



Annual Review of Credit Metrics in Alignment with Long-Term Plan

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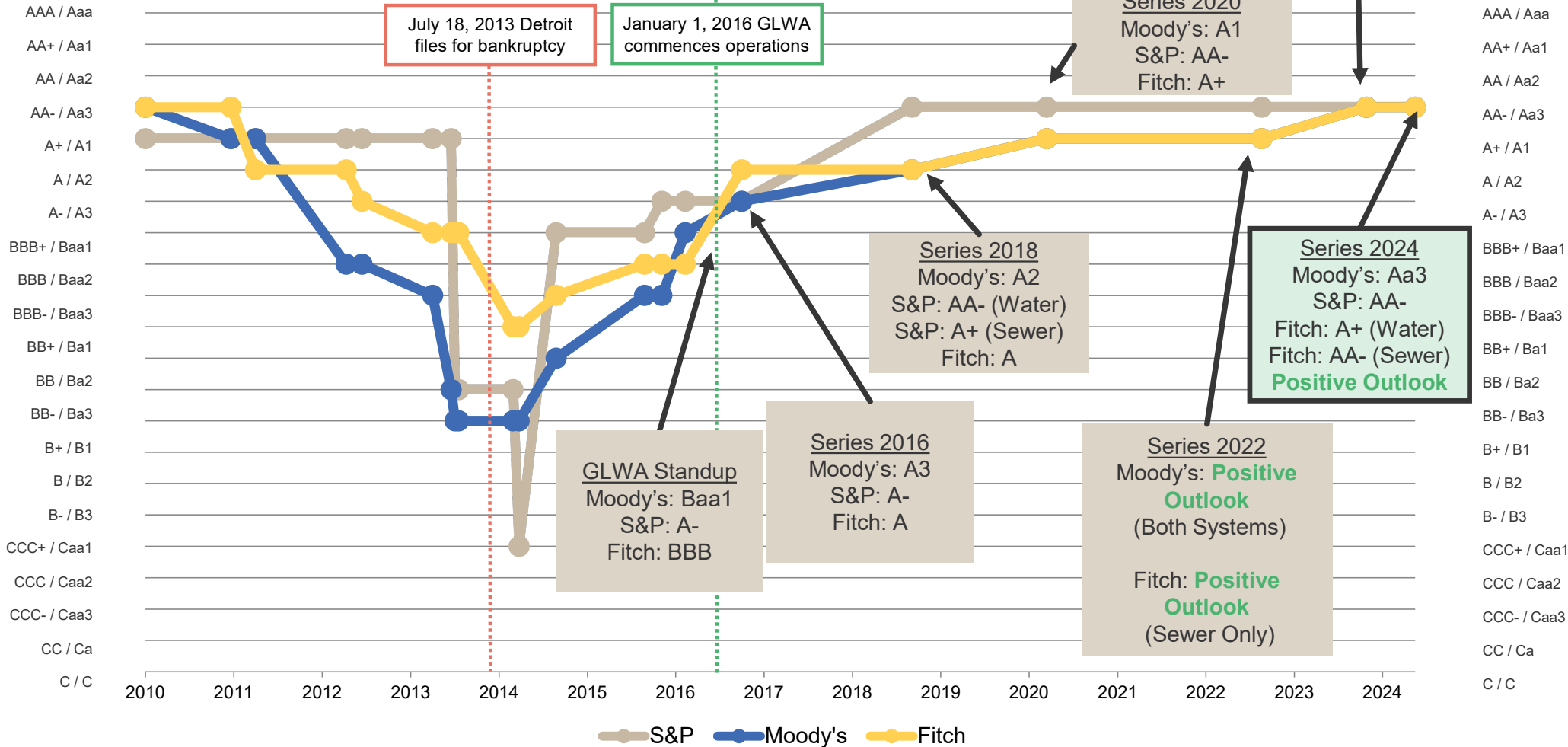
Importance of Bond Ratings

- ◆ Credit ratings are a critical factor in determining the cost of capital for GLWA
 - Impacts both new capital project funding and refinancing of existing debt
 - One notch in ratings can translate to millions of dollars of debt service cost differential
- ◆ Ratings represent a public “scorecard” relating to management of the system, as well as public perception
- ◆ Financial strength important to wholesale customers, including potential additional members
- ◆ Bond ratings may also be referenced in various contractual documents, requiring minimum ratings with counterparties or creating a cost differential



GLWA Credit Ratings Have Strengthened Since Standup

GLWA Senior Lien Ratings History (DWSD Prior to January 1, 2016)



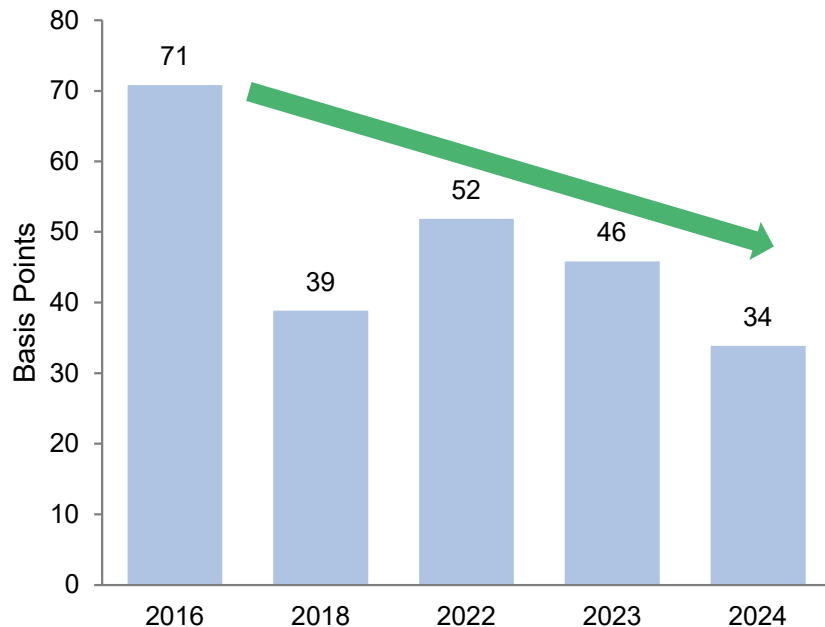
Note: in cases where a rating agency rates Water Senior and Sewer Senior Lien differently, chart displays highest of the two ratings



