

10 NOV 2022

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

Fitch Ratings - New York - 10 Nov 2022: Fitch Ratings has assigned a 'AA+' rating to the following New York City Municipal Water Finance Authority's (NYW or the authority) revenue bonds:

--Approximately \$343.9 million water and sewer system second general resolution (SGR) revenue bonds fiscal 2023 series AA subseries AA-1;

--Approximately \$81.6 million water and sewer system SGR revenue bonds fiscal 2023 series AA subseries AA-2.

The fiscal 2023 series AA bonds are scheduled to sell the week of Nov. 14. Proceeds of the bonds, will be used to (i) pay costs of system improvements, (ii) refund certain outstanding SGR bonds, and (iii) to pay costs of issuance.

In addition, Fitch has affirmed the following ratings:

--Approximately \$790 million first general resolution (FGR) revenue bonds and various related bank bonds at 'AA+';

--Approximately \$24 billion SGR revenue bonds and various related bank bonds at 'AA+';

--\$400 million authorized extendable municipal CP (EMCP) notes, series seven and eight at 'F1+'.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

The 'AA+' rating 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 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, as measured by net adjusted debt to adjusted funds available for debt service (FADS) on a gross revenue basis. The 'F1+' short-term rating 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'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 enhanced by a very strong revenue defensibility and operating risk profiles, both assessed at 'aa'.

Leverage registered in the mid-7.0x range through fiscal 2020 (FYE June 30). However, the ongoing adverse impact of the pandemic on the service area has driven leverage higher, reaching 8.3x in fiscal 2021 reflecting reduced overall revenues and higher expenses as the acute effects of pandemic-driven closures were realized for a full year. Additionally, the system's previously projected rate increase was not adopted that year in light of the 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. Total debt service was lower in fiscal 2022, the result of prior years' cash defeasance and the benefit of the low interest rate environment on certain variable rate debt service.

The authority's five-year projections assume an annual 1% decline in consumption independent of the pandemic, and pandemic-related consumption declines that taper through fiscal 2025. Annual rate increases include the already enacted 4.9% in fiscal 2023, and projections of 5.4% in each of fiscals 2024 and 2025 and 6.6% in each of fiscal 2026 and 2027.

The forecast assumes the execution of an average of \$2.3 billion in annual capital spending over the next five years, with an estimated \$1.9 billion in fiscal 2023, supported by ongoing new debt issuance, as well as continued expectations for sizeable annual surplus revenues.

Based on the authority's five-year projections, Fitch's stress case leverage rises to 8.5x in fiscal 2023, and slowly trends lower through the five-year horizon to 8.3x in fiscal 2026. A continued trend of declining leverage is key to the Stable Outlook, as leverage remains elevated for the current rating. Should there be an interruption in this trend, or should leverage exceed 8.5x, negative rating action is likely.

CREDIT PROFILE

The authority was created as a public benefit corporation in 1984 in order to issue bonds, notes and other financing instruments to fund capital improvements to the city's system. Fitch considers the authority to be 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 O&M reimbursement.

Further, 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 operate and maintain 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 NYC Department of Environmental Protection (DEP, a city agency) and provides retail water and sewer service to approximately 835,700 customers and about 8.5 million residents within the city. It also provides wholesale service to an additional one million residents in communities north of the city. The service area includes over 300 square miles across NYC's five boroughs (the Bronx, Brooklyn, Manhattan, Queens and Staten Island) as well as communities within 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 large 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 1.805 bgd treatment 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 system's restricted revenue fund, which consists of both current year revenues and carry-forward surplus cash. The authority carried forward nearly \$1.3 billion as of FYE 2022, enough to pre-pay around 78% of fiscal 2022 combined gross FGR and SGR debt service of nearly \$1.6 billion.

Only after monthly required deposits under the SGR are satisfied and held by NYW's trustee will funds be released for other purposes, including the cash-defeasance of additional debt service and to reimburse the city for O&M expenses.

KEY RATING DRIVERS

Revenue Defensibility 'aa'

Very Strong Rate Flexibility, Economically Diverse Service Area

Revenue defensibility is supported by the system's role as an essential service provider to an exceptionally large, diverse and economically important service area. The water board has independent rate-setting authority, and rates are considered affordable for over three quarters of the service area population. Bondholders are further afforded a gross lien pledge on system revenues and strong legal protections.

