WTD 2023 Sewer Rate Proposal and 10-Year Sewer Rate Plan (2023-2032) – MWPAAC Rates & Finance March 3, 2022

Background on Adopted 2022-2031 Sewer Rate Plan Strategy

- Annualized rate increases – responded to feedback from external stakeholders, smoother rate pattern and customer bill impacts
- Increased capital program funding – included power quality improvement projects at West Point
- Accelerated asset management projects – included 12 new FTEs
- Provided cash that can be used to refinance debt at lower interest rates

The 2022-2031 adopted sewer rate plan included a one-year 4.0% rate increase in 2022.

	Adopted									
Adopted Rate Plan	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Rate Increase %	**4.00%**	4.00%	4.00%	4.00%	5.00%	6.00%	6.00%	6.00%	6.00%	7.50%
Monthly Sewer Rate	**$49.27**	$51.25	$53.30	$55.44	$58.22	$61.72	$65.43	$69.36	$73.53	$79.05
Rate Increase $	**$1.90**	$1.98	$2.05	$2.14	$2.78	$3.50	$3.71	$3.93	$4.17	$5.52
All-In Debt Service Coverage	1.43x	1.48x	1.46x	1.45x	1.46x	1.48x	1.50x	1.53x	1.48x	1.53x
Projected CIP Spend ($m)	$309	$338	$320	$298	$341	$465	$462	$464	$548	$555

WTD Proposed 2023-2032 Sewer Rate Plan Strategy & Goals

- **Early and transparent information**
- **Goals for 2023 Sewer Rate Development**
  - Increase **reliability** at West Point and offsite locations
  - Comply with **regulatory requirements**
  - Respond to growth-related **demand** on the system
  - Advance the most critical **asset management** projects
  - Protect **water quality** and habitat consistent with the Clean Water/Healthy Habitat Strategic Plan
  - Respond to and prepare for **climate change** consistent under the Strategic Climate Action Plan
  - Address disparities in service delivery in alignment with the **Equity and Social Justice** Strategic Plan

Rate-Drivers Summary

The WTD proposed sewer rate plan incorporates investments that make progress on each of the sewer rate development goals. Rate drivers are called out as either significant in financial impact or critical policy context.

1. Economic Conditions

COVID-19 revenue impacts are tracking closely to the forecast in the adopted sewer rate plan. The forecast has been calibrated to reflect actual reported billings coming in higher than forecast, and a one-year extension to the assumed timing of recovery to pre-pandemic 2019 billings. Appendix A

Current high inflation in Q4 2021 and Q1 2022. Potential capital budget impacts are highly dependent on how long the current high inflation environment persists. The annual rate-setting process limits risk around this unknown since it allows the County to integrate more data and updated forecasts one year from now in setting the 2024 rate. Appendix E

Labor market constraints have slowed efforts to increase staffing to deliver a growing CIP. The forecasted significant increase to the CIP relies on success of increasing project delivery staff and implementing delivery model alternatives that WTD is beginning to pilot. The 2022 forecast is set at $283 million (after application of 85% accomplishment rate). The anticipated increase from recent capital annual expenditures (about $200 million) is based on awarded construction contracts that are not limited by delivery staff constraints. Supply chain and other external delivery risks apply and could impact what has been estimated. Data indicates that there is about a two-year lag to increase delivery capacity from onboarding new staff. This means 2025 is likely the first year new 2023 FTEs will contribute to increasing delivery capacity. Appendix B

2. Reliability Investments

The **West Point Treatment Plant Power Quality Improvement Project** includes construction of an uninterruptible power supply system using large battery storage and a replacement building to house the system that will limit or eliminate overflows to Puget Sound due to power quality problems (voltage sags). Administrative Order #19477 issued by the Washington State Department of Ecology requires King County to address power reliability issues at West Point treatment plant. The Executive issued a Declaration of Emergency on February 25, 2021, to accelerate this work. WTD project delivery staff resources began work on this coordinated effort with Seattle City Light in 2021.

Asset Management Tier 1 Critical Inventory Projects

The adopted sewer rate plan included completing an inventory of critical risk asset management projects by the end of the ten-year forecast. The WTD 2023-2032 proposed sewer rate plan reflects an updated schedule including adjusting the start date for some of these projects to 2022. The proposed rate plan includes a total of $1.6 billion Tier 1 priority projects to be completed by 2033, including 19 updated or newly identified projects that scored as Tier 1 priority since the adopted sewer rate plan.

3. Responding to Regulations

The **Consent Decree for Combined Sewer Overflow (CSO)** projects maintains the timeline of 2040 completion assumed in the adopted sewer rate plan, while moving forward some projects costs in recognition of approaching milestones. The actual timeline and project sequencing will be determined following completion of the Consent Decree negotiations. The proposed rate plan includes 40% of the total CSO costs ($1.68 billion), with the remaining $2.6 billion included in the following decade. This results in an increase of $1.2 billion through 2032 from the $486 million in the adopted sewer rate plan.

The **Ecology General Nutrient Permit** was issued in December 2021. The adopted sewer rate plan did not include system improvements related to nutrient removal since conditions of the permit were not well defined at the time of adoption. The County and several other utilities and stakeholders have filed an appeal to the Pollution Control Hearings Board. Appeals have been consolidated and action is not likely until 2023. The County is currently negotiating a partial stay of certain permit requirements to help limit near-term costs. The WTD proposed sewer rate plan incorporates initial investments related to permit conditions that include nitrogen reduction planning, evaluation, monitoring, and near-term optimization, totaling $50 million.

