MOODY'S INVESTORS SERVICE

New Issue: Moody's assigns Aa2 to \$475M New York City Muni Water Second Resolution Bonds; outlook stable

Global Credit Research - 13 Feb 2015

\$5.9B of first resolution and \$24.2B of second resolution bonds outstanding

NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY, NY Combined Water & Sewer Enterprise NY

Moody's Rating

RATING

Water and Sewer System Second General Resolution Revenue Bonds Fiscal 2015 Series FF Aa2

Sale Amount Expected Sale Date Rating Description \$475,000,000 02/19/15 Revenue: Government Enterprise

Moody's Outlook STA

NEW YORK, February 13, 2015 --Moody's Investors Service has assigned a Aa2 rating to the New York City Municipal Water Finance Authority's \$475 million Second General Resolution Revenue Bonds, Fiscal 2015 Series FF. The bonds are scheduled to price February 19.

SUMMARY RATING RATIONALE

The authority's Aa1 first resolution and Aa2 second resolution ratings reflect strong bondholder protections provided by a strong legal structure; healthy debt service coverage provided by a gross lien on the system's revenues and enhanced by independent rate-setting ability; the essential nature of New York City's water and sewer system and the monopoly the city and the authority have in providing that service; the challenges of operating and maintaining the system given its size, age and density of the population it serves; a high debt burden; and the ongoing need for rate increases although at lower levels than in recent years. The outlook is stable.

OUTLOOK

The outlook for the New York City Municipal Water Finance Authority is stable. The authority has navigated a sizeable increase in debt to finance mandated and other capital projects while maintaining strong debt service coverage. Like water and sewer systems throughout the nation, regulatory mandates could drive future capital costs upwards and create other uncontrollable spending needs.

WHAT COULD MAKE THE RATING GO UP

- A stronger additional bonds test or other stronger limitations on leveraging the pledged revenues

- A significant and sustained improvement in collection rates and sustained stability in consumption levels

WHAT COULD MAKE THE RATING GO DOWN

- Failure to continue to set rates at levels needed to afford the system's capital program, large debt load and the water and sewer system's significant operating costs that result in weakened financial ratios or debt service coverage

- New state or federal regulations that require especially large capital expenditures or that create uncontrollable costs for the authority

STRENGTHS

- Legal structure that provides strong bondholder protections, including: bankruptcy protection and legal separation from the fiscal condition of New York City; autonomous rate-setting authority; and a gross revenue pledge

- A long history of regular, independently-set rate increases that maintain financial stability, support a substantial capital program, and provide healthy debt service coverage

- Ample water supplied from the city's own extensive reservoir network; low transmission costs relative to other large systems; water rates that currently are moderate compared to other large cities; and authority to sell liens to monetize unpaid bills and provide incentive to delinquent customers to pay

CHALLENGES

- The water and sewer system's size, age and density pose operating and maintenance management challenges

- The overall leverage of the system, although debt service coverage remains sound

- A history of state and federal regulatory mandates which on average total approximately 22% of the system's 11year capital improvement program (2015-2025). While smaller than in recent years, the water and sewer sector is heavily regulated and new mandates could substantially increase the authority's future borrowing needs

RECENT DEVELOPMENTS

See the sections below.

DETAILED RATING RATIONALE

SERVICE AREA AND CUSTOMER BASE

New York City's water and sewer system provides service to a population of 8.2 million people in the five boroughs of New York City, a service area of more than 300 square miles. It also provides water to an additional 1 million people in the counties where its water supply facilities are located. The system is notably large: its watershed area is 1.2 million acres; there are 18 water reservoirs and 3 controlled lake; 6,500 miles of water mains; 7,400 miles of sewers; and 14 wastewater treatment plants.

DEBT SERVICE COVERAGE AND NET WORKING CAPITAL

Debt service coverage continues to strengthen based on strong revenue performance and as debt service costs are lower than projected, partly as the authority continues to cash defease outstanding bonds. Debt service coverage continues to improve, based on fiscal 2014 audited results. Moody's adjusted coverage by gross revenues (operating revenues plus investment and subsidy income) increased to 13.2 times for the first resolution and 5.1 times for aggregate debt service, compared to fiscal 2013 coverage of 10.9 times and 3.9 times, respectively. Fiscal 2014 coverage by net revenues on Moody's adjusted basis also improved to 8.1 times for first resolution bonds and 3.1 times in aggregate, compared to 6.9 times and 2.4 times in the prior year. Positive financial performance has continued in the first seven months of fiscal 2015; revenues are 2.7% higher than projected. Through fiscal 2019 the authority's forecasts, which are generally conservative, show first lien coverage declining but remaining very strong at 9.9 times and aggregate coverage of 3.5 times, similarly robust.

