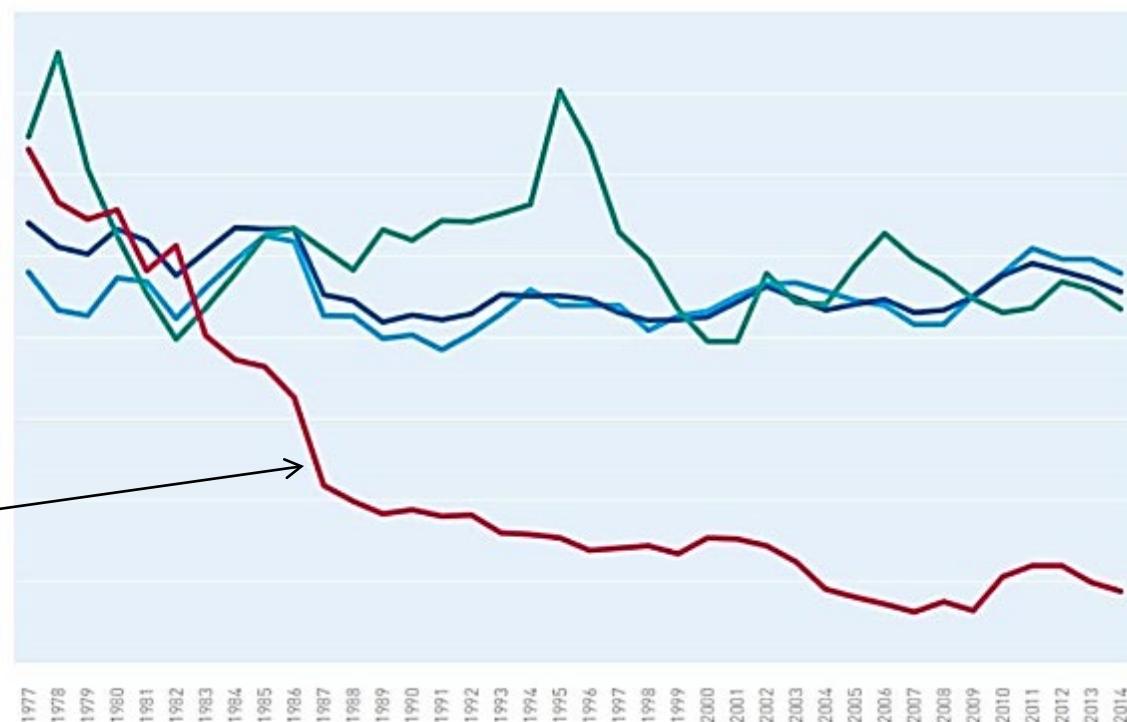
Aviation

All Transportation Infrastructure

>60%

Water Utilities

<10%





# Proactive RRF Plan Needed

- **Rate Funded RRF – what is it?**
  - » An annual cash contribution from current rate revenue
  - » Pays for same-year repair & replacement projects... or
  - » Saved for future capital projects
- **Policy Targets – how much do we need?**
  - » Original or replacement cost annual depreciation
  - » Average annual repair & replacement projects
  - » Asset management plan

**Build 'Replacement Reserve Funding ' into annual revenue needs**



# Replacement Reserve Funding

- **Target funding: annual depreciation**
- **Policy considerations – “Key Level”**
  - » Target 100% depreciation
  - » Phase-in over time
  - » Do not directly set a target
  - » Other?

Utility	Plant Assets (Gross)	Estimated Annual Depreciation						
		2023	2024	2025	2026	2027	2028	
Water	\$ 34,146,605	\$ 739,036	\$ 782,577	\$ 809,964	\$ 855,015	\$ 872,102	\$ 894,604	
Sewer	48,858,574	1,050,210	1,350,035	1,681,614	1,686,574	1,690,921	1,709,504	
Stormwater	5,431,029	121,755	135,535	152,445	194,084	222,612	232,532	

# Key Assumptions



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# Key Assumptions – Forecasting

- **Focus period 2023-2028**
  - » Projection through 2042
- **Revenue based on historical data, budget and forecast assumptions**
  - » 2021 billing statistics used as baseline for rate revenues
  - » 2023 budget used as baseline for non rate revenues
  - » Annual growth set at 0.75% per year for majority of classes
- **O&M expenses based on 2023 budget and escalated with**
  - » General cost inflation: 4.00% per year
  - » Construction cost inflation: 6.00% in 2024; 4.00% per year thereafter
  - » Labor cost inflation: 5.00% in 2024, 4.00% in 2025; 3.00% thereafter
  - » Benefits cost inflation: 5.00% per year



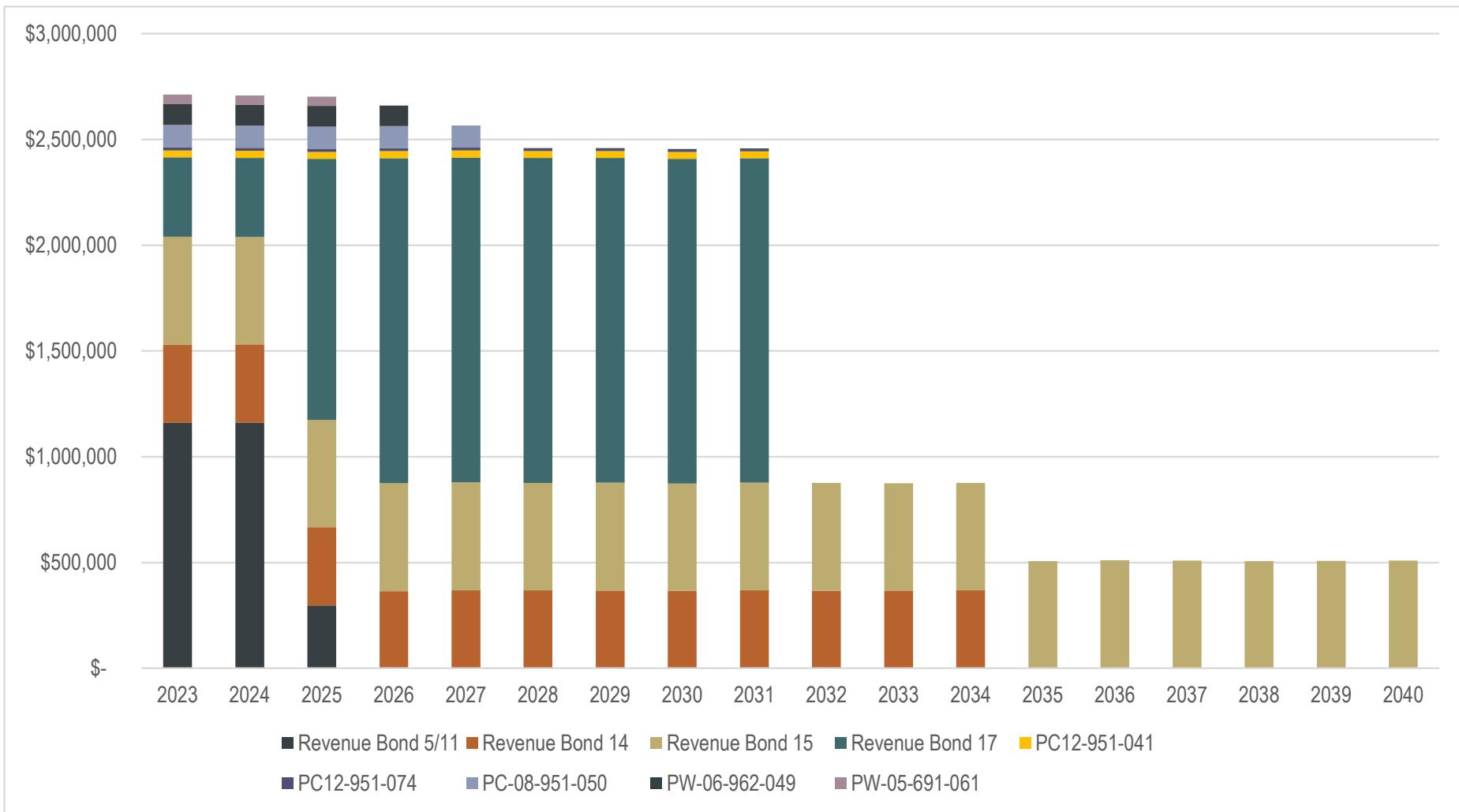
# Key Assumptions – Forecasting (continued)

- **Taxes**
  - » Water state excise tax rate: 5.029%
  - » Sewer state excise tax rate: 3.852% on collection share of revenue (25.00%)
  - » B&O tax rate: 1.75% on non rate revenue, SDC revenue, sewer treatment & transmission revenue (75.00%) and stormwater rate revenue
  - » City tax:
    - Water: 10.00%
    - Sewer: 8.81%
    - Stormwater: 6.00%
- **Future debt: revenue bonds**
  - » Term: 20-year (30-year scenarios)
  - » Interest rate: 5.00%
  - » Issuance cost: 1.00%
- **Low interest loans**

30-year
2.00%
1.00%



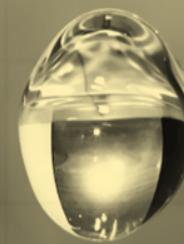
# Existing Debt





# Existing Debt – Detail

Year	Revenue Bond 5/11	Revenue Bond 14	Revenue Bond 15	Revenue Bond 17	PC12-951-041	PC12-951-074	PC-08-951-050	PW-06-962-049	PW-05-691-061	Total Debt
2023	\$ 1,162,163	\$ 368,000	\$ 510,250	\$ 374,947	\$ 33,294	\$ 14,398	\$ 105,715	\$ 99,817	\$ 44,301	\$ 2,712,885
2024	1,162,325	368,800	507,600	374,125	33,212	14,363	105,199	98,857	44,083	2,708,565
2025	297,825	369,200	507,200	1,234,244	33,131	14,328	104,683	97,898	43,865	2,702,373
2026	-	364,200	511,400	1,535,990	33,049	14,293	104,168	96,938	-	2,660,038
2027	-	369,000	510,000	1,536,035	32,968	14,258	103,652	-	-	2,565,912
2028	-	368,200	508,200	1,535,962	32,887	14,222	-	-	-	2,459,471
2029	-	367,000	511,000	1,534,743	32,805	14,187	-	-	-	2,459,735
2030	-	365,400	508,200	1,535,377	32,724	14,152	-	-	-	2,455,853
2031	-	368,400	510,000	1,532,777	32,642	14,117	-	-	-	2,457,936
2032	-	365,800	511,200	-	-	-	-	-	-	877,000
2033	-	367,800	506,800	-	-	-	-	-	-	874,600
2034	-	369,200	507,000	-	-	-	-	-	-	876,200
2035	-	-	506,600	-	-	-	-	-	-	506,600
2036	-	-	510,600	-	-	-	-	-	-	510,600
2037	-	-	508,800	-	-	-	-	-	-	508,800
2038	-	-	506,400	-	-	-	-	-	-	506,400
2039	-	-	508,400	-	-	-	-	-	-	508,400
2040	-	-	509,600	-	-	-	-	-	-	509,600
<b>Total</b>	<b>\$ 2,622,313</b>	<b>\$ 4,411,000</b>	<b>\$ 9,159,250</b>	<b>\$ 11,194,200</b>	<b>\$ 296,712</b>	<b>\$ 128,318</b>	<b>\$ 523,417</b>	<b>\$ 393,510</b>	<b>\$ 132,250</b>	<b>\$ 28,860,969</b>
Water %	25.00%	25.00%	25.00%	25.00%	100.00%	100.00%				25.20%
Sewer %	71.00%	71.00%	71.00%	71.00%			100.00%	100.00%	100.00%	71.01%
Storm %	4.00%	4.00%	4.00%	4.00%						3.80%
<b>Principal</b>	<b>\$ 2,440,000</b>	<b>\$ 3,450,000</b>	<b>\$ 6,445,000</b>	<b>\$ 9,488,000</b>	<b>\$ 293,049</b>	<b>\$ 126,734</b>	<b>\$ 515,682</b>	<b>\$ 383,912</b>	<b>\$ 130,940</b>	<b>\$ 23,273,317</b>
<b>Interest</b>	<b>182,313</b>	<b>961,000</b>	<b>2,714,250</b>	<b>1,706,200</b>	<b>3,663</b>	<b>1,584</b>	<b>7,735</b>	<b>9,598</b>	<b>1,309</b>	<b>5,587,652</b>