4. Capacity Increasing Investments

Flows and Loadings Study and Treatment Planning Program have identified capacity improvement needs at all three regional treatment plants. These projects will require adequate time for alternatives analyses, design, and construction. Therefore, these critical projects need to begin soon to ensure adequate treatment capacity and compliance with the NPDES permits and the West Point settlement agreement.

Conveyance System Improvement (CSI) Plan The 2017 CSI Program Update identified high priority conveyance system projects. The basis for this forecast includes the 2017 CSI Program Update, updated modeling analysis of high priority projects, and CSI Program staff input. All project locations currently identified have less than a 5-year level of service, some have less than a 1-year level of service. Project locations include both conveyance pipelines and

pump stations. Sanitary sewer overflows have occurred at several project locations. Conveyance system improvements tend to have a long duration due to permitting and property issues. To address the highest capacity needs, these projects need to begin soon.

Of note, planning for capacity projects is critical to the cost basis that will be used to update the next capacity charge. Legislation is in progress to defer the update (scheduled for this year) to the rate proposal following council approval of the Clean Water Plan or 2024, whichever occurs earlier.

5. The Clean Water Plan

The Clean Water Plan was paused in November 2021 to allow for more regulatory clarity and to consider feedback received to date including critique from partner agencies, stakeholder groups, and others. These concerns are taken seriously and time to consider adjustments to the plan and process is needed. Restart of the process will begin after adjustments or enhancements to the process have been identified and discussed with stakeholders.

6. Climate Change

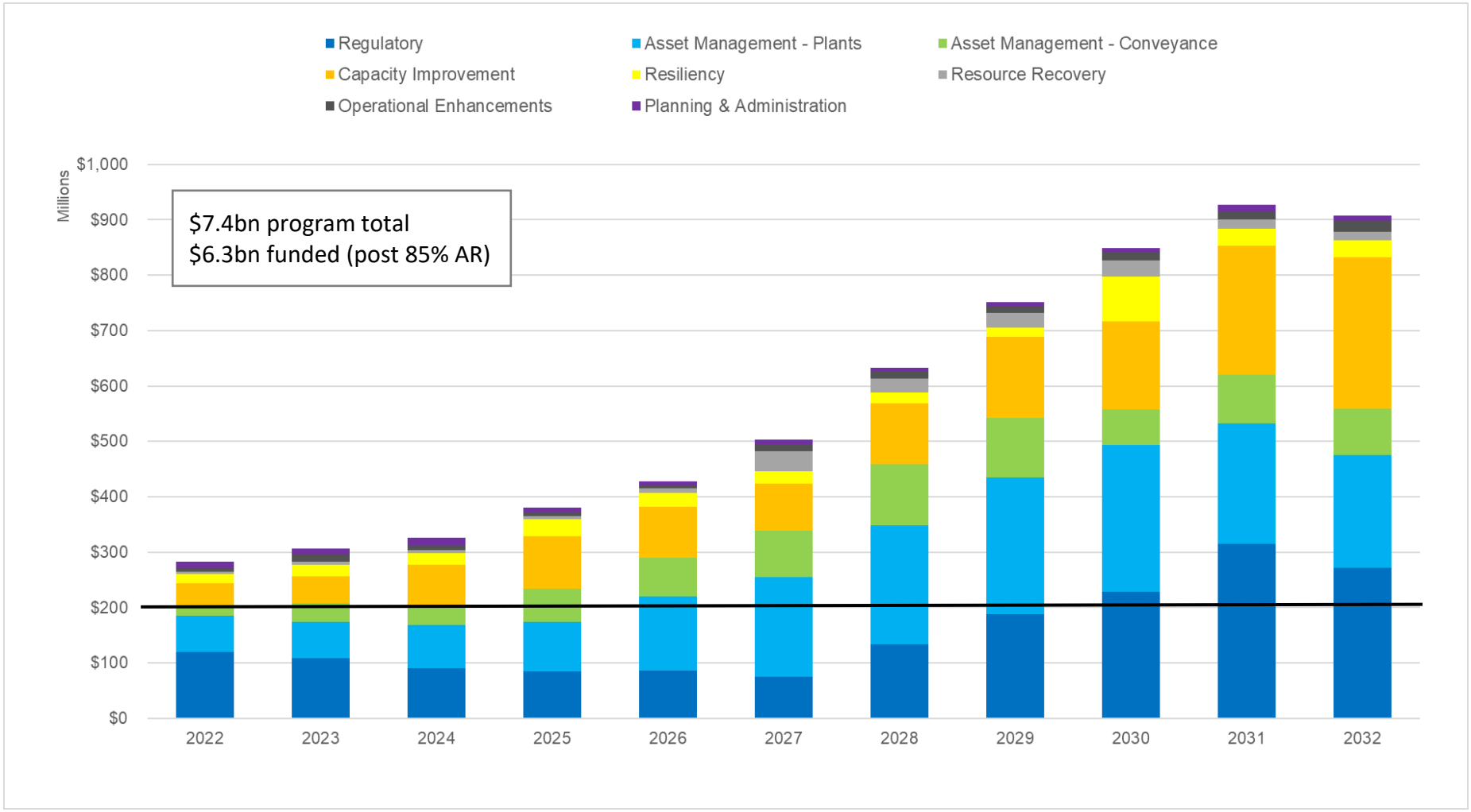
Progress on County SCAP goals would be made through $256 million of capital investment in the proposed sewer rate plan period. Projects including the South Plant Biogas and Heat Systems Improvements Project, West Point Biogas Optimization Project, and Digester Circulation Pump Replacement Projects at the three regional treatment plants to reduce fugitive greenhouse gas emissions, increase the capture and beneficial use of biogas, and increase energy efficiency. Projects such as the Brightwater Reclaimed Water Storage Project and the Loop Biosolids Compost Pilot at South Plant will increase the reliability of recycled water delivery to customers in the Sammamish Valley and help build the market for compost.