Operating Risks 'aa'

Very Low Operating Cost Burden, Elevated Capital Needs

The authority reimburses the city for operating expenses, which are very low relative to system volume and are expected to remain stable for the foreseeable future. Sustained elevated capital investment funded by the authority and executed by the city has resulted in a low life cycle ratio that should also remain stable given the amount of planned capital spending.

Financial Profile 'aa'

Leverage Elevated for the Rating; Gradual Declines Anticipated

The authority's leverage ratio (on a gross lien basis) was 8.0x in fiscal 2022, compared to 8.3x in fiscal 2021, reflective of the modest rate increase and improved consumption and expenditures that reflect the suspension of the lease payment to the city. Based on authority forecasts, leverage is anticipated to remain elevated for the rating over the five-year horizon, absent an improvement in volumes relative to those projected. However, Fitch anticipates ongoing rate adjustments and the resumption of normal consumption levels over the next five years should allow FADS to increase at a rate commensurate with increasing carrying costs, supporting a continued decline in leverage. The liquidity profile is and is anticipated to remain neutral to the assessment.

Asymmetric Additive Risk Considerations

No asymmetric additive risk considerations affected this rating determination.

RATING SENSITIVITIES

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

--A sustained decline in leverage to below 5x in Fitch's base and stress cases within the context of current revenue defensibility and operating risk assessments.

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

--Failure of leverage to continue to trend downward through the five-year horizon;

--Leverage that remains materially above 8.0x through Fitch's base and stress cases;

--Sustained weakness in FADS stemming from a delay in rate-setting or inability to levy rate adjustments at or higher than currently projected that jeopardizes the authority's strong ongoing operating margins.

Best/Worst Case Rating Scenario

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

SECURITY

The fiscal 2023 AA bonds and outstanding 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. The SGR bonds currently being issued will not have a debt service reserve fund. Outstanding FGR bonds are payable solely from and secured by a first lien on gross revenues of NYW.

Revenue Defensibility

Revenue defensibility is very strong and assessed at 'aa'. All revenues are derived from monopolistic businesses and the system serves an expansive and diverse customer base with generally favorable demographic factors. Rate flexibility is also very strong as the water board has independent in-city rate-setting authority and charges are affordable for more than 75% 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.

Fitch notes that affordability is likely even higher given the large number of multi-family housing units where utility bills are incorporated into the rental agreements and/or where utility and housing assistance is provided to economically disadvantaged tenants. Water and sewer rates were held flat in 2021 but increased by 2.8% in fiscal 2022 and 4.9% in fiscal 2023. Anticipated rate increases through fiscal 2027 are not expected to materially impair current affordability levels.

The city's unique economic profile and its 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 elevated changes in residency, reflecting a high level of remote workers.

Historically, the city unemployment rate approximated around 105% of the national rate. However, unemployment increased materially in 2020 as a result of the pandemic, and was an elevated 9.9% (or 187% of the 5.3% national rate) in 2021. More recently, seasonally unadjusted figures for September 2022 indicate an improving trend of employment relative to the same period last year. Despite continued, though moderating economic weakness in the service area, system consumption has thus far experienced just relatively modest declines as higher residential usage partially offset declines in non-residential metered consumption. Fitch expects the currently muted economic recovery to gain strength over time; consumption in fiscal 2022 was greater than anticipated and forecasts assume a diminishing pandemic-related impact through fiscal 2025.

Operating Risks

The operating risk profile is assessed at 'aa'. The system's operating cost burden is very low, averaging \$3,170 per million gallons of water produced/sewer flows over the last five years. The life cycle ratio reflects solid historical system reinvestment. This low cost of service is representative of a mature system, the substantial volume of the billion-plus gallons of annual water flows facilitated by gravity and the avoidance of operating a water filtration process for over 90% of the system's potable drinking supply. O&M costs are paid as incurred by the city then reimbursed by the authority on a monthly basis following required deposits for FGR and SGR debt service.