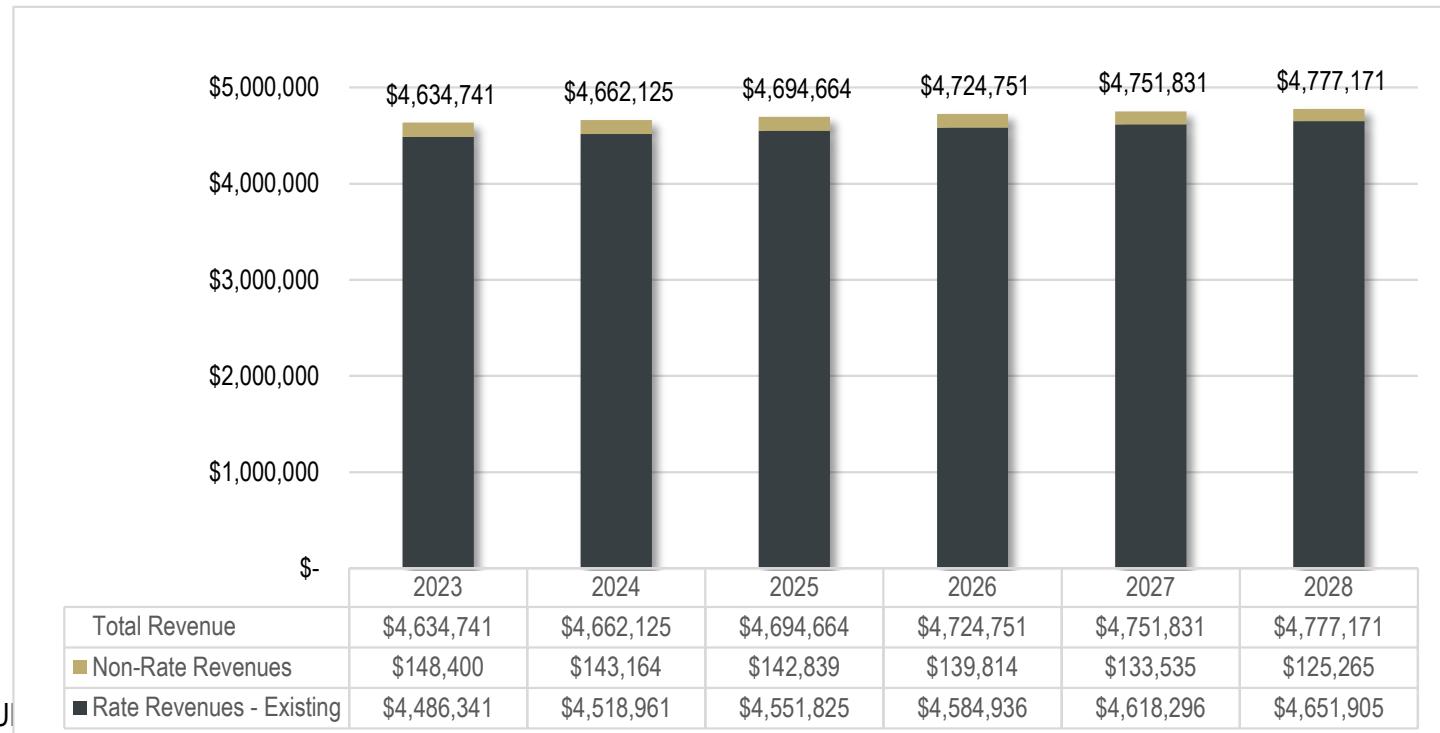


# Water



# Key Factors: Existing Revenue

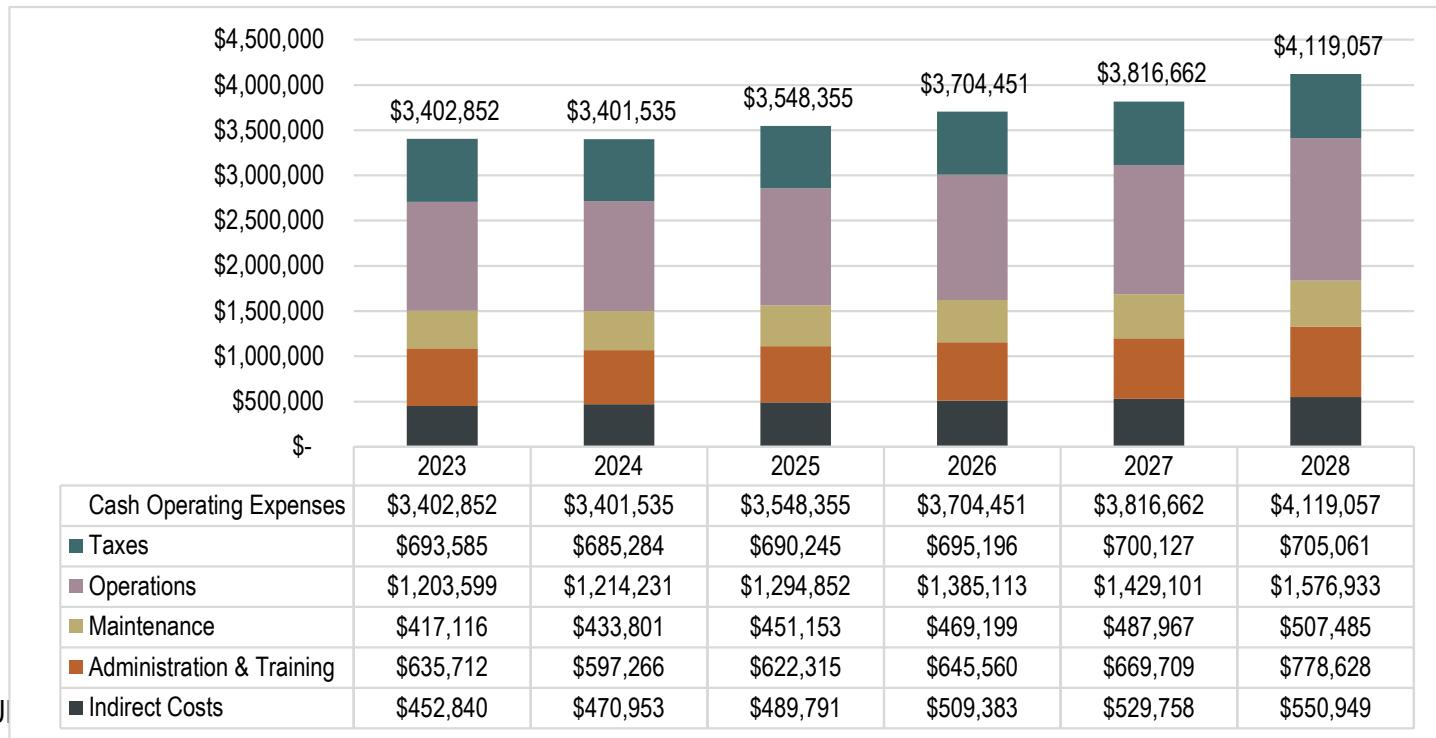
- **Focus period: 2023-2028**
  - » Rate revenue based on 2021 actual data plus 0.75% growth except large commercial
  - » Non rate revenue consists of meter sets, penalties, interest, other water service charges and miscellaneous revenues
- **Total existing operating revenue: \$4.6 million to \$4.8 million**





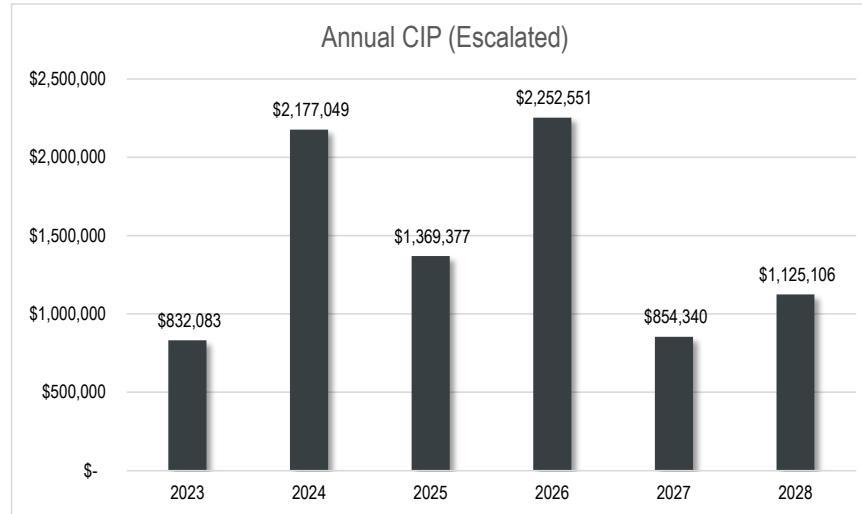
# Key Factors: Operating Expenses

- Forecast based on 2023 budget
  - » Costs inflated between 6.0%-3.0% per year
    - Average inflation (net of taxes) of 4.8%
- Total O&M expenses: \$3.4 million to \$4.1 million





# Key Factors: Capital



Year	2023\$	Annual CIP (Escalated)
2023	\$ 832,083	\$ 832,083
2024	2,053,820	2,177,049
2025	1,242,178	1,369,377
2026	1,964,727	2,252,551
2027	716,514	854,340
2028	907,307	1,125,106
<b>Total</b>	<b>\$ 7,716,629</b>	<b>\$ 8,610,506</b>
2029-2033	14,569,226	18,696,711
<b>Total</b>	<b>\$ 22,285,855</b>	<b>\$ 27,307,217</b>

- Capital funded through existing reserves, cash financing, SDCs, replacement reserve funding
  - » No new debt anticipated in 2024-2028 rate setting period
  - » Potential new debt may be necessary to finance future CIP
- Assumes 75% of annual SDC revenues allocated towards Environmental Mitigation Agreements (EMA) to developers for construction of general benefit CIP
  - » \$157k out of \$258k average annual water SDC revenue

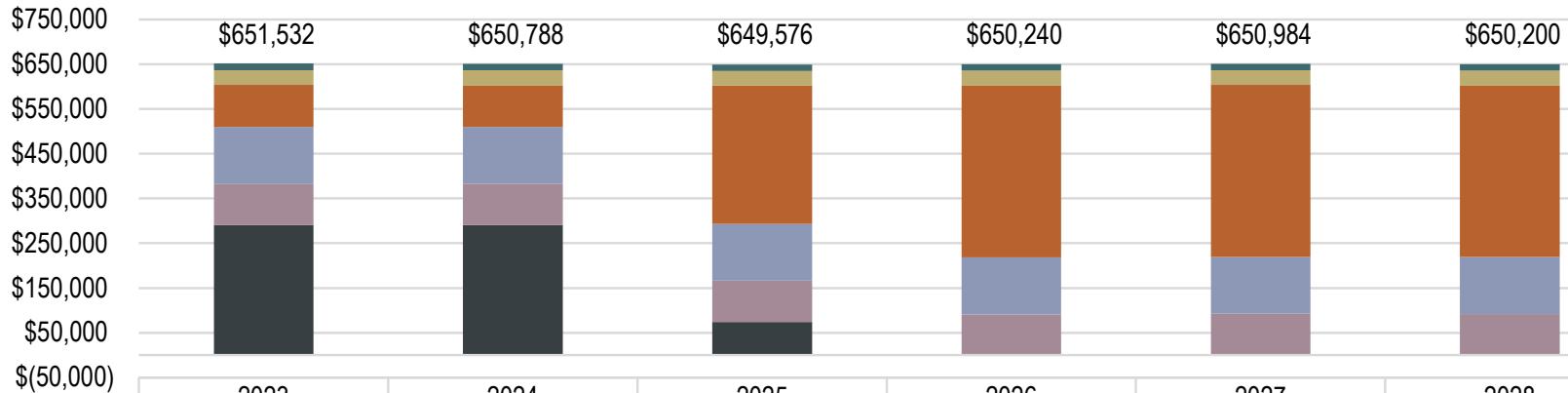


# Key Factors: Capital (continued)

Description	2023	2024	Rate Setting Period (Escalated)				Total 2023-2028	Future 2029-2033	Total
			2025	2026	2027	2028			
<b>Zone 7 Expansion</b>									
Reservoir 7 Siting Study and Property Purchase			\$ 39,768		\$ 716,886		\$ 756,654		\$ 756,654
Reservoir, BPS and Transmission Mains									
<b>Source</b>									
Well 1R						372,781	372,781	2,326,153	2,698,934
<b>Fire Flow Improvements 2012 WSP</b>									
P9 J Street - 32nd Street to 34th Street		446,117					446,117		446,117
B Street 9th to Washougal River Road - 20 Services						515,929	515,929		515,929
P10 I Street - 32nd Street to 34th Street			481,194				481,194		481,194
P11 G Street - 32nd Street to 34th Street				477,005			477,005		477,005
P12 32nd Street - G Street to K Street - 20 Service Transfers ONLY	441,018						441,018		441,018
P21 South A Street - 8th Street to 12th Street				1,083,601			1,083,601		1,083,601
<b>Fire Flow Improvements 2020 WSP</b>									
P62 1st Street			156,421				156,421		156,421
P65 3rd Avenue - 4 Street to N. Shepheard Road		643,682					643,682		643,682
P69 S Street from 32nd Street		72,653					72,653		72,653
<b>Miscellaneous</b>									
Major Repairs / Misc. Pipe Improvements	53,045	63,731	66,280	68,931	71,689	74,556	398,232	419,973	818,205
AMI Implementation	409,383	509,847	530,241	551,451			2,000,923		2,000,923
System Capacity / CIP Update			66,280				66,280		66,280
<b>Zone 4-2 Loop</b>									
P41 328th Ave Loop, V8								2,165,989	2,165,989
<b>2023 Budget - Water Main Installation 32/34/j st</b>	284,280						284,280		284,280
<b>ER&amp;R Projects</b>	85,375	-	29,192	71,562	65,765	161,840	413,735		413,735
<b>Zone 6 Conversion</b>									
Zone 6 Reservoir								6,564,093	6,564,093
New BPS 3 and BPS 6								5,128,702	5,128,702
P28, P58, P59, P60, P61, P66, V1								2,091,801	2,091,801
<b>Total (Escalated)</b>	\$ 832,083	\$ 2,177,049	\$ 1,369,377	\$ 2,252,551	\$ 854,340	\$ 1,125,106	\$ 8,610,506	\$ 18,696,711	\$ 27,307,217
2023\$	\$ 832,083	\$ 2,053,820	\$ 1,242,178	\$ 1,964,727	\$ 716,514	\$ 907,307	\$ 7,716,629	\$ 14,569,226	\$ 22,285,855

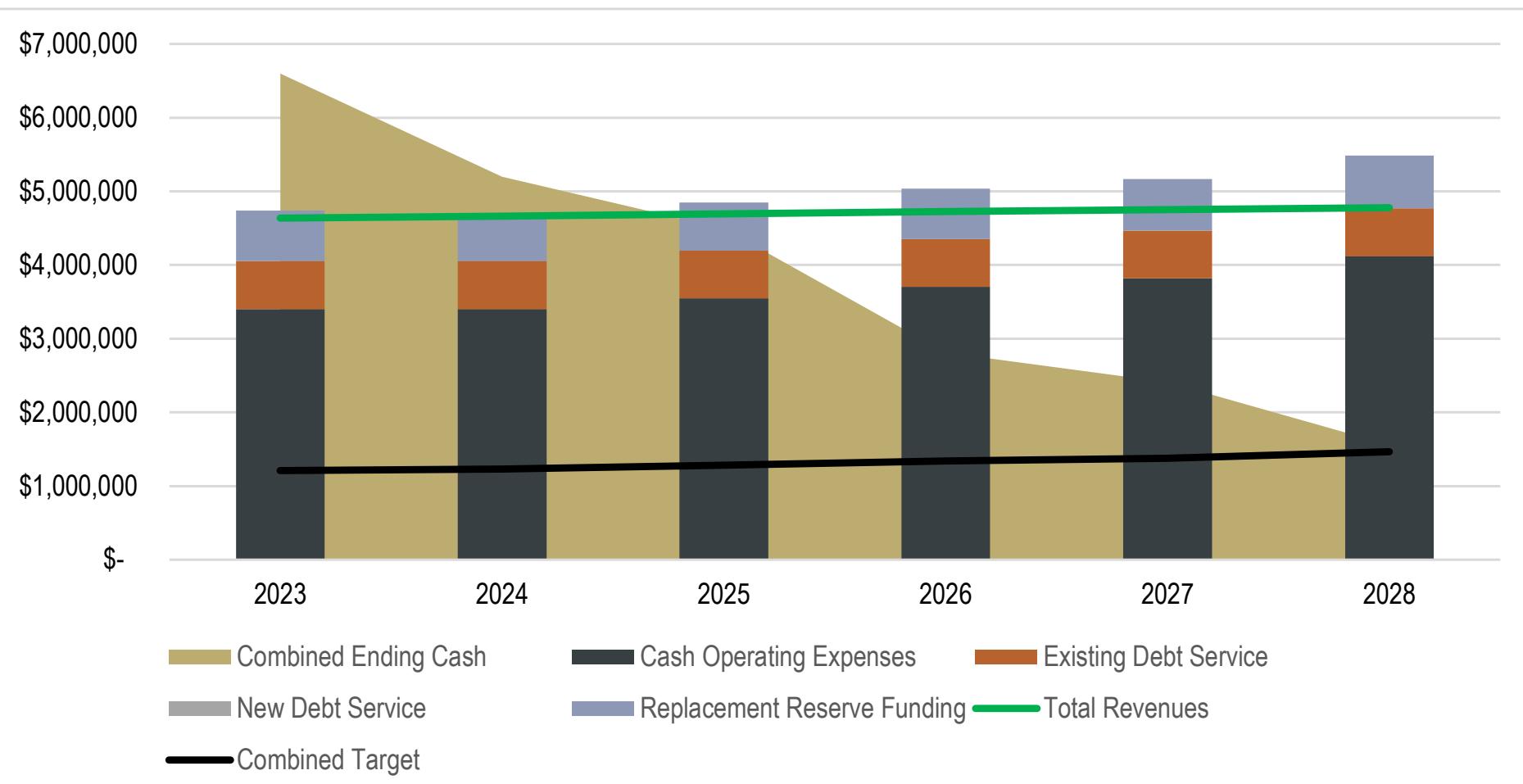


# Key Factors: Existing Debt





# Revenue Requirement: Baseline





# Baseline (continued)

Description	2023	2024	2025	2026	2027	2028
<b>Revenues</b>						
Rate Revenues - Existing	\$ 4,486,341	\$ 4,518,961	\$ 4,551,825	\$ 4,584,936	\$ 4,618,296	\$ 4,651,905
Non-Rate Revenues	148,400	143,164	142,839	139,814	133,535	125,265
<b>Total Revenues</b>	<b>\$ 4,634,741</b>	<b>\$ 4,662,125</b>	<b>\$ 4,694,664</b>	<b>\$ 4,724,751</b>	<b>\$ 4,751,831</b>	<b>\$ 4,777,171</b>
<b>Expenses</b>						
Cash Operating Expenses	\$ 3,402,852	\$ 3,401,535	\$ 3,548,355	\$ 3,704,451	\$ 3,816,662	\$ 4,119,057
Existing Debt Service	651,532	650,788	649,576	650,240	650,984	650,200
New Debt Service	-	-	-	-	-	-
Replacement Reserve Funding	685,959	626,061	647,971	684,012	697,682	715,683
<b>Total Expenses</b>	<b>\$ 4,740,343</b>	<b>\$ 4,678,385</b>	<b>\$ 4,845,903</b>	<b>\$ 5,038,703</b>	<b>\$ 5,165,328</b>	<b>\$ 5,484,939</b>
<b>Net Surplus (Deficiency)</b>	<b>\$ (105,602)</b>	<b>\$ (16,259)</b>	<b>\$ (151,238)</b>	<b>\$ (313,952)</b>	<b>\$ (413,497)</b>	<b>\$ (707,769)</b>