Codigestion project coordination with the Solid Waste Division has begun in 2022, and $10 million of initial investments have been included in the WTD proposed sewer rate plan. The estimated cost to fully develop and implement codigestion, and cost sharing across funding sources, is in development.

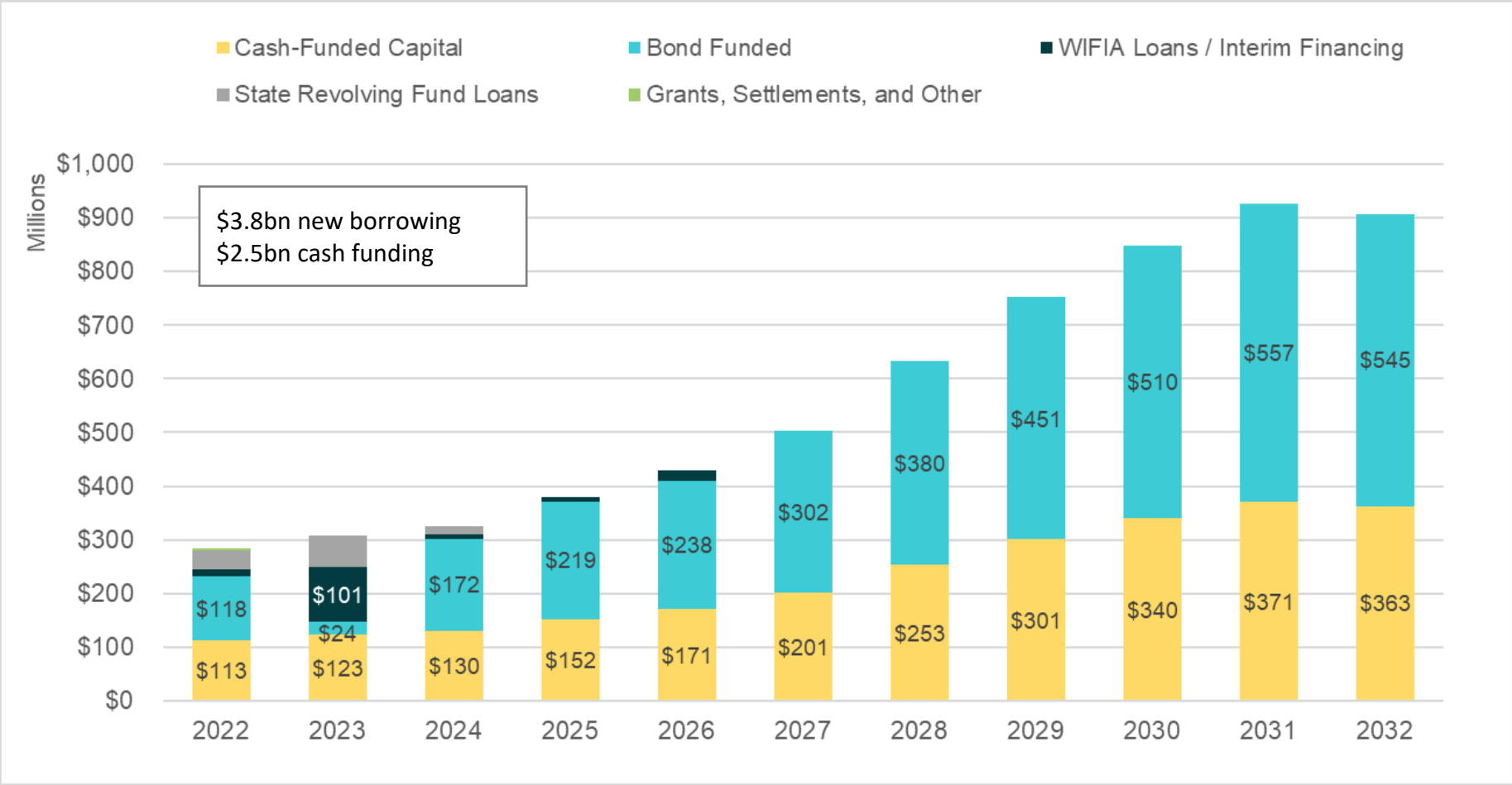
WTD Proposed 2023-2032 Sewer Rate Plan

2023-2032 Rate Plan	Adopted 2021	2022 Process									
DNRP/WTD Proposal	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Rate Increase %	4.00%	**5.75%**	5.75%	5.75%	5.75%	5.75%	9.00%	9.00%	9.00%	9.00%	9.00%
Monthly Sewer Rate	$49.27	**$52.11**	$55.11	$58.28	$61.64	$65.19	$71.06	$77.46	$84.44	$92.04	$100.33
Rate Increase $	$1.90	**$2.84**	$3.00	$3.17	$3.36	$3.55	$5.87	$6.40	$6.98	$7.60	$8.29
All-In Debt Service Coverage	1.55x	1.59x	1.63x	1.64x	1.66x	1.67x	1.70x	1.73x	1.70x	1.71x	1.71x
Policy Cash Funding						6-Year Average	45%			10-Year Average	40%
Projected CIP Spend ($m)	$283	$307	$326	$381	$429	$503	$633	$752	$849	$928	$908