The authority typically forecasts revenues conservatively and uses similarly conservative assumptions for debt service, both strong management practices. Long-term bonds are budgeted to bear interest between 5.5% and 6.8% and short-term bonds between 3% and 4.25%. Reflecting its conservative budgeting, the authority ended fiscal 2013 with a \$985 million surplus which was applied toward fiscal 2014 debt service. Similarly, the authority ended fiscal 2014 with a \$750.5 million surplus which was carried forward and applied to fiscal 2015 debt service as required by the bond resolution. That requirement provides significant bondholder protections: as of August 31, 2014, 100% of funds for first and second resolution debt service were on deposit with the bond trustee.

In another strong management practice, the authority has budgeted cash funded capital expenditures of \$225 million annually through fiscal 2017, \$250 million in fiscal 2018, and \$300 million in fiscal 2019. This can act as an additional cushion against lower revenues or higher expenses, or be used to defease bonds to lower its debt service costs. Indeed, the authority defeased another \$399.1 million of bonds in fiscal 2014, bringing the total it has taken out with cash since fiscal 2011 to \$1.2 billion.

The history of willingness to increase rates is a strong management feature and an important component of the ratings. Rate increases in recent years have been large, in part due to the high proportion of the authority's capital plan that reflected mandated projects. While four of the rate increases in the last eight years were in the double-digits, the fiscal 2015 rate increase was the lowest in nine years at 3.35%, compared to the originally projected 7.8%. Projected rate increases through fiscal 2019 are 4.9% annually. Even though currently forecasted rate increases are lower, projected coverage remains very strong and the authority is expected to continue to its pattern of conservative budgeting and debt defeasance without weakening its credit profile.

On December 17, 2014 the New York governor announced his intention to ban natural gas drilling using high volume hydraulic fracturing. A permanent drilling ban would be a credit positive development for the authority, protecting the upstate watershed. Upstate water from the Catskill and Delaware watersheds, with the exception of water from the Croton watershed, is not required to be filtered, and potential contamination related to drilling would likely result in substantial costs for the system.

The city's preliminary update to its ten-year capital improvement program (CIP) released February 9 includes \$15.5 billion of capital improvements to the water and wastewater system between fiscal years 2015 and 2025. Approximately 23% of the city's total capital commitments in the new plan are for water and sewer-related projects. Bond issuance by the authority in the preliminary CIP averages \$1.2 billion annually from fiscal 2015 through 2019.

The CIP (which includes 11-years from 2015-2025) includes \$5.7 billion of water supply and water distribution projects, \$5.8 billion for water pollution control, and \$3.0 billion for sewers. Notably, the percentage of the capital plan that reflects mandated projects has decreased significantly in recent years, which provides significant flexibility to adjust to fluctuations in revenues and expenses. While mandated capital spending was 89.7% of the total in fiscal 2007, it declined to 17.9% in fiscal 2012 and will average about 22% through fiscal 2025. However, the water and sewer sector is a highly regulated one and mandated capital projects and related uncontrollable costs are always possible.

The New York system benefits significantly from a determination by the federal government that it does not have to filter its upstate Catskill and Delaware drinking water supplies. That ruling expires in 2017 and if it is not renewed or if the renewal includes additional conditions beyond those currently in force, the systems' capital costs could be increased substantially.

Liquidity

The authority's cash position is healthy and provides an adequate cushion to deal with unforseen events. Based on Moody's calculations, the authority had 290 days cash on hand at the end of fiscal 2014. Additionally, the authority budgets an average of \$245 million annually of cash-funded capital expenditures that could be deferred and provide an additional liquidity buffer.

DEBT AND LEGAL COVENANTS

Debt Structure

The authority has \$4.9 billion of variable rate obligations outstanding (both hedged and unhedged), which includes \$200 million of bank-supported commercial paper. It also has a \$400 million extendible commercial paper program without external liquidity support. Including the full amount of authorized commercial paper, the variable rate portfolio reflects nearly 18% of the authority's total outstanding debt. Standby bond purchase agreements with a diverse portfolio of liquidity providers contain favorable legal provisions, most notably a lack of term-out requirements that would accelerate principal in the event that any bond becomes a bank bond.

