

Public Finance

Revenue Supported / U.S.A.

Massachusetts Clean Water Trust

Pool SRF Bond Program New Issue Report

FitchRatings

Ratings

New Issue

Clean Water Trust State Revolving Fund Bonds, Series 18 (Green Bonds) AAA

Outstanding Debt

Parity State Revolving Fund Debt AAA

Rating Outlook

Stable

New Issue Details

Sale Information: Approximately \$231,095,000 Clean Water Trust State Revolving Fund Bonds, Series 18 (Green Bonds), issued by the Massachusetts Clean Water Trust (MCWT, or the trust), scheduled to price via negotiation the week of Dec. 8.

Security: Bonds are secured by pledged loan repayments, Commonwealth of Massachusetts (the commonwealth) contract assistance payments (CAP), rights and interest of the trust, and certain other funds held by the trust including the equity funds.

Purpose: Bond proceeds will be used to finance or refinance costs related to certain wastewater and drinking water projects within the state and to pay for the costs of issuance.

Final Maturity: Feb. 1, 2040.

Key Rating Drivers

Sound Financial Structure: Fitch's cash flow modeling demonstrates that the program can continue to pay bond debt service even with loan defaults in excess of Fitch's 'AAA' liability rating stress hurdle, as produced using Fitch's Portfolio Stress Calculator (PSC).

Highly Rated Borrower Pool: Approximately 96% of the pool SRF bond program (the pool program) consists of borrowers exhibiting investment-grade ratings. Loan security is also strong as borrowers are secured by general obligation pledges of city and towns, local utility revenue pledges or a combination of both.

High Single-Borrower Concentration: Single-borrower concentration is high, with the Massachusetts Water Resources Authority (MWRA) representing 28% of total outstanding loan principal.

Strong Program Management: MCWT manages one of the largest SRF programs in the nation. To date, there have been no pledged and leveraged loan defaults in any of the MCWT's SRF programs.

Rating Sensitivities

Reduction in Modeled Stress Cushion: Significant deterioration in aggregate borrower credit quality, increased pool concentration or increased leveraging resulting in the program's inability to pass Fitch's 'AAA' liability rating stress hurdle would put downward pressure on the rating. The Stable Rating Outlook reflects Fitch's view that these events are unlikely to occur.

Related Research

Fitch Rates Massachusetts Clean Water Trust's SRF Pool Program Bonds 'AAA'; Outlook Stable (December 2014)

State Revolving Fund and Leveraged Municipal Loan Pool (2014 Peer Review) (November 2014)

Analysts

Major Parkhurst +1 512 215-3724 major.parkhurst@fitchratings.com

Adrienne Booker +1 312 368-5471 adrienne.booker@fitchratings.com

www.fitchratings.com

Rating History

		Outlook/	
Rating	Action	Watch	Date
AAA	Affirmed	Stable	12/1/14
AAA	Affirmed	Stable	5/19/14
AAA	Affirmed	Stable	4/22/13
AAA	Affirmed	Stable	11/28/12
AAA	Affirmed	Stable	6/22/10
AAA	Affirmed	Stable	2/18/09
AAA	Affirmed	Stable	9/25/03
AAA	Upgraded	_	3/31/97
AA+	Assigned	_	4/28/95

Credit Profile

MCWT provides subsidized financial assistance to local governments in the commonwealth under four separate SRF programs including three stand-alone, single-borrower programs (MWRA, South Essex Sewer District, and the city of New Bedford, each rated 'AAA' by Fitch), and the pool program. With this issue, MCWT is releasing a new master trust agreement (MTA) to replace the prior program resolution which is now closed. Of note, the new MTA pledges amounts available in the equity fund to all SRF program bondholders on a parity basis. However, equity fund amounts are available to the prior bonds after the MTA's asset release test is satisfied. In light of this feature, Fitch combines the SRF programs in its cash flow model analysis

Sound Financial Structure

Fitch measures financial strength of the program by calculating the program's asset strength ratio (PASR). The PASR includes total scheduled pledged loan repayments, CAP payments, excess releases from the stand-alone SRF programs, plus any reserve balances and account earnings divided by total scheduled bond debt service. MCWT's pool program PASR is 1.4x, which is below Fitch's 2014 'AAA' median level of 1.8x but still considered sound. Minimum annual debt service coverage is also calculated to be somewhat low at about 1.1x. However, lower minimum annual coverage is typical for SRF structures enhanced with large reserve fund balances. Fitch notes that both the PASR and minimum annual DSC have slightly improved over Fitch's previous two rating reviews.