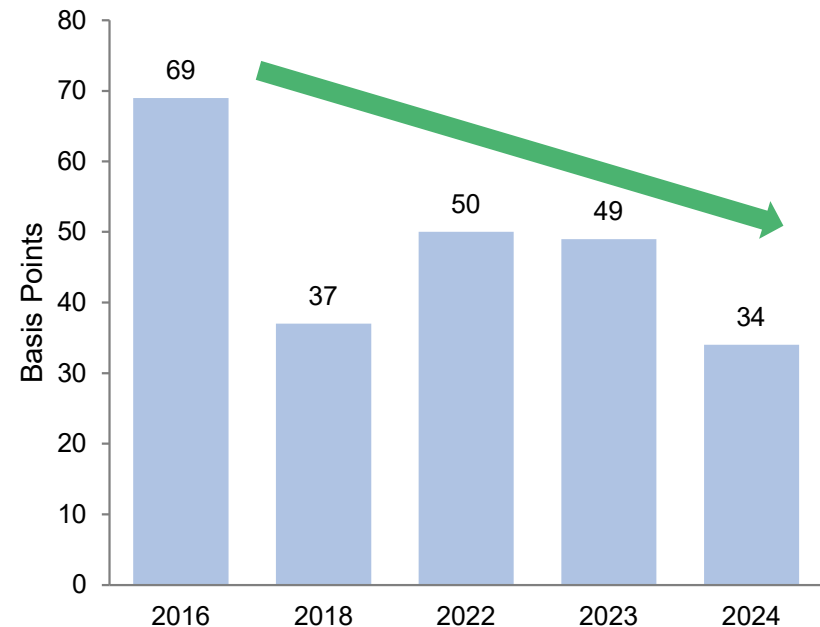
As Credit Ratings Have Improved, GLWA Credit Spreads Have Declined

- GLWA's tax-exempt borrowing costs are a function of municipal benchmark rates that are common to the market plus credit spreads that are specific to GLWA
- As GLWA's credit profile has strengthened, GLWA's credit spreads have declined
- Declines in GLWA credit spreads translate directly to reduced debt service costs and increased availability of refinancing savings, resulting in tangible benefits for member partners that comes from GLWA's stronger credit profile

Water System Credit Spreads Over Time
10 Year Maturities



Sewer System Credit Spreads Over Time
9 Year Maturities





Strong Credit Ratings Reduce Impact of New Money Borrowing on Charges

- GLWA has achieved “AA-” senior lien bond ratings for both water and sewer systems through strong projected credit metrics, despite debt service that consumes over 50% of the annual budget and limits financial flexibility
- Upward trajectory of credit ratings has unlocked millions in value captured by refinancing and new money transactions over past five years
- Maintaining strength of current credit ratings generates significant value given size and scope of new money capital plan

Rating	Yield Differential vs. AA- Rating	Individual Bond Sale (\$230 million)			Aggregate Capital Program (\$2.3 billion)		
		Annual Cost Differential (\$230 million)	Total Cost Differential (Through Maturity)	PV at 4%	Annual Cost (\$2.3 billion)	Total Cost Differential (Through Maturity)	PV at 4% (\$230MM Issued Annually, 10 Year)
AA+	(0.15%)	(345,000)	(6,900,000)	(4,688,663)	(3,450,000)	(69,000,000)	(27,982,590)
AA	(0.10%)	(230,000)	(4,600,000)	(3,125,775)	(2,300,000)	(46,000,000)	(18,655,060)
AA-	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A+	0.10%	230,000	4,600,000	3,125,775	2,300,000	46,000,000	18,655,060
A	0.20%	460,000	9,200,000	6,251,550	4,600,000	92,000,000	37,310,121
A-	0.25%	575,000	11,500,000	7,814,438	5,750,000	115,000,000	46,637,651
BBB+	0.45%	1,035,000	20,700,000	14,065,988	10,350,000	207,000,000	83,947,771

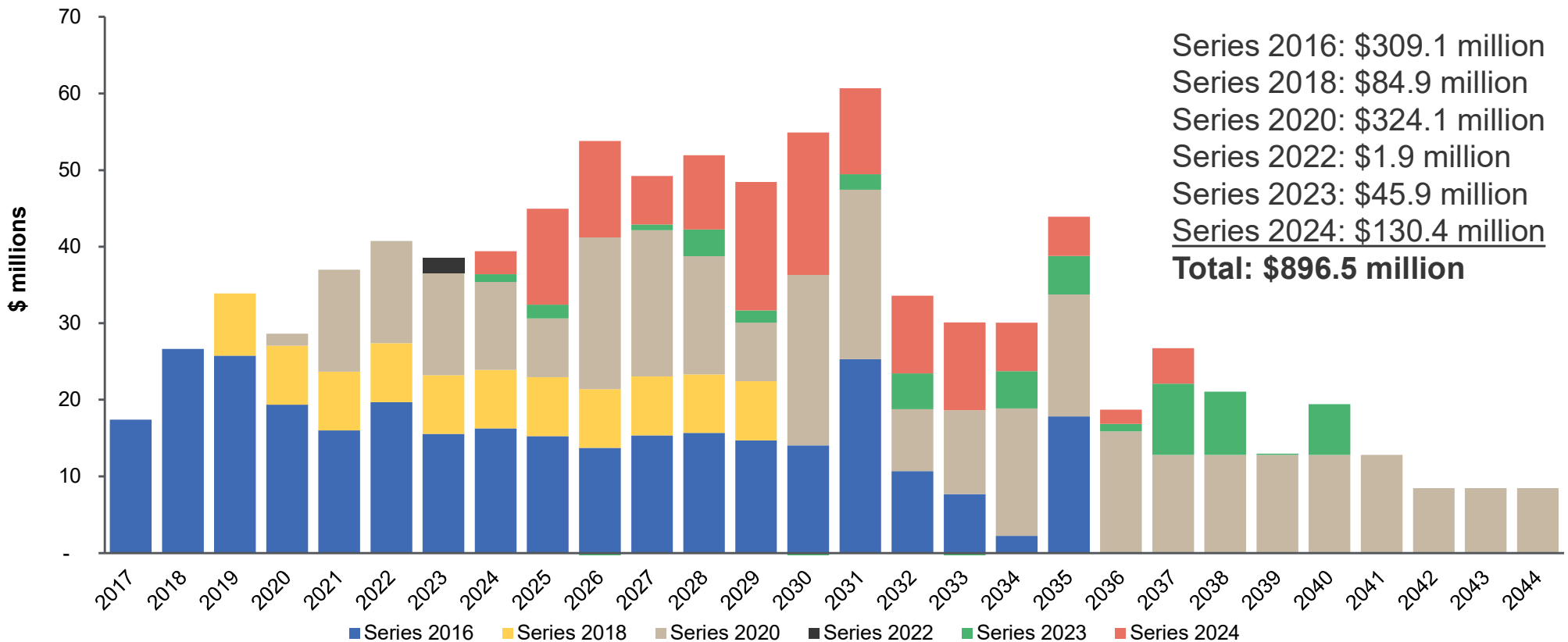
Note: for demonstrative purposes only. Assumes Water & Sewer Muni BVAL average credit spreads since inception. Each \$230 million issue assumed structured as a 20-year bullet maturity at par.