Capital Improvement Plan (2022 – 2032)

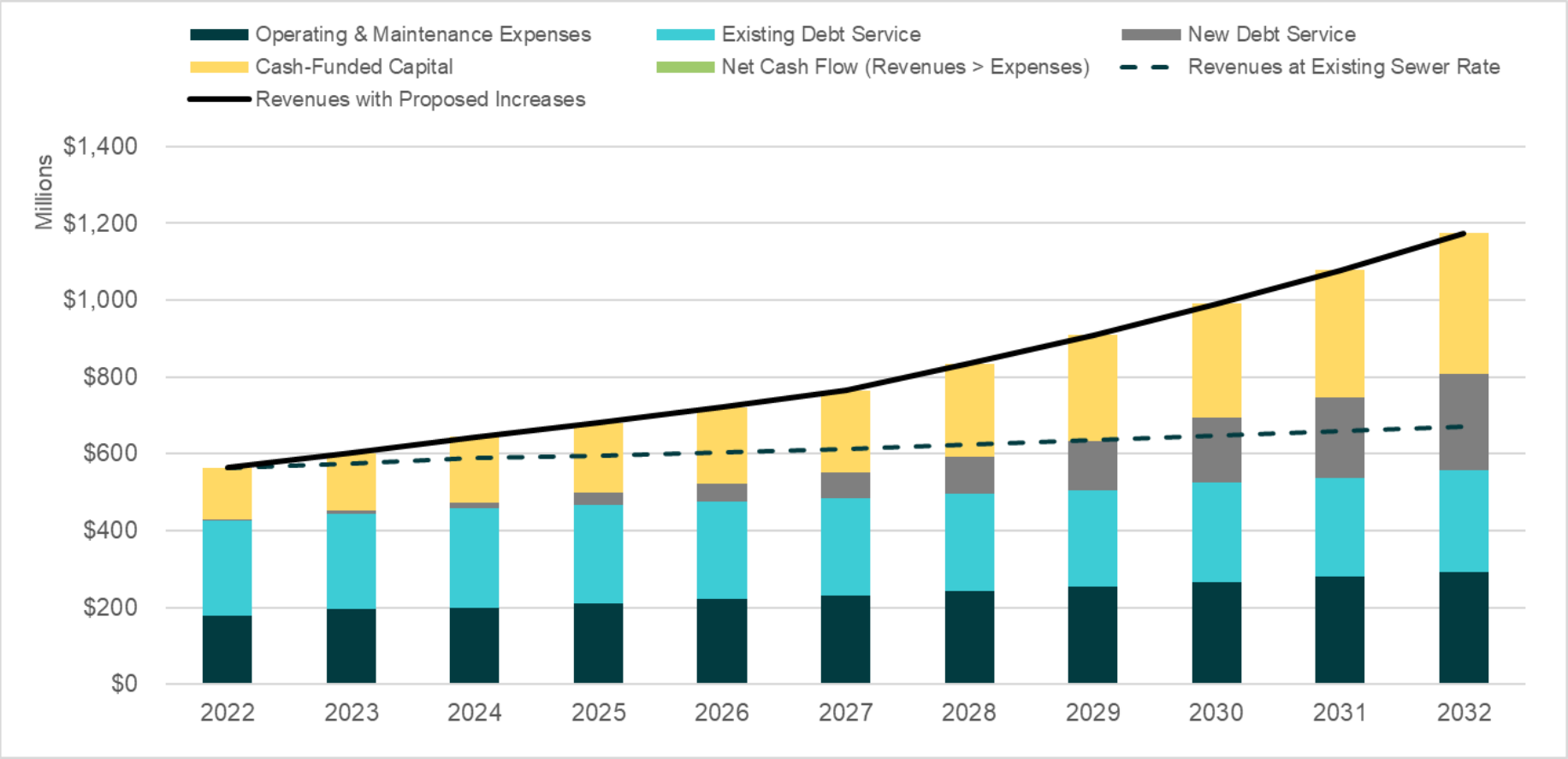


Capital Funding Plan



*WIFIA Water Infrastructure and Finance and Innovation Act

WTD 2023-2032 Proposed Sewer Rate Plan Annual Revenue Requirement Components



*Revenues at the existing sewer rate level increase with customer base growth from new connections.

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APPENDIX A – COVID-19 Updated Projections

Due to COVID-19, commercial activity has been significantly reduced in the King County service area. Reported metered water use is the basis for billing the sewer rate to commercial and multifamily customers. Single family residential billings are fixed per unit and are not subject to changes in water demand.

Total actual revenue and billed Residential Customer Equivalents (RCEs) were essentially unchanged in 2020 due to the significant billing lag timing. Billed sewer rate revenue was down 3.6% in 2021, as 2020 quarters came into the billing calculation. Revenue loss from both sewer rate and capacity charge revenue reductions were offset by savings resulting from very low interest rates realized in the 2020 and 2021 bond issuances (including defeasance and refundings).