<b>Operating Ending Balance</b>	\$ 839,059	\$ 822,800	\$ 671,562	\$ 357,610	\$ (55,887)	\$ (763,656)
Target (90 Days)	839,059	838,735	874,937	913,426	941,095	1,015,658
<b>Capital Ending Balance</b>	\$ 5,759,478	\$ 4,375,458	\$ 3,822,919	\$ 2,454,958	\$ 2,466,115	\$ 2,321,204
Target (1% of Plant)	369,518	391,288	404,982	427,508	436,051	447,302
<b>Combined Ending Balance</b>	<b>\$ 6,598,537</b>	<b>\$ 5,198,258</b>	<b>\$ 4,494,481</b>	<b>\$ 2,812,568</b>	<b>\$ 2,410,228</b>	<b>\$ 1,557,548</b>
Combined Target	1,208,577	1,230,023	1,279,919	1,340,934	1,377,146	1,462,960



# Summary & Scenarios for Consideration

- **Existing rates are not sufficient to keep up with ongoing obligations**
  - » At existing rate levels, reserves would be depleted and go negative starting 2029
- **Scenario for consideration**
  - » Baseline: maintain existing rates the 5-year period
  - » S1: decrease rates over a 5-year period by 10%
  - » S2: consider increases taking into account inflation and conservative (5-year) CIP
  - » S3: consider increases taking into account inflation and programmed (10-year) CIP
  - » S4: conservative (5-year) CIP with minimized rate increases
    - Reduced RRF funding



# Scenario Summary: Baseline & S1

Baseline: No Increases	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bi-Mo. Res. Rate 15ccf	\$ 94.28	\$ 94.28	\$ 94.28	\$ 94.28	\$ 94.28	\$ 94.28	\$ 94.28
\$ Bi-Mo. Difference	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RRF % of Depreciation		75.00%	55.00%	35.00%	30.00%	0.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (50,000)

- **11.0%-15.0% rate increase needed to keep up with operations in 2029**
- **48.0% rate increase with \$16.5 million in debt (30-year | 1.5 coverage) needed in 2029**
  - » 76.0% rate increase with \$14.5 million in debt (20-year | 2.0 coverage) needed in 2029

S1: 10% Decrease	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%
Bi-Mo. Res. Rate 15ccf	\$ 94.28	\$ 92.31	\$ 90.39	\$ 88.50	\$ 86.66	\$ 84.85	
\$ Bi-Mo. Difference	\$ (1.97)	\$ (1.92)	\$ (1.88)	\$ (1.85)	\$ (1.81)		
RRF % of Depreciation		60.00%	30.00%	5.00%	0.00%	0.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ (50,000)	\$ (900,000)	

- **24.0%-35.0% rate increase needed to keep up with operations in 2029**
- **65.0% rate increase with \$16.5 million in debt (30-year | 1.5 coverage) needed in 2029**
  - » 98.0% rate increase with \$14.5 million in debt (20-year | 2.0 coverage) needed in 2029
- **Both scenarios would require future rate increase to keep up with inflation**



# Scenario Summary: S2 & S3

S2: 5-Year CIP Only	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		4.25%	4.25%	4.25%	4.25%	4.25%	23.13%
Bi-Mo. Res. Rate 15ccf	\$ 94.28	\$ 98.29	\$ 102.46	\$ 106.82	\$ 111.36	\$ 116.09	
\$ Bi-Mo. Difference		\$ 4.01	\$ 4.18	\$ 4.35	\$ 4.54	\$ 4.73	
RRF % of Depreciation		92.00%	94.00%	96.00%	98.00%	100.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **8.0% rate increase with \$14.0 million in debt (30-year term | 1.5 coverage) in 2030**
  - » 25.0% rate increases with \$14.0 million in debt (20-year term | 2.0 coverage) in 2030

S3: 10-Year CIP	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		4.75%	4.75%	4.75%	4.75%	4.75%	26.12%
Bi-Mo. Res. Rate 15ccf	\$ 94.28	\$ 98.76	\$ 103.45	\$ 108.36	\$ 113.51	\$ 118.90	
\$ Bi-Mo. Difference		\$ 4.48	\$ 4.69	\$ 4.91	\$ 5.15	\$ 5.39	
RRF % of Depreciation		92.00%	94.00%	96.00%	98.00%	100.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **4.75% increases are projected through 2030 with \$14.0 million in debt (30-year term | 1.50 coverage) in 2030**
  - » 6.0% annual rate increases 2024-2030 with \$12.0 million in debt (20-year term | 2.0 coverage) in 2030
- **Both scenarios would require future increases to keep up with inflation**



# Scenario Summary: S4

S4: 5-Year CIP; Min. Increase	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Bi-Mo. Res. Rate 15ccf	\$ 94.28	\$ 96.17	\$ 98.09	\$ 100.05	\$ 102.05	\$ 104.09	
\$ Bi-Mo. Difference		\$ 1.89	\$ 1.92	\$ 1.96	\$ 2.00	\$ 2.04	
RRF % of Depreciation		85.00%	75.00%	65.00%	65.00%	40.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **13.25% increase in 2029 followed by 7.25% in 2030 and 2031 with \$16.0 million in debt (30-year term | 1.5 coverage)**
  - » 24.0% increases in 2029 and 2030 with \$16.0 million in debt (20-year term | 2.0 coverage)
- **Future increases required to keep up with inflation**



# Scenario Summary: Combined

Annual Increase	2024	2025	2026	2027	2028	Cumulative
Baseline: No Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S1: 10% Decrease	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-10.00%
S2: 5-Year CIP Only	4.25%	4.25%	4.25%	4.25%	4.25%	23.13%
S3: 10-Year CIP	4.75%	4.75%	4.75%	4.75%	4.75%	26.12%
S4: 5-Year CIP; Min. Increase	2.00%	2.00%	2.00%	2.00%	2.00%	10.41%

RRF % of Depreciation	2024	2025	2026	2027	2028
Baseline: No Increases	75.00%	55.00%	35.00%	30.00%	0.00%
S1: 10% Decrease	60.00%	30.00%	5.00%	0.00%	0.00%
S2: 5-Year CIP Only	92.00%	94.00%	96.00%	98.00%	100.00%
S3: 10-Year CIP	92.00%	94.00%	96.00%	98.00%	100.00%
S4: 5-Year CIP; Min. Increase	85.00%	75.00%	65.00%	65.00%	40.00%

O&M Reduction	2024	2025	2026	2027	2028	
Baseline: No Increases	\$ -	\$ -	\$ -	\$ -	\$ -	(50,000)
S1: 10% Decrease	-	-	-	(50,000)	(900,000)	
S2: 5-Year CIP Only	-	-	-	-	-	
S3: 10-Year CIP	-	-	-	-	-	
S4: 5-Year CIP; Min. Increase	-	-	-	-	-	

- **Future consideration**

- » Baseline would need 11.0%-15.0% for operations in 2029 and 48.0%-76.0% with \$16.5 million in new debt for capital based on policy
- » S1 would need 23.0%-35.0% for operations in 2029 and 65.0%-98.0% with \$16.5 million in new debt based on policy
- » S2 would need 8.0%-25.0% and \$14.0 million in new debt in 2030 based on policy
- » S3 would need 4.75%-6.0% through 2030 and \$14.0 million in new debt in 2030 based on policy
- » S4 would need 13.25%-7.25% through 2031 or 24.0% in 2029-2030 and \$16.0 million in new debt in 2030
- » All scenarios would require future increases to keep up with inflation



# Scenario Summary: High Level

Rate Structure Example	Short Term Affordability	Financial Sustainability	Policy Compliance	5-Year Rate Impacts
Baseline: No Increases	++	XX	X	++
S1: 10% Decrease	+++	XXX	XX	+++
S2: 5-Year CIP Only	X	+	+	X
S3: 10-Year CIP	X	++	++	XX
S4: 5-Year CIP   Min. Increases	+	-	-	+

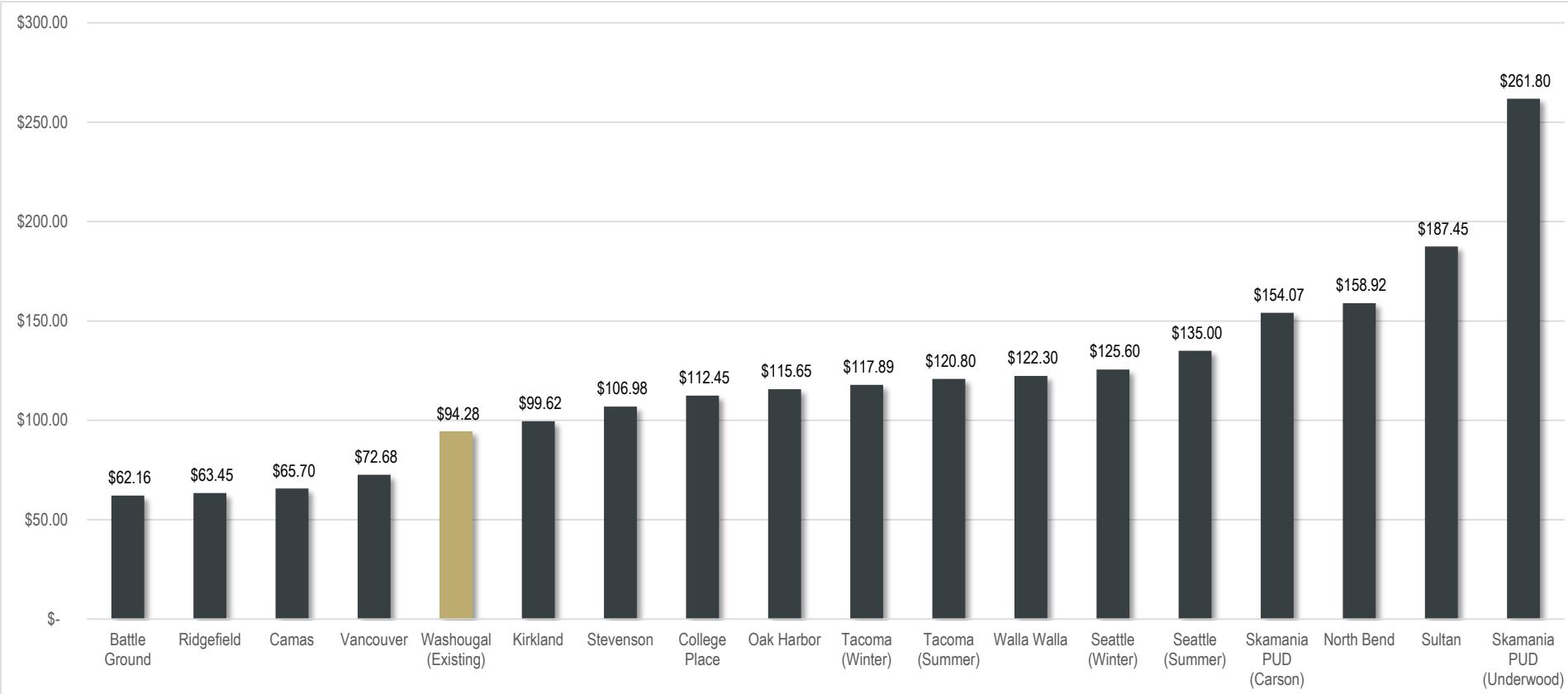
+: Meets or improves achievement of objective

✗: Does not meet or hinders achievement of objective

—: Does not impact the achievement of objective



# Water Residential Rate Survey



## Notes:

- Sample bi-monthly Residential bill assumes a  $\frac{3}{4}$ " meter and 15ccf consumption.
- Bills include utility taxes where applicable.