Debt-Related Derivatives

The authority has two outstanding swap agreements with two different counterparties in an aggregate notional amount of \$401 million. As of December 31, 2014 the mark-to-market value was -\$114.1 million. Termination of the swaps by the counterparties is limited to highly unlikely events. In the event that the authority should owe a termination payment, the swaps include provisions that allow the rate setting process to occur before the payment is due.

Pensions and OPEB

The New York water and sewer system is operated by the New York City Department of Environmental Protection. Pension liabilities related to those employees are included inour calculations of the city's pension burden. Reflecting the three major plans in the city system, our fiscal 2014 adjusted net pension liability (ANPL) is

\$98.5 billion, or 1.36 times operating revenues.

MANAGEMENT AND GOVERNANCE

The Authority's seven member board includes four ex officio members who, by statute, are the city commissioner of environmental protection; the city finance commissioner; the city director of office of management and budget; and the state commissioner of environmental conservation. The mayor appoints two of the remaining members, the governor appoints one.

The three appointed members serve two year terms.

KEY STATISTICS

- Asset Condition (Remaining Useful Life): 38 years
- System Size: \$1,518,424
- Service Area Wealth (MFI): 126.4%
- Annual Debt Service Coverage (aggregate): 3.09x
- Days Cash on Hand: 290 days
- Debt to Operating Revenues: 7.95 x

- Rate Covenant: 1.15 times aggregate and first resolution debt service coverage; 1.0 times for second resolution and other subordinate debt service coverage

OBLIGOR PROFILE

See section below

LEGAL SECURITY

The authority's Aa1-rated first resolution bonds are secured by a first lien on gross revenues of the water and sewer system, and the Aa2-rated second resolution bonds are secured by a subordinate claim on the gross revenues. Additional security provisions provide strong legal protections beyond those found in most municipal water and sewer revenue bonds. These include insulation from potential New York City fiscal stress, independent rate-setting, and (for first resolution bonds only) covenanted reserves, in addition to traditional revenue bond covenants. Neither the New York City Water Board (which sets rates) nor the authority has the ability to file for bankruptcy. A lease agreement between the board and the city establishes the board's ownership of system revenues, while a financing agreement between the board and the authority pledges those revenues first to bondholders, further protecting them from potential weakness in the city's financial position. Additionally, bond counsel has opined that system revenues could not be combined with New York City (general obligations rated Aa2 with a stable outlook) should the city file for bankruptcy protection. The lease with the city limits the annual rental payment to the greater of principal and interest on city general obligation debt issued for water and sewer purposes due in the fiscal year of the payment, or 15% of principal and interest due on the authority's bonds in that fiscal year. Importantly, the lease requires the city to operate and maintain the water and sewer system to its consulting engineer's recommendation regardless of whether or not it receives the board's rental payment.

The first resolution rate covenant requires net revenues to equal 115% of first resolution debt service, plus 100% of the sum of second resolution debt service, operating and maintenance expenses, and the city lease payment. First resolution bonds also benefit from a cash-funded debt service reserve equal to maximum annual debt service. First resolution issuance is subject to an additional bonds test that requires net revenues to equal 115% of maximum annual senior debt service for the next succeeding five years and 100% of second resolution debt service and operating and maintenance expenditures.

The second resolution rate covenant requires that net revenues on a cash basis be sum sufficient to cover combined debt service, operations and maintenance expenses and city lease payments. There is no debt service reserve on the second resolution bonds. The second resolution additional bonds test requires revenues to equal 110% of aggregate debt service for both first and second resolution bonds in either of the prior two fiscal years.

The authority pledges the gross system revenues to repayment of its debt obligations; revenues flow to the city (which operates the system through its Department of Environmental Protection) for operations and maintenance

expenses only after debt service is funded monthly on a one-fifth of interest, one-eleventh of principal basis. In the event that revenues are insufficient to cover monthly debt service requirements, bondholders have the right to claim all revenues of the system until debt service obligations are met. The strength of this gross revenue pledge and the system's legal protections are key considerations reflected in the credit rating

USE OF PROCEEDS

Proceeds from the Fiscal 2015 Series FF bonds will be used to refund first resolution bonds.

RATING METHODOLOGY

The principal methodology used in this rating was US Municipal Utility Revenue Debt published in December 2014. Please see the Credit Policy page on www.moodys.com for a copy of this methodology.

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