



November 19, 2019

Water, Wastewater and Stormwater Rate Study

Anna White
Principal Consultant

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BLACK & VEATCH



Agenda



Purpose of Presentation



Background Information



Rate Study Process & Results



Purpose of Presentation and Background Information

Braxton Copley
Deputy Director, Utilities



Purpose of Presentation

1. Provide the City Council with background information related to water, wastewater and stormwater rates
2. Present the results of the rate study
3. Respond to questions
4. Gain the City Council's understanding of the proposed rate increases



Background Information

- Most recent comprehensive utility rate study was completed in 2014
 - Proposed increases were not approved, Council approved alternative rate increases of 6% in 2015, 5% in 2016, and 5% in 2017
- Most recent approved rate increases were 6% in 2018, 5% in 2019 and 5% in 2020
- In 2018 the City authorized a comprehensive rate study to determine the cost of providing water, wastewater and stormwater services and to develop rate schedules that appropriately recover those costs
- The rate study develops proposed rates for 2021 through 2025



Rate Study Best Practices

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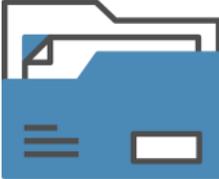


Project Understanding

Perform independent water and sewer rate studies that will accomplish the following:



Establish operating and capital financing plans that fully fund activities



Perform a cost of service analysis to determine if cost allocations are fair and equitable among customer classes

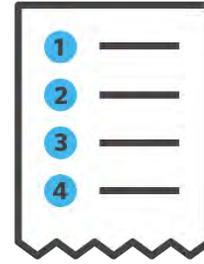


Review the existing rate structure and design proposed rates that provide adequate revenues

Industry Financial Planning / Rate Setting Best Practices



What are the Industry's
Rate Setting Best
Practices?



Define **financial performance standards** that support financial resiliency



Develop annually a 5 to 10 year **financial plan** to achieve financial performance



Perform a **cost of service** study review every 3 to 5 years



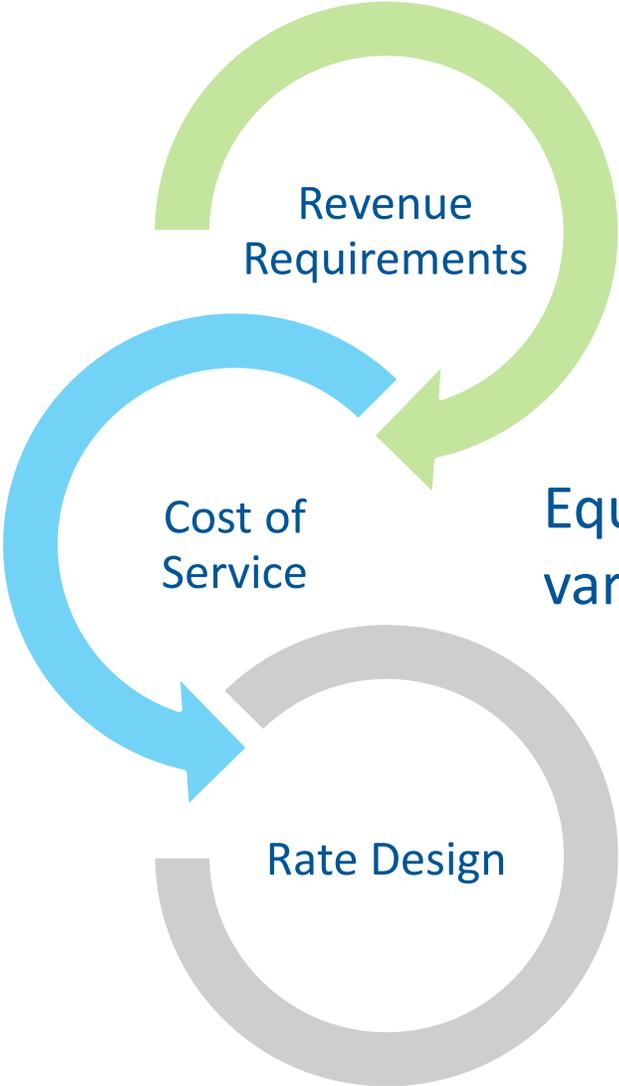
Establish rates to ensure **self-sufficiency** to meet all revenue requirements



Rate Study Process & Results



Building Blocks of Rate Setting



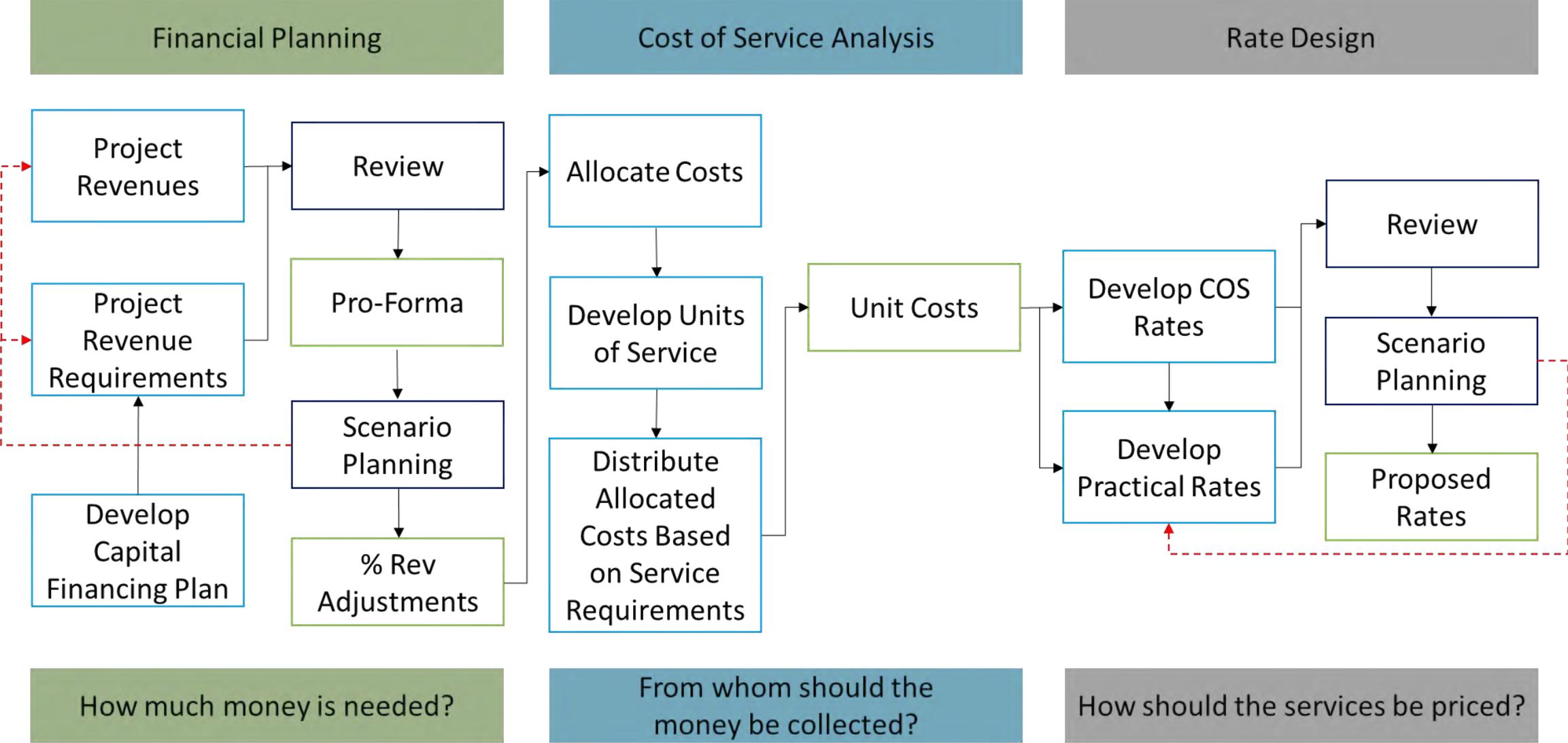
Compares the **revenues** of the utility to its **expenses** to determine the overall level of rate adjustment

Equitably allocates the **revenue requirements** between the various customer classes of service

Design rates for each class of service to meet the revenue needs of the utility, along with any other rate design goals and objectives