COVID-19 revenue impacts are tracking closely to the forecast in the adopted sewer rate plan. The forecast has been calibrated to reflect actual reported billings coming in higher than forecast, and a one-year extension to the assumed timing of recovery to pre-pandemic 2019 billings.

RCE Assumptions *Adopted Sewer Rate Plan*

Recovery assumed by 2023

	Commercial & Multi-Family RCEs % Change from 2019					Single-Family Residences New RCEs per Quarter				
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	Annual
2020	1.9%	-15.1%	-13.5%	-10.0%	**2020**	1,453	563	1,258	500	**3,773**
2021	-15.0%	-15.0%	-10.0%	-10.0%	**2021**	500	500	500	500	**2,000**
2022	-10.0%	-10.0%	-5.0%	-5.0%	**2022**	500	500	500	500	**2,000**
2023	0.0%	0.0%	0.0%	0.0%	**2023**	500	500	500	500	**2,000**
2024	0.52%	0.52%	0.52%	0.52%	**2024**	562	562	562	562	**2,246**

Actuals at the time of forecast

Updated RCE Assumptions *WTD Proposed Sewer Rate Plan*

Calibrated to actuals and recovery extended to 2024

	Commercial & Multi-Family RCEs % Change from 2019					Single-Family Residences New RCEs per Quarter				
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	Annual
2020	1.9%	-15.1%	-13.5%	-8.6%	**2020**	1,453	563	1,258	594	**3,867**
2021	-12.3%	-8.1%	-6.4%	-10.0%	**2021**	1,732	784	1,422	800	**4,738**
2022	-7.0%	-7.0%	-5.0%	-5.0%	**2022**	800	800	800	800	**3,200**
2023	-3.0%	-3.0%	-1.0%	-1.0%	**2023**	800	800	800	800	**3,200**
2024	0.0%	0.0%	0.0%	0.0%	**2024**	800	800	800	800	**3,200**

