New York City Municipal Water Finance Authority, New York

The 'AA+' rating on the New York City Municipal Water Finance Authority's (NYW or the authority) First General Resolution (FGR) and Second General Resolution (SGR) bonds reflects the combined credit quality of the authority and the New York City Water Board (the water board), as well as the authority's role as the issuer of revenue bonds on behalf of and in support of the expansive New York City (the city) water and sewer system (the system). The financial profile is very strong and assessed at 'aa' in the context of historically very low leverage, measured as net adjusted debt to adjusted funds available for debt service (FADS) on a gross revenue basis. The 'F1+' short-term rating on the extendable municipal CP notes primarily reflects the 'AA+' long-term rating and adequate liquidity.

Bondholders are afforded strong protections through a statutory framework providing a gross lien on pledged water and sewer revenues, along with Fitch Rating's expectation of the remoteness of either the authority or water board filing for bankruptcy protection or being included in a city bankruptcy proceeding if one were to ever occur. The credit profile is further supported by the very strong revenue defensibility and operating risk profile, both assessed at 'aa'.

Leverage was in the mid-7.0x range through fiscal 2020 (ended June 30, 2020). The adverse impact of the pandemic on the service area and resulting weaker collections drove leverage to 8.3x in fiscal 2021. Additionally, the system's previously projected rate increase was not adopted that year in light of widespread economic strain, further reducing revenue-generating capacity.

In fiscal 2022, leverage improved to 8.0x, reflecting an increase in revenues driven by the 2.76% rate increase combined with a higher rate of consumption, slowing rate of delinquencies and the elimination of the lease payment to the city (discussed in more detail below). Total debt service was lower in fiscal 2022, the result of prior years' cash defeasances and the benefits of a low interest rate environment on certain variable-rate debt service. Fiscal 2023 results showed further improvement, with leverage declining to 7.3x, driven by better than projected revenues, including the impact of an amnesty program in place for fiscal 2023.

The authority's projections through fiscal 2028 date from June 2023, prior to the city's January 2024 request for a rental payment of $145 million in fiscal 2024 and $295 million (the maximum amount) in fiscal 2025. Although the rental payments have not yet been formally incorporated in the projections, the impact of these payments is largely mitigated by better than anticipated fiscal 2023 results.

Based on the authority's assumptions from June 2023, and including the city's requested lease payments in fiscals 2024 and 2025, leverage is anticipated to rise and reach 8.3x in fiscal 2028, in line with levels previously anticipated; leverage would be declining in the absence of the lease payments. Fitch anticipates updated projections as a result of the water board's fiscal 2025 rate-setting process will more explicitly incorporate the fiscals 2024 and 2025 requested lease payments, and any additional lease payments, if requested.

Fitch does not differentiate between the FGR and SGR liens as they are both afforded strong support from the gross revenue pledge and benefit from the subordination of O&M payments. Since 2020, the authority has prefunded in excess of $1.0 billion of debt service, further reducing risk to subordinate lien bondholders.

New Issue

$206,500,000 Water & Sewer System Second General Resolution Revenue Bonds, Fiscal 2024 series BB; Subseries BB-1	AA+
$550,000,000 Water & Sewer System Second General Resolution Revenue Bonds, Fiscal 2024 Series BB, Subseries BB-2	AA+

Sale Date

Fiscal Series 2024 BB bonds are anticipated to sell through negotiation the week of March 4.

Outstanding Debt

Water & Sewer System First General Resolution Revenue Bonds	AA+
Water & Sewer System Second General Resolution Revenue Bonds	AA+
Extendible Municipal CP Notes	F1+

Rating Outlook

Stable

Applicable Criteria

U.S. Public Sector, Revenue-Supported Entities Rating Criteria (January 2024)

U.S. Water and Sewer Rating Criteria (March 2023)

Related Research

Fitch Rates New York City Muni Water Finance Auth's Revs 'AA+'; Outlook Stable (February 2024)

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Security

SGR bonds are special obligations of NYW issued under the SGR and payable solely from and secured by a subordinate lien on gross revenues of NYW. Outstanding FGR bonds are payable solely from and secured by a first lien on gross revenues of NYW.