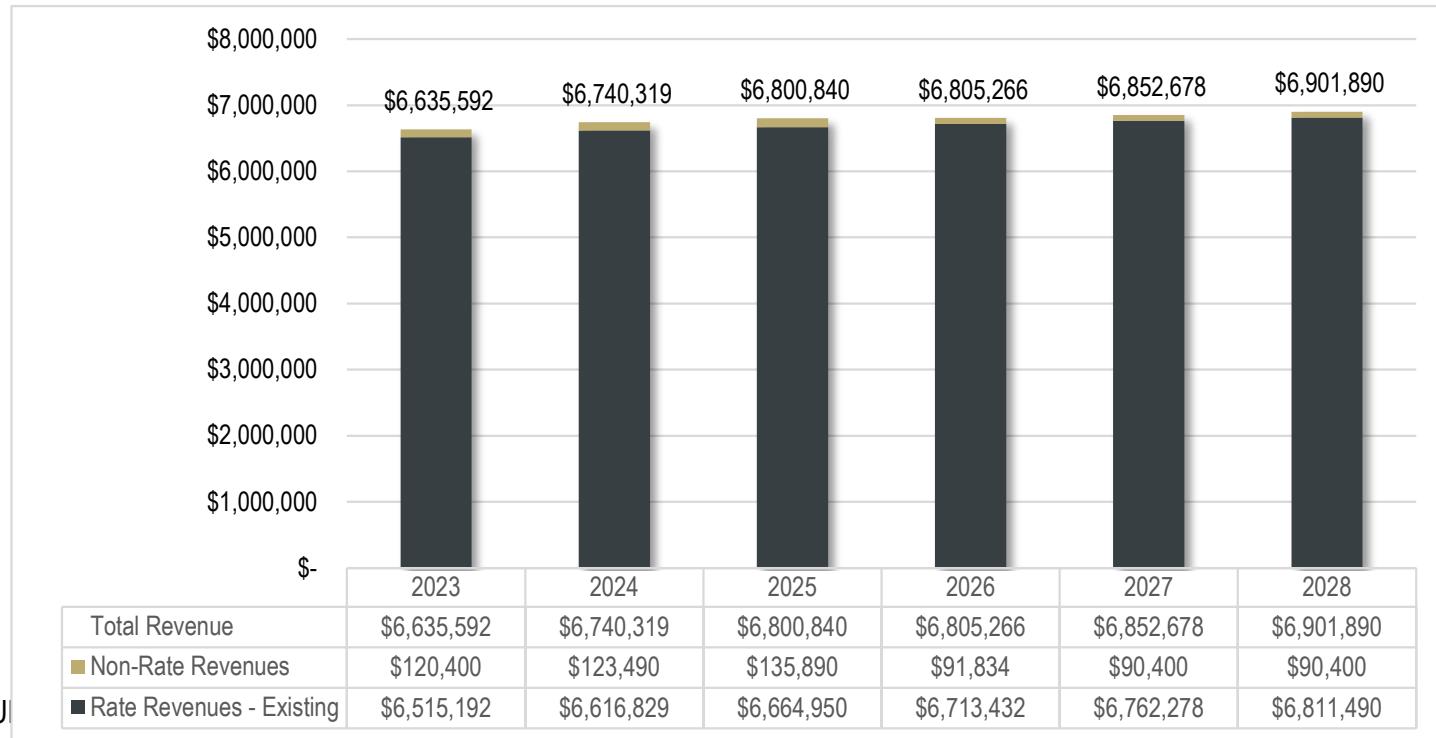


# Sewer



# Key Factors: Existing Revenue

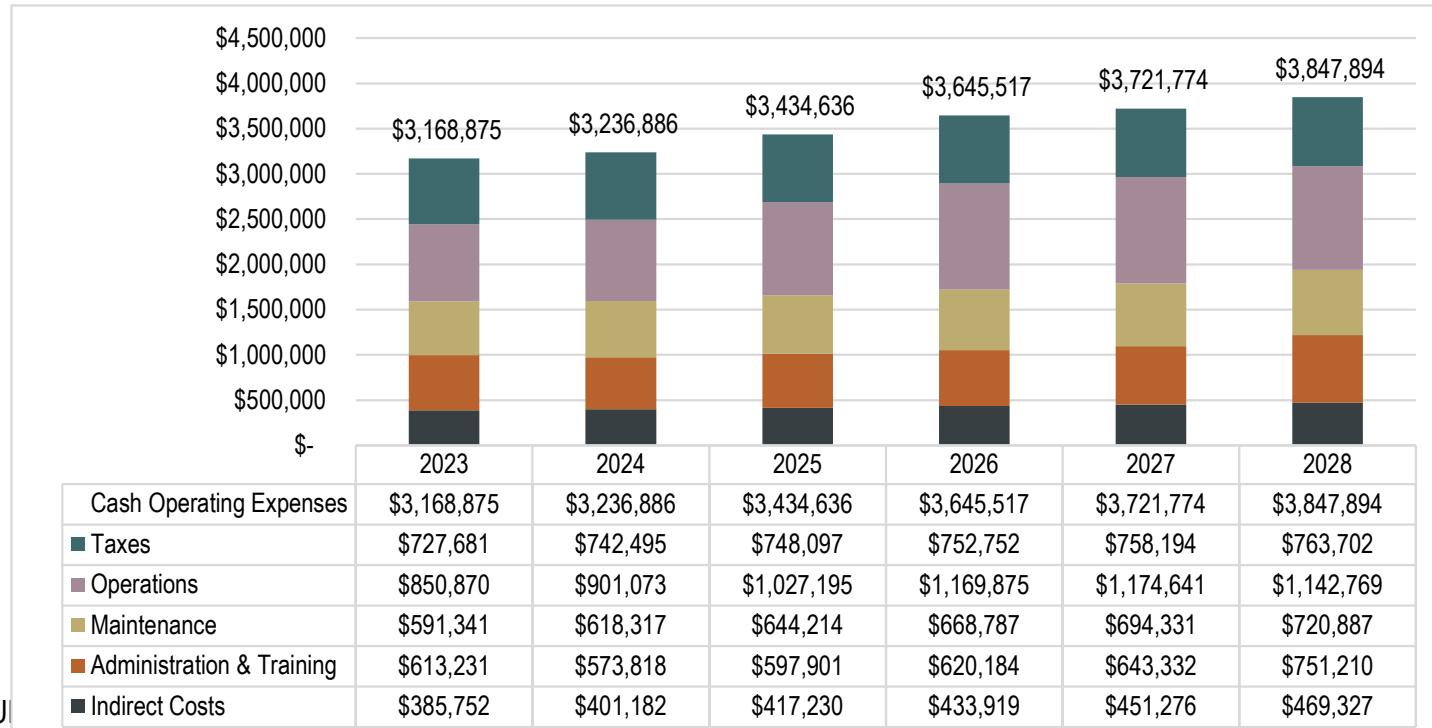
- **Rate setting period: 2024-2028**
  - » Rate revenue based on 2021 actual data plus 0.75% growth except industrial
  - » Non rate revenue consists of penalties, interest, other sewer service charges and miscellaneous revenues
- **Total existing operating revenue: \$6.6 million to \$6.9 million**





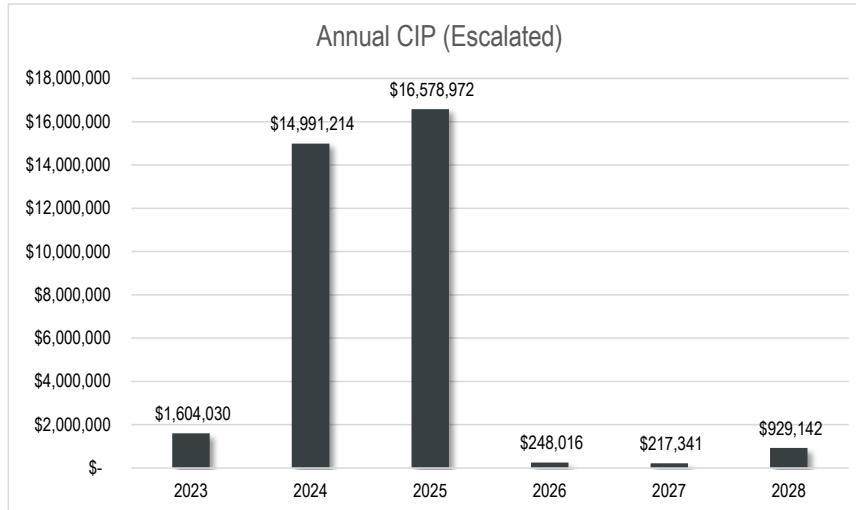
# Key Factors: Operating Expenses

- Forecast based on 2023 budget
  - » Costs inflated between 6.0%-3.0% per year
    - Average inflation (net of taxes) of 4.8%
  - » Includes 1 additional FTE in 2025 for WWTP
- Total O&M expenses: \$3.2 million to \$3.8 million





# Key Factors: Capital



Year	2023\$	Annual CIP (Escalated)
2023	\$ 1,604,030	\$ 1,604,030
2024	14,142,655	14,991,214
2025	15,038,981	16,578,972
2026	216,325	248,016
2027	182,279	217,341
2028	749,278	929,142
<b>Total</b>	<b>\$ 31,933,548</b>	<b>\$ 34,568,716</b>
2029-2033	638,568	903,164
2034-2040	20,265,785	37,684,667
<b>Total</b>	<b>\$ 52,837,901</b>	<b>\$ 73,156,547</b>

- **Capital funded through existing reserves, cash financing, SDCs, replacement reserve funding, grants and new debt**
  - » 2023 PWTF loan: \$1.0 million; 5-year; 0.47% interest
  - » 2024 grant: \$1.0 million
  - » 5-year new debt: \$16.6 million revenue bond baseline (varies by scenario)
  - » Potential new debt may be necessary to finance future CIP beyond 2028
- **Assumes 75% of annual SDC revenues allocated towards EMA to developers for construction of general benefit CIP**
  - » \$235k out of \$470k annual sewer SDC revenue 2023-2026

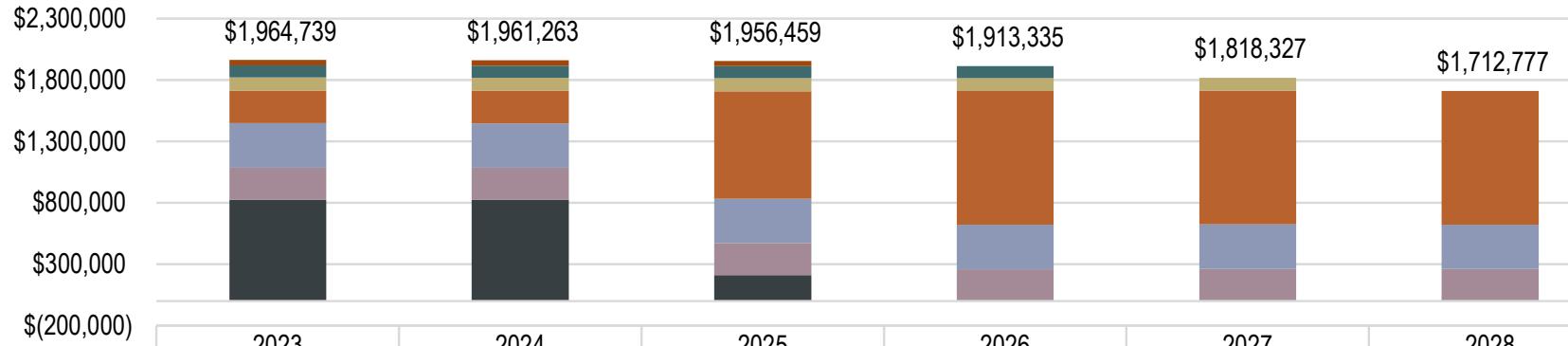


# Key Factors: Capital (continued)

Description	2023	2024	Rate Setting Period (Escalated)				Total 2023-2028	Future Periods		Total
			2025	2026	2027	2028		2029-2033	2034-2040	
<b>Collection System Maintenance Upgrades</b>										
Pump Station #4 Upgrade		\$ 79,500					\$ 79,500			\$ 79,500
Pump Station #13 Upgrade		5,830	6,063				11,893			11,893
Pump Station #14 Upgrade		7,420	7,717				15,137			15,137
Pump Station 1 Relocation	1,254,552						1,254,552			1,254,552
SCADA System Upgrades	228,478						228,478			228,478
Northside Lift Station No. 8 Completion	50,000						50,000			50,000
Pump Station 10 Abandonment							-			1,482,502
Pump Station #7 Abandonment (800' of 8" gravity sewer)							-			905,066
Pump Station #11 Abandonment (1,000' of 8" gravity sewer)							-			1,110,485
U Street Bypass (1,400' of 8" sewer)							-			1,372,687
Pump Station #16 (100 gpm capacity)							-			1,551,319
Force Main #16 (4,600' of 6-inch)							-			2,215,150
Trunk Sewer T26 (4,300' of 12-inch)							-			5,085,805
Interceptor Sewer I8 (4,000' of 36-inch)							-			8,606,746
Pump Station #17 (100 gpm capacity)							-			1,613,372
Force Main #17 (2,000' of 4-inch)							-			1,002,171
Interceptor I9 (Stiles Road) (4,500' of 8-inch)							-			6,235,732
Interceptor I10 (2,300' of 8-inch)							-			3,130,238
Pump Station #9 Upgrade (330 gpm capacity)							-			1,286,805
Force Main #9 Upgrade (300' of 4-inch)							-			72,358
Annual R&R				114,650	119,236	124,005	357,890	698,517	1,239,289	2,295,696
<b>Treatment Plant Upgrades</b>										
WWTP Upgrade Construction		14,840,000	16,536,000				31,376,000			31,376,000
Headworks Screen Upgrade							780,509	780,509		780,509
<b>ER&amp;R Projects</b>										
Total (Escalated)	\$ 1,604,030	\$ 14,991,214	\$ 16,578,972	\$ 248,016	\$ 217,341	\$ 929,142	\$ 34,568,716	\$ 903,164	\$ 37,684,667	\$ 73,156,547
2023\$	\$ 1,604,030	\$ 14,142,655	\$ 15,038,981	\$ 216,325	\$ 182,279	\$ 749,278	\$ 31,933,548	\$ 638,568	\$ 20,265,785	\$ 52,837,901



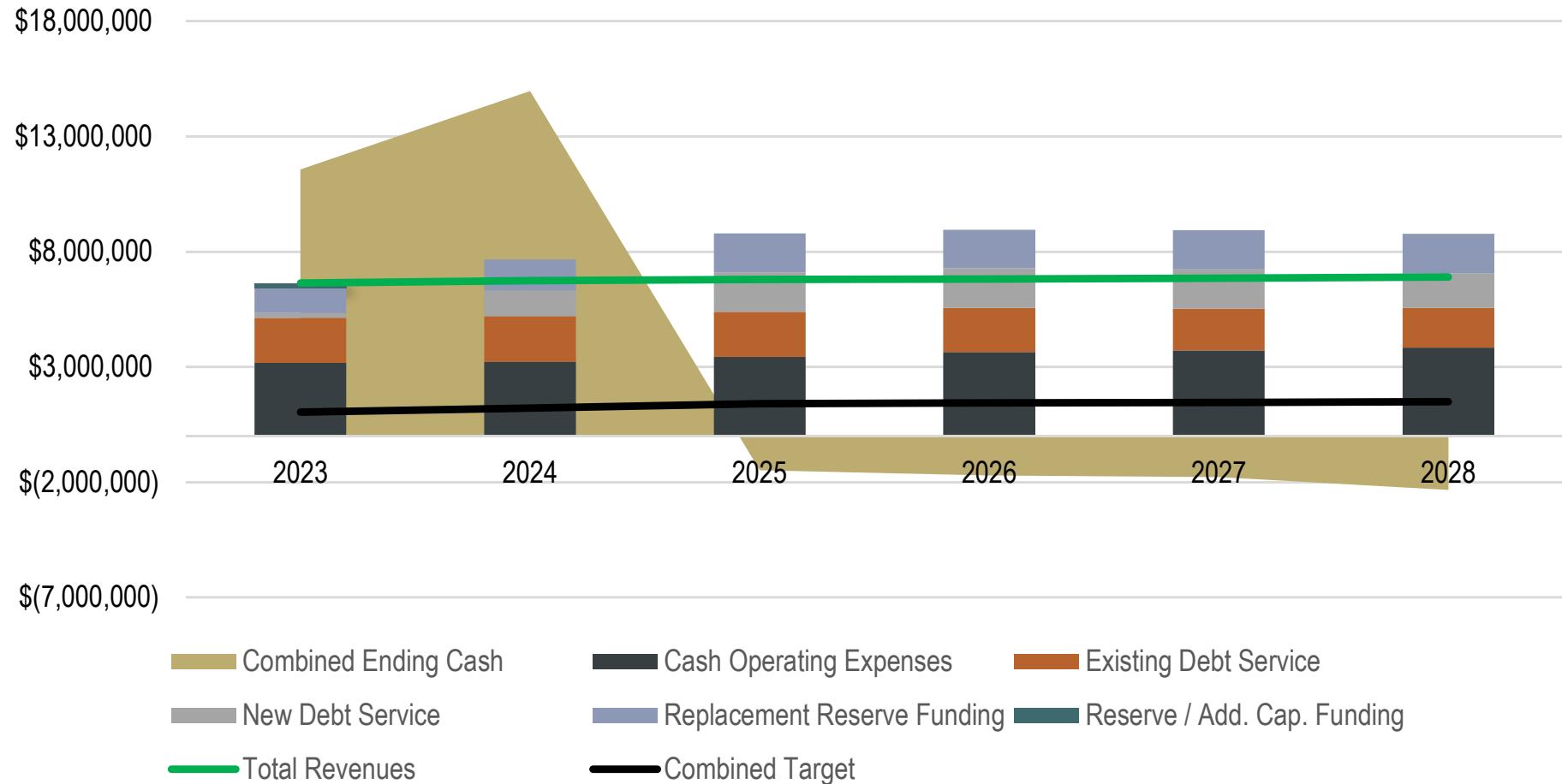
# Key Factors: Existing Debt



	2023	2024	2025	2026	2027	2028
Total Existing Debt	\$1,964,739	\$1,961,263	\$1,956,459	\$1,913,335	\$1,818,327	\$1,712,777
■ PW-05-691-061	\$44,301	\$44,083	\$43,865	\$-	\$-	\$-
■ PW-06-962-049	\$99,817	\$98,857	\$97,898	\$96,938	\$-	\$-
■ PC-08-951-050	\$105,715	\$105,199	\$104,683	\$104,168	\$103,652	\$-
■ Revenue Bond 17	\$266,213	\$265,629	\$876,313	\$1,090,553	\$1,090,585	\$1,090,533
■ Revenue Bond 15	\$362,278	\$360,396	\$360,112	\$363,094	\$362,100	\$360,822
■ Revenue Bond 14	\$261,280	\$261,848	\$262,132	\$258,582	\$261,990	\$261,422
■ Revenue Bond 5/11	\$825,135	\$825,251	\$211,456	\$-	\$-	\$-