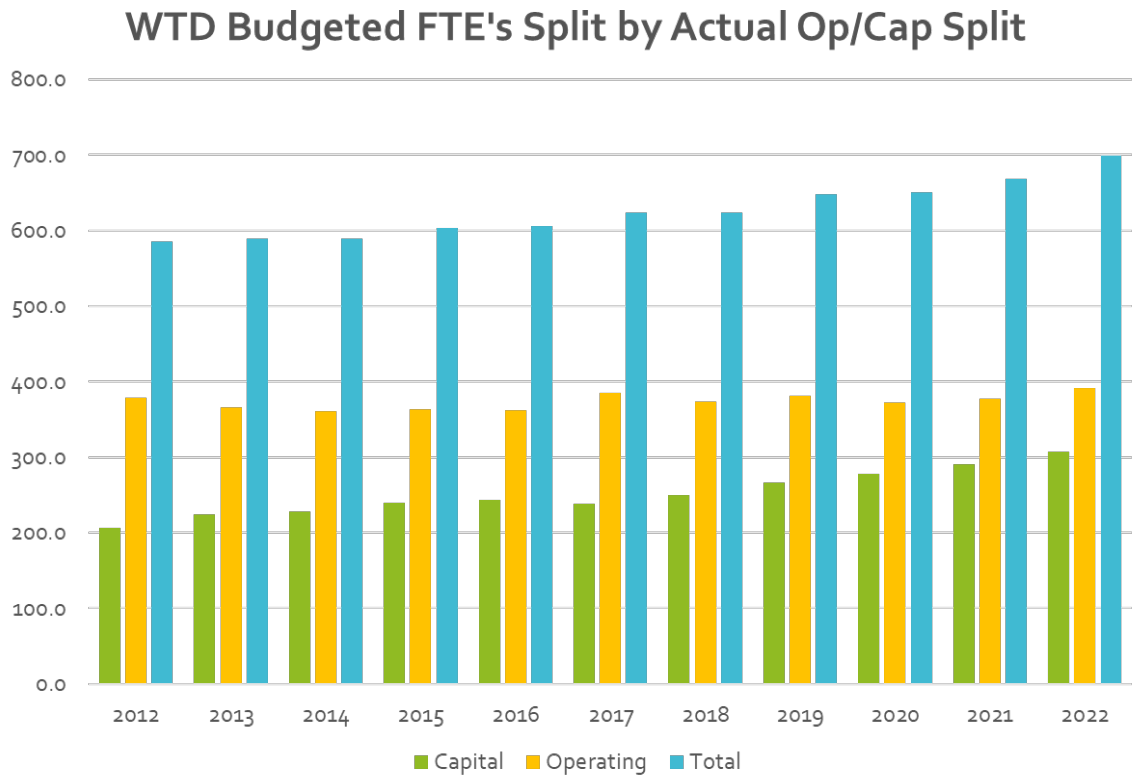
Actuals at the time of forecast

APPENDIX B – CIP Delivery Capacity Constraints

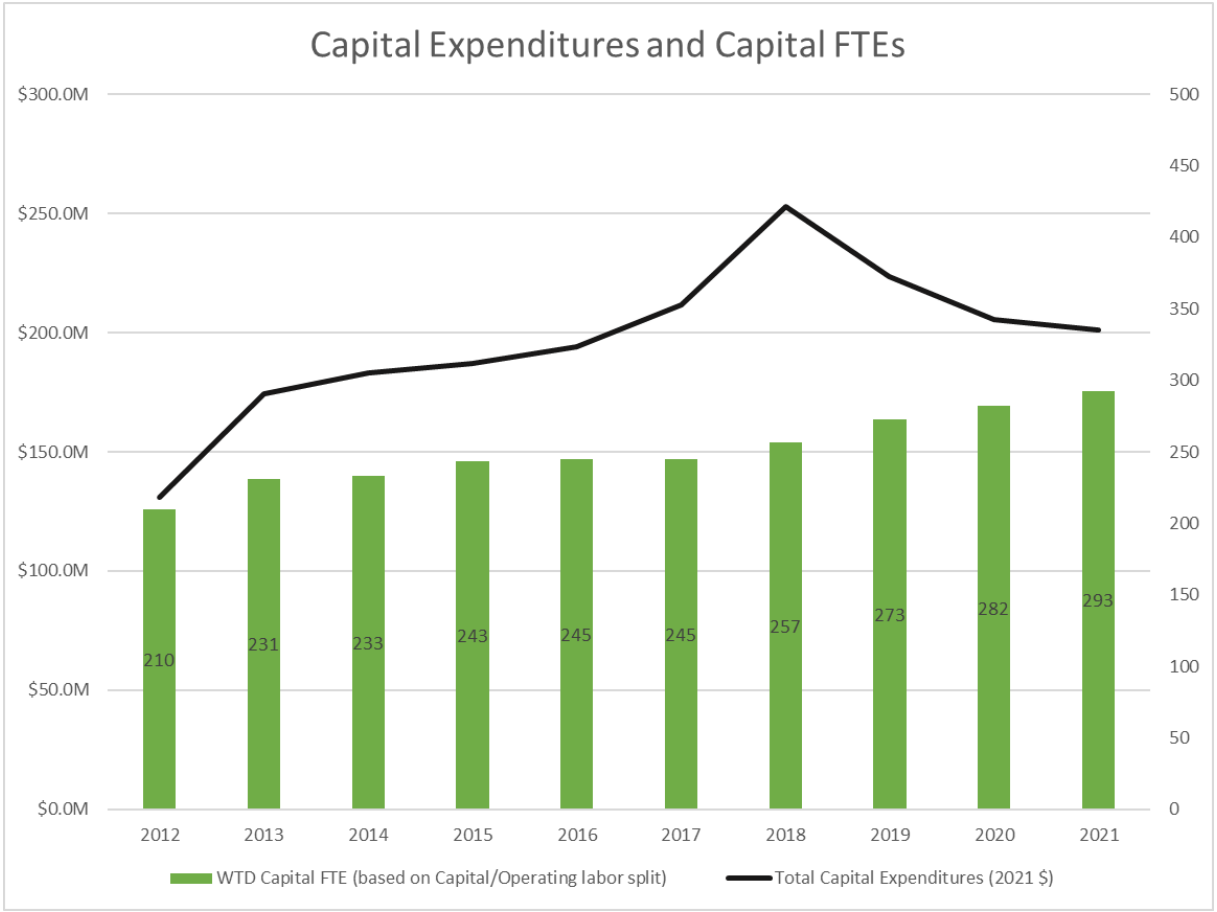
- The asset management Tier 1 initiative included beginning projects and ramping up CIP delivery in 2021. Due to multiple factors, but significantly related to project delivery staffing constraints, the 2021 delivery level remained at about $200 million. As a result, the accomplishment rate is at 69%, which is lower than the historical trend shown below.
- For the 2022 rate, staff performed a detailed project-by-project analysis to help ensure expenditures for 2022 were realistic. While staff delivery capacity has not changed, the make-up of the spend forecast includes a larger portion of awarded construction contracts.
- Due to the increasing distribution of spend toward awarded contracts that are not constrained by project delivery staff capacity, an estimated 40% increase in expenditures over 2021 actuals is projected for 2022.

							Estimated
Accomplishment Rate (AR)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	***2022***
Capital Improvement Plan	$207	$211	$246	$262	$247	$291	*$333*
Adjusted to 85% AR	$176	$179	$209	$223	$210	$247	*$283*
Actual Annual CIP Spend	**$168**	**$188**	**$231**	**$211**	**$199**	**$201**	
Actual AR	81%	89%	94%	81%	81%	69%	
Actual Delivery Change YoY		*12%*	*23%*	*-9%*	*-6%*	*1%*	*41%*

- **Future CIP expenditure estimates are based on timing to increase both the FTEs and consultants needed.**
- WTD has prepared a more realistic staffing plan to deliver the projected significant increase to the CIP.
- Staff conducted an analysis of historical capital output in relation to FTE count dedicated to capital, and so the FTEs dedicated to capital were determined using the historical percentage split of FTEs dedicated to capital and operating.
- FTEs dedicated to capital include FTEs that are 100% allocated to capital, such as those in the Project Planning and Delivery Section, but also include partial FTEs that are not fully allocated to the capital program, including Environmental and Community Services, Operations and Maintenance, Finance and Administration, etc.