Strong Credit Has Unlocked Millions in Incremental Refinancing Savings

- ◆ Nearly \$50 million of debt service savings has been realized in FY2027 since GLWA standup, generating a meaningful impact on charges
- ◆ Approximately \$6 million of Series 2024 savings alone is attributable to improvement in GLWA credit quality since 2022, representing approximately \$400,000 annually

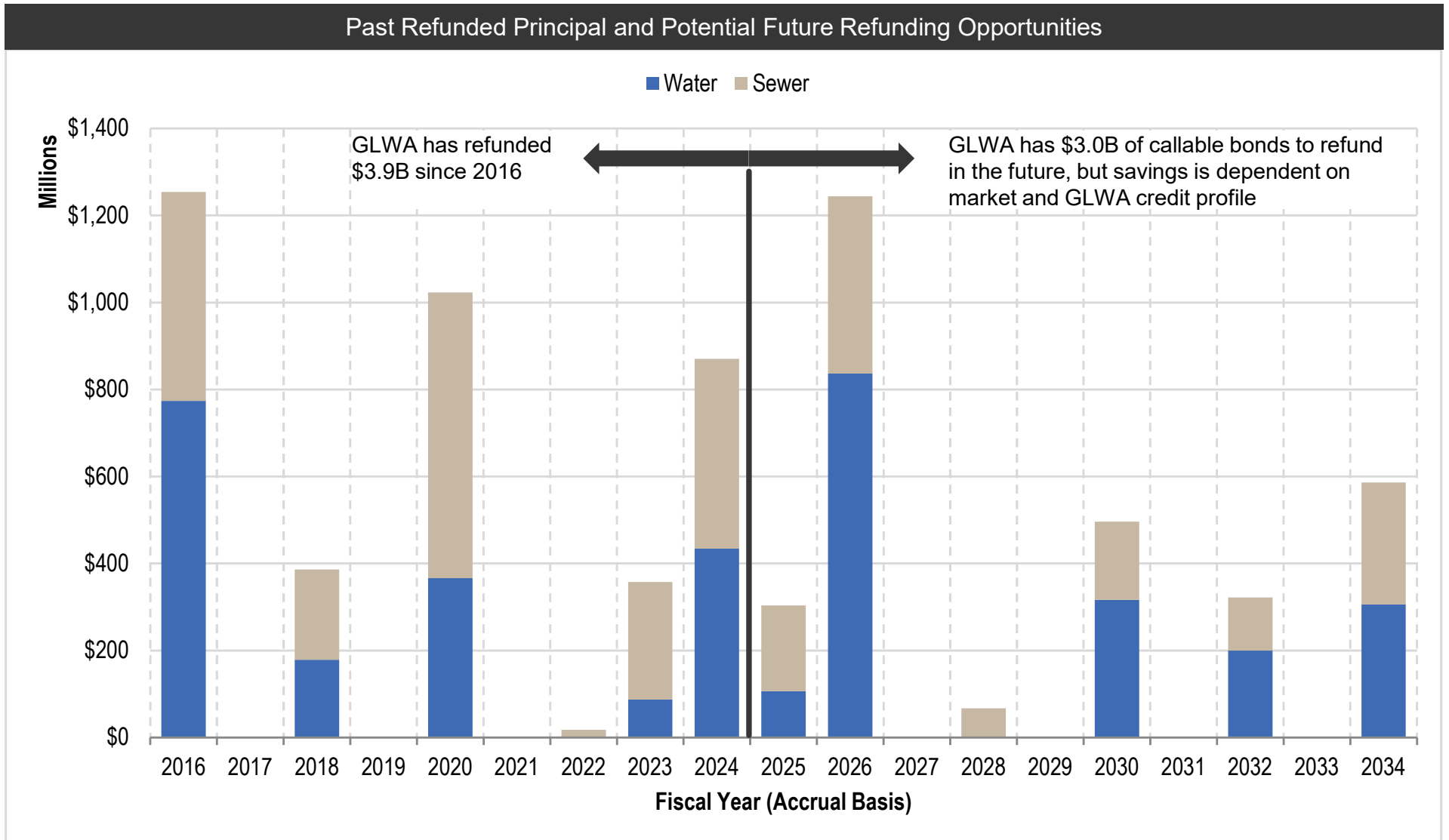
History of Debt Service Savings Since GLWA Standup



1: Totals may not add due to rounding
 Note: Debt service savings is shown on a cash flow basis



After 2026, GLWA Has Fewer Opportunities to Realize Debt Service Savings





Summary of Select Peer Group and Recent Financial Metrics

Selected Peer	Type	Moody's Rating (Senior)	S&P Rating (Senior)	Fitch Rating (Senior)	Total Operating Revenues (\$000s)	Total Annual Debt Service (\$000s)	Total Debt Service Coverage	DS as a % of Total Operating Revenues	Days Cash on Hand	Debt to Capitalization	Debt as a % of 5 Year CIP
Atlanta, GA	Water & Sewer	Aa2	AA-	AA	493,956	224,505	2.0x	45.45%	1,185 Days	41%	51%
Baltimore, MD	Water	Aa2	A+	NR	232,752	80,124	1.4x	34.42%	372 Days	51%	58%
Baltimore, MD	Sewer	Aa3	A+	NR	294,848	93,553	1.2x	31.73%	154 Days	38%	57%
Chicago, IL	Water	Baa1	A+	A+	803,610	254,262	1.8x	31.64%	391 Days	52%	57%
DC Water, DC	Water & Sewer	Aa1	AAA	AA+	898,763	211,783	1.4x	23.56%	347 Days	56%	42%
GLWA, MI	Water	Aa3	AA-	A+	358,551	208,811	1.3x	57.36%	473 Days	84%	93%*
GLWA, MI	Sewer	Aa3	AA-	AA-	476,980	267,040	1.2x	54.75%	445 Days	77%	67%*
Louisville MSD, KY	Sewer	Aa3	AA	AA-	426,275	169,385	1.8x	39.74%	307 Days	40%	69%
Miami-Dade County, FL	Water & Sewer	Aa3	AA	AA-	954,412	230,877	2.1x	24.19%	147 Days	59%	49%
MSD of Greater Cincinnati, OH	Sewer	Aa2	AA+	NR	284,462	82,641	2.1x	29.05%	61 Days	37%	8%
Philadelphia, PA	Water & Sewer	A1	A+	A+	817,096	187,701	1.8x	22.97%	134 Days	74%	58%
San Francisco PUC, CA	Water	Aa2	AA-	NR	676,027	362,075	1.1x	53.56%	373 Days	88%	74%
San Francisco PUC, CA	Sewer	Aa2	AA	NR	392,779	98,471	1.2x	25.07%	361 Days	76%	85%

Source: Moody's Financial Ratio Analysis database, as of January 10, 2024. GLWA, Louisville MSD, & San Francisco PUC as of FY2024. All other data as of FY2023. Debt to Capitalization & Debt as a % of 5 Year CIP is calculated using the issuers' most recent financial data.