# Revenue Requirement: Baseline



Note: combined reserves include \$19 million in new debt in 2024



# Baseline (continued)

Description	2023	2024	2025	2026	2027	2028
<b>Revenues</b>						
Rate Revenues - Existing	\$ 6,515,192	\$ 6,616,829	\$ 6,664,950	\$ 6,713,432	\$ 6,762,278	\$ 6,811,490
Non-Rate Revenues	120,400	123,490	134,294	94,573	90,400	90,400
<b>Total Revenues</b>	<b>\$ 6,635,592</b>	<b>\$ 6,740,319</b>	<b>\$ 6,799,244</b>	<b>\$ 6,808,005</b>	<b>\$ 6,852,678</b>	<b>\$ 6,901,890</b>
<b>Expenses</b>						
Cash Operating Expenses	\$ 3,168,875	\$ 3,236,886	\$ 3,434,608	\$ 3,645,565	\$ 3,721,774	\$ 3,847,894
Existing Debt Service	1,964,739	1,961,263	1,956,459	1,913,335	1,818,327	1,712,777
New Debt Service	204,700	1,116,091	1,712,637	1,711,697	1,710,757	1,509,817
Replacement Reserve Funding	1,104,059	1,350,035	1,681,614	1,686,574	1,690,921	1,709,504
<b>Total Expenses</b>	<b>\$ 6,442,373</b>	<b>\$ 7,664,275</b>	<b>\$ 8,785,318</b>	<b>\$ 8,957,171</b>	<b>\$ 8,941,779</b>	<b>\$ 8,779,992</b>
<b>Net Surplus (Deficiency)</b>	<b>\$ 193,219</b>	<b>\$ (923,956)</b>	<b>\$ (1,986,074)</b>	<b>\$ (2,149,166)</b>	<b>\$ (2,089,101)</b>	<b>\$ (1,878,102)</b>
Coverage After Increase	2.62	1.68	1.35	1.27	1.30	1.29
<b>Operating Ending Balance</b>						
Target (60 Days)	520,911	\$ (403,045)	\$ (2,389,119)	\$ (4,538,285)	\$ (6,627,386)	\$ (8,505,488)
	520,911	532,091	564,593	599,271	611,798	632,530
<b>Capital Ending Balance</b>	<b>\$ 11,038,107</b>	<b>\$ 15,373,654</b>	<b>\$ 911,193</b>	<b>\$ 2,831,323</b>	<b>\$ 4,858,479</b>	<b>\$ 6,162,472</b>
Target (1% of Plant)	525,105	675,017	840,807	843,287	845,461	854,752
<b>Combined Ending Balance</b>	<b>\$ 11,559,018</b>	<b>\$ 14,970,609</b>	<b>\$ (1,477,926)</b>	<b>\$ (1,706,962)</b>	<b>\$ (1,768,907)</b>	<b>\$ (2,343,016)</b>
Combined Target	1,046,016	1,207,108	1,405,400	1,442,558	1,457,259	1,487,283



# Summary & Scenarios for Consideration

- **Existing rates are not sufficient to keep up with ongoing obligations**
  - » At existing rate levels, reserves would be depleted and go negative starting 2025
  - » Internal coverage target of 2.00 would be broken in 2024
- **Scenario for consideration**
  - » Baseline: maintain existing rates the 5-year period
  - » S1: decrease rates over a 5-year period by 10%
  - » S2: consider increases taking into account inflation and conservative (5-year) CIP
  - » S3: consider increases taking into account inflation and programmed (10-year) CIP
  - » S4: low interest loans
  - » S5: low interest loans & additional \$3.0 million in grant funding

**Note:** revenue bond scenarios assume 1-year interest only payment for timing and shaping purposes for the 2024 bonds.



# Scenario Summary: Baseline & S1

Baseline: No Increases	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bi-Mo. Residential Bill 11ccf	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69
\$ Bi-Mo. Difference		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RRF % of Depreciation		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
O&M	\$ (850,000)	\$ (2,100,000)	\$ (2,300,000)	\$ (2,300,000)	\$ (2,300,000)	\$ (2,300,000)	\$ (2,300,000)

- **12.0%-41.5% rate increase to meet 1.5-2.0 coverage in 2029**
  - » Scenarios vary based on coverage policy and loan term duration (20/30-year term)
- **\$18.5 million (1.5 coverage | 30-year term) to \$16.6 million (2.0 coverage | 20-year term) in revenue bonds**
  - » Additional debt may be required in 2040 based on scenario

S1: 10% Decrease	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%
Bi-Mo. Residential Bill 11ccf	\$ 156.69	\$ 153.42	\$ 150.22	\$ 147.09	\$ 144.02	\$ 141.02	
\$ Bi-Mo. Difference		\$ (3.27)	\$ (3.20)	\$ (3.13)	\$ (3.07)	\$ (3.00)	
RRF % of Depreciation		90.00%	100.00%	100.00%	100.00%	100.00%	
O&M	\$ (1,000,000)	\$ (2,350,000)	\$ (2,700,000)	\$ (2,700,000)	\$ (2,700,000)	\$ (2,850,000)	

- **25.0%-57.5% rate increase needed to meet 1.5-2.0 coverage in 2029**
  - » Scenarios vary based on coverage policy and loan term duration (20/30-year term)
- **\$18.5 million (1.5 coverage | 30-year term) to \$16.6 million (2.0 coverage | 20-year term) in revenue bonds assumed in 2024 based on policy direction**
  - » Additional debt may be required in 2040 based on scenario
- **Future inflationary increase may be required based on scenario**



# Scenario Summary: S2 & S3

S2: 5-Year CIP Only	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		16.50%	16.50%	2.25%	0.00%	0.00%	38.78%
Bi-Mo. Residential Bill 11ccf	\$ 156.69	\$ 186.07	\$ 220.96	\$ 225.93	\$ 225.93	\$ 225.93	
\$ Bi-Mo. Difference		\$ 29.38	\$ 34.89	\$ 4.97	\$ -	\$ -	
RRF % of Depreciation		100.00%	100.00%	100.00%	100.00%	100.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **2.0 coverage is driving upfront increases on \$16.5 million in debt in 2024**
  - » Reducing coverage to 1.5 and increasing the debt term to 30-years lowers increases to 2.25% per year
    - Reduced coverage scenario would increase the borrowing to \$18.5 million in 2024
    - Reduced coverage scenario would phase-down RRF funding from 5%-40% 2024-2028

S3: 10-Year CIP	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		16.50%	16.50%	2.25%	0.00%	0.00%	38.78%
Bi-Mo. Residential Bill 11ccf	\$ 156.69	\$ 166.48	\$ 176.89	\$ 183.52	\$ 187.65	\$ 191.87	
\$ Bi-Mo. Difference		\$ 9.79	\$ 10.41	\$ 6.63	\$ 4.13	\$ 4.22	
RRF % of Depreciation		100.00%	100.00%	100.00%	100.00%	100.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **Similar to S2, 2.0 coverage is driving upfront increases on \$16.5 million in debt in 2024**
  - » Reducing coverage to 1.5 and increasing the debt term to 30-years lowers increases to 2.25% per year
    - Reduced coverage scenario would increase borrowing to \$18.5 million in 2024
    - Reduced coverage scenario would phase-down RRF funding from 5%-40% 2024-2028
- **Both scenarios would require future increases to keep up with inflation**



# Scenario Summary: S4 & S5

S4: Low Interest Loans	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bi-Mo. Residential Bill 11ccf	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69	\$ 156.69
\$ Bi-Mo. Difference	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RRF % of Depreciation		10.00%	10.00%	10.00%	10.00%	25.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

- **\$19 million in low interest loans assumed in 2024**
  - » \$7 million in revenue bonds assumed in 2040

S5: Additional Grants	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-4.90%
Bi-Mo. Residential Bill 11ccf	\$ 156.69	\$ 155.12	\$ 153.57	\$ 152.04	\$ 150.52	\$ 149.01	
\$ Bi-Mo. Difference	\$ (1.57)	\$ (1.55)	\$ (1.54)	\$ (1.52)	\$ (1.51)		
RRF % of Depreciation		5.00%	5.00%	5.00%	10.00%	15.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **\$3 million in additional Federal grants assumed in 2024**
- **\$16 million in low interest loans assumed in 2024**
  - » \$8 million in revenue bonds assumed in 2040
- **Both scenarios would require future increases to keep up with inflation**



# Scenario Summary: Combined

Annual Increase	2024	2025	2026	2027	2028	Cumulative
Baseline: No Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S1: 10% Decrease	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-10.00%
S2: 5-Year CIP Only	16.50%	16.50%	2.25%	0.00%	0.00%	38.78%
S3: 10-Year CIP	16.50%	16.50%	2.25%	0.00%	0.00%	38.78%
S4: Low Interest Loans	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S5: Additional Grants	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-4.90%

RRF % of Depreciation	2024	2025	2026	2027	2028
Baseline: No Increases	100.00%	100.00%	100.00%	100.00%	100.00%
S1: 10% Decrease	90.00%	100.00%	100.00%	100.00%	100.00%
S2: 5-Year CIP Only	100.00%	100.00%	100.00%	100.00%	100.00%
S3: 10-Year CIP	100.00%	100.00%	100.00%	100.00%	100.00%
S4: Low Interest Loans	10.00%	10.00%	10.00%	10.00%	25.00%
S5: Additional Grants	5.00%	5.00%	5.00%	10.00%	15.00%

O&M Reduction	2024	2025	2026	2027	2028
Baseline: No Increases	\$ (850,000)	\$ (2,100,000)	\$ (2,300,000)	\$ (2,300,000)	\$ (2,300,000)
S1: 10% Decrease	(1,000,000)	(2,350,000)	(2,700,000)	(2,700,000)	(2,850,000)
S2: 5-Year CIP Only	-	-	-	-	-
S3: 10-Year CIP	-	-	-	-	-
S4: Low Interest Loans	-	-	-	-	-
S5: Additional Grants	-	-	-	-	-

- **Future consideration**

- » Baseline would need 12.0%-41.5% for coverage in 2029 based on policy
- » S1 would need 25.0%-57.5% for coverage in 2029 based on policy
- » S2 & S3 upfront increases are due to 2.0 coverage; reduced policy can decrease to 2.25% annually
- » S4 assumes low interest loans and additional debt in 2040
- » S5 assumes low interest loans, additional grants and would need additional debt in 2040
- » All scenarios would require future increases to keep up with inflation



# Scenario Summary: High Level

Rate Structure Example	Short Term Affordability	Financial Sustainability	Policy Compliance	5-Year Rate Impacts
Baseline: No Increases	++	XXX	X	++
S1: 10% Decrease	+++	XXX	XX	+++
S2: 5-Year CIP Only	+ to XXX	++	++	X
S3: 10-Year CIP	+ to XXX	++	++	XX
S4: Low Interest Loans	+	-	X	+
S5: Low Interest Loans w. Grant	+++	-	X	+++

**Notes:** scenario may vary based on coverage and debt term policy.

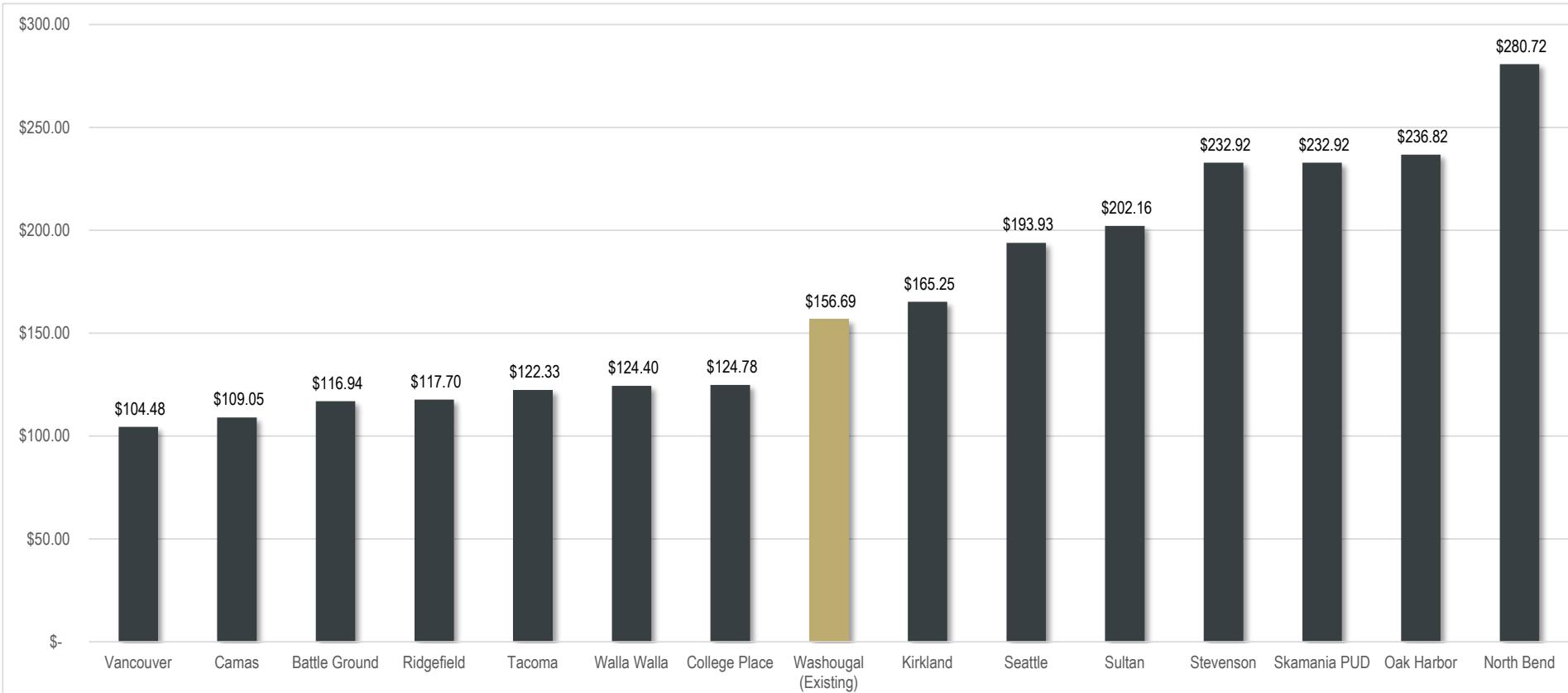
+ : Meets or improves achievement of objective

X : Does not meet or hinders achievement of objective

- : Does not impact the achievement of objective



# Sewer Residential Rate Survey



## Notes:

- Sample bi-monthly Residential bill assumes 11ccf consumption.
- Ridgefield rates are based off CRWWWD Ridgefield Service Area charges and include system integration charge and City operation fees.
- Skamania PUD rates are based off City of Stevenson charges.
- City of Kirkland includes King County Treatment and City of Kirkland Distribution fees.
- Bills include utility taxes where applicable.

