

FITCH RATES MASSACHUSETTS CLEAN WATER TRUST'S \$162MM SRF BONDS; OUTLOOK STABLE

Fitch Ratings-Austin-15 August 2018: Fitch Ratings has assigned a 'AAA' rating to the following bonds issued by the Massachusetts Clean Water Trust (MCWT):

--Approximately \$162.385 million state revolving fund bonds series 21 (green bonds).

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

In addition, Fitch has affirmed the 'AAA' rating on the following outstanding bonds:

--\$2.4 billion in outstanding state revolving fund bonds.

The Rating Outlook is Stable.

SECURITY

The bonds are secured by pledged loan repayments, Commonwealth of Massachusetts (the commonwealth) contract assistance payments (CAP), rights and interest of the master trust agreement, and certain other funds including the equity fund.

KEY RATING DRIVERS

SOUND FINANCIAL STRUCTURE: Fitch's cash flow modeling demonstrates that the MCWT's combined pool SRF bond programs (the pool 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 Model (PSM).

HIGHLY RATED BORROWER POOL: Approximately 97% of 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 25% of total outstanding loan principal. However, MWRA's high rating mitigates some of the concentration risk it presents.

STRONG PROGRAM MANAGEMENT: MCWT manages one of the largest SRF programs in the nation. To date, there have been no pledged 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 Massachusetts Clean Water Trust state revolving fund programs' inability to pass Fitch's 'AAA' liability rating stress hurdle would put downward pressure on the rating. The Stable Outlook reflects Fitch's view that these events are unlikely to occur.

CREDIT PROFILE

MCWT provides subsidized financial assistance to local governments and other eligible borrowers in the commonwealth under its SRF programs. The series 21 bonds will be the fourth series of bonds issued under the 2015 master trust agreement (2015 MTA). MCWT also administers clean water and drinking water SRF programs under the 1993 program resolution (the prior resolution) which is now closed. Bonds issued under the prior resolution are also rated 'AAA'/Stable by Fitch.

The 2015 MTA program pledges amounts available in the equity fund to all SRF program bondholders on a parity basis. In light of this feature, Fitch combines all of MCWT's SRF programs in its cash flow model analysis.

SOUND FINANCIAL STRUCTURE

Fitch measures financial strength of the pool program by calculating the program's asset strength ratio (PASR). The PASR includes total scheduled pledged loan repayments, CAP payments, excess releases from the standalone SRF programs, plus any reserve balances and account earnings divided by total scheduled bond debt service. MCWT's pool program PASR is 1.5x, which is below Fitch's 2017 'AAA' median level of 1.9x but still considered sound. Minimum annual debt service coverage is also calculated to be somewhat low at about 1.1x, though lower minimum annual coverage is typical for SRF structures enhanced with large reserve fund balances.

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 17%, as produced by the PSM. 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 BOND DEBT SERVICE

CAPs provide support for approximately 7% and 9% of debt service in the prior pool and the 2015 MTA program, respectively, 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 10% of total pool program debt service is provided by scheduled releases from the single-borrower SRF program. Both the CAPs and the releases from the standalone program were stressed in Fitch's cash flow model analysis.

HIGH-QUALITY LOAN POOL WITH SIGNIFICANT SINGLE-BORROWER CONCENTRATION

Fitch estimates that at least 97% of pool program participants exhibit investment-grade credit quality, with the large majority rated 'A+' or higher. In aggregate, pool credit quality is stronger than similar municipal pools as reflected by the low 'AAA' liability stress of 17%, which compares favorably with Fitch's median of 30% (lower liability stresses correlate to stronger credit quality). Loan security is also solid as the loan portfolio is secured by general obligation pledges of cities and towns, local utility revenue pledges, or a combination of the two.

The pool program consists of approximately 286 borrowers, the top-10 of which comprise about 50% of total outstanding loan obligations. After MWRA's 25% (senior and subordinate lien revenue bonds rated 'AA+' and 'AA', respectively, with a Stable Outlook), the remainder of the top-10 borrowers range from 2% to 4%. 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 consistent over time.

ENHANCEMENT PROVIDED BY OVERCOLLATERALIZATION AND RESERVES

The series 21 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% to 50% of the MCWT 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.

Although no reserves are being funded with this issue, combined series' reserves from the previous pool program issues equal approximately \$625 million, or 24% of outstanding bonds. This compares favorably with the 'AAA' median of 7.6%.

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. 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 exhibits strong program management, having never experienced a pledged or leveraged loan default across any of its SRF programs.

Contact:

Primary Analyst

Tim Morilla

Associate Director

+1-512-813-5702

Fitch Ratings, Inc.

111 Congress Avenue, Suite 2010

Austin, TX 78701

Secondary Analyst

Major Parkhurst

Director

+1-512-215-3724

Committee Chairperson

Amy Laskey

Managing Director

+1-212-908-0568

Media Relations: Sandro Scenga, New York, Tel: +1 212 908 0278, Email: sandro.scenga@fitchratings.com.

Additional information is available on www.fitchratings.com

Applicable Criteria

Rating Criteria for Public-Sector, Revenue-Supported Debt (pub. 26 Feb 2018)

<https://www.fitchratings.com/site/re/10020113>

U.S. Public Finance State Revolving Fund and Municipal Finance Pool Program Rating Criteria (pub. 12 Oct 2017)

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: [HTTPS://WWW.FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS](https://www.fitchratings.com/understandingcreditratings). IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE 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. DIRECTORS AND SHAREHOLDERS RELEVANT INTERESTS ARE AVAILABLE AT [HTTPS://WWW.FITCHRATINGS.COM/SITE/REGULATORY](https://www.fitchratings.com/site/regulatory). 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 © 2018 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 and in making other reports (including forecast information), 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 and reports 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 or a report 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 and its reports, 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 and forecasts of financial and other information 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 and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. 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 any time 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\$1,000 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 constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001

Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the "NRSRO"). While certain of the NRSRO's credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see <https://www.fitchratings.com/site/regulatory>), other credit rating subsidiaries are not listed on Form NRSRO (the "non-NRSROs") and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.