Key Rating Drivers

Revenue Defensibility — 'aa'

Very Strong Rate Flexibility, Favorable Service Area with Unique Economic Profile

The water board retains the legal authority to adjust rates as needed without external oversight. Revenue defensibility is further supported by the system's monopolistic provision of water and sewer services to its favorable service area. The service area is characterized by a stable customer base, median household income that approximates that of the nation and weaker, but improving, unemployment rate relative to that of the nation.

Fitch also considers the city's unique economic profile as an international center for numerous industries and an anchor for the service area. Rates are considered affordable for almost 80% of the service area population, using Fitch's standard monthly usage of 7,500 gallons for water and 6,000 gallons for sewer.

Operating Risk — 'aa'

Very Low Operating Cost Burden, Elevated Capital Needs

In fiscal 2023, the system's operating cost burden was considered very low at $3,497 per million gallons (mg), consistent with the operating risk assessment. The life cycle ratio was a low 37% in fiscal 2023. Capex outpaces annual depreciation, with a five-year average of 182% for the five years ended fiscal 2023.

The system's capital improvement plan (CIP) for fiscal years 2024 through 2028 approximates $15.4 billion of system funds, while associated estimated actual spending is expected to be lower, at around $12.0 billion for the same period. Approximately 38% of the CIP is related to water pollution control projects, including plant upgrades and reconstruction. Water distribution approximates 22% of the CIP, water supply and transmission approximate 19% and sewer programs approximate 18%. Estimated capital spending averages $2.4 billion annually during these five years, well in excess of historical depreciation, supporting a continued low life cycle ratio.

Financial Profile — 'aa'

Leverage Remains Elevated for the Rating; Neutral Liquidity

The authority's leverage (on a gross lien basis) was 7.3x in fiscal 2023, declining from the peak of 8.3x in fiscal 2021. Fiscal 2023 results reflect increased liquidity available for debt service, collections that benefitted from the rate increase and an amnesty program that realized $105 million. The liquidity profile is neutral to the assessment and reflects coverage of full obligations (COFO) of 1.6x and current cash on hand of 391 days, when incorporating carry forward revenues. (Carry forward revenues include available funds that are restricted at the fiscal year end.)

The Fitch Analytical Stress Test (FAST) considers the potential trend of key ratios in a base case and stress case over a five-year period. The stress case is designed to impose capital costs 10% above expected base case levels and evaluate potential variability in projected key ratios. The FAST reflects Fitch's view of a reasonable scenario, which is generally informed by publicly available and/or management provided information with respect to capital expenditures, user charges and rate of revenue and expenditure growth.

In the base case, leverage approximates 8.1x in fiscal 2024, and after rising to 8.2x in fiscal 2026 declines to 8.1x in fiscal 2028. In the stress case, leverage reaches 8.2x in fiscal 2024 and gradually increases through the five-year horizon to 8.3x in fiscal 2028. In consideration of the significant construction funds that would likely be available in each year, given the cyclical nature of issuing and spending down the system demonstrates, leverage is closer to 8.2x in the stress case. Although near-term leverage has declined from previous estimates, a sustained pause in the trend of declining leverage or a reversal of this trend is likely to have negative rating implications. The liquidity profile is anticipated to remain neutral to the assessment.

Asymmetric Additional Risk Considerations

No asymmetric additive risk considerations affected this rating determination.

Sensitivities

Factors that could, individually or collectively, lead to negative rating action/downgrade

- Failure to realize a declining leverage trend over the short term.

- Leverage that stabilizes around 8.5x in Fitch's base or stress case.
- Sustained weakness in FADS stemming from a delay in rate-setting or an increase in expenses that weaken the liquidity position.

Factors that Could, individually or collectively, lead to positive rating action/upgrade

- A sustained decline in leverage to below 5.0x in Fitch's base and stress cases within the context of current revenue defensibility and operating risk assessments.