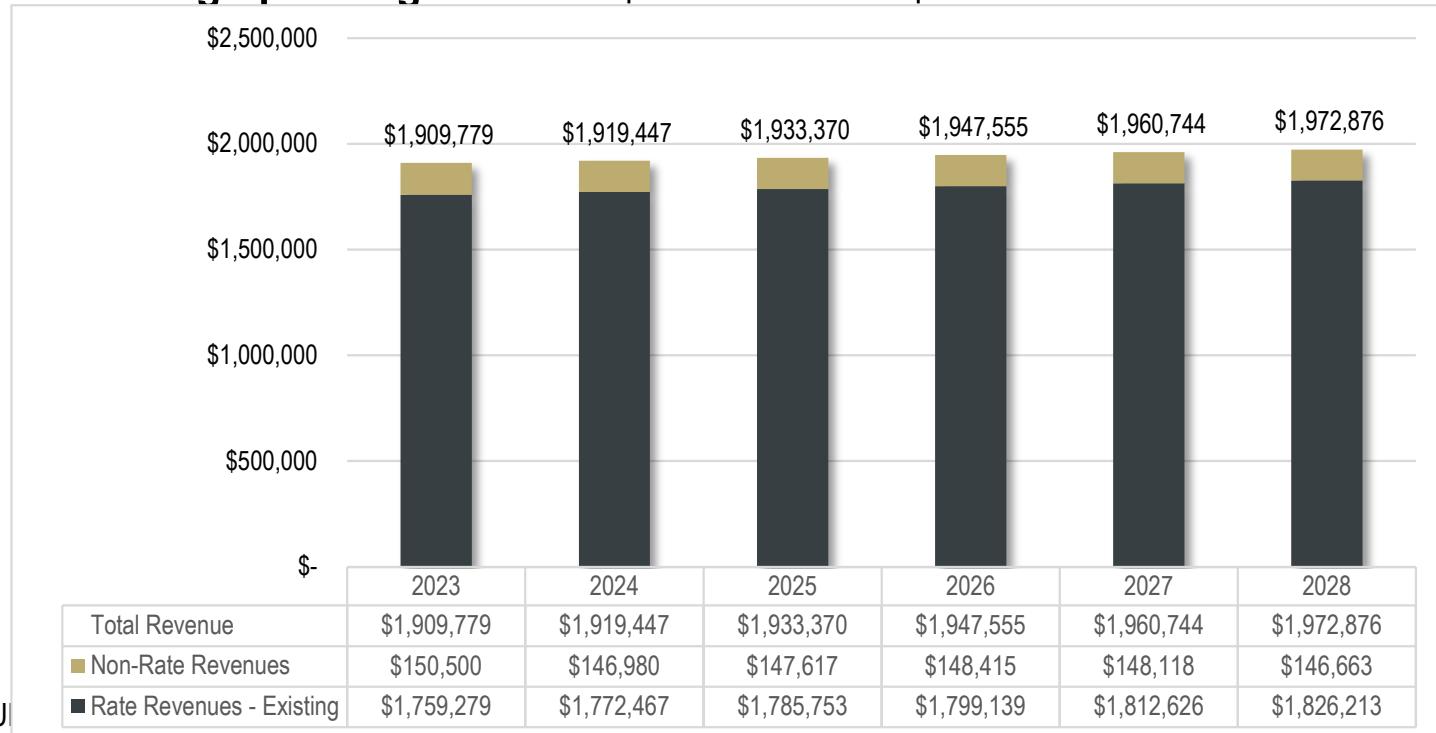


# Stormwater



# Key Factors: Existing Revenue

- **Rate setting period: 2024-2028**
  - » Rate revenue based on 2021 actual data plus 0.75% growth
  - » Non rate revenue consists of penalties, interest, other stormwater service charges, transfers back from general fund and miscellaneous revenues
  - » Includes a DOE Grant of \$50k every other year
- **Total existing operating revenue: \$1.9 million to \$2.0 million**





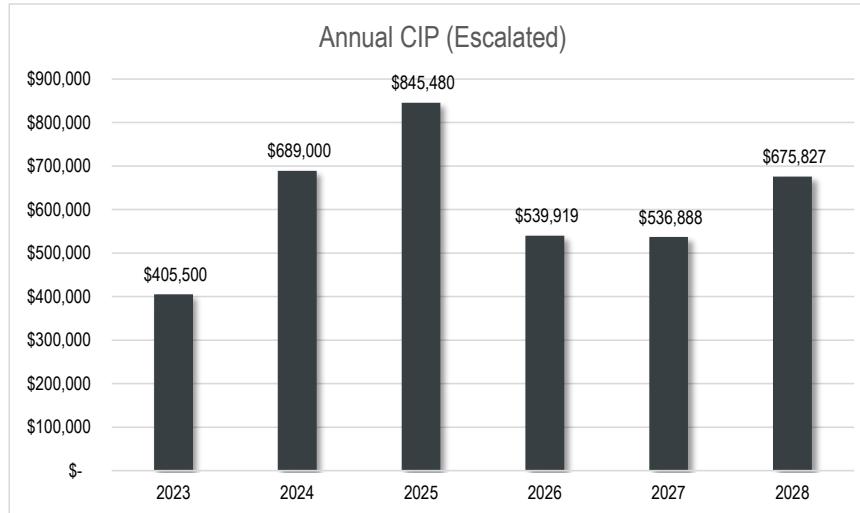
# Key Factors: Operating Expenses

- Forecast based on 2023 budget
  - » Costs inflated between 6.0%-3.0% per year
    - Average inflation (net of taxes) of 4.3%
  - » Includes 1 additional FTE in 2025
- Total O&M expenses: \$1.6 million to \$1.9 million





# Key Factors: Capital



Year	2023\$	Annual CIP (Escalated)
2023	\$ 405,500	\$ 405,500
2024	650,000	689,000
2025	766,944	845,480
2026	470,930	539,919
2027	450,275	536,888
2028	545,000	675,827
<b>Total</b>	<b>\$ 3,288,650</b>	<b>\$ 3,692,614</b>
2029-2033	4,758,270	6,729,676
2034-2042	5,151,562	9,504,650
<b>Total</b>	<b>\$ 13,198,482</b>	<b>\$ 19,926,940</b>

- **Capital funded through existing reserves, cash financing, SDCs, replacement reserve funding**
  - » No new debt anticipated in 2024-2028 rate setting period
  - » Potential new debt may be necessary to finance future CIP
- **Master planning is currently underway**
  - » 2029-2042 CIP based on 6-year average not including Campen Creek Stormwater Improvement Project and ER&R expenses



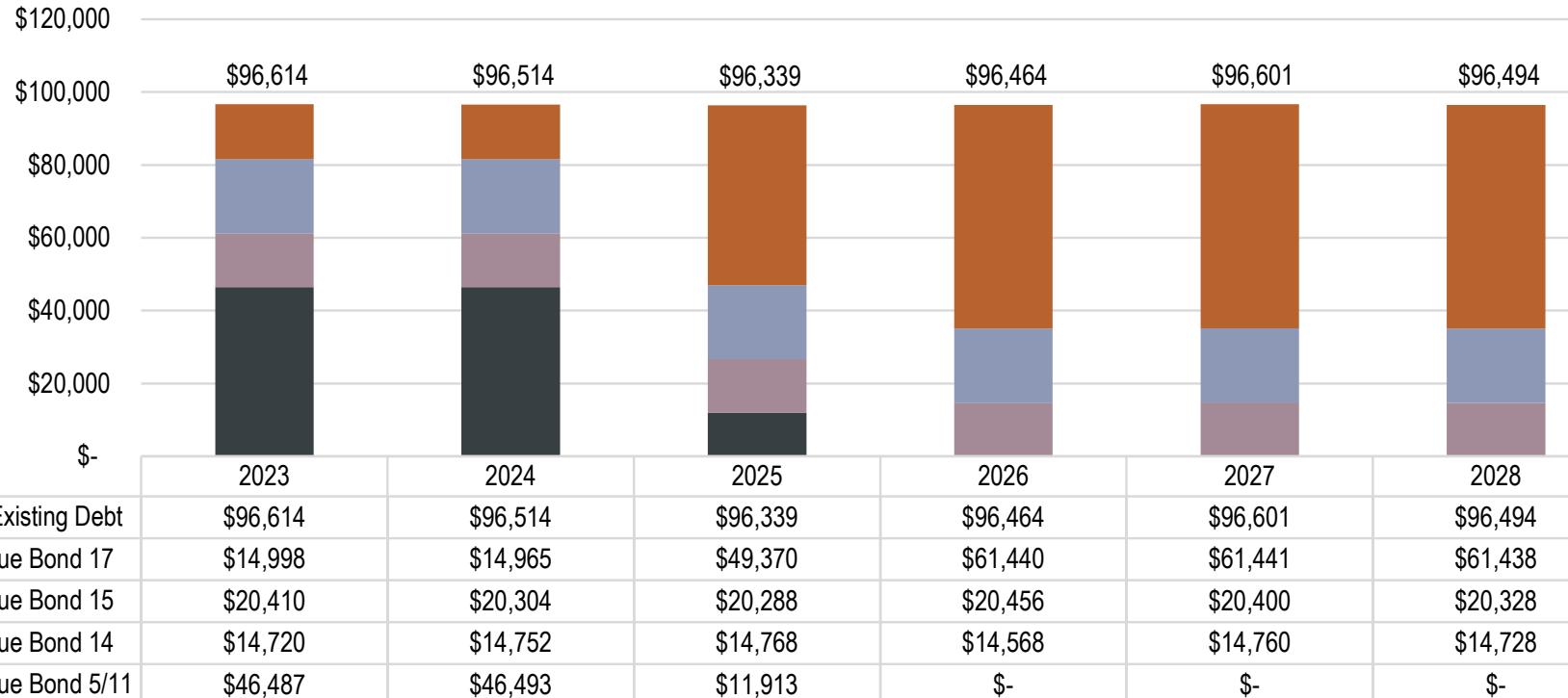
# Key Factors: Capital (continued)

Description	2023	2024	Rate Setting Period (Escalated)				2027	2028	Total 2023-2028	Future Periods		Total
			2025	2026	2027	2028				2029-2033	2034-2042	
<b>Masterplan</b>												
Annual Stormwater Repair & Replacement Projects		\$ 424,000	\$ 440,960	\$ 458,598	\$ 476,942	\$ 496,020			\$ 2,296,521			\$ 2,296,521
Jemtegaard Trail Drainage Repairs			265,000						265,000			265,000
Q Street Infiltration Pond Retrofit								179,807	179,807	962,080		1,141,888
WHS Campen Creek Stormwater Improvement Project										1,810,453		1,810,453
Annual Placeholder										3,217,836	7,649,384	10,867,219
<b>Budget</b>												-
Point Repairs		30,000							30,000			30,000
Z Street Drainage		42,000							42,000			42,000
Dogwood Drainage		42,000							42,000			42,000
Catch Basins & Drainage		255,000							255,000			255,000
<b>ER&amp;R Projects</b>	36,500	-	404,520	81,321	59,946	-			582,286	739,307	1,855,266	3,176,860
<b>Total (Escalated)</b>	\$ 405,500	\$ 689,000	\$ 845,480	\$ 539,919	\$ 536,888	\$ 675,827	\$ 3,692,614	\$ 6,729,676	\$ 9,504,650	\$ 19,926,940		
2023\$	\$ 405,500	\$ 650,000	\$ 766,944	\$ 470,930	\$ 450,275	\$ 545,000	\$ 3,288,650	\$ 4,758,270	\$ 5,151,562	\$ 13,198,482		

- **Master planning is currently underway**
  - » 2029-2042 CIP based on 6-year average not including Campen Creek Stormwater Improvement Project and ER&R expenses

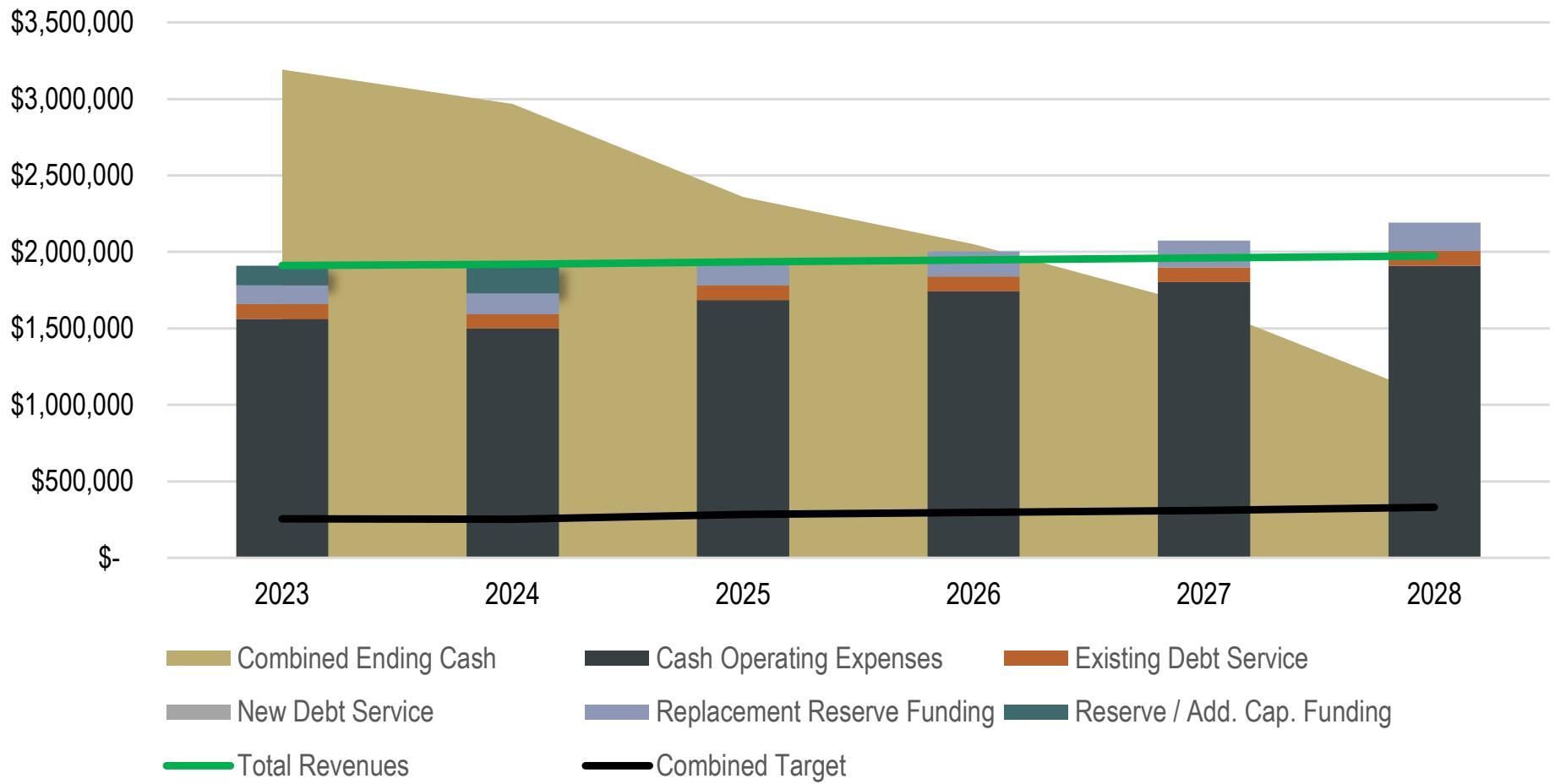


# Key Factors: Existing Debt





# Revenue Requirement: Baseline





# Baseline (continued)

Description	2023	2024	2025	2026	2027	2028
<b>Revenues</b>						
Rate Revenues - Existing	\$ 1,759,279	\$ 1,772,467	\$ 1,785,753	\$ 1,799,139	\$ 1,812,626	\$ 1,826,213
Non-Rate Revenues	150,500	146,980	147,617	148,415	148,118	146,663
<b>Total Revenues</b>	<b>\$ 1,909,779</b>	<b>\$ 1,919,447</b>	<b>\$ 1,933,370</b>	<b>\$ 1,947,555</b>	<b>\$ 1,960,744</b>	<b>\$ 1,972,876</b>
<b>Expenses</b>						
Cash Operating Expenses	\$ 1,563,265	\$ 1,498,174	\$ 1,684,807	\$ 1,743,161	\$ 1,803,712	\$ 1,908,463
Existing Debt Service	96,614	96,514	96,339	96,464	96,601	96,494
New Debt Service	-	-	-	-	-	-
Replacement Reserve Funding	121,755	135,535	152,445	163,243	173,981	187,498
<b>Total Expenses</b>	<b>\$ 1,781,635</b>	<b>\$ 1,730,223</b>	<b>\$ 1,933,590</b>	<b>\$ 2,002,868</b>	<b>\$ 2,074,295</b>	<b>\$ 2,192,456</b>
<b>Net Surplus (Deficiency)</b>	<b>\$ 128,144</b>	<b>\$ 189,224</b>	<b>\$ (221)</b>	<b>\$ (55,313)</b>	<b>\$ (113,551)</b>	<b>\$ (219,580)</b>
<b>Operating Ending Balance</b>						
Target (45 Days)	192,731	184,706	184,486	129,173	15,621	\$ (203,958)
Capital Ending Balance	\$ 2,998,902	\$ 2,782,063	\$ 2,174,288	\$ 1,920,939	\$ 1,626,516	\$ 1,251,007
Target (1% of Plant)	60,878	67,768	76,223	81,622	86,991	93,749
<b>Combined Ending Balance</b>	<b>\$ 3,191,633</b>	<b>\$ 2,966,769</b>	<b>\$ 2,358,774</b>	<b>\$ 2,050,112</b>	<b>\$ 1,642,138</b>	<b>\$ 1,047,049</b>
Combined Target	253,609	252,474	283,938	296,532	309,366	329,039



