

Research

Summary:

Massachusetts Water Resources Authority; Joint Criteria; Water/Sewer

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Table Of Contents

Rationale

Outlook

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Credit Profile		
US\$231.905 mil general rev rfdg bnds ser 2017C due 08/01/2032		
<i>Long Term Rating</i>	AA+/Stable	New
US\$68.57 mil general rev bnds ser 2017B due 08/01/2042		
<i>Long Term Rating</i>	AA+/Stable	New
Massachusetts Wtr Resources Auth gen rev bnds		
<i>Long Term Rating</i>	AA+/Stable	Affirmed

Rationale

S&P Global Ratings has assigned its 'AA+' rating to the Massachusetts Water Resources Authority's (MWRA) series 2017B general revenue bonds and 2017C general revenue refunding bonds, which will be designated as green bonds. We have also affirmed various ratings on numerous series of general revenue and refunding bonds issued by the authority, including our:

- 'AA+' long-term rating and underlying rating (SPUR) on various series of MWRA's senior-lien debt;
- 'AA' long-term rating and SPUR on various series of MWRA's subordinate-lien debt;
- 'AAA' long-term rating on various series of subordinate-lien debt jointly secured by the MWRA and a letter of credit provider; and
- 'A-1+', 'A-1', and 'A-2' short-term ratings on various series of subordinate-lien debt where the ratings are based on the short-term rating on the counterparty providing liquidity support.

The MWRA also has outstanding direct-purchase bonds issued in 2012 and 2014, with counterparties including Citibank N.A. (series 2012E), RBC Municipal Products Inc. (series 2012F), Wells Fargo Municipal Capital Strategies LLC (series 2012G), and Bank of America Preferred Funding Corp. (series 2014A and B). We have affirmed our 'AA' ratings on these bonds, except for the series 2012G, which we do not rate. The security on all of the MWRA's direct-purchase bonds is a subordinate-lien net revenue pledge.

The outlook on the bonds is stable, except for when joint criteria has been applied to the issue's long-term rating, in which case the outlook is not meaningful.

The ratings reflect our opinion of the authority's:

- Large and diverse service base that serves the Boston metropolitan statistical area (MSA);
- Rate-setting autonomy combined with a historical 100% collection rate, rates and charges considered general obligations (GOs) of the served communities, and a state aid intercept mechanism;
- Revenue stream that largely depends on the Boston Water and Sewer Commission (revenue bonds rated

'AA+/Stable'), which adds fiscal stability;

- Generally good financial performance when considering unrestricted liquidity and coverage of total debt service costs with annual net operating revenues;
- Low-risk swap portfolio given the counterparty diversification and the wide gap between the rating on MWRA's bonds and the 'BBB+' trigger that would cause an additional credit event;
- Manageable capital improvement program (CIP) given the size of the system; and
- Adequate bond provisions following modifications to the general bond resolution, including a senior-lien debt service coverage ratio of 1.2x.

MWRA also has a \$100 million revolving credit agreement with Bank of America N.A. that management has indicated it uses as a commercial paper program. We mention this agreement separately from the authority's other direct-purchase agreements because of the existence of several events of default provisions that we view as permissive. These include various material adverse clauses, no cure periods for covenant defaults, and cross-default provisions. An additional event of default is a downgrade below 'A-' or equivalent. If any of these events are triggered, there could be significant, downward pressure on the rating if MWRA does not maintain its market access to make full and timely payment on any accelerated amounts due under this agreement. The existence of these provisions is not currently having an effect on the rating since we view the likelihood of these non-payment events of default occurring to be equal to the likelihood of a two-notch downgrade, which would still not result in a rating below the rating trigger on this agreement.

A senior-lien net revenue pledge secures the senior-lien bonds and a subordinate-lien net revenue pledge secures the subordinate-lien bonds. The authority pledges all revenues--defined as all income, revenues, receipts, and other funds derived by the authority from its ownership and operation of the systems, combined with any existing rights to receive the same in the future, other than certain grant receipts and other funds--as security for the bonds. A debt service reserve requirement for senior bonds is 50% of maximum annual debt service (MADS). A covenant to set rates such that net revenues are at least equal to 1.2x annual senior-lien debt service and subordinate-lien bonds equal to 1.1x.

The MWRA is a regional, wholesale water and sewer services provider for about 45% of Massachusetts' population (about 3 million), including Boston and its MSA. The authority has statutory authority to serve 61 communities. The Boston Water and Sewer Commission comprises about 30% of the authority's overall rates and charges revenue, which, in our view, lends stability to the rating on MWRA bonds, given the 'AA+/Stable' rating on the commission's bonds.