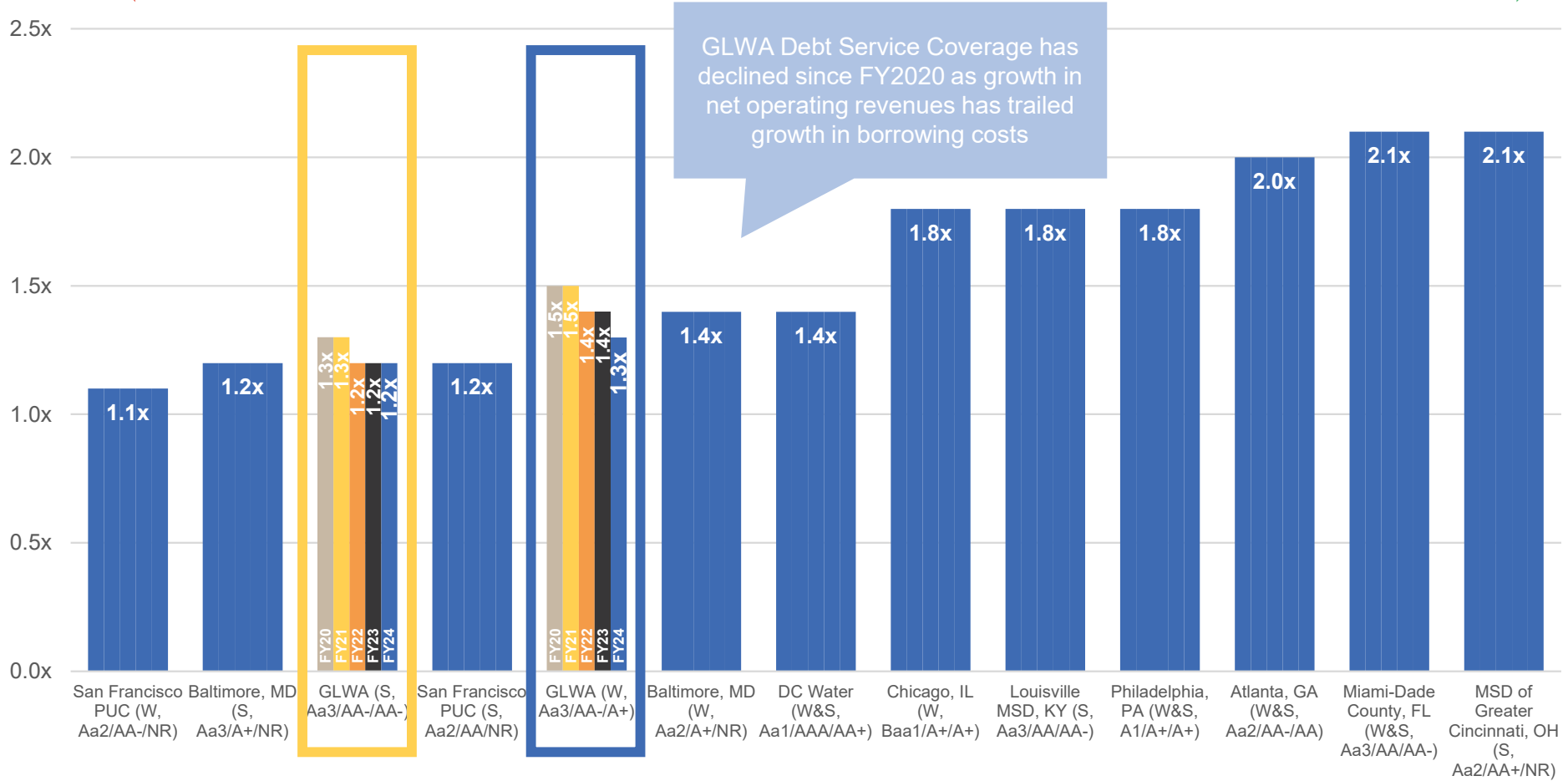
*GLWA Debt as a % of 5 Year CIP includes only Regional System.



Peer Comparison of Total Debt Service Coverage

Lower Debt Service Coverage is Weaker

Higher Debt Service Coverage is Stronger



Source: Moody's Financial Ratio Analysis database, as of January 10, 2024. GLWA, Louisville MSD, & San Francisco PUC as of FY2024. All other data as of FY2023.