# Summary & Scenarios for Consideration

- **Existing rates are not sufficient to keep up with ongoing obligations**
  - » Cannot support partial RRF funding starting 2025 and any RRF funding in 2028
  - » Existing reserves are sufficient to cover 6-year CIP
- **Scenario for consideration**
  - » Baseline: maintain existing rates the 5-year period
  - » S1: decrease rates over a 5-year period by 10%
  - » S2: consider increases taking into account inflation and conservative (5-year) CIP
  - » S3: consider increases taking into account inflation and programmed (10-year) CIP



# Scenario Summary: Baseline & S1

Baseline: No Increases	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bi-Mo. Residential Bill	\$ 35.17	\$ 35.17	\$ 35.17	\$ 35.17	\$ 35.17	\$ 35.17	\$ 35.17
\$ Bi-Mo. Difference		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RRF % of Depreciation		100.00%	80.00%	60.00%	30.00%	0.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (40,000)

- **2.5% annual rate increases 2029 and thereafter to meet existing debt coverage and operations needs**
- **14.0% followed by 10.5% through 2033 is needed to support ongoing debt needs (2.0 coverage | 20-year term)**
  - » 10.0% followed by 8.5% through 2033 is needed to support ongoing debt needs (1.5 coverage | 30-year term)

S1: 10% Decrease	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%
Bi-Mo. Residential Bill	\$ 35.17	\$ 34.44	\$ 33.72	\$ 33.02	\$ 32.33	\$ 31.65	
\$ Bi-Mo. Difference		\$ (0.73)	\$ (0.72)	\$ (0.70)	\$ (0.69)	\$ (0.67)	
RRF % of Depreciation		100.00%	40.00%	0.00%	0.00%	0.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ (80,000)	\$ (200,000)	

- **13.5% rate increase in 2029 followed by 4.5% annually through 2033 to meet existing debt coverage and operations needs**
- **27.0% followed by 10.3% through 2033 is needed to support ongoing debt needs (2.0 coverage | 20-year term)**
  - » 21.0% followed by 9.25% through 2033 is needed to support ongoing debt needs (1.5 coverage | 30-year term)
- **Future inflationary increase may be required based on scenario**



# Scenario Summary: S2 & S3

S2: 5-Year CIP Only	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		2.75%	2.75%	2.75%	2.75%	2.75%	14.53%
Bi-Mo. Residential Bill	\$ 35.17	\$ 36.14	\$ 37.13	\$ 38.15	\$ 39.20	\$ 40.28	
\$ Bi-Mo. Difference		\$ 0.97	\$ 0.99	\$ 1.02	\$ 1.05	\$ 1.08	
RRF % of Depreciation		100.00%	100.00%	100.00%	100.00%	100.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **2.75% future increases needed to keep up with operations and RRF funding**
- **6.5% annual rate increases needed through 2033 to support ongoing debt needs (2.0 coverage | 20-year term)**
  - » 5.5% annual rate increases needed through 2033 to support ongoing debt needs (1.5 coverage | 30-year term)

S3: 10-Year CIP	Existing	2024	2025	2026	2027	2028	Cumulative
Annual Increase		4.25%	4.25%	4.25%	4.25%	4.25%	23.13%
Bi-Mo. Residential Bill	\$ 35.17	\$ 36.66	\$ 38.22	\$ 39.85	\$ 41.54	\$ 43.31	
\$ Bi-Mo. Difference		\$ 1.49	\$ 1.56	\$ 1.62	\$ 1.69	\$ 1.77	
RRF % of Depreciation		100.00%	100.00%	100.00%	100.00%	100.00%	
O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

- **4.25% annual rate increases needed through 2033 to support ongoing debt needs (2.0 coverage | 20-year term)**
  - » Can decrease to 4.0% per year with reduce policy (1.5 coverage | 30-year term)
- **Future inflationary increase may be required based on scenario**



# Scenario Summary: Combined

Annual Increase	2024	2025	2026	2027	2028	Cumulative
Baseline: No Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S1: 10% Decrease	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-10.00%
S2: 5-Year CIP Only	2.75%	2.75%	2.75%	2.75%	2.75%	14.53%
S3: 10-Year CIP	4.25%	4.25%	4.25%	4.25%	4.25%	23.13%

RRF % of Depreciation	2024	2025	2026	2027	2028
Baseline: No Increases	100.00%	80.00%	60.00%	30.00%	0.00%
S1: 10% Decrease	100.00%	40.00%	0.00%	0.00%	0.00%
S2: 5-Year CIP Only	100.00%	100.00%	100.00%	100.00%	100.00%
S3: 10-Year CIP	100.00%	100.00%	100.00%	100.00%	100.00%

O&M Reduction	2024	2025	2026	2027	2028
Baseline: No Increases	\$ -	\$ -	\$ -	\$ -	\$ (40,000)
S1: 10% Decrease	-	-	-	(80,000)	(200,000)
S2: 5-Year CIP Only	-	-	-	-	-
S3: 10-Year CIP	-	-	-	-	-

## ● Future consideration

- » Baseline requires 8.5% to 14.0% rate increases in 2029-2033 based on policy
- » S1 requires 9.25% to 27% rate increases in 2029-2033 based on policy
- » S2 requires 5.5% to 6.5% rate increases in 2029-2033 based on policy
- » S3 future increases range from 4.0%-4.25% based on policy



# Scenario Summary: High Level

Rate Structure Example	Short Term Affordability	Financial Sustainability	Policy Compliance	5-Year Rate Impacts
Baseline: No Increases	⊕ ⊕	XX	X	⊕ ⊕
S1: 10% Decrease	⊕⊕⊕	XXX	XX	⊕⊕⊕
S2: 5-Year CIP Only	⊕	X	⊕⊕	⊕
S3: 10-Year CIP	X	⊕ ⊕	⊕⊕	X

**Notes:** scenario may vary based on coverage and debt term policy.

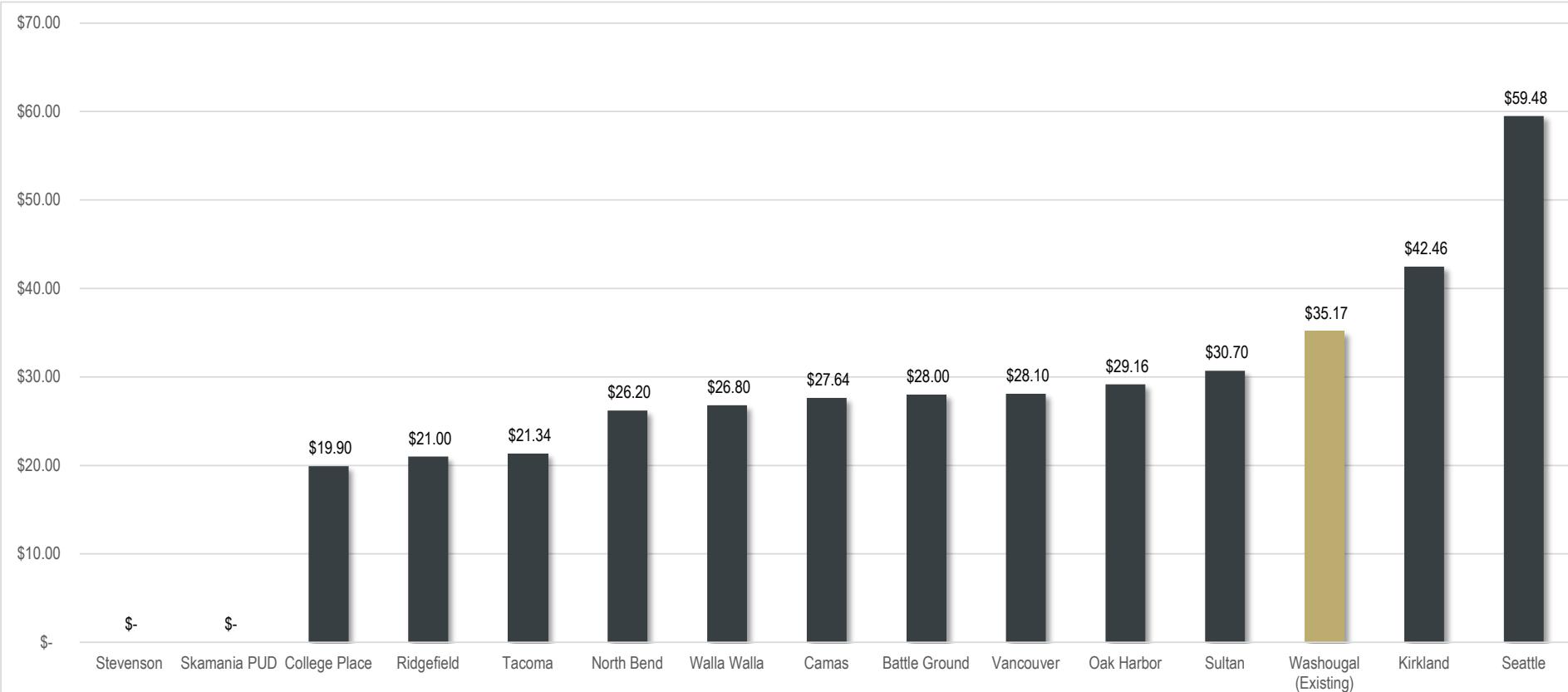
⊕ : Meets or improves achievement of objective

✗ : Does not meet or hinders achievement of objective

— : Does not impact the achievement of objective



# Stormwater Residential Rate Survey

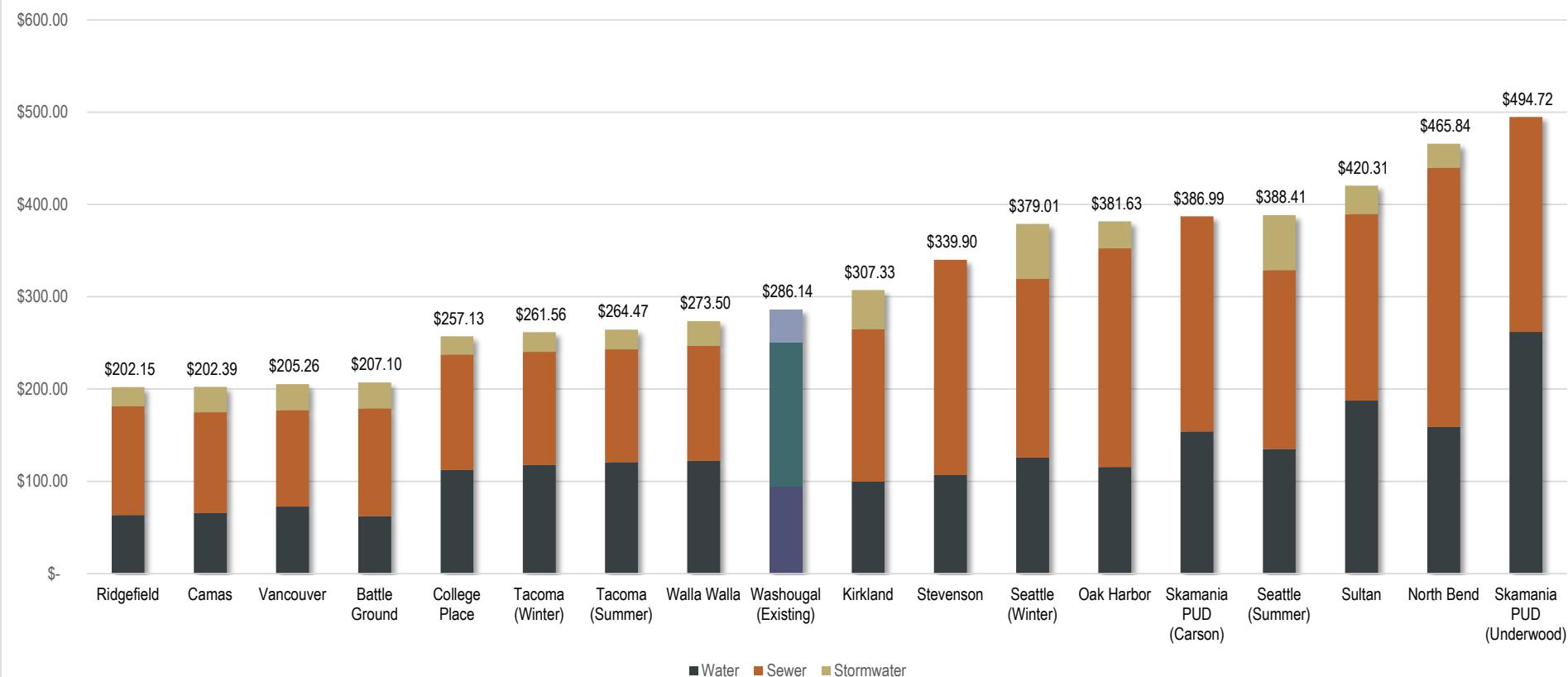


## Notes:

- City of Nort Bend includes flood management charge.
- Bills include utility taxes where applicable.



# Combined Residential Rate Survey



## NOTES:

- Sample bi-monthly Residential bill assumes 15ccf of water and 11ccf of sewer consumption. Water bills assume a 3/4" meter.
- Ridgefield sewer rates are based off CRWWD Ridgefield Service Area charges and include system integration charge and City operation fees.
- Skamania PUD rates are based off City of Stevenson charges.
- City of Kirkland includes King County Treatment and City of Kirkland Distribution fees.
- Bills include utility taxes where applicable.
- City of Nort Bend stormwater bill includes flood management charge.