Regarding filtration, were the system to have to filter water from its Catskill-Delaware watershed system, construction costs are estimated to exceed \$6 billion to build a filtration plant. Instead, the system operates under a filtration avoidance determination (FAD), last authorized for 10 years in 2017, that requires land acquisition, updated wastewater infrastructure and stream banks stabilization in the watershed in lieu of filtration. The estimated remaining capital costs associated with the 2017 FAD are \$205 million, all of which is funded in the current capital improvement plan (CIP).

The system has a number of notable and important infrastructure projects, including the "Water for the Future" program. Among other components, Water for the Future includes the repair and replacement of the portion of the tunnel that carries approximately 50% of the city's water supply. Although engineers consider the tunnel stable, it is experiencing water loss that approximates 4% of its peak volume. The tunnel will be taken offline beginning in fall 2023 so that a bypass tunnel can be constructed. During the period the tunnel is offline, the DEP expects supply augmentation and

demand management practices will be needed. The estimated cost of such measures and the remaining cost to complete design and construction is \$108 million, which is included in the CIP.

Average annual capital spending has exceeded annual depreciation costs for at least 10 years, leading to a low life cycle ratio of 36%. The life cycle ratio has been trending upward over the last five years as the rate of annual capital spending has come down from previous years of heavy spending, including regulatory-driven programming. Although elevated facility age is common among large urban systems, the system is evaluated annually by a third-party engineering consultant and deemed to be in adequate condition, the highest of rankings.

The five-year fiscal 2023-2027 estimated capital spending totals \$11.3 billion. The CIP 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, the CIP will be funded primarily through the issuance of long-term debt.

Financial Profile

The authority's financial profile remains very strong and is assessed at 'aa'. Since 2018, the authority's leverage ranged from 7.7x to 8.0x, averaging 7.8x over the period. 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 increase to 13.9x for fiscal 2022 and an average of 13.6x since fiscal 2018.

The system's liquidity profile is considered neutral to the rating. The authority typically carries only minimal unrestricted assets each year; however, over \$1 billion in surplus revenues that are restricted to pre-pay a portion of subsequent year's debt service costs (thereby freeing up cash flow) are incorporated into Fitch's view of liquidity. Coverage of full obligations (COFO) approximated 1.7x in fiscal 2022.

Fitch Analytical Stress Test (FAST)

The FAST considers the potential trend of key ratios in a base case and a stress case. The stress case is designed to impose capital costs 10% above expected levels and evaluate potential variability in projected key ratios.

The FAST base case is informed by the authority's current projections and continues to reflect the lingering impact of the pandemic on revenues and capital spending. Leverage peaks in fiscal 2023 at approximately 8.4x and 8.5x in the base and stress case, respectively. The rise in leverage reflects the authority's current forecast for continued pandemic pressure on volumes through fiscal 2025 along with increases in operation and maintenance expenses of 10% in fiscal 2023 and 6% in fiscal 2024, with more moderate rates of increase thereafter. Leverage slowly declines through the five-year horizon, but remains elevated for the rating and in stark contrast to historical levels, driven by pandemic-related stressors that are expected to be moderate over time. Leverage declines from the first-year peak in both the stress and base case, slowly moderating in subsequent years toward 8.0x, a level more consistent with the rating. Change to this expected trend would likely pressure the financial profile assessment and rating. The authority's liquidity profile is anticipated to remain neutral to the rating through the five-year horizon.

Sources of Information

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This 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. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

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Rating Actions

ENTITY/DEBT	RATING			RECOVERY	PRIOR
New York City Municipal Water Finance Authority (NY) [Water, Sewer]					
<ul style="list-style-type: none"> New York City Municipal Water Finance Authority (NY) /Water & Sewer Revenues (2nd Lien)/1 LT 	LT	AA+ 		Affirmed	AA+ 
<ul style="list-style-type: none"> New York City Municipal Water Finance Authority (NY) /Water & Sewer Revenues/1 LT 	LT	AA+ 		Affirmed	AA+ 
<ul style="list-style-type: none"> New York City Municipal Water Finance Authority (NY) /Water & Sewer Revenues/1 ST 	ST	F1+		Affirmed	F1+