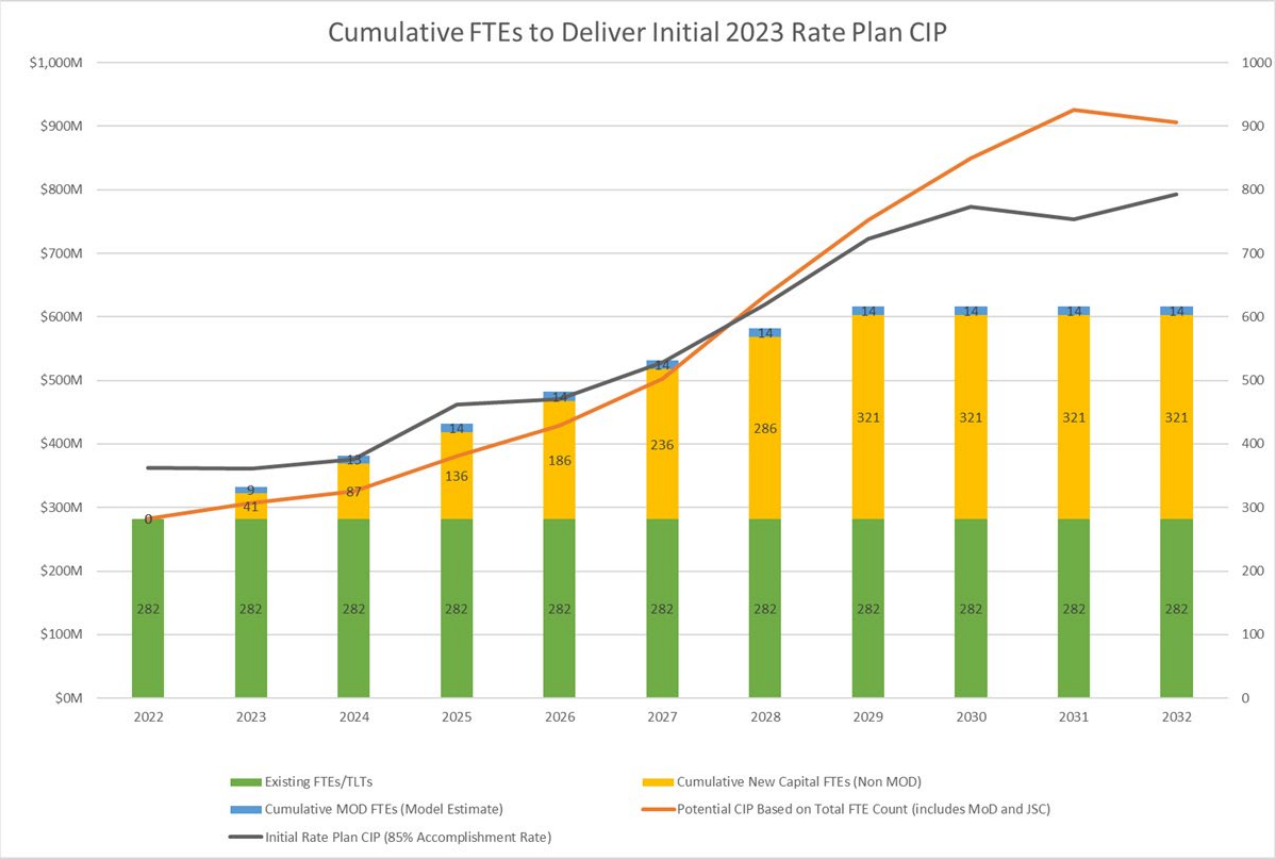


- Capital FTE counts since 2012 were graphed against capital expenditures. It was assumed that new FTEs were productive two years after budgeted. On average, the relationship was approximately $860K per FTE dedicated to capital annually.



- To develop a forward-looking CIP aligned with a realistic addition of FTEs, it was assumed that project staffing would maintain the historical in-house to consultant ratio (for every $1 spent on in-house direct labor, $1.3 spent on consultant contracts). Therefore, the FTE count would grow at the same rate as outsourcing to consultant community. By growing in-house staff at the same time as growing consultants, WTD can:
    - Meet Equitable Workforce Development Goals: WTD can deliberately recruit and hire a diverse workforce and build a strong diverse bench for leadership and management positions.
    - Build a strong bench of internal expertise that understands our wastewater system and can learn and adapt as the challenges to WTD grow more complex. This reduces the learning curve for each project and provides an in-house staff that can respond to emergent issues quickly.
    - Provide a variety of project assignments to in-house staff to increase broad understanding and experience with the system and increase staff retention.
    - Data has shown that the costs (in-house vs. consultant) are comparable.

- The forecast includes moving forward CSO costs in recognition of approaching milestones. For this analysis, it was assumed that these expenditures would be delivered by project teams that have an FTE to consultant ratio comparable to Brightwater.
- A new 2022-2032 spending curve was developed by multiplying the historical average expenditure per FTE by the total productive FTEs each year. It was assumed that new FTEs would contribute to the total CIP expenditure two years after budgeted.
- FTEs were added each year so that the total forecasted expenditure through 2032 matched the total preliminary sewer rate plan CIP expenditures through 2032 on a net-present-value basis. The number of new FTEs was capped at 50/year as a more realistic recruiting/hiring process limit.
- **This resulted in a WTD proposed sewer rate plan curve that modestly lagged the current adopted sewer rate plan curve in the years 2022-2027, matched it in 2028-2029, and exceeded it in 2030-2032.**



- This can theoretically be realized by shifting outward some project timing in the earlier years and increasing in the later years, and would deliver the same array of CIP projects over the ten-year period.
- Staff is currently conducting analysis to identify specific project timing to shift and to confirm that the goals of the WTD proposed sewer rate plan will be assured with reasonable confidence.