Rate Making Process



Financial Planning

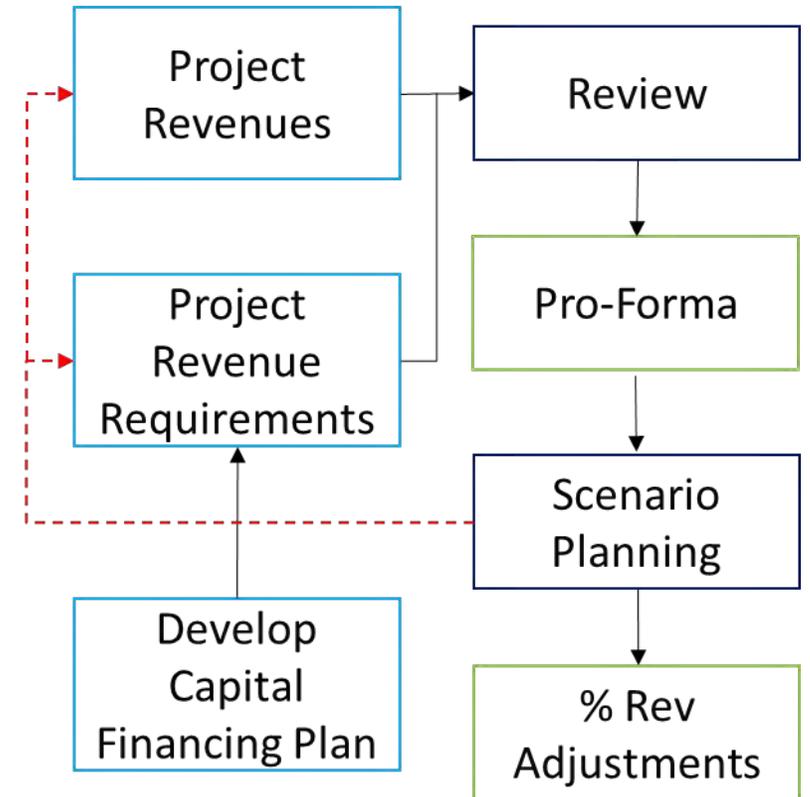
- **Objective:**

- Provide adequate funding for future utility operating and capital program needs
- Set a path for timely revenue adjustments

- **Considerations:**

- Factors that impact revenue generation
- Factors that impact revenue requirements
- Appropriateness of operating and capital reserves
- Financial performance targets to be achieved

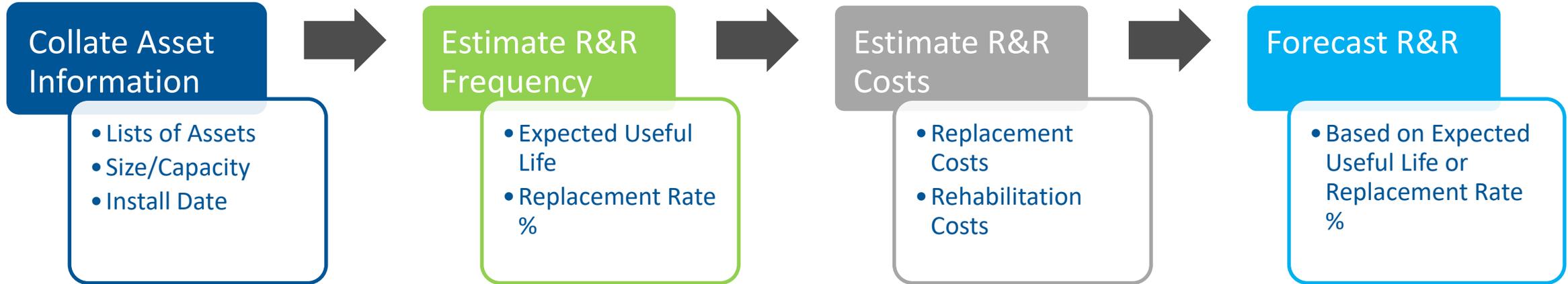
Financial Planning



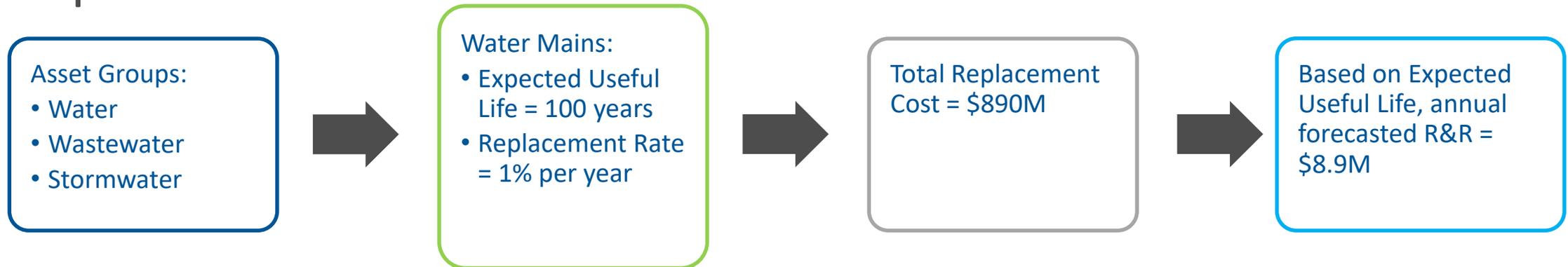
Benefit to You: An optimized Financial Plan that allows you to understand the impacts of Operating and Capital Requirements on Existing Rates



Repair & Replacement (R&R) Forecast Methodology



Example:



Repair & Replacement Costs Scenarios

Status Quo

- Based on current R&R projects in CIP assuming a continuation of 6%, 5%, 5% annual revenue increases
- Allows for minimal rates increases but doesn't allow for increased investment in assets

Middle

- Higher R&R levels than Status Quo
- Balances rate increases with increased investment in assets

Ideal

- Addresses large number of mains past their useful life
- Allows for optimal investment in assets but results in double-digit revenue increases



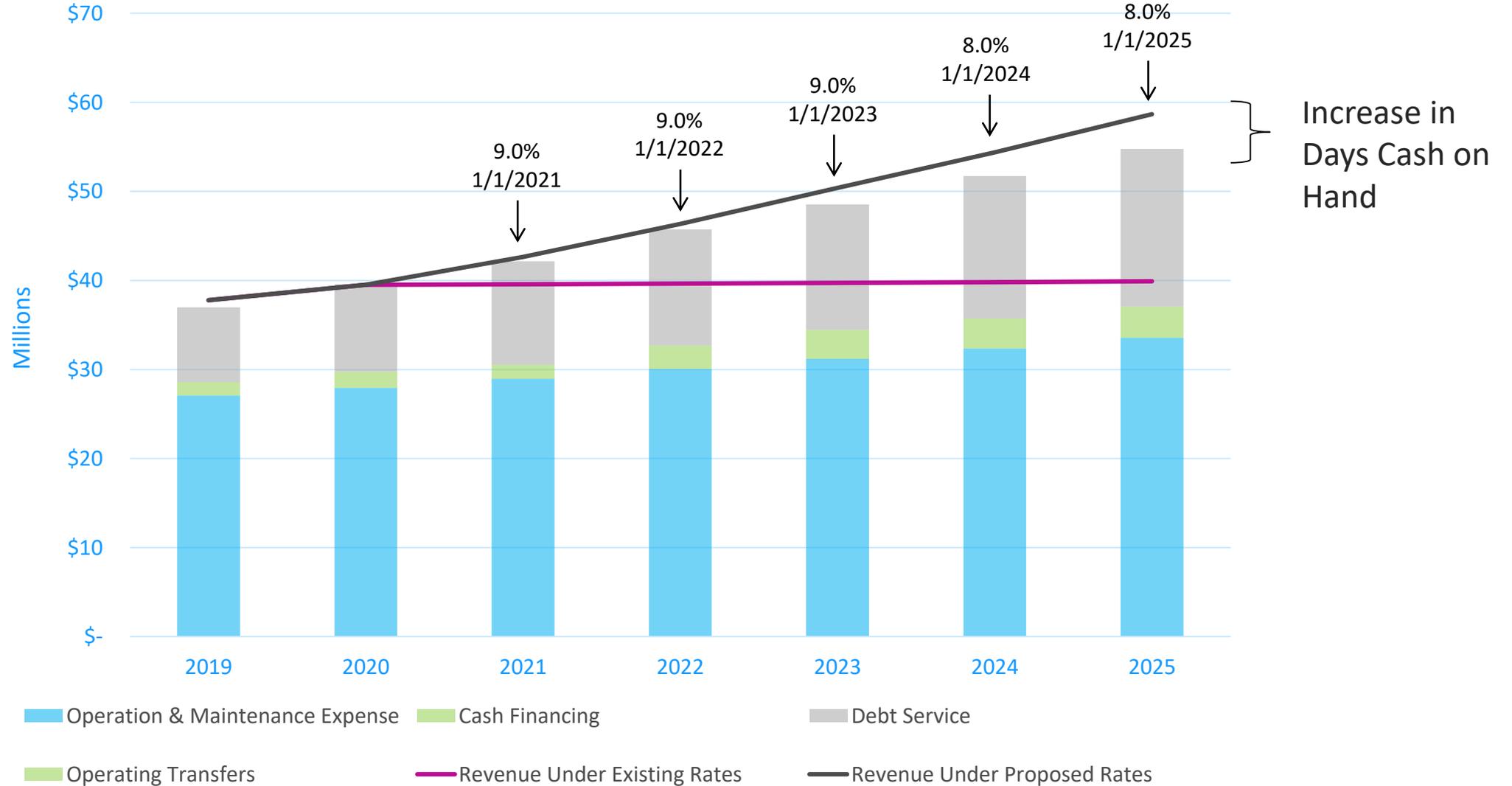
Total Major CIP and R&R Costs* for Study Period