Profile

The authority was created as a public benefit corporation in 1984 to issue bonds, notes and other financing instruments to fund capital improvements to the city's system. Fitch considers the authority an issuer that benefits from a contractual framework in which revenues and costs are largely balanced. The water board leases the system from the city and is responsible for setting, levying and collecting customer rates and system revenues to transfer to the authority for bond repayment and to the city for O&M reimbursement.

In addition to reimbursement for O&M, the city is entitled to an annual lease payment, most recently received in fiscal 2021. In January 2024, the city requested lease payments of $145 million and $295 million for fiscal years 2024 and 2025, respectively; no lease payment has been requested for fiscal years 2026 through 2028. The maximum annual lease payment is 15% of the authority's annual debt service; the maximum lease payment ranges from about $283 million in fiscal 2024 to about $373 million in fiscal 2028.

The authority has the power to require the water board to charge and collect sufficient rates to pay the costs of operating and financing the system, as well as to enforce that the city adequately operates and maintains the system. The authority may not file for bankruptcy without state legislative approval, and Fitch views the authority as bankruptcy-remote from the city. Fitch also views the water board as bankruptcy-remote from the city.

The system is the country's largest municipally owned water and sewer utility. It is operated by the New York City Department of Environmental Protection (DEP, a city agency) and provides retail water and sewer service to approximately 838,700 accounts and about 8.3 million residents within the city. It also provides wholesale service to approximately one million residents in communities north of the city. The service area includes over 300 square miles across the city's five boroughs (the Bronx, Brooklyn, Manhattan, Queens and Staten Island), as well as communities in Westchester, Putnam, Orange and Ulster counties.

The DEP performs day-to-day system O&M and is responsible for executing the system's multi-billion-dollar capital program. Capital and maintenance needs are expected to remain significant over the long term, given the demand placed on system assets in an expansive urban setting.

The water system provides an average of approximately 1 billion gallons per day (bgd) from three upstate aqueducts that span as far as 125 miles north of the city. Demand has steadily declined over time due to water efficiency measures and has been a stable 75% of dependable yield from three city-owned upstate reservoir systems. The sewer system collects and treats an average of approximately 1.2 bgd of wastewater at 14 in-city wastewater treatment plants for virtually the entire city. Average annual flows approximate 70% of the 1.8 bgd design capacity.

Structural and Legal Protections

Fitch believes NYW bondholders benefit from strong legal protections that include the statutorily defined nature of the authority, bankruptcy remoteness and the gross pledge of system revenues. While these layers of legal protection do not completely shield FGR and SGR bondholders from the operational risks of the city's massive water and sewer enterprise, they limit diversion of revenues to general city operations.

A large portion of annual debt service obligations is consistently funded well in advance of scheduled payment dates by the restricted revenue fund, which consists of both current year revenues and carryforward surplus cash. The authority carried forward about $1.7 billion into fiscal 2024, sufficient to prepay approximately 90% of fiscal 2024 combined FGR and SGR debt service of about $1.9 billion.

After monthly required deposits under the SGR are satisfied and held by NYW's trustee, funds will be released for other purposes, including the cash defeasance of additional debt, reimbursement to the city for O&M expenses and the lease payment (if any).

Revenue Defensibility

Revenue Source Characteristics

The system derives 100% of revenues from monopolistic water and sewer service provided to the city and neighboring upstate communities, serving a combined population of approximately 9.3 million. Residential customers comprise about 91% of the system's total customer base and include a mix of single-family homes and large multifamily buildings.

Major customers include the city, which, together with the NYC Housing Authority, accounted for approximately $293.9 million, about 7% of fiscal 2023 operating revenue. No other single customer accounts for more than 1% of revenues.

Service Area Characteristics

The city's unique economic profile and historically resilient labor market underpin the system's strong service area and broad customer base. However, coronavirus and related containment efforts had a significant impact on the city's economy and system usage, as indicated in part by notable changes in residency, reflecting a high level of remote workers.

Median household income has approximated that of the nation for the past several years. Prior to 2020, the city's unemployment rate approximated the national rate. Unemployment increased materially in 2020 and was an elevated 10.0% (or 188.7% of the 5.3% national rate) in 2021. In 2022, unemployment improved to 158% of the national rate. Seasonally unadjusted figures for December 2023 indicate a continued decline in the unemployment rate and marginal improvement relative to the national rate.