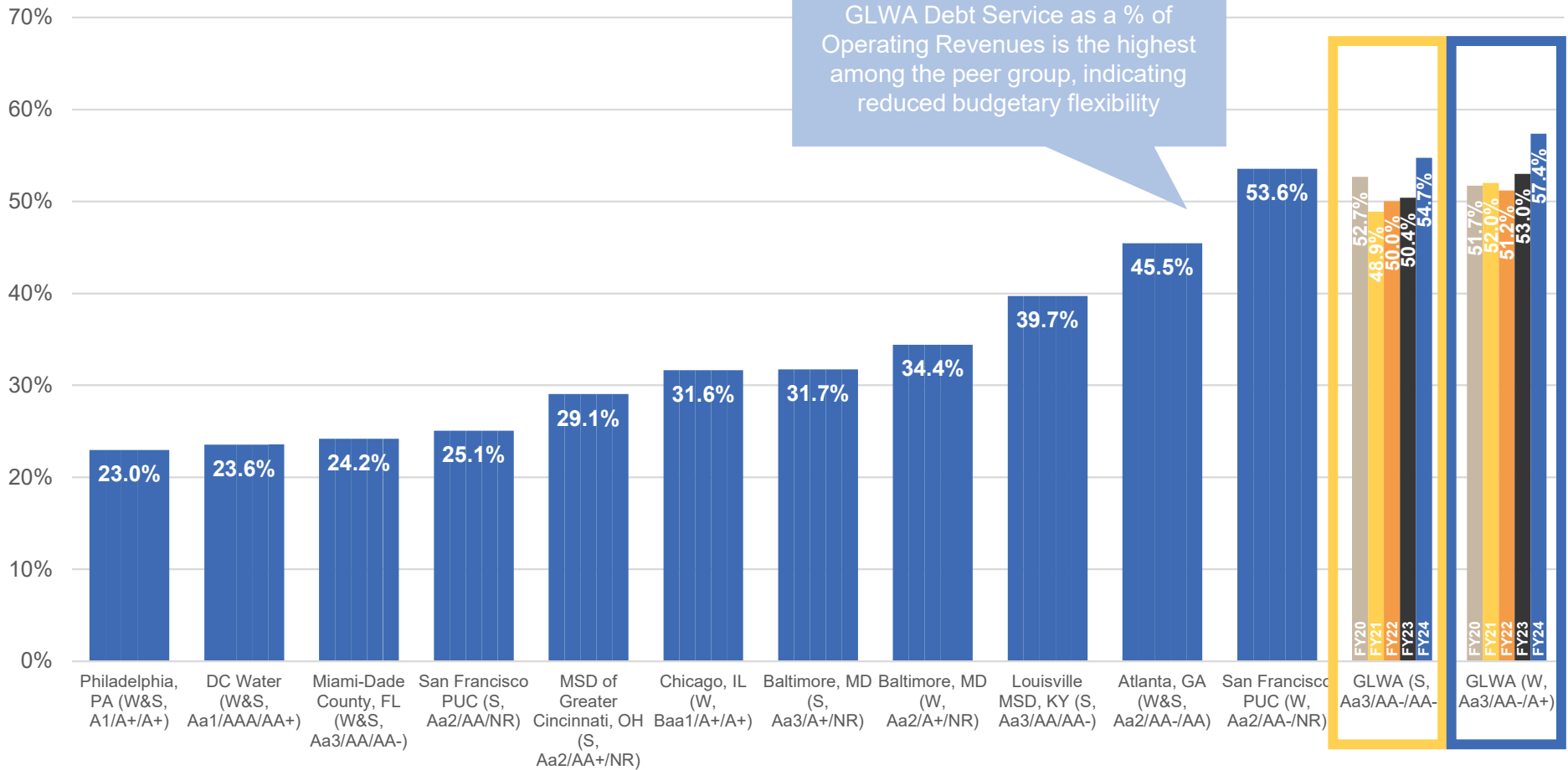


Peer Comparison of Debt Service as a % of Operating Revenues

Lower Debt Service Coverage is Stronger

Higher Debt Service Coverage is Weaker

GLWA Debt Service as a % of Operating Revenues is the highest among the peer group, indicating reduced budgetary flexibility



Source: Moody's Financial Ratio Analysis database, as of January 10, 2024. GLWA, Louisville MSD, & San Francisco PUC as of FY2024. All other data as of FY2023.