# Discussion/Questions



# Water Scenario Summary: Combined

Annual Increase	2024	2025	2026	2027	2028	Cumulative
Baseline: No Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S1: 10% Decrease	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-10.00%
S2: 5-Year CIP Only	4.25%	4.25%	4.25%	4.25%	4.25%	23.13%
S3: 10-Year CIP	4.75%	4.75%	4.75%	4.75%	4.75%	26.12%
S4: 5-Year CIP; Min. Increase	2.00%	2.00%	2.00%	2.00%	2.00%	10.41%

RRF % of Depreciation	2024	2025	2026	2027	2028
Baseline: No Increases	75.00%	55.00%	35.00%	30.00%	0.00%
S1: 10% Decrease	60.00%	30.00%	5.00%	0.00%	0.00%
S2: 5-Year CIP Only	92.00%	94.00%	96.00%	98.00%	100.00%
S3: 10-Year CIP	92.00%	94.00%	96.00%	98.00%	100.00%
S4: 5-Year CIP; Min. Increase	85.00%	75.00%	65.00%	65.00%	40.00%

O&M Reduction	2024	2025	2026	2027	2028	
Baseline: No Increases	\$ -	\$ -	\$ -	\$ -	\$ -	(50,000)
S1: 10% Decrease	-	-	-	(50,000)	(900,000)	
S2: 5-Year CIP Only	-	-	-	-	-	
S3: 10-Year CIP	-	-	-	-	-	
S4: 5-Year CIP; Min. Increase	-	-	-	-	-	

- **Future consideration**

- » Baseline would need 11.0%-15.0% for operations in 2029 and 48.0%-76.0% with \$16.5 million in new debt for capital based on policy
- » S1 would need 23.0%-35.0% for operations in 2029 and 65.0%-98.0% with \$16.5 million in new debt based on policy
- » S2 would need 8.0%-25.0% and \$14.0 million in new debt in 2030 based on policy
- » S3 would need 4.75%-6.0% through 2030 and \$14.0 million in new debt in 2030 based on policy
- » S4 would need 13.25%-7.25% through 2031 or 24.0% in 2029-2030 and \$16.0 million in new debt in 2030
- » All scenarios would require future increases to keep up with inflation



# Water Scenario Summary: High Level

Rate Structure Example	Short Term Affordability	Financial Sustainability	Policy Compliance	5-Year Rate Impacts
Baseline: No Increases	++	XX	X	++
S1: 10% Decrease	+++	XXX	XX	+++
S2: 5-Year CIP Only	X	+	+	X
S3: 10-Year CIP	X	++	++	XX
S4: 5-Year CIP   Min. Increases	+	-	-	+

⊕ : Meets or improves achievement of objective

⊖ : Does not meet or hinders achievement of objective

— : Does not impact the achievement of objective



# Sewer Scenario Summary: Combined

Annual Increase	2024	2025	2026	2027	2028	Cumulative
Baseline: No Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S1: 10% Decrease	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-10.00%
S2: 5-Year CIP Only	16.50%	16.50%	2.25%	0.00%	0.00%	38.78%
S3: 10-Year CIP	16.50%	16.50%	2.25%	0.00%	0.00%	38.78%
S4: Low Interest Loans	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S5: Additional Grants	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-4.90%

RRF % of Depreciation	2024	2025	2026	2027	2028
Baseline: No Increases	100.00%	100.00%	100.00%	100.00%	100.00%
S1: 10% Decrease	90.00%	100.00%	100.00%	100.00%	100.00%
S2: 5-Year CIP Only	100.00%	100.00%	100.00%	100.00%	100.00%
S3: 10-Year CIP	100.00%	100.00%	100.00%	100.00%	100.00%
S4: Low Interest Loans	10.00%	10.00%	10.00%	10.00%	25.00%
S5: Additional Grants	5.00%	5.00%	5.00%	10.00%	15.00%

O&M Reduction	2024	2025	2026	2027	2028
Baseline: No Increases	\$ (850,000)	\$ (2,100,000)	\$ (2,300,000)	\$ (2,300,000)	\$ (2,300,000)
S1: 10% Decrease	(1,000,000)	(2,350,000)	(2,700,000)	(2,700,000)	(2,850,000)
S2: 5-Year CIP Only	-	-	-	-	-
S3: 10-Year CIP	-	-	-	-	-
S4: Low Interest Loans	-	-	-	-	-
S5: Additional Grants	-	-	-	-	-

- **Future consideration**

- » Baseline would need 12.0%-41.5% for coverage in 2029 based on policy
- » S1 would need 25.0%-57.5% for coverage in 2029 based on policy
- » S2 & S3 upfront increases are due to 2.0 coverage; reduced policy can decrease to 2.25% annually
- » S4 assumes low interest loans and additional debt in 2040
- » S5 assumes low interest loans, additional grants and would need additional debt in 2040
- » All scenarios would require future increases to keep up with inflation



# Sewer Scenario Summary: High Level

Rate Structure Example	Short Term Affordability	Financial Sustainability	Policy Compliance	5-Year Rate Impacts
Baseline: No Increases	++	XXX	X	++
S1: 10% Decrease	+++	XXX	XX	+++
S2: 5-Year CIP Only	+ to XXX	++	++	X
S3: 10-Year CIP	+ to XXX	++	++	XX
S4: Low Interest Loans	+	-	X	+
S5: Low Interest Loans w. Grant	+++	-	X	+++

**Notes:** scenario may vary based on coverage and debt term policy.

+ : Meets or improves achievement of objective

X : Does not meet or hinders achievement of objective

— : Does not impact the achievement of objective



# Storm Scenario Summary: Combined

Annual Increase	2024	2025	2026	2027	2028	Cumulative
Baseline: No Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S1: 10% Decrease	-2.09%	-2.09%	-2.09%	-2.09%	-2.09%	-10.00%
S2: 5-Year CIP Only	2.75%	2.75%	2.75%	2.75%	2.75%	14.53%
S3: 10-Year CIP	4.25%	4.25%	4.25%	4.25%	4.25%	23.13%

RRF % of Depreciation	2024	2025	2026	2027	2028
Baseline: No Increases	100.00%	80.00%	60.00%	30.00%	0.00%
S1: 10% Decrease	100.00%	40.00%	0.00%	0.00%	0.00%
S2: 5-Year CIP Only	100.00%	100.00%	100.00%	100.00%	100.00%
S3: 10-Year CIP	100.00%	100.00%	100.00%	100.00%	100.00%

O&M Reduction	2024	2025	2026	2027	2028
Baseline: No Increases	\$ -	\$ -	\$ -	\$ -	\$ (40,000)
S1: 10% Decrease	-	-	-	(80,000)	(200,000)
S2: 5-Year CIP Only	-	-	-	-	-
S3: 10-Year CIP	-	-	-	-	-

## ● Future consideration

- » Baseline requires 8.5% to 14.0% rate increases in 2029-2033 based on policy
- » S1 requires 9.25% to 27% rate increases in 2029-2033 based on policy
- » S2 requires 5.5% to 6.5% rate increases in 2029-2033 based on policy
- » S3 future increases range from 4.0%-4.25% based on policy



# Storm Scenario Summary: High Level

Rate Structure Example	Short Term Affordability	Financial Sustainability	Policy Compliance	5-Year Rate Impacts
Baseline: No Increases	⊕ ⊕	XX	X	⊕⊕
S1: 10% Decrease	⊕⊕⊕	XXX	XX	⊕⊕⊕
S2: 5-Year CIP Only	⊕	X	⊕⊕	⊕
S3: 10-Year CIP	X	⊕ ⊕	⊕⊕	X

**Notes:** scenario may vary based on coverage and debt term policy.

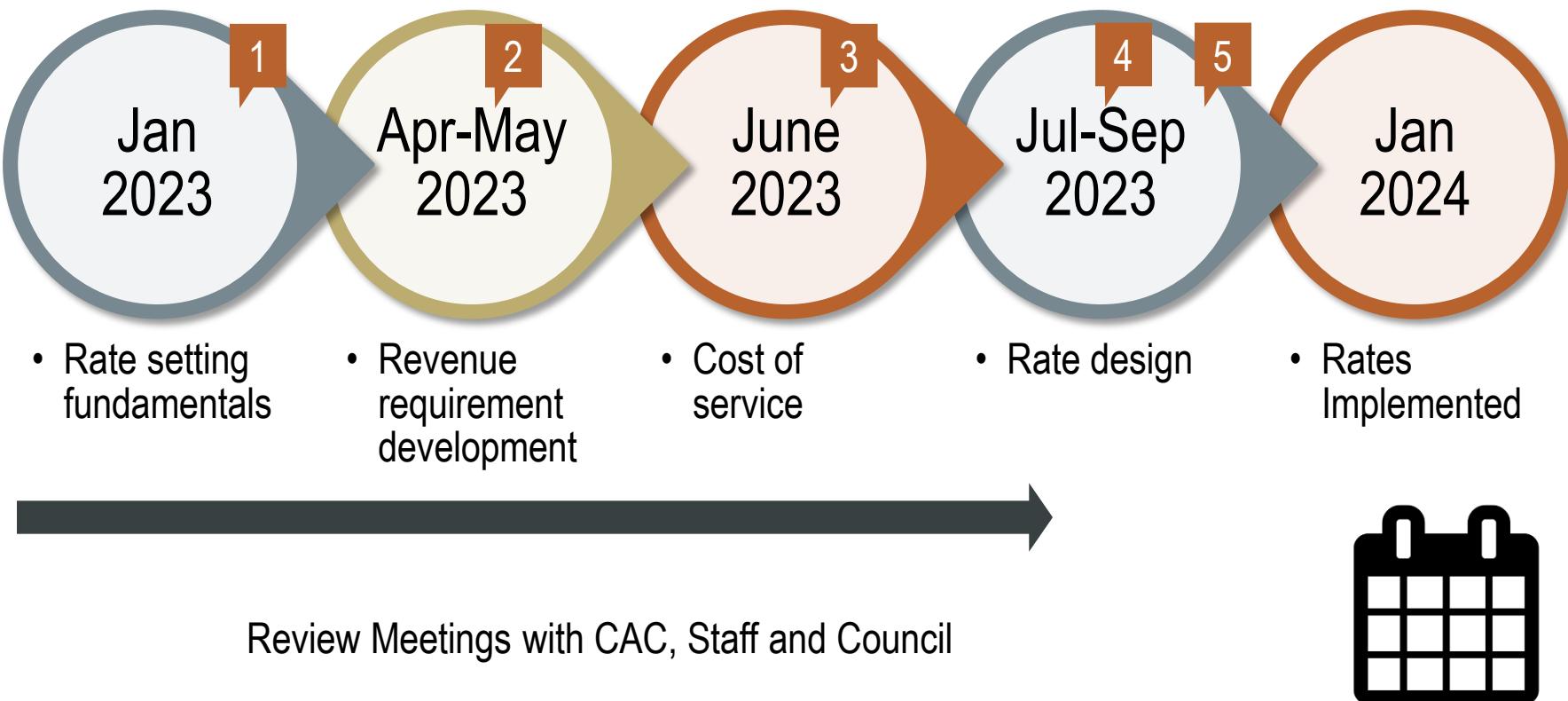
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# Wrap-up & Next Steps



# Thank you!

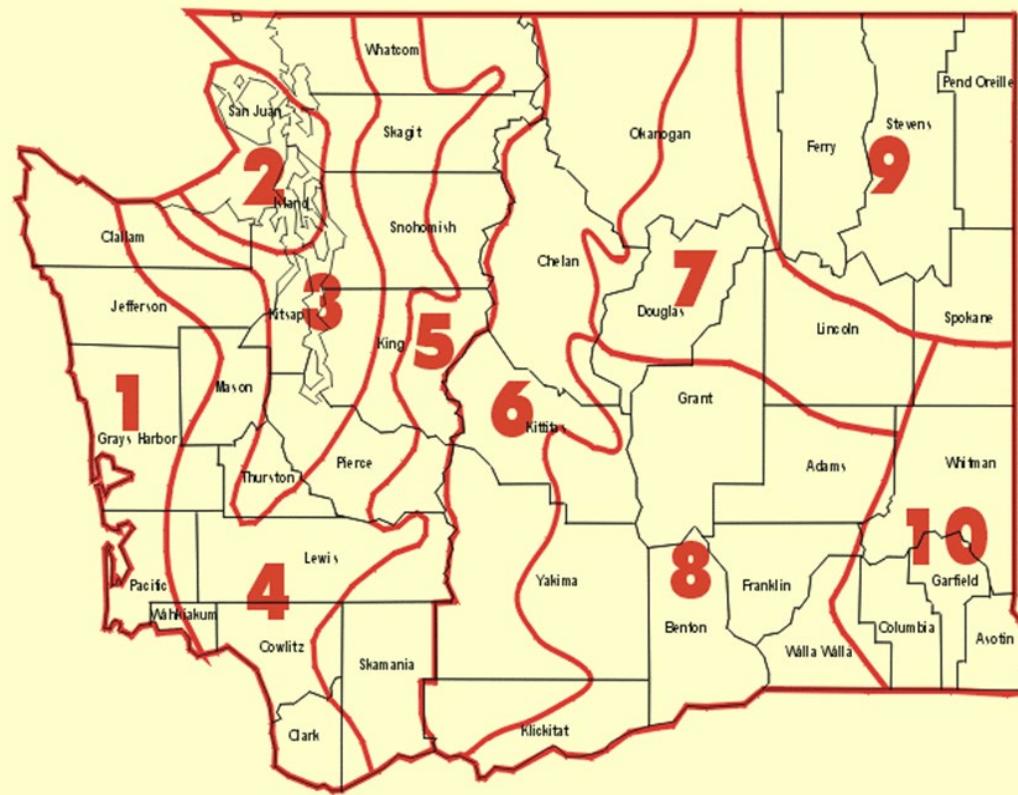
[www.fcsgroup.com](http://www.fcsgroup.com)



# Appendix

# Climate Zones

## Washington





# Weather Trends

Year	Cooling Degree Days												Diff. to Avg.	Rank	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
2016	-	-	-	12	8	58	69	155	3	-	-	-	305	55	5
2017	-	-	-	-	26	45	68	165	86	-	-	-	390	31	3
2018	-	-	-	-	17	42	155	127	14	-	-	-	355	4	2
2019	-	-	-	-	10	37	75	114	32	-	-	-	268	91	6
2020	-	-	-	-	24	37	93	110	58	3	-	-	325	34	4
2021	-	-	-	-	1	123	80	124	31	-	-	-	359	0	1
2022	-	-	-	-	-	37	157	237	67	16	-	-	514	155	7
Average	-	-	-	2	12	54	100	147	42	3	-	-	359		

Year	Precipitation (inches)												(Jun-Aug)	Diff. to Avg.	Rank	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
2016	6.7	5.9	5.9	3.1	1.4	1.8	0.6	0.8	2.6	8.9	8.0	6.6	52.3	3.1	0.3	4
2017	3.6	8.1	8.6	5.8	2.4	1.4	0.1	0.2	2.6	6.5	8.2	6.1	53.4	1.6	1.2	6
2018	7.0	4.6	3.3	5.0	0.1	1.1	0.0	0.9	2.2	3.8	4.1	6.4	38.6	2.0	0.8	5
2019	2.9	5.8	2.0	3.9	1.8	1.1	0.8	0.7	3.6	3.7	2.1	7.3	35.8	2.7	0.1	2
2020	11.4	6.1	2.8	1.6	3.2	3.8	0.3	0.4	3.8	3.7	7.4	7.2	51.7	4.4	1.6	7
2021	7.0	8.0	3.0	1.4	1.7	2.7	0.0	0.2	3.0	5.0	9.5	8.4	49.8	2.8	0.0	1
2022	7.2	3.0	3.5	6.1	5.1	3.0	0.1	-	0.4	3.1	7.9	6.6	46.0	3.1	0.3	3
Average	6.5	5.9	4.2	3.9	2.2	2.1	0.3	0.4	2.6	5.0	6.7	6.9	46.8	2.8		

- Data based on weather station in Longview WA, and Climate data from NOAA climate zone 4
  - » Based on recent trends 2021 calendar year represents the closest year to average for cooling degree days and precipitation during summer months