Description	Status Quo	Middle	Ideal
Water			
Major CIP	\$69,317,000	\$69,317,000	\$69,317,000
Renewal & Replacement	\$60,772,700	\$68,979,000	\$134,622,800
Total	\$130,089,700	\$138,296,000	\$203,939,800
Wastewater			
Major CIP	\$108,349,500	\$108,349,500	\$108,349,500
Renewal & Replacement	\$92,570,100	\$100,451,000	\$163,288,400
Total	\$200,919,600	\$208,800,500	\$271,637,900
Stormwater			
Major CIP	\$3,850,000	\$3,850,000	\$3,850,000
Renewal & Replacement	\$29,478,800	\$34,869,300	\$51,240,100
Total	\$33,328,800	\$38,719,300	\$55,090,100

* Costs are uninflated and include financing costs



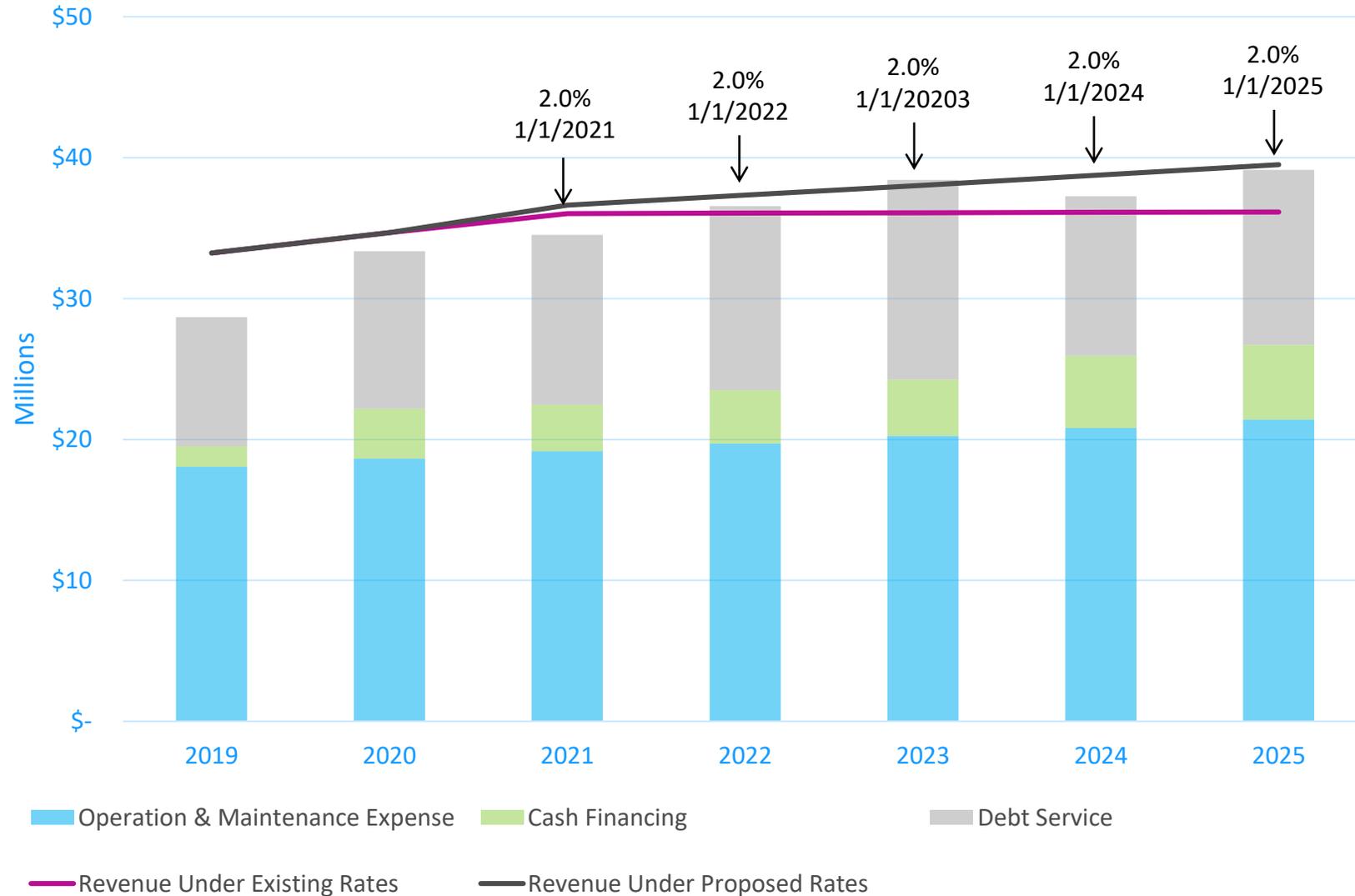
Water Revenue and Revenue Requirements*



* Based on Middle R&R scenario



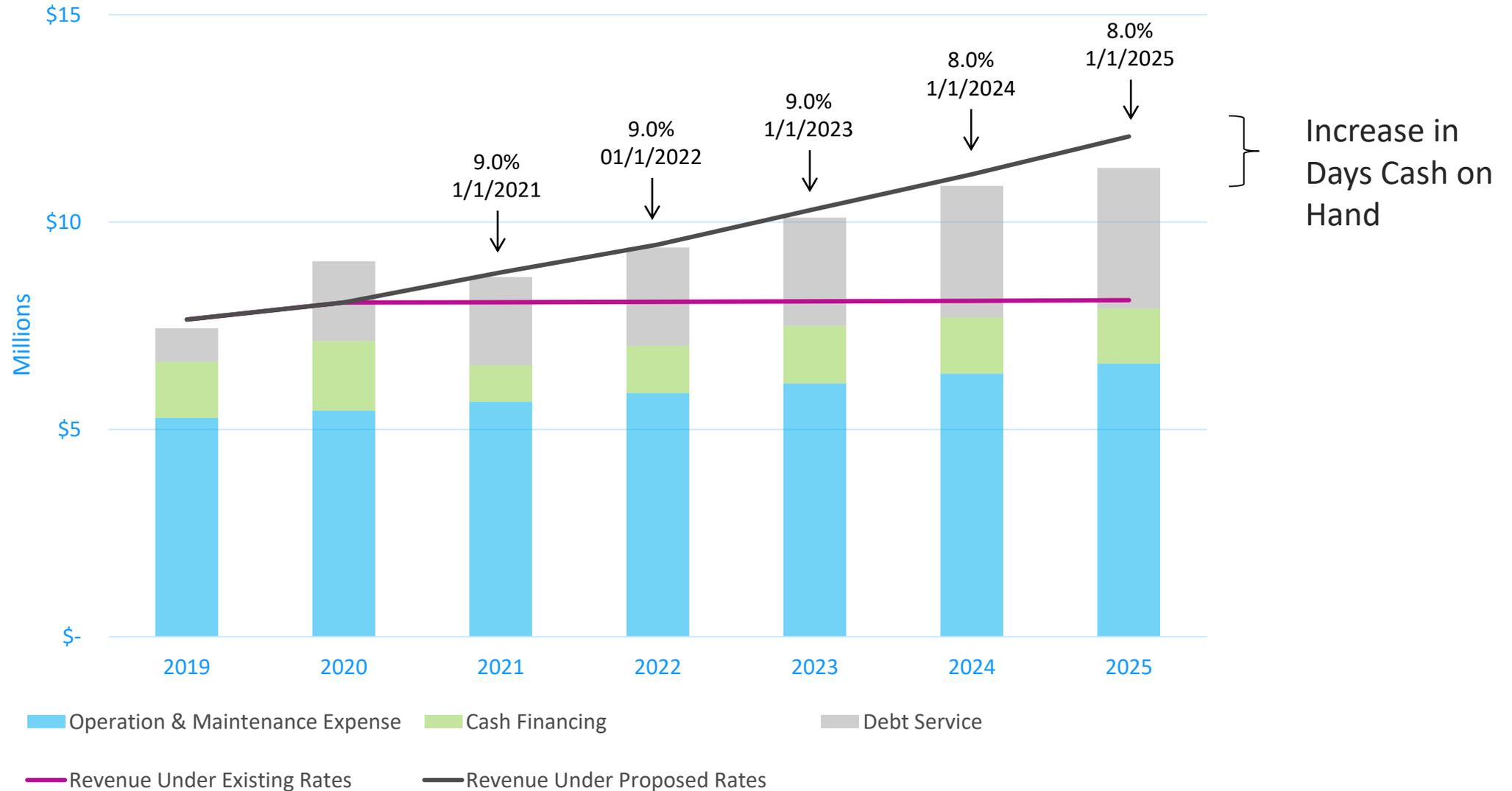
Wastewater Revenue and Revenue Requirements*



* Based on Middle R&R scenario



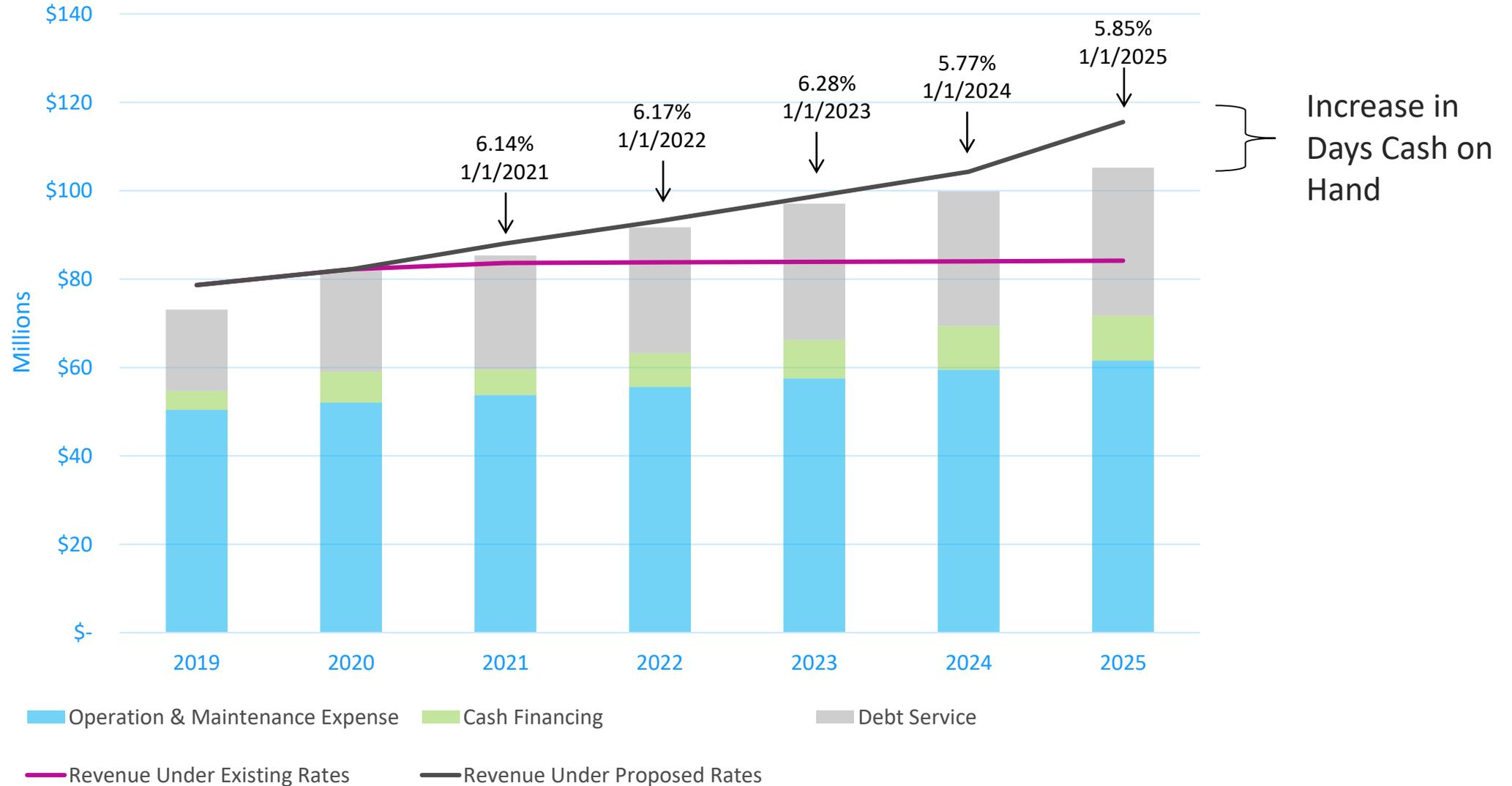
Stormwater Revenue and Revenue Requirements*



* Based on Middle R&R scenario



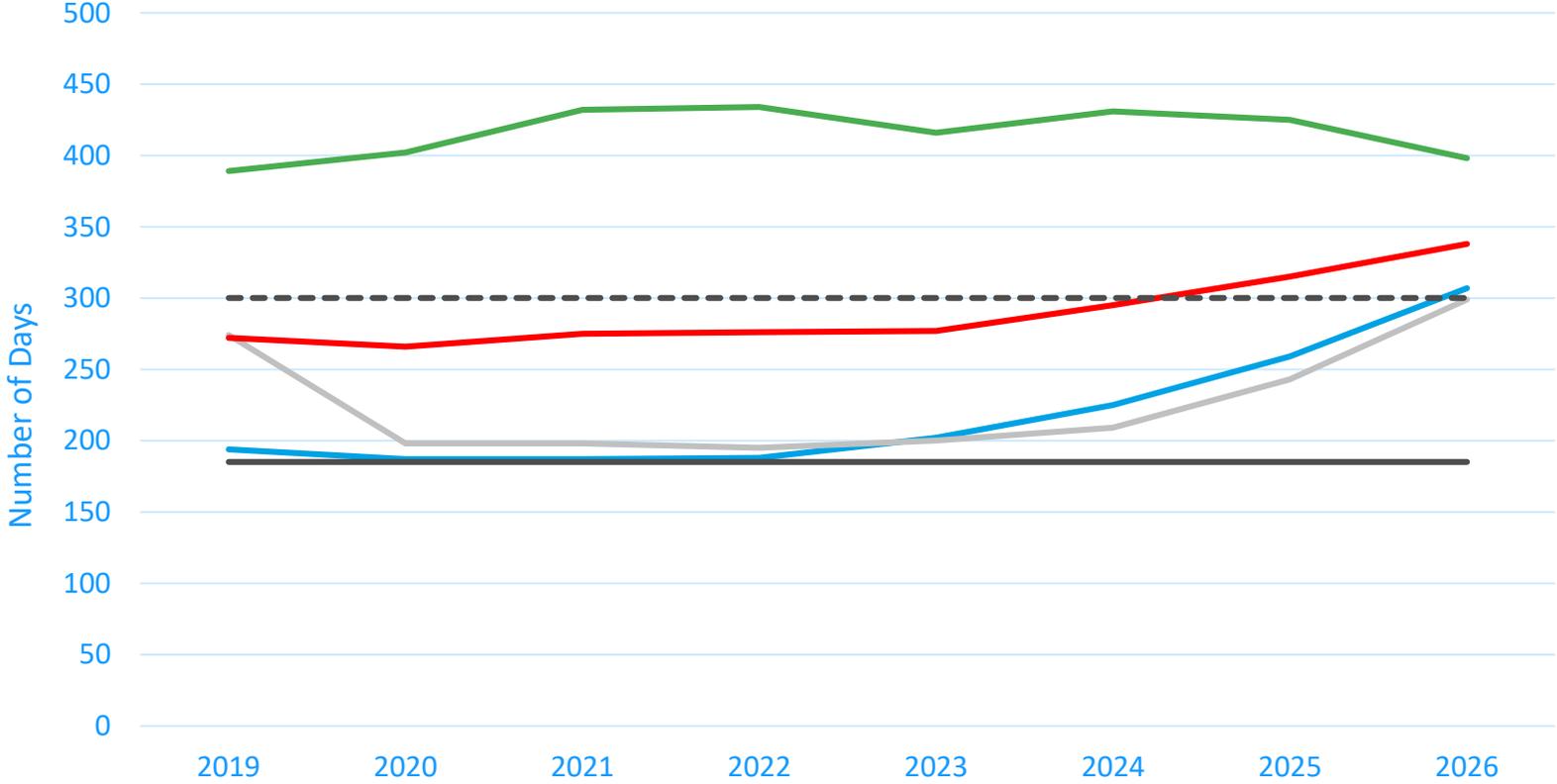
Combined Revenue and Revenue Requirements*