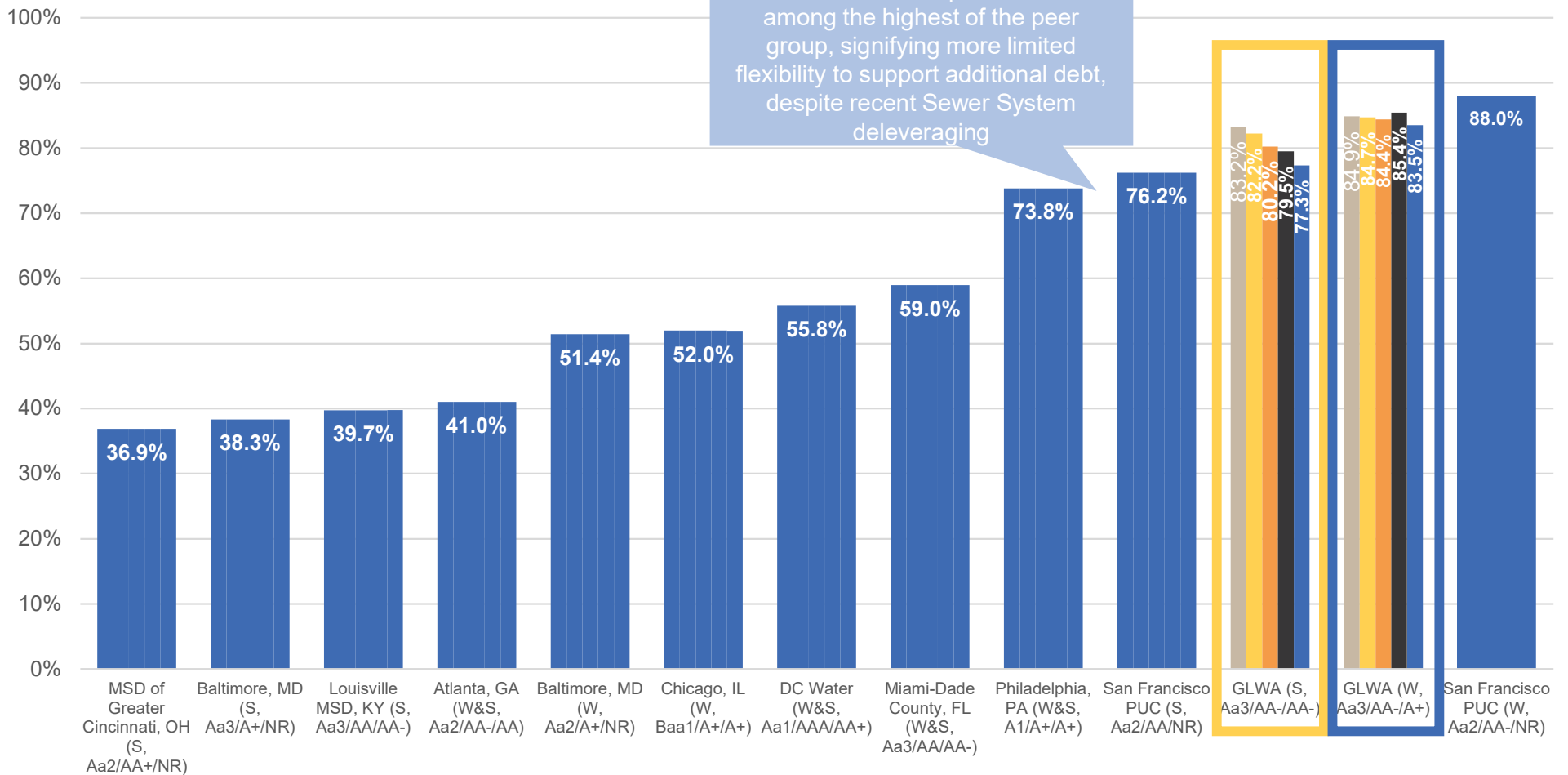


Peer Comparison of Debt to Capitalization

← Lower Debt to Capitalization is Stronger

→ Higher Debt to Capitalization is Weaker

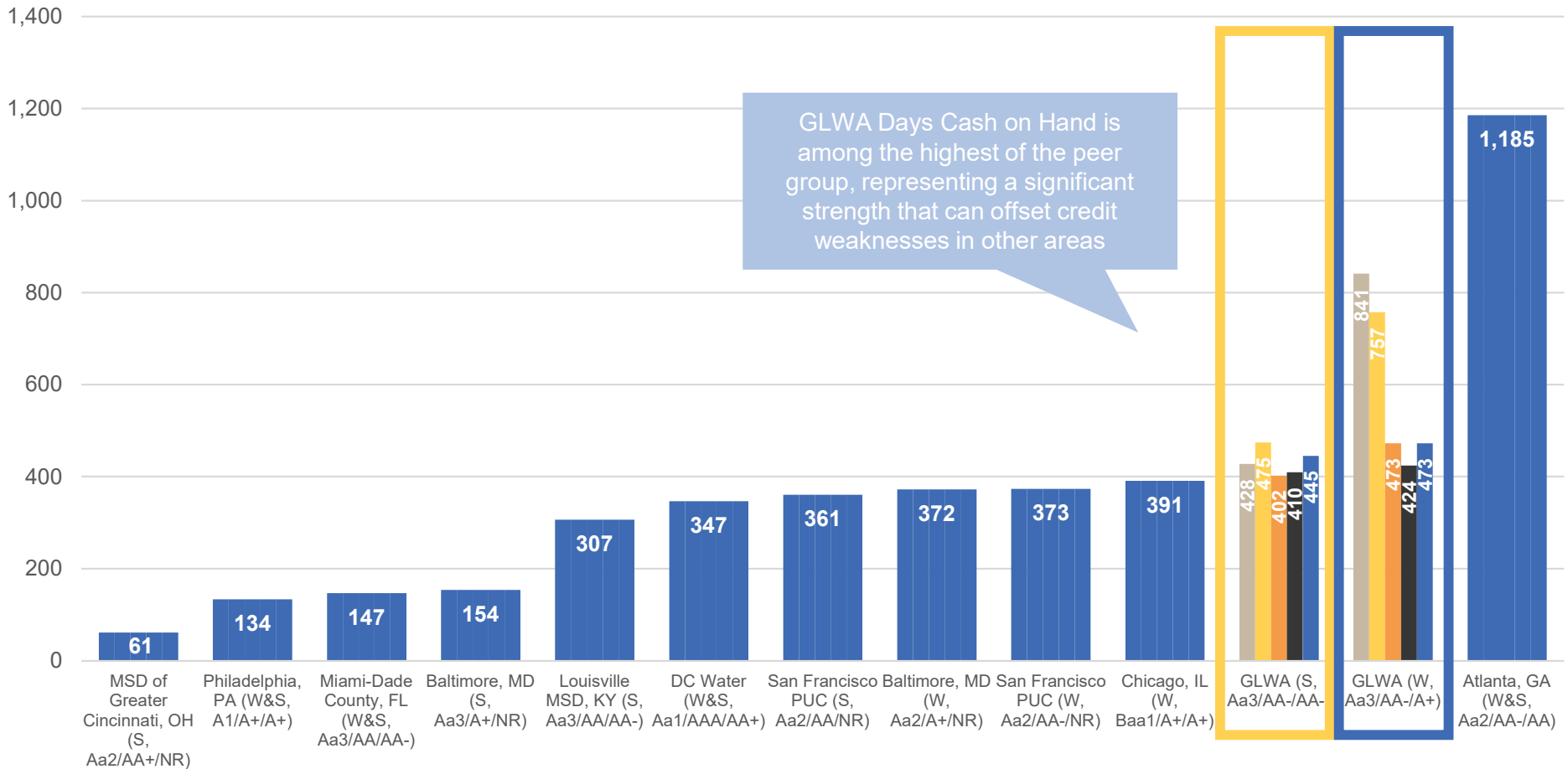
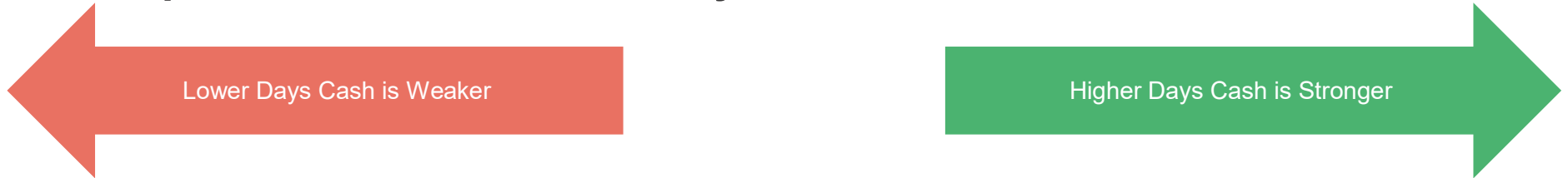
GLWA Debt to Capitalization is among the highest of the peer group, signifying more limited flexibility to support additional debt, despite recent Sewer System deleveraging



Source: Issuers' most recent financial data.



Peer Comparison of Unrestricted Days Cash and Investments



Source: Moody's Financial Ratio Analysis database, as of January 10, 2024. GLWA data calculated based on FY2024 financial statements and disclosures. GLWA, Louisville MSD, & San Francisco PUC as of FY2024. All other data as of FY2023.



Summary of GLWA Liquidity (Moody's Methodology)

- GLWA liquidity balances are a key credit strength that helps to offset more negative credit factors
- I&E Account is an important component of liquidity balance

	Water System		Sewer System	
Source	FY 2024 Amount	Days Cash & Investments (days)	FY 2024 Amount	Days Cash & Investments (days)
Receiving Fund	\$66.0 million	113	\$87.0 million	113
Operations and Maintenance Fund	\$34.1 million	58	\$71.4 million	93
Extraordinary Repair and Replacement	\$31.9 million	54	\$43.0 million	56
Improvement & Extension Account - Regional	\$144.6 million	247	\$140.9 million	183
Total Unrestricted Liquidity	\$276.6 million	473	\$342.3 million	445
Operating Expense	FY 2024 Amount		FY 2024 Amount	
Transfer to O&M Fund – Regional	\$168.9 million		\$224.9 million	
Transfer to O&M Fund – Local	\$44.8 million		\$55.7 million	
Total Operating Transfers	\$213.6 million		\$280.6 million	

Source: FY2024 financial statements

Note: Moody's Days Cash Calculation includes O&M transfers related to the local system but excludes local system liquidity; Includes legacy pension obligations.