Cash flow modeling demonstrates that the program can continue to pay bond debt service even with hypothetical loan defaults of 100% in any four-year period of the outstanding bonds' expected life (per Fitch criteria, a 90% recovery is also applied in its cash flow model when determining default tolerance). This result is in excess of Fitch's 'AAA' liability stress hurdle of 19%, as produced by the PSC. The liability rating stress hurdle is calculated based on overall pool credit quality as measured by the rating of underlying borrowers, loan size and term and concentration.

CAPS and Deallocations Support Bonds Debt Service

CAPs provide approximately 9% of support to the pool program's bond debt service on behalf of certain borrowers. CAPs constitute a general obligation of the commonwealth (GOs rated AA+/Stable), for which its full faith and credit are pledged. Additional enhancement equal to approximately 14% of total pool program debt service is provided by scheduled releases from the stand-alone SRF programs. Both the CAPs and the releases from the stand-alone programs were stressed in Fitch's cash flow model analysis.

High-Quality Loan Pool with Significant Single-Borrower Concentration

Fitch estimates that at least 96% of pool program participants exhibit investment-grade credit quality, with the large majority rated 'A' or higher. In aggregate, pool credit quality is strong versus similar municipal pools as reflected in the low 'AAA' liability stress of 19%, which compares favorably to Fitch's median of 33% (lower liability stresses correlate to stronger credit quality). Loan security is also solid as the loan portfolio is secured by general obligation pledges of city and towns, local utility revenue pledges or a combination of the two.

The pool program consists of approximately 290 borrowers, the top 10 of which contribute to over 50% of total outstanding loan obligations. After MWRA's 28% (senior and subordinate lien revenue bonds rated 'AA+' and 'AA', respectively, with a Stable Outlook), the remaining top 10 borrowers

Related Criteria

Revenue-Supported Rating Criteria (June 2014)

State Revolving Fund and Leveraged Municipal Loan Pool Criteria (October 2014)



range in more manageable sizes from 1.5%—4.0%. Fitch's concern with MCWT's high single-borrower concentration is somewhat mitigated by the high rating of MWRA. Overall, MCWT's pool program composition is mostly in line with what Fitch observed in its previous few reviews.

Largest Borrowers		
Borrower	% of Portfolio	
Massachusetts Water Resources Authority	27.9	
Upper Blackstone Water Pollution Abatement District	4.0	
City of Fall River	3.8	
City of New Bedford	3.4	
City of Brockton	2.4	
City of Chicopee	2.2	
City of Taunton	2.1	
City of Lowell	2.1	
City of Gloucester	1.5	
Springfield Water and Sewer Commission	1.5	
Total	50.9	

Enhancement Provided By Overcollateralization and Reserves

The series 18 and certain prior series of bonds are primarily protected from losses by surplus pledged direct loan repayments funded from program equity made in excess of bond debt service. Enhancement (or overcollateralization) provided by such direct loans typically ranges from 33%–50% of the supported bonds. As bonds enhanced by overcollateralization amortize, excess amounts are eventually released to the MTA's pledged equity fund and are therefore available to other SRF program borrowers.

Certain other previous series of SRF bonds in both the pool program and stand-alone programs have been enhanced by reserves initially funded by the trust (from federal and state grants) in amounts typically ranging from 33%–50% of the related borrower loans. As bonds secured by reserve funds amortize, such reserves are also eventually released to the pledged equity fund and thereafter available to all SRF program borrowers. Although no reserves are being funded with this issue, combined series' reserves from previous pool program issues equal approximately \$817 million, or 29% of outstanding bonds.

Strong Program Management

MCWT is an interagency management team composed of officials from the commonwealth treasurer's office, the executive office of administration and finance and the commonwealth's Department of Environmental Protection (DEP) administers Massachusetts' SRFs in an arrangement typical of such programs nationwide. DEP staff members review and monitor projects for several water and wastewater programs, including the pool program. MCWT has never experienced a pledged and leveraged loan default across any of its SRF programs.

Additional Bonds Test

Upon the issuance of new bonds, a certificate must be delivered by the trust demonstrating, in detail, sufficient pledged revenues to cover senior-lien bond debt service and other parity obligations by 1.05x and subordinate-lien bond debt service other parity obligations by 1.0x.

The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: HTTPS://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS. IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEBSITE AT WWW.FITCHRATINGS.COM. PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2014 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion is based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at anytime for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$10,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not c