* Based on Middle R&R scenario



Days of Cash on Hand*

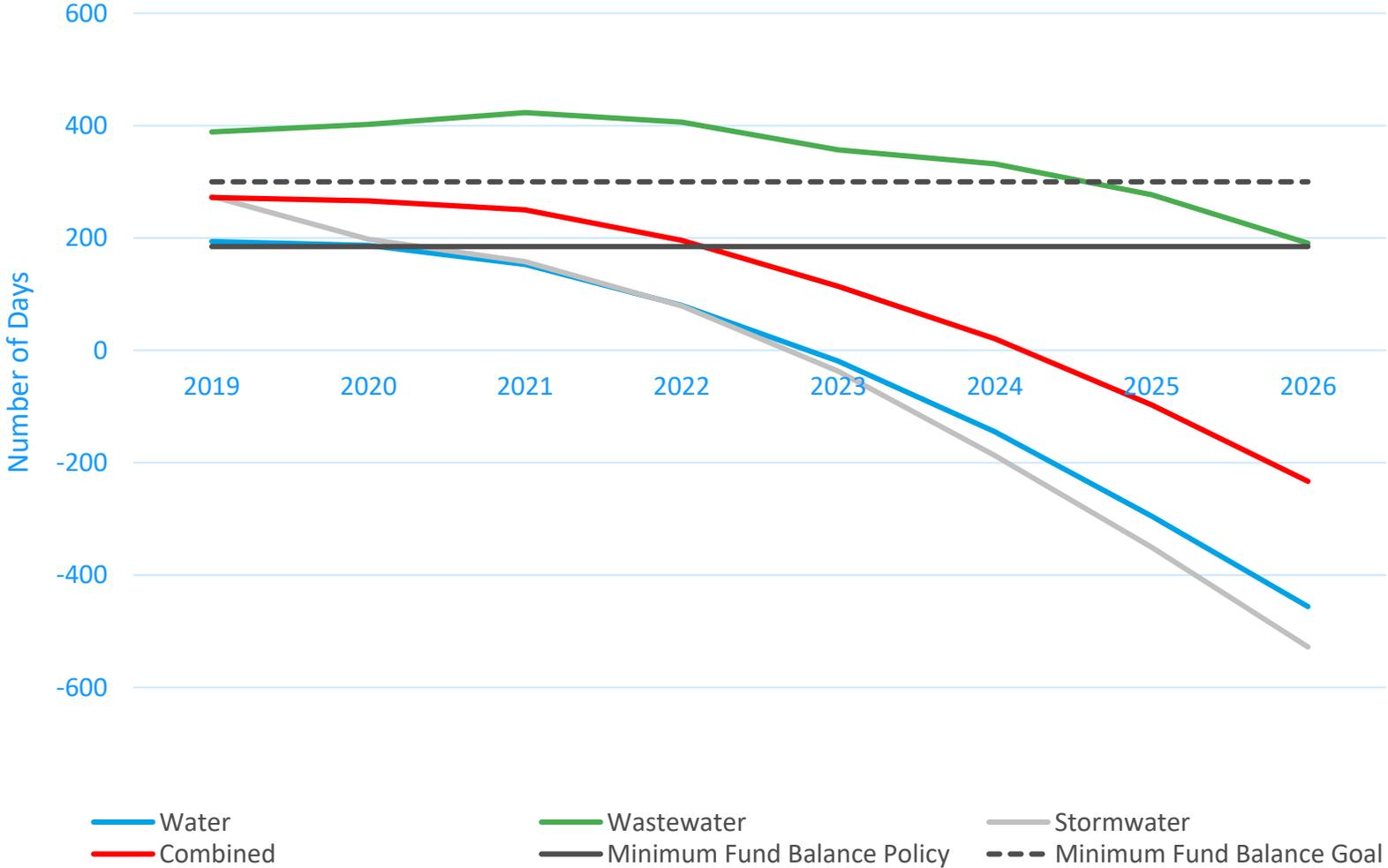


Goal: Each utility maintains 300 days of O&M and PILOT

- Water
- Wastewater
- Stormwater
- Combined
- Minimum Fund Balance Policy
- - - Minimum Fund Balance Goal

* Based on Middle R&R scenario

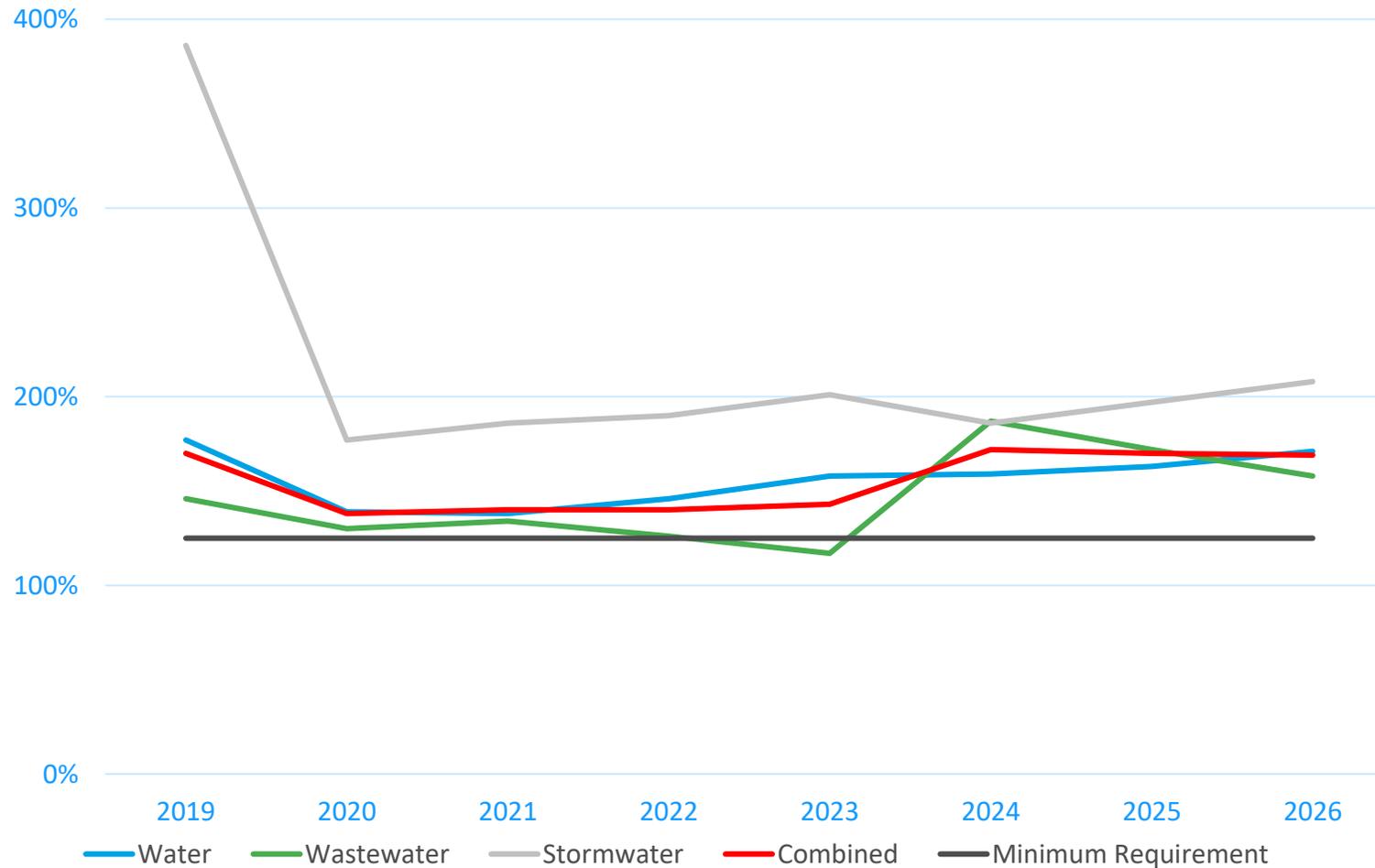
Days of Cash on Hand with No Revenue Increases*