Appendix



Rating Agency Commentary on Factors that Could Change GLWA Ratings

Moody's Aa3	S&P AA-	Fitch A+ (Water); AA- / Positive (Sewer)
Factors that Could Lead to an Upgrade		
<ul style="list-style-type: none"> • Growth in revenue that continues to outpace borrowing and moderates leverage of pledged resources • Steady improvement in asset condition while lowering debt-to-revenue ratio closer to 4x • Sustained trend of a debt service coverage ratio materially exceeding 1.5x while maintaining around 500 days cash on hand 	<ul style="list-style-type: none"> • GLWA meaningfully outperforms its current financial forecast while still funding its CIP generally as planned, in a sustainable manner over a long-term horizon • Sustainable, long-term economic recovery in Detroit continues and has meaningful positive effects on its economic fundamentals and utility collection rates 	<ul style="list-style-type: none"> • Greater certainty that upcoming planned capital spending has fully accounted for inflationary pressures and keeps leverage within current expectations • Sustained leverage below 11.0x (Water) or 10.0x (Sewer), assuming stability in the current revenue defensibility and operating risk assessments
Factors that Could Lead to a Downgrade		
<ul style="list-style-type: none"> • Material reduction to the water or sewer system's liquidity or debt service coverage ratios, with days cash on hand closer to 400 days or debt service coverage below 1.2x • Growth in leverage of the water or sewer system's net revenue or deterioration in asset condition 	<ul style="list-style-type: none"> • Actual financial performance falls below current projections • Significant deferral of capital projects that artificially increases liquidity but causes deferred maintenance • Erosion of processes that have evolved to help make the budget for both DWSD and GLWA more predictable while minimizing revenue fluctuations 	<ul style="list-style-type: none"> • Sustained leverage approaching 13.0x (Water) or 12.0x (Sewer), assuming stability in the revenue defensibility and operating risk assessments • Downward revisions to the system's overall Purchaser Credit Quality and/or revenue defensibility assessment (Sewer)¹ • Material declines in liquidity that expose bondholders to timing risk

Sources: Moody's Report, "Great Lakes Water Auth, MI", May 13, 2024. S&P Reports, "Great Lakes Water Authority, Michigan; Water/Sewer", May 14, 2024. Fitch Reports, "Great Lakes Water Authority (Water System), Michigan" and "Great Lakes Water Authority (Sewer System), Michigan", dated May 17, 2024.



Relationship of GLWA Ratings with DWSD

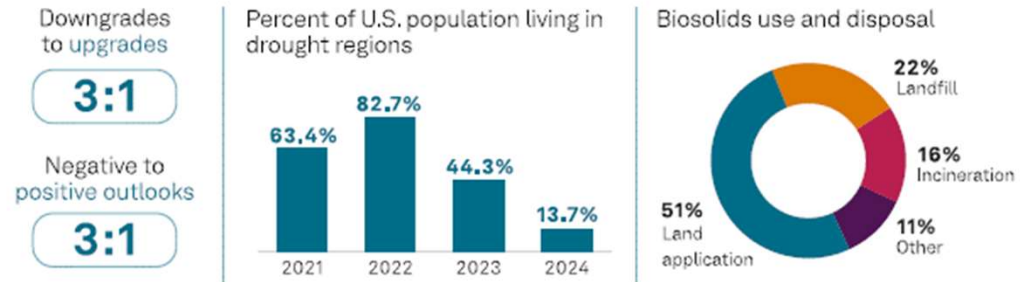
- ◆ Given the unique construction of the GLWA Master Bond Ordinance that includes revenues attributable to the DWSD system, GLWA credit quality is impacted by DWSD finances and planning
- ◆ Combination of retail and wholesale rating criteria are applied to the GLWA rating
- ◆ Various financial metrics (and rating variables) are calculated by the combination of GLWA and DWSD, including:
 - Debt Service Coverage
 - Days Cash on Hand
 - Leverage and Debt / Operating Revenues
 - Asset Condition
- ◆ Given forward-looking nature of ratings, rating agencies incorporate DWSD projections for borrowing, capital spending, and rate-setting into GLWA credit rating metrics
 - Rating agency evaluation of management, capital planning, and rate-setting extends to DWSD
- ◆ Continued communication and collaboration with DWSD will be critical to maintaining upward ratings trajectory



S&P Water & Sewer Sector Outlook for 2025

- **Negative Outlook**, with rising operating costs pressuring margins, increasing capital investment needs, and affordability as primary causes of concern
- Deferred maintenance will remain a driver of infrastructure deficiencies and likely result in impaired financial performance
- Climate hazards could stress system resiliency and increase leverage as utilities address mitigation and adaptation goals
- The pace of regulatory activity expected to moderate, which could be neutral to positive for utilities
- Regulations and climate-related risks will remain top of mind and continue to underpin operating pressures
- Project execution and construction difficulties could persist, necessitating changes to procurement and project delivery
- Affordability struggles will require thoughtful management practices
- Rate structure is important to cost recovery and revenue stability
- Small systems continue exhibiting greater vulnerability from lesser economies of scale and staffing limitations

U.S. not-for-profit utilities: By the numbers



Average rise in bills vs operating expenses



Source: S&P Global Ratings.
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Source: S&P Report, "U.S. Not-For-Profit Utilities 2025 Outlook: Rough Water Likely Will Underscore Credit Trends" January 15, 2025.