Population figures for 2022 indicate declines since 2020, although population shows some annual variability. Overall, the customer base is considered stable, reflective of the largely built-out nature of the service area.

Rate Flexibility

Rate flexibility is very strong, as the water board has independent in-city rate-setting authority, further supported by a rate covenant that requires the water board to impose rates to meet its obligations and ensure appropriate operation of the system.

Rate flexibility also reflects that rates are affordable for almost 80% of the service area population based on Fitch's standard bill calculation of 7,500 gallons of water consumption and 6,000 gallons of sewer flows per month (2021 income data). Affordability has improved over the past several years as the rate of growth in service area median household income through 2023 outpaced that of rate increases.

Further, Fitch considers the large number of multifamily housing units where utility bills are incorporated into rental agreements and/or where utility and housing assistance is provided to economically disadvantaged tenants. The authority's forecast assumes rate increases of 5.4%, 5.9% and 6.6% for fiscal 2025, fiscal 2026 and each of fiscal 2027 and 2028, respectively. These increases are not expected to materially impair current affordability levels.

The rate structure is 100% volumetric. While there is a minimum monthly charge, there is no fixed component. As a result, revenues remain vulnerable to declining usage patterns, potentially requiring larger rate increases. This vulnerability is partially mitigated by the still notable level of flat rate accounts, which comprise approximately 24% of user revenues.

Asymmetric Factor Considerations

No asymmetric additive risk considerations affected the revenue defensibility assessment.

Operating Risk

Operating Cost Burden

As it relates to system flows, the operating cost burden has been low and relatively stable over time, averaging $3,265 per mg of water and sewer flows for the five years ended fiscal 2023. The cost burden reflects a workforce of over 5,600 employees, electricity and chemicals, property taxes for upstate watershed lands and security. The system avoids substantial costs due to the use of gravity to facilitate water and wastewater flows; approximately 90% of the total water supply delivered to system customers is delivered by gravity alone.

Operating costs in fiscal years 2020 and 2021 reflected generally increasing costs, as well as the $128 million and $137 million lease payments to the city made in each respective year. Prior to fiscal 2020, the most recent lease payment was made in fiscal 2016. Actual results for fiscal years 2022 and 2023 do not include a lease payment. The city has requested a lease payment for fiscal years 2024 and 2025; rates and projections through fiscal 2028 are anticipated to be updated during the upcoming fiscal 2025 budget and rate setting process.

Approximately 95% of DEP employees are members of labor unions and the majority of these union employees are members of DC-37. The current agreement with DC-37, which covers the period from May 2021 through November 2026, was ratified in March 2023. The agreement included a 3% wage increase in each of the first four years of the agreement and a 3.25% increase in the last year of the agreement, as well as a ratification bonus. The authority's current forecast for expenses includes these projected expenses, which are reportedly sufficient to cover the impact of the settlement, including similar adjustments for those employees who are not members of DC-37.

Capital Planning and Management

Average annual capital spending has exceeded annual depreciation costs for a number of years, resulting in a low life cycle ratio of 37%. The life cycle ratio has been trending upward over the past five years, as the rate of annual capital spending has declined from years that included significant regulatory-driven programming. Although elevated facility age is common among large urban systems, the system is evaluated annually by third-party engineering consultants and deemed in adequate condition, the highest of rankings.

Estimated capital spending for fiscal years 2024 through 2028 totals $12.0 billion. Spending focuses on extensive renewal and replacement as well as major repairs to vital infrastructure, ongoing extension of the city's third water tunnel, the repair of an upstate aqueduct and ongoing upgrades to treatment plants. As has been the case historically, capital spending will be funded primarily through the issuance of long-term debt.

In fiscal 2025, the system will shut down the Rondout West Branch Tunnel to connect the already constructed bypass tunnel. Although conditions are considered stable, this bypass will allow for the Rondout-West Branch Tunnel to be shut down to repair identified leaks. The DEP does not anticipate any limitations on water supply during the intervening period.