Combined revenue under existing rates will not provide sufficient number of days of cash on hand beginning in 2022

* Based on Middle R&R scenario

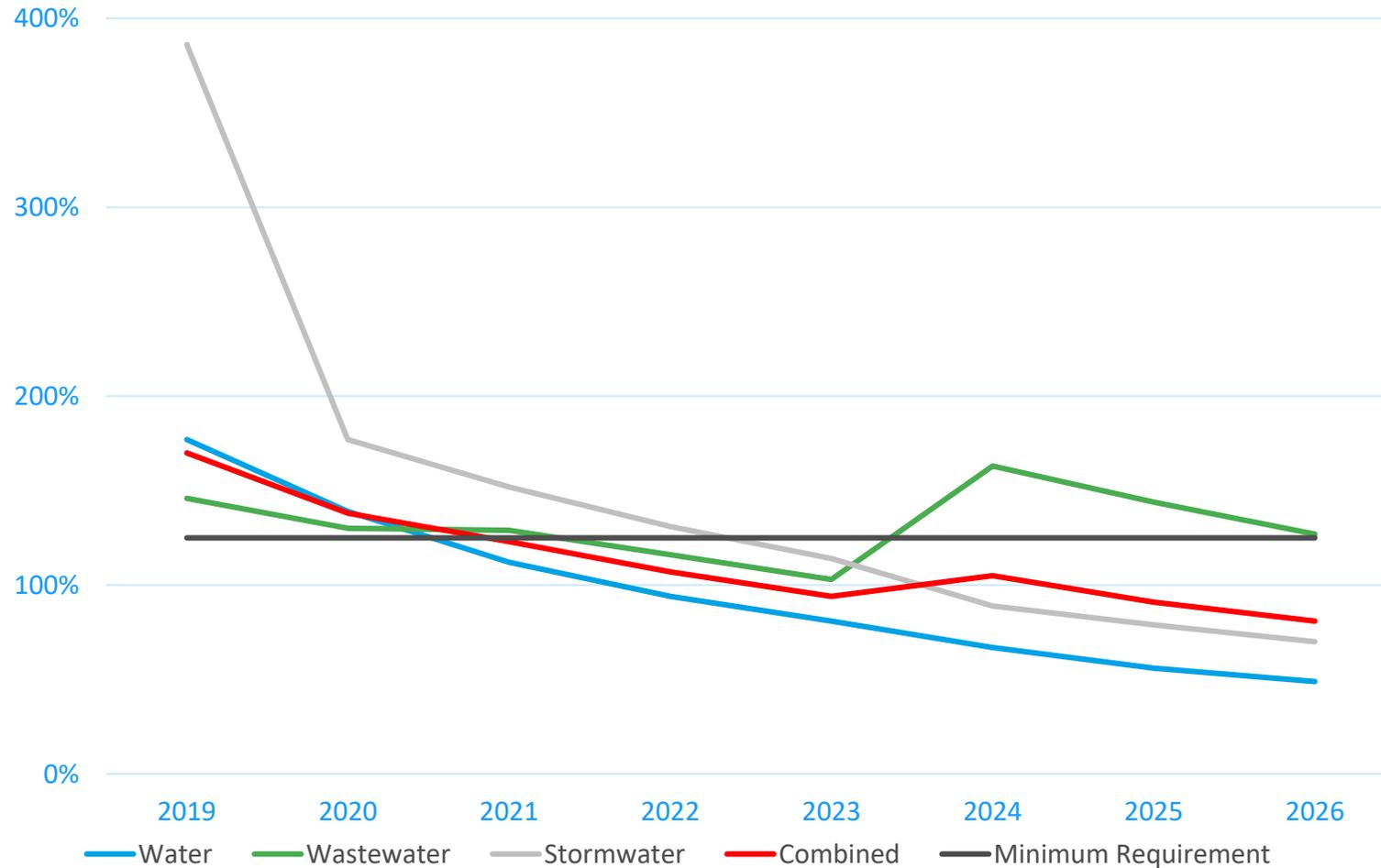
Debt Service Coverage – Annual Revenue Bond Coverage Test*



* Based on Middle R&R scenario



Debt Service Coverage – Annual Revenue Bond Coverage Test with No Revenue Increases*



Combined revenue under existing rates will not provide sufficient net revenue to meet annual coverage requirements beginning in 2021

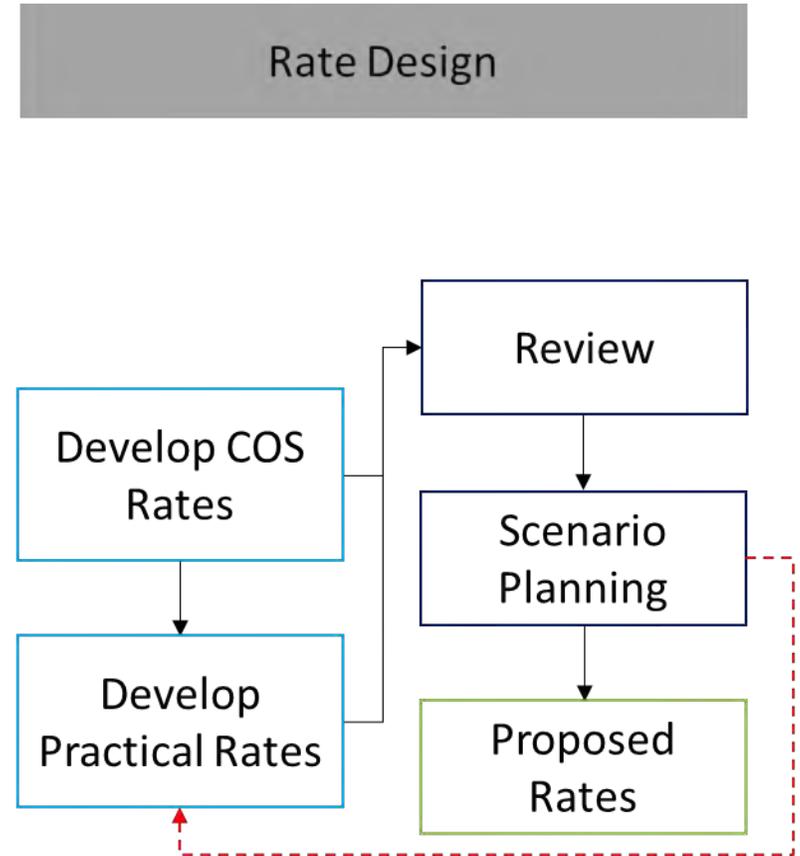
* Based on Middle R&R scenario



Rate Design

- **Rate Setting Principles:**

- Equitability
- Revenue Stability
- Provides Appropriate Price Signals
- Recognizes Customer Usage Patterns & Demands
- Easy to Understand and Administer
- Customer Acceptance
- Consistent with City Policies
- Legally Acceptable / Defensible