Moody's Water & Sewer Sector Outlook for 2025

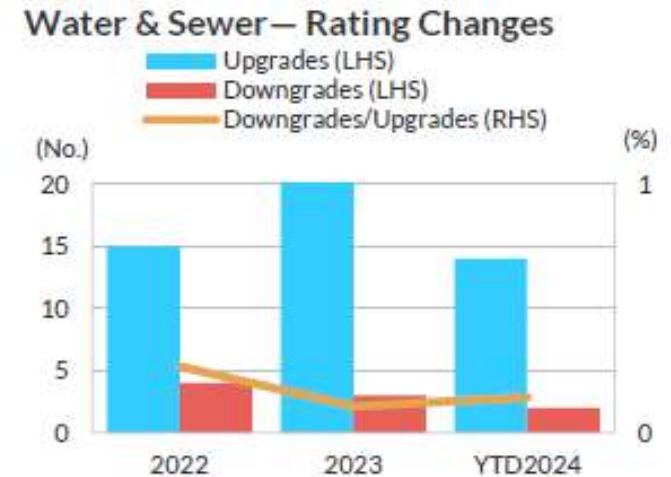
- ◆ **Stable Outlook:** Rate increases will drive revenue growth, supporting higher capital and operating costs that arise from new federal regulations
 - Outlook could be revised to positive if liquidity improves by over 8% or if additional federal programs are established that significantly reduce the cost of complying with new regulatory requirements
 - Outlook could change to negative if changes in operating conditions suggest liquidity will decline by over 10%
- ◆ Strong governance and rate-setting authority provide foundational strengths to mitigate longer-term risks, though rate affordability concerns remain
- ◆ Increasing government regulations such as the EPA's policy to reduce perfluoroalkyl and polyfluoroalkyl substances (PFAS) levels in drinking water will cause systems to begin allocating more cash reserves and start long-term capital planning for PFAS remediation
- ◆ Liquidity will remain strong, with revenue growth insulating against escalating costs
- ◆ Debt burdens will stay flat in 2025, reversing a long trend of declining debt, and coverage will remain stable
- ◆ Asset condition will remain flat, but may begin to improve after 2025 as utilities increase capital spending

Source: Moody's Report, "2025 Outlook – Stable as higher costs will be absorbed by rate increases" December 11, 2024.

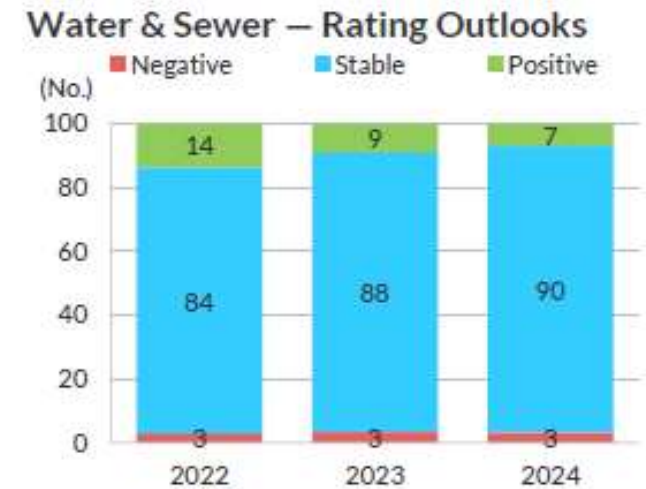


Fitch’s Water & Sewer Sector Outlook for 2025

- ◆ **Neutral outlook**, with the key factors affecting the sector’s performance being easing inflationary pressures, and stable increases in chemical, labor and power costs
- ◆ Fitch expects that improved revenue generation moving in line with cost increases should stabilize ratings across the sector in 2025
- ◆ Rating distribution remains stable across the portfolio as most utilities still have headroom for absorbing higher costs
- ◆ Although the Fitch-rated portfolio maintains sound rate flexibility, affordability remains a key concern for stakeholders in 2025
- ◆ The cost of complying with environmental regulations is expected to be meaningful but the full scope of new rules and effect on cost and capital remain undetermined
- ◆ Additional key sector issues include the increased frequency and severity of extreme weather events and breach of critical utility assets from cyberattacks



Source: Fitch Ratings

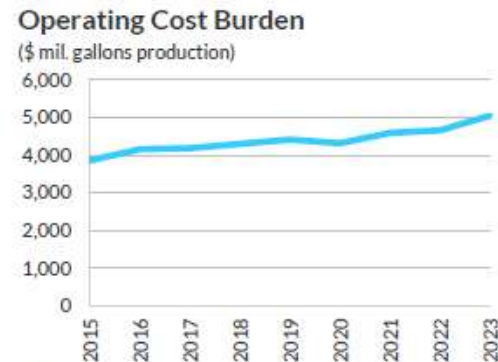


Source: Fitch Ratings

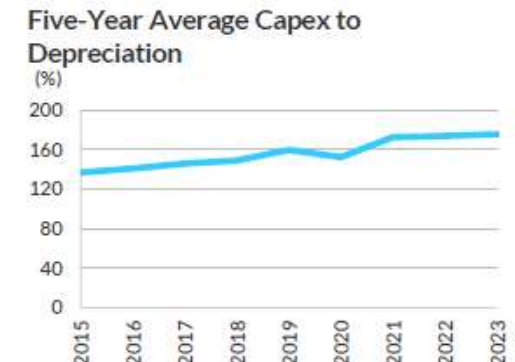


Fitch's Water & Sewer Sector Outlook for 2025

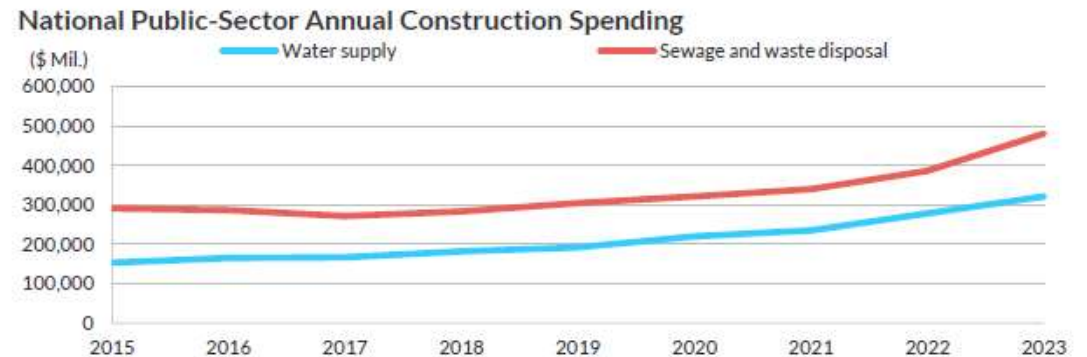
- Operating costs are expected to remain elevated over the near term as utilities budget for increased capital spending.
- Resurgent inflation, increased supply or labor costs, a severe recession and/or higher long-term interest rates could shift the sector outlook to 'deteriorating'
- Interest rates are moderating from the highest level in over a decade, with further cuts expected in 2025
- The infusion of federal funds through the Inflation Reduction Act and the Bipartisan Infrastructure Law supplemented utilities' funding sources and will offset some debt issuance or cash drawdowns
- While many utilities maintain flexibility within their capital programs to defer projects, this flexibility will be diminishing for those facing regulatory-driven requirements



Source: Fitch Ratings



Source: Fitch Ratings



Source: Fitch Ratings, U.S. Census Bureau

Source: Fitch "2025 Outlook: Water and Sewer Sector" December 12, 2024.



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