Capital spending will continue to reflect the ongoing repair and replacement needs of the system, as well as continued regulatory requirements. The system's spending to meet regulatory requirements includes funds to address combined sewer overflows, connection of the Kensico Reservoir to the system's ultraviolet treatment facility and development of the cover for the Hillview Reservoir. The system continues to invest funds to meet requirements to avoid filtration of the upstate watershed system.

Asymmetric Factor Considerations

No asymmetric additive risk considerations affected the operating risk assessment.

Financial Profile and FAST Analysis

The authority's financial profile remains very strong and is assessed at 'aa'. Since 2019, the authority's leverage has ranged from 7.2x to 8.3x in fiscal 2021, before declining to 7.3x in fiscal 2023. In calculating the authority's leverage, Fitch employs an alternative calculation, whereby FADS is calculated on the basis of gross revenues, which excludes O&M costs from the calculation, compared with a net revenue basis, which is typically used in Fitch's leverage calculation. This alternative calculation reflects the protection afforded bondholders through a statutory framework providing a gross lien on pledged water and sewer revenues, along with Fitch's expectation of the remoteness of either the authority or water board filing for bankruptcy protection or being included in a city bankruptcy proceeding if one were to ever occur. Calculating FADS based on a standard net revenue pledge, the authority's leverage ratio would be 12.7x for fiscal 2023.

The system's liquidity profile is considered neutral to the rating. The authority typically carries only minimal unrestricted assets each year; however, surplus revenues that are restricted to prepay a portion of the subsequent year's debt service costs (thereby freeing up cash flow) are incorporated into Fitch's view of liquidity. COFO approximated 1.6x in fiscal 2023.

Fitch Analytical Stress Test

The FAST base case is informed by the authority's audited fiscal 2023 results and most recent projections, which date from June 2023, for fiscal years 2024 through 2028. The June 2023 forecast assumes annual rate increases of the already enacted 4.42% increase in fiscal 2024 and projected increases of 5.4% and 5.9%, respectively, in fiscal years 2025 and 2026, and 6.6% in each of fiscal years 2027 and 2028. Additional assumptions include continuation of substantial annual carry forward revenues to pay debt service, estimated average annual capital spending of $2.4 billion and associated debt issuance. Although not formally included in the authority's projections, Fitch has included the lease payments requested by the city in fiscal years 2024 and 2025.

In the base case, leverage is 8.1x in fiscal 2024 and, after reaching 8.2x in fiscal 2026, returns to 8.1x by fiscal 2028. Leverage in the stress case reaches 8.2x in fiscal 2024 and increases modestly, to 8.3x, by fiscal 2028.

The authority's liquidity profile is anticipated to remain neutral to the rating through the five-year horizon.

Asymmetric Additive Risk Considerations

No asymmetric additive risk considerations affected this rating determination.

ESG Considerations

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/topics/esg/products#esg-relevance-scores.