The MWRA's operations are primarily funded with rates and charges received from communities within the service area. These are assessed to the local governments annually and payable in 10 equal monthly installments to the MWRA (excluding January and July). Assessments are essentially based on proportional flow or use and can be changed as needed through board approval. Assessments are a GO of each local body and are also subject to a state aid intercept mechanism (for those communities that receive local aid). Since 2010, combined water and sewer rates have risen from 1% to 4% annually, and management projects that annual rate increases through 2021 will be no more than 3.9%. Management reports that average water and sewer utility bills for a household using 7,500 gallons per month are currently about \$127.

Financial operations have remained at least adequate, in our view. At the end of fiscal 2016 (June 30), net revenues

provided strong 1.6x coverage on the senior-lien bonds. When including subordinate-lien and other fixed-charge obligations (which includes capital leases and obligations paid to the Massachusetts Clean Water Trust), net revenues still provided 1.2x coverage, which we consider good. Net revenues have been calculated to include rates, charges, and interest earnings, but exclude transfers in from the rate stabilization fund. In addition, net revenues have been increased by noncash other postemployment benefit expenses and subordinated commonwealth payments. At fiscal year-end 2016, the authority's unrestricted current cash and investments were \$103 million, or a strong 138 days' operating expenses.

These levels of coverage and unrestricted cash have been consistent with previous years, and management has indicated that, over the next several years, these financial metrics will not deviate significantly from the historical trends.

Other reserves include \$37 million in a rate stabilization fund and \$26 million in a bond redemption fund at June 30, 2016. Management projects to draw from both the bond redemption fund as it defeases additional debt, and the rate stabilization fund for general rate stabilization, through 2027.

Debt service is the largest component of the budget, accounting for about 60% of audited operating and debt service expenses; while these figures are elevated, in our opinion, wholesale systems tend to have relatively high debt levels compared to retail systems and present less of a credit concern to us. For the variable-rate portion of its portfolio, the MWRA currently budgets for a 3.25% average interest cost, which is well above the actual rate of about 1%, as indicated by management.

Unhedged variable-rate debt represents 9% of the authority's portfolio (or \$481 million). Another 8% is hedged through various swap agreements. The total notional value of the swaps is \$485 million; their fair value is negative \$110 million (with respect to the MWRA) as of March 24, 2017, and all swaps are floating-to-fixed. Counterparties include Barclays Bank PLC; Wells Fargo Bank N.A.; Citigroup Financial Products, with a credit support guarantee from Citigroup Inc.; and Morgan Stanley Capital Services, with a credit support guarantee from Morgan Stanley. All documents list a 'BBB+' rating trigger as an additional credit event for the counterparties. There is an additional credit event if the authority's rating goes down to 'BBB+', which we see as remote due to its strong 'AA+' credit profile. The authority has also adopted a debt derivative policy and has incorporated this into its general debt policy. In addition, management has reported that it actively manages and reviews its swap agreements. Due to the low degree of termination risk, we did not factor in the swaps' value-at-risk as a contingent liability for the authority.

Given the MWRA's large swap and variable-rate portfolio, if termination triggers are implemented on the swaps or failed remarketing on any variable-rate bonds occur, these could also lead to fiscal stress, in our view. However, it is our understanding that most of the additional interest costs in the case of a failed remarketing would only occur after 90 days; we believe this provides the authority sufficient time to examine its financial options. Regarding the swaps, an additional termination event occurs if the counterparties' rating or the MWRA bond rating drops to 'BBB+' or lower. We view a drop of the rating on the MWRA bonds to this level as remote, and if any counterparty rating should do so, a collateral posting or replacement counterparty would need to be furnished.

The MWRA has completed most of the major projects in its CIP, including the Deer Island harbor wastewater

treatment plant, the MetroWest water supply tunnel, and the John J. Carroll water treatment plant. The planned CIP spending for 2017 is \$155.7 million, and for 2017-2018, management projects \$354 million of capital needs. While large, this represents a significant reduction from capital spending in the late 1990s.

Details of MWRA's outstanding direct-purchase debt

We have rated the bonds being purchased pursuant to direct-purchase agreements with Citibank, RBC, and Bank of America 'AA'. Under all three agreements, the refunding bonds to be purchased will initially bear interest at SIFMA plus a spread (between 0.34% and 70% depending on the agreement). In the event an unsuccessful remarketing occurs, there is a term-out period (either three or five years, again depending on the agreement) for any unremarketed bonds still outstanding. The term-out period starts at least six months after the date of any unsuccessful remarketing, which, in our view, provides an adequate period to achieve market access and refund the unremarketed bonds, if the authority deems it financially necessary to do this to avoid large debt service cost increases.