RATINGS KEY OUTLOOK WATCH

POSITIVE  

RATINGS KEY OUTLOOK WATCH

NEGATIVE		
EVOLVING		
STABLE		

Applicable Criteria

Public Sector, Revenue-Supported Entities Rating Criteria (pub.01 Sep 2021) (including rating assumption sensitivity)

U.S. Water and Sewer Rating Criteria (pub.18 Mar 2021) (including rating assumption sensitivity)

Additional Disclosures

Solicitation Status

Endorsement Status

New York City Municipal Water Finance Authority (NY) EU Endorsed, UK Endorsed

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The fiscal 2023 subseries AA-3 bonds were priced on Nov. 15th in response to market conditions. Proceeds of the bonds will be used to (i) refund certain outstanding authority bonds and (ii) to pay costs of issuance.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

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Bondholders are afforded strong protections 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. The credit profile is further enhanced by a very strong revenue defensibility and operating risk profiles, both assessed at 'aa'.

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Further, 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 operate and maintain 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.

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KEY RATING DRIVERS

Revenue Defensibility 'aa'

Very Strong Rate Flexibility, Economically Diverse Service Area

Revenue defensibility is supported by the system's role as an essential service provider to an exceptionally large, diverse and economically important service area. The water board has independent rate-setting authority, and rates are considered affordable for over three quarters of the service area population. Bondholders are further afforded a gross lien pledge on system revenues and strong legal protections.

Operating Risks 'aa'

Very Low Operating Cost Burden, Elevated Capital Needs

The authority reimburses the city for operating expenses, which are very low relative to system volume and are expected to remain stable for the foreseeable future. Sustained elevated capital investment funded by the authority and executed by the city has resulted in a low life cycle ratio that should also remain stable given the amount of planned capital spending.

Financial Profile 'aa'

Leverage Elevated for the Rating; Gradual Declines Anticipated

The authority's leverage ratio (on a gross lien basis) was 8.0x in fiscal 2022, compared to 8.3x in fiscal 2021, reflective of the modest rate increase and improved consumption and expenditures that reflect the suspension of the lease payment to the city. Based on authority forecasts, leverage is anticipated to remain elevated for the rating over the five-year horizon, absent an improvement in volumes relative to those projected. However, Fitch anticipates ongoing rate adjustments and the resumption of normal consumption levels over the next five years should allow FADS to increase at a rate commensurate with increasing carrying costs, supporting a continued decline in leverage. The liquidity profile is and is anticipated to remain neutral to the assessment.

Asymmetric Additive Risk Considerations

No asymmetric additive risk considerations affected this rating determination.

RATING SENSITIVITIES

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

--A sustained decline in leverage to below 5x in Fitch's base and stress cases within the context of current revenue defensibility and operating risk assessments.

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

--Failure of leverage to continue to trend downward through the five-year horizon;

--Leverage that remains materially above 8.0x through Fitch's base and stress cases;

--Sustained weakness in FADS stemming from a delay in rate-setting or inability to levy rate adjustments at or higher than currently projected that jeopardizes the authority's strong ongoing operating margins.

Best/Worst Case Rating Scenario

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

SECURITY

The fiscal 2023 Subseries AA-3 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. The SGR bonds currently being issued will not have a debt service reserve fund.

For additional information please see the Rating Action Commentary dated Nov. 10, 2022.

Date of Relevant Committee

09 November 2022

Sources of Information

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This 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. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

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Rating Actions

ENTITY/DEBT	RATING	RECOVERY	PRIOR	
New York City Municipal Water Finance Authority (NY) [Water, Sewer]				
<div><div></div><div>New York City Municipal Water Finance Authority (NY) /Water & Sewer Revenues (2nd Lien)/1 LT</div></div>	LT	AA+ 	Affirmed	AA+ 

RATINGS KEY OUTLOOK WATCH

POSITIVE		
NEGATIVE		
EVOLVING		
STABLE		

Applicable Criteria

Public Sector, Revenue-Supported Entities Rating Criteria (pub.01 Sep 2021) (including rating assumption sensitivity)

Additional Disclosures

Solicitation Status

Endorsement Status

New York City Municipal Water Finance Authority (NY) EU Endorsed, UK Endorsed

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