Benefits to You: A schedule of proposed rates that are defensible, appropriately recover costs, and easy to understand by stakeholders



Water Proposed Retail Rates (Inside City*)

Proposed rates reflect continuation of across-the-board increases

Rate Component	2020	Proposed Jan 1, 2021	Proposed Jan 1, 2022	Proposed Jan 1, 2023	Proposed Jan 1, 2024	Proposed Jan 1, 2025
Service Charge - \$/Meter Size/Month						
1" & Below	\$12.66	\$13.80	\$15.04	\$16.39	\$17.70	\$19.12
1.5"	\$25.32	\$27.60	\$30.08	\$32.79	\$35.41	\$38.24
2"	\$40.52	\$44.17	\$48.15	\$52.48	\$56.68	\$61.21
3"	\$75.98	\$82.82	\$90.27	\$98.39	\$106.26	\$114.76
4"	\$126.61	\$138.00	\$150.42	\$163.96	\$177.08	\$191.25
6"	\$253.25	\$276.04	\$300.88	\$327.96	\$354.20	\$382.54
8"	\$405.17	\$441.64	\$481.39	\$524.72	\$566.70	\$612.04
10"	\$582.44	\$634.86	\$692.00	\$754.28	\$814.62	\$879.79
Volume Charge - \$/1,000 gallons						
Single-Family Residential	\$4.88	\$5.32	\$5.80	\$6.32	\$6.83	\$7.38
Multi-Family Residential	\$3.96	\$4.32	\$4.71	\$5.13	\$5.54	\$5.98
Commercial	\$3.61	\$3.93	\$4.28	\$4.67	\$5.04	\$5.44
Industrial	\$3.09	\$3.37	\$3.67	\$4.00	\$4.32	\$4.67
Industrial II	\$2.91	\$3.17	\$3.46	\$3.77	\$4.07	\$4.40
Irrigation	\$5.87	\$6.40	\$6.98	\$7.61	\$8.22	\$8.88

*Rates for property outside the City Limits continue to be 1.75 times the rates for property inside the City Limits



Wastewater Proposed Retail Rates (Inside City*)

Proposed rates reflect continuation of across-the-board increases

Rate Component	2020	Proposed Jan 1, 2021	Proposed Jan 1, 2022	Proposed Jan 1, 2023	Proposed Jan 1, 2024	Proposed Jan 1, 2025
Service Charge - \$/Meter Size/Month						
1" & Below	\$11.75	\$11.99	\$12.23	\$12.47	\$12.72	\$12.97
1.5"	\$23.51	\$23.98	\$24.46	\$24.95	\$25.45	\$25.96
2"	\$37.61	\$38.36	\$39.13	\$39.91	\$40.71	\$41.52
3"	\$70.52	\$71.93	\$73.37	\$74.84	\$76.34	\$77.87
4"	\$117.53	\$119.88	\$122.28	\$124.73	\$127.22	\$129.76
6"	\$235.06	\$239.76	\$244.56	\$249.45	\$254.44	\$259.53
8"	\$376.12	\$383.64	\$391.31	\$399.14	\$407.12	\$415.26
10"	\$540.66	\$551.47	\$562.50	\$573.75	\$585.23	\$596.93
Volume Charge - \$/1,000 gallons						
All Customers	\$5.26	\$5.37	\$5.48	\$5.59	\$5.70	\$5.81

*Rates for property outside the City Limits continue to be 1.75 times the rates for property inside the City Limits



Stormwater Proposed Retail Rates (Inside City*)

Proposed rates reflect continuation of across-the-board increases

Rate Component	2020	Proposed Jan 1, 2021	Proposed Jan 1, 2022	Proposed Jan 1, 2023	Proposed Jan 1, 2024	Proposed Jan 1, 2025
Residential (per account)						
Under 1,500 sq feet of IA	\$3.22	\$3.51	\$3.83	\$4.17	\$4.51	\$4.87
1,501 to 3,500 sq feet of IA	\$5.00	\$5.45	\$5.94	\$6.47	\$6.99	\$7.55
Over 3,500 sq feet of IA	\$7.77	\$8.47	\$9.23	\$10.05	\$10.86	\$11.73
Apartment/Duplexes						
Per Each Living Unit	\$5.00	\$5.45	\$5.94	\$6.47	\$6.99	\$7.55
Non-Residential						
Per Equivalent Residential Unit (ERU)	\$5.00	\$5.45	\$5.94	\$6.47	\$6.99	\$7.55

*Rates for property in North Topeka is \$0.83 less per ERU than the rate per ERU for property inside the City Limits



Typical Water/Wastewater Combined Bill Comparison – Inside City

Proposed rates reflect continuation of across-the-board increases

Description	2020	Proposed Jan 1, 2021	Proposed Jan 1, 2022	Proposed Jan 1, 2023	Proposed Jan 1, 2024	Proposed Jan 1, 2025
Residential – 1,500 gallons						
Water	\$19.98	\$21.78	\$23.74	\$25.87	\$27.95	\$30.19
Wastewater	\$19.64	\$20.05	\$20.45	\$20.86	\$21.27	\$21.69
Stormwater*	\$5.00	\$5.45	\$5.97	\$6.54	\$7.10	\$7.70
Combined	\$44.62	\$47.28	\$50.16	\$53.27	\$56.32	\$59.58
Residential – 5,000 gallons						
Water	\$37.06	\$40.40	\$44.04	\$47.99	\$51.85	\$56.02
Wastewater	\$38.05	\$38.84	\$39.63	\$40.42	\$41.22	\$42.02
Stormwater*	\$5.00	\$5.45	\$5.97	\$6.54	\$7.10	\$7.70
Combined	\$80.11	\$84.69	\$89.64	\$94.95	\$100.17	\$105.74

*Assumes 1 ERU



2021 Typical Bill Comparison – Residential 1,500 Gallons



Average \$25.13
 Topeka 2020 \$19.98
 Topeka 2021 \$21.78



Average \$20.92
 Topeka 2020 \$19.64
 Topeka 2021 \$20.05



Average \$46.05
 Topeka 2020 \$39.62
 Topeka 2021 \$41.83



2021 Typical Bill Comparison – Residential 5,000 Gallons



Average \$41.16
 Topeka 2020 \$37.06
 Topeka 2021 \$40.40



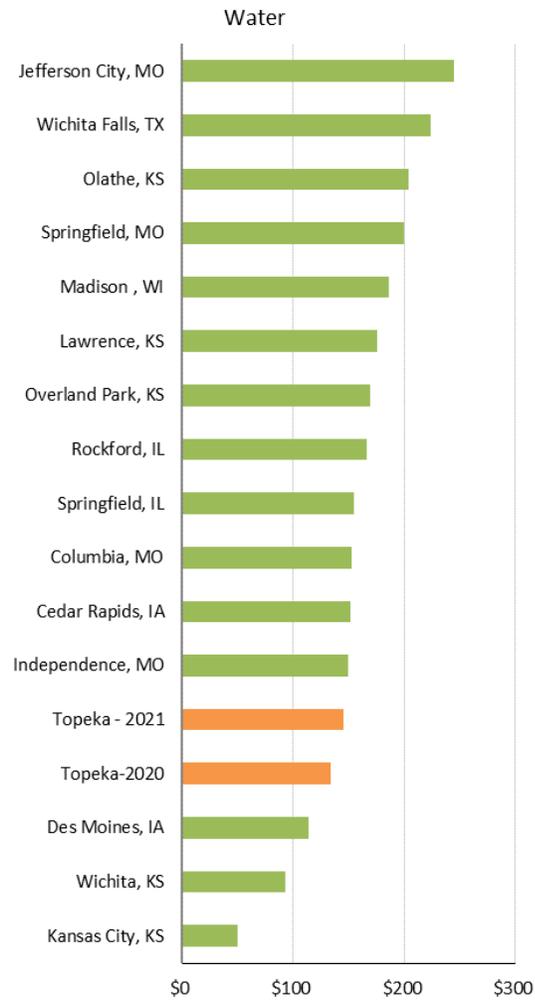
Average \$38.68
 Topeka 2020 \$38.05
 Topeka 2021 \$38.84