All the direct-purchase agreements expire at various times from the bond purchase date:

- Citibank 2012E, extended to Nov. 16, 2018, at a fixed spread to SIFMA plus 45 basis points (bps);
- RBC 2012F, extended to Nov. 2, 2017, at a fixed spread to SIFMA plus 40 bps;
- Bank of America 2014A, May 1, 2020;
- Wells Fargo 2012G, three years; and
- Bank of America 2014B, May 1, 2019.

The purchased refunding bonds mature by 2022 (series 2014B), 2023 (series 2012G), 2025 (series 2014A), or 2031 (series 2012F and E). A mandatory tender provision exists in all the supplemental indentures for any bonds outstanding on the agreement expiration date. It is our understanding that the timing of these agreement expirations is part of MWRA's larger variable-rate and counterparty management strategy. Management has ongoing experience in renewing and extending liquidity and credit agreements, and expiring credit, liquidity, or direct-purchase agreements at any one time represents no more than 30% (in 2018) of the notional value of MWRA's total variable-rate portfolio in any given year. We expect the authority to continue managing the expiration of its various liquidity, credit, and direct-purchase agreements to avoid liquidity calls due to agreement expiration, as it has in the past.

Occurrences of various events of default could lead to acceleration of direct-purchase bonds. While a payment default on the related refunding bonds, parity bonds, or other MWRA debt could cause an immediate or seven-day acceleration under all the purchase agreements, we view this acceleration risk as credit risk already incorporated into our long-term credit rating. However, acceleration caused by a covenant default (which includes various reporting and other requirements pursuant to the purchase agreements or related transaction documents), only occurs after an uncured period of 180 days. We believe that if acceleration occurs due to a covenant default, this 180-day period would be adequate for the MWRA to achieve market access and refund the bonds subject to acceleration, or achieve some other resolution to avoid acceleration.

If the rating on MWRA's debt falls below 'A-', the Citibank agreement allows for immediate acceleration, while the other agreements allow for a 180-day cure period. Since the rating on these bonds is more than two notches above the rating trigger, we do not consider the debt an immediate contingent liability under our contingent liability criteria.

Outlook

The stable outlook reflects S&P Global Ratings' view of the authority's financial position, as well as management's demonstrated willingness to increase rates. We expect that the authority will maintain financial metrics consistent with historical trends and will also continue to benefit from the diversity of the underlying economic base.

Downside scenario

If the authority can't maintain its financial stability by not implementing consistent rate increases or if the local units begin to experience difficulty in paying their annual assessments, we could lower our rating on the bonds. However, given management's demonstrated willingness to implement rate increases and the broad and diverse economic base, we currently do not believe that MWRA's creditworthiness will be pressured in these ways in the next two years.

Upside scenario

Since the stable financial performance and large service base is already factored into the existing credit rating, we do not foresee raising the rating within the two-year outlook horizon.

Ratings Detail (As Of April 20, 2017)		
Massachusetts Wtr Resources Auth multi-modal subord		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Wtr Resources Auth multi-modal subord gen rev rfdg bnds 2008		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts Wtr Resources Auth multi-modal subord gen rev rfdg bnds 2008		
<i>Long Term Rating</i>	AA/A-1+/Stable	Affirmed
Massachusetts Wtr Resources Auth multi-modal subord gen rev rfdg bnds 2008A-1		
<i>Long Term Rating</i>	AA/A-1/Stable	Affirmed
Massachusetts Wtr Resources Auth multi-modal subord gen rev rfdg bnds 2008 ser A-3 dtd 05/29/2008 rmkt. dtd 05/09/2011 due 08/01/2037		
<i>Long Term Rating</i>	AA/A-1+/Stable	Affirmed
Massachusetts Wtr Resources Auth WTRSWR		
<i>Long Term Rating</i>	AA/A-2/Stable	Affirmed
Massachusetts Wtr Resources Auth WTRSWR		
<i>Long Term Rating</i>	AA/A-1+/Stable	Affirmed
Massachusetts Wtr Resources Auth WTRSWR		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Wtr Resources Auth WTRSWR		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Wtr Resources Auth WTRSWR		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Wtr Resources Auth WTRSWR		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Massachusetts Wtr Resources Auth		

Ratings Detail (As Of April 20, 2017) (cont.)		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Affirmed
<i>Long Term Rating</i>	AAA/A-1+	Affirmed
Massachusetts Wtr Resources Auth gen rev		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Affirmed
Massachusetts Wtr Resources Auth gen rev bnds		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Affirmed
Many issues are enhanced by bond insurance.		

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