Financial Summary

(Audited Fiscal Years Ended June 30)	2019	2020	2021	2022	2023
Revenue Defensibility					
Revenue Source Characteristics					
% of Total Revenue from Monopolistic Services	100	100	100	100	100
Service Area Characteristics					
Service Area Population	8,342,925	8,804,190	8,459,001	8,335,897	N.A.
Total Customer Count	1,670,000	1,671,000	1,671,400	1,671,400	1,693,742
5-Year Total Customer Count CAGR	—	—	—	—	0.3
Service Area Median Household Income ($)	63,998	67,046	70,663	76,607	N.A.
Service Area MHI/U.S. Median Household Income (%)	102	103	102	102	N.A.
Service Area Unemployment Rate (%)	3.9	12.2	10.0	5.7	N.A.
Service Area Unemployment Rate/U.S. Unemployment Rate (%)	105	151	189	158	N.A.
Rate Flexibility					
Total Monthly Bill ($) (7,500 Gallons Water/6,000 Gallons Sewer)	88.73	90.78	90.78	93.28	97.83
% of Population with Unaffordable Bill	22	22	21	20	N.A.
Operating Risk					
Operating Cost Burden					
Operating Cost Burden ($/mg)	2,878	3,269	3,401	3,281	3,497
Capital Planning and Management					
Life Cycle Ratio (%)	33	34	35	36	37
Annual CapEx/Depreciation (%)	206	193	186	160	166
5-Year Average Capex/Depreciation (%)	160	172	179	180	182
Financial Profile ($000, unless otherwise indicated)					
Current Unrestricted Cash/Investments	1,073,583	1,080,976	1,080,344	1,286,540	1,733,820
Current Restricted Cash/Invest (Available Liquidity)	260,102	264,178	278,207	285,656	322,236
Current Cash Available	1,333,685	1,345,154	1,358,551	1,572,196	2,056,056
Available Cash	1,333,685	1,345,154	1,358,551	1,572,196	2,056,056
Current Restricted Cash/Invest (Debt Service or Debt Service Reserve)	765,578	777,138	638,959	438,999	286,292
Funds Restricted for Debt Service	765,578	777,138	638,959	438,999	286,292
Total Debt	31,672,249	33,090,405	33,597,888	34,258,878	34,866,782
Adjusted Net Pension Liability	606	630	900	1,610	1,333
Available Cash	1,333,685	1,345,154	1,358,551	1,572,196	2,056,056
Funds Restricted for Debt Service	765,578	777,138	638,959	438,999	286,292
Net Adjusted Debt	29,573,592	30,968,743	31,601,278	32,249,293	32,525,767
Total Operating Revs	3,819,799	3,830,892	3,655,991	3,879,042	4,202,967
Other Operating Expenses	1,598,156	1,734,372	1,861,937	1,710,709	1,921,624
EBITDA	2,221,643	2,096,520	1,794,054	2,168,333	2,281,343
Investment Income/(Loss)	91,712	79,993	1,949	-5,985	96,007
BAB Subsidy	176,346	165,570	154,105	156,389	183,001
Capital Contributions	—	—	—	292	292
Funds Available for Debt Service	2,489,701	2,342,083	1,950,108	2,319,029	2,560,643
Pension Expense	16	44	—	155	176
Adjusted Funds Available for Debt Service	2,489,717	2,342,127	1,950,108	2,319,184	2,560,819
Net Adjusted Debt/Adjusted Funds Available for Debt Service (x) - Net Lien Basis	11.9	13.2	16.2	13.9	12.7
Net Adjusted Debt/Adjusted Funds Available for Debt Service (x) - Gross Lien Basis	7.2	7.6	8.3	8.0	7.3

Financial Summary

(Audited Fiscal Years Ended June 30)	2019	2020	2021	2022	2023
Funds Available for Debt Service	2,489,701	2,342,083	1,950,108	2,319,029	2,560,643
Adjusted FADS for Coverage of Full Obligations	2,489,701	2,342,083	1,950,108	2,319,029	2,560,643
Total Annual Debt Service	1,567,866	1,649,908	1,276,800	1,392,944	1,643,479
Adjusted Debt Service (Includes Fixed Services Expense)	1,567,866	1,649,908	1,276,800	1,392,944	1,643,479
Coverage of Full Obligations (x)	1.59	1.42	1.53	1.66	1.56
Coverage of Full Obligations Excluding Connection Fees (x)	1.59	1.42	1.53	1.66	1.56
Current Days Cash on Hand	305	283	266	335	391
Liquidity Cushion Ratio (Days)	305	283	266	335	391
All-In Debt Service Coverage (x)	1.59	1.42	1.53	1.66	1.56

N.A. – Not Available. Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Source: Fitch Ratings, Fitch Solutions, New York City Municipal Water Finance Authority.

SOLICITATION & PARTICIPATION STATUS

For information on the solicitation status of the ratings included within this report, please refer to the solicitation status shown in the relevant entity's summary page of the Fitch Ratings website.

For information on the participation status in the rating process of an issuer listed in this report, please refer to the most recent rating action commentary for the relevant issuer, available on the Fitch Ratings website.

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