Average \$79.84
 Topeka 2020 \$75.11
 Topeka 2021 \$79.24



2021 Typical Bill Comparison – Commercial 30,000 Gallons



Average \$159.52
 Topeka 2020 \$133.62
 Topeka 2021 \$145.50



Average \$170.68
 Topeka 2020 \$181.31
 Topeka 2021 \$185.03



Average \$330.20
 Topeka 2020 \$314.93
 Topeka 2021 \$330.58

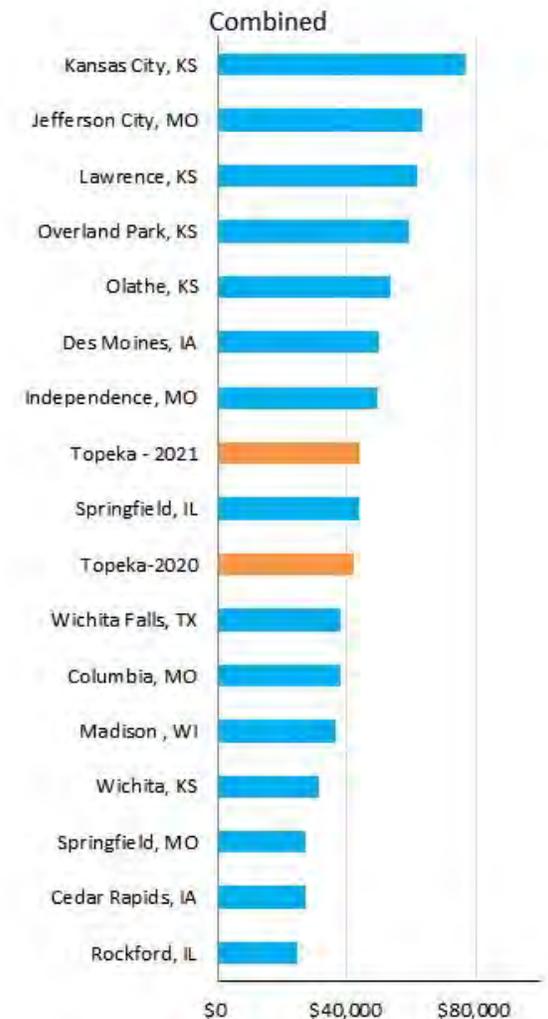
2021 Typical Bill Comparison – Industrial 5,000,000 Gallons



Average \$19,506.40
 Topeka 2020 \$15,525.98
 Topeka 2021 \$16,932.82



Average \$25,488.08
 Topeka 2020 \$26,370.52
 Topeka 2021 \$26,921.93



Average \$44,994.48
 Topeka 2020 \$41,896.50
 Topeka 2021 \$43,854.75

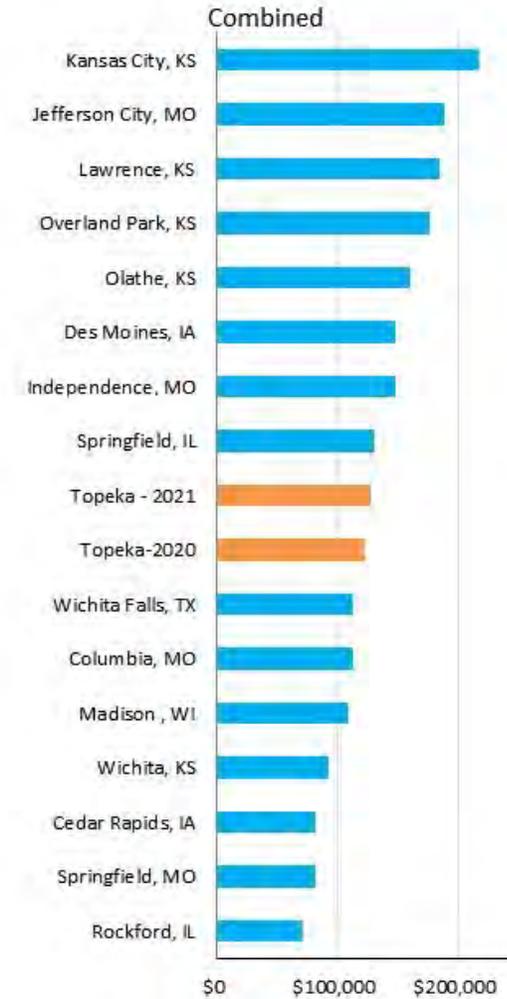
2021 Typical Bill Comparison – Industrial 15,000,000 Gallons



Average \$57,205.57
 Topeka 2020 \$43,776.61
 Topeka 2021 \$47,563.80

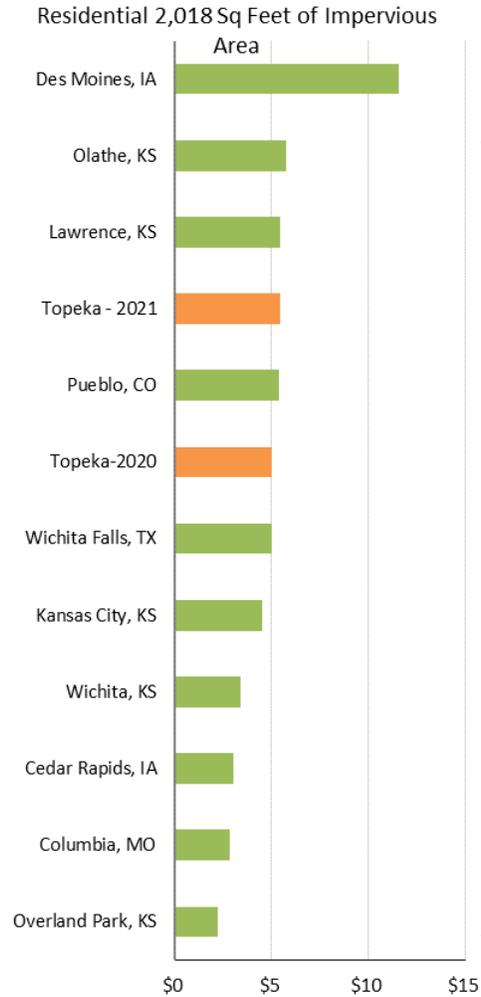


Average \$78,430.11
 Topeka 2020 \$79,017.53
 Topeka 2021 \$80,669.88



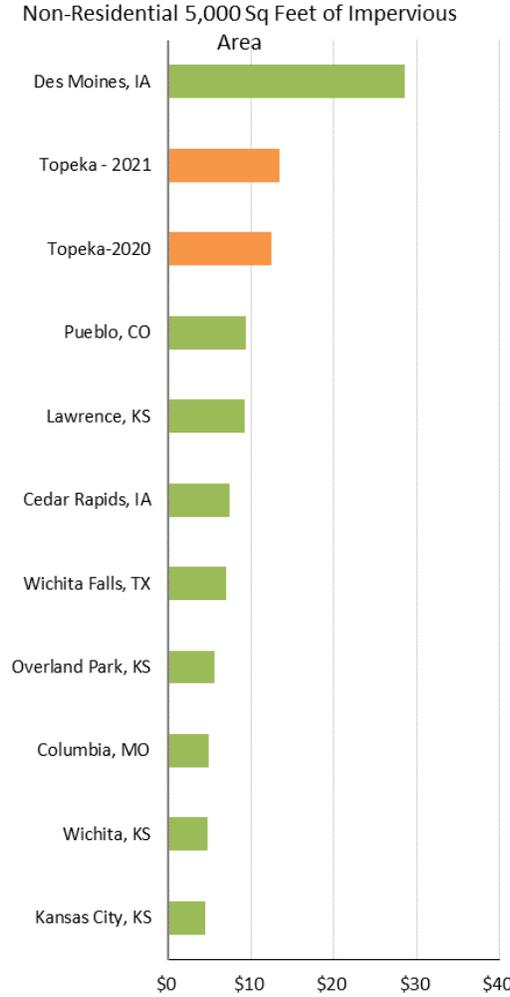
Average \$133,635.68
 Topeka 2020 \$122,794.14
 Topeka 2021 \$128,233.68

2021 Typical Bill Comparison – Stormwater



Difference of \$3.54

Average \$4.96
 Topeka 2020 \$5.00
 Topeka 2021 \$5.45



Average \$9.75
 Topeka 2020 \$12.39
 Topeka 2021 \$13.50

Notes:

Olathe, KS – Fee based on gross area

Overland Park, KS – 45% of stormwater program funded through dedicated mill levy of 0.960





Questions?



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