APPENDIX C – New Operating Cost Priorities

New Operating Requests – Total $11.13 million (96 FTEs) beginning in 2023:

- Nutrient Permit – 11 FTEs = $1.38M
- Strategic Climate Action Plan – 3 FTEs = $600K
- Capital Program – 50 FTEs = $1.23M
- Operations – 32 FTEs = $7.92M

Note: FTEs may have an operating/capital split allocation

APPENDIX D – Sewer Rate Plan Alternatives Evaluated

1. General Nutrient Permit – Layering on 3 mg/L

Includes nitrogen reduction planning, nutrient reduction evaluation, and near-term optimization included in baseline proposal. Scenario adds corrective actions at South Plant and West Point, year-round nitrogen removal at South Plant, Brightwater, and West Point, and a 4th regional treatment plant.

2023-2032 Rate Plan	Adopted 2021	2022 Process									
N. Removal 3mg/L	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Rate Increase %	**4.00%**	**6.25%**	6.25%	6.25%	6.25%	6.25%	17.75%	17.75%	17.75%	17.75%	17.75%
Monthly Sewer Rate	$49.27	**$52.35**	$55.63	$59.11	$62.81	$66.74	$78.59	$92.54	$108.97	$128.32	$151.10
Rate Increase $	**$1.90**	**$3.08**	$3.28	$3.48	$3.70	$3.93	$11.85	$13.95	$16.43	$19.35	$22.78
All-In Debt Service Coverage	1.52x	1.55x	1.60x	1.61x	1.61x	1.62x	1.75x	1.87x	1.98x	2.10x	2.16x
Projected CIP Spend ($m)	$283	$307	$326	$384	$490	$573	$795	$1,036	$1,149	$1,446	$1,776

2. 2045 CSO placeholder – University and Montlake CSO Projects extended to 2045 completion, $73 million moves out of the forecast period.

2023-2032 Rate Plan	Adopted 2021	2022 Process									
CSO 2045	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Rate Increase %	**4.00%**	**5.75%**	5.75%	5.75%	5.75%	5.75%	8.75%	8.75%	8.75%	8.75%	8.75%
Monthly Sewer Rate	$49.27	**$52.11**	$55.11	$58.28	$61.64	$65.19	$70.90	$77.11	$83.86	$91.20	$99.18
Rate Increase $	**$1.90**	**$2.84**	$3.00	$3.17	$3.36	$3.55	$5.71	$6.21	$6.75	$7.34	$7.98
All-In Debt Service Coverage	1.55x	1.58x	1.62x	1.63x	1.65x	1.66x	1.69x	1.71x	1.69x	1.70x	1.71x
Projected CIP Spend ($m)	$283	$307	$326	$381	$429	$503	$633	$752	$849	$907	$866

3. Cash Funding at 30% [per Financial Policies Appendix E, cash policy evaluation to follow 2023 sewer rate adoption]

2023-2032 Rate Plan	Adopted 2021	2022 Process									
30% Cash Funding	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Rate Increase %	**4.00%**	**4.75%**	4.75%	4.75%	4.75%	4.75%	7.00%	7.00%	7.00%	7.00%	7.00%
Monthly Sewer Rate	$49.27	**$51.62**	$54.08	$56.65	$59.35	$62.17	$66.53	$71.19	$76.18	$81.52	$87.23
Rate Increase $	**$1.90**	**$2.35**	$2.46	$2.57	$2.70	$2.82	$4.36	$4.66	$4.99	$5.34	$5.71
All-In Debt Service Coverage	1.55x	1.56x	1.58x	1.57x	1.56x	1.55x	1.54x	1.52x	1.46x	1.42x	1.38x
Projected CIP Spend ($m)	$283	$307	$326	$381	$429	$503	$633	$752	$849	$928	$908

APPENDIX E – Financial Policies & Forecast Assumptions

Financial Policies – After adoption of the 2023 rate plan, WTD will engage PSB in a collaborative effort to evaluate the division's financial policies (cash-funding, accomplishment rate, etc.) that are utilized in the rate-setting process. If revisions to financial policies are identified, WTD will integrate those alternatives in the next sewer rate process.

In addition, the 2022 WTD financial policy work will include development of a revised policy on the capacity charge methodology that is in progress to respond to the Council Auditor study and MWPAAC feedback.

Forecast Assumptions: Proposed Rate Plan	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Single-Family Residences RCE Growth	See Appendix A – COVID-19 Updated Projections			0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Multi-Family & Commercial RCE Growth				0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Capacity Charge Regular Payments	3.0%	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Capacity Charge Prepayments	3.0%	3.0%	3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
General Cost Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Labor Cost Inflation	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Expenditure Growth	1.0%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Capital Cost Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
CIP Accomplishment Rate [1]	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%	85.0%
Revenue Bond Rate (30 Year Term)	4.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Blended Variable Rate	1.54%	2.47%	3.01%	3.02%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Investment Pool Earnings Rate	0.75%	1.00%	1.25%	1.50%	1.50%	1.67%	1.94%	2.16%	2.34%	2.34%	2.34%

[1] The Joint Ship Canal Water Quality Project and Georgetown Wet Weather Treatment Station at 100% Accomplishment Rate