

Texas Water Development Board

State Revolving Fund Program

New Issue Summary

Sale Date: The bonds are expected to sell via negotiation on or around the week of May 10, 2020.

Series: \$481,700,000 State Revolving Fund Revenue Bonds, New Series 2020.

Purpose: The bond proceeds will be used to finance eligible clean water and drinking water projects within the state, meet state match requirements and pay issuance costs.

Security: The bonds are primarily secured by pledged clean water state revolving fund (CWSRF) and drinking water state revolving fund (DWSRF) obligor repayments payable from political subdivision entities and amounts held in certain pledged accounts.

Key Rating Drivers

Strong Financial Structure: Fitch Ratings' cash-flow modeling demonstrates that the Texas Water Development Board's (TWDB) combined CWSRF and DWSRF pool programs can continue to pay state revolving fund (SRF) bond debt service even with defaults in excess of Fitch's 'AAA' liability rating stress hurdle, as produced using Fitch's Portfolio Stress Model (PSM).

High Quality Obligor Pool: Approximately 86% of the TWDB's SRF obligor portfolio is calculated to be investment grade, resulting in strong overall pool credit quality. Obligor security is also strong, with all pool obligors backed by utility and/or GO pledges.

Average Obligor Concentration: The largest single obligor and the top 10 obligors account for roughly 16% and 52% of the pool, respectively, which aligns well with Fitch's sector medians.

Sound Program Management: TWDB maintains solid underwriting guidelines and monitoring procedures. Delinquencies are very rare, and no permanent defaults have occurred in the history of TWDB's CWSRF and DWSRF programs.

Rating Sensitivities

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

- Not applicable.

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

- Significant deterioration in aggregate borrower credit quality, increased pool concentration or increased leveraging that results in the program's inability to pass Fitch's 'AAA' liability rating stress hurdle.

Ratings

New Issue

\$481,700,000 State Revolving Fund Revenue Bonds, New Series 2020 AAA

Outstanding Debt

State Revolving Fund Revenue Bonds AAA

Rating Outlook

Stable

Applicable Criteria

U.S. Public Finance State Revolving Fund and Municipal Finance Pool Program Rating Criteria (September 2019)

Related Research

Fitch Rates TX Water Dev. Board's Ser. 2020 SRF Revs 'AAA'; Outlook Stable (April 2020)

State Revolving Fund and Municipal Finance Pool Peer Review: 2019 (November 2019)

Analysts

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

Tim Morilla
+1 512 813-5702
tim.morilla@fitchratings.com

Credit Profile

Through its SRF programs, the TWDB provides below-market financing to governmental entities within Texas for eligible clean water (CW) and drinking water (DW) projects. The new series 2020 bonds are the third issuance of obligations under the 2018 Master Resolution (2018 MR). The 2018 MR combined the previously separate CW and DW financing programs via cross-collateralization (*as further explained below*) of the two funds.

As the 2018 MR program is relatively new, concentration is improving with pool growth. However, the 'AAA' stress hurdle has somewhat worsened since Fitch's last review, as the combined pool's weighted average life has marginally increased. Regardless of the increase, the pool metrics remain solid.

Financial Structure Exhibits Strong Default Tolerance

Cash-flow modeling demonstrates that the combined program can continue to pay bond debt service even with hypothetical obligor defaults of 100% in the first, middle and last four years of the program's life (as per Fitch criteria, a 90% recovery is also applied in its cash flow model when determining default tolerance). This is in excess of Fitch's 'AAA' liability rating stress hurdle of approximately 34% as produced by the PSM. The rating stress hurdle is calculated based on overall pool credit quality as measured by the ratings on underlying obligors, size, term and concentration.

As an added measure of financial strength, Fitch calculates the program asset strength ratio (PASR) of the combined CWSRF/DWSRF programs. The PASR calculation includes total scheduled pledged obligor repayments plus pledged account funds divided by total scheduled SRF bond debt service. The resulting PASR is about 2.9x, which is considered very strong relative to Fitch's 2019 'AAA' median PASR of 1.9x. The PASR is down since Fitch's last review, as the program is maturing into leverage figures expected to be more consistent with its peers.

Substantial Loss Protection

TWDB's SRF programs benefit from loss protection provided by both pledged obligor repayments in excess of bond debt service due (overcollateralization) and amounts held in certain accounts pledged to bondholders. On an annual basis, obligor repayments overcollateralize bond debt service by a minimum of 2.3x, which compares very favorably to the 'AAA' rating category median level of 1.5x.

The cross-collateralization feature of the CWSRF and DWSRF allows for shortfalls in one program to be covered by surpluses in the other and vice versa. As a result, Fitch combines the programs in its modeling analyses. Fitch views the cross-collateralization feature favorably, as it improves overall diversity and provides additional credit enhancement should a shortfall occur in either SRF program.

Highly Rated Pool with Average Concentration

TWDB's CWSRF and DWSRF programs exhibit strong credit quality. Approximately 86% of pool obligations are held by investment-grade borrowers, 66% of which are rated at or above 'AA-'. Obligor security is also strong, with nearly all backed by net system revenue pledges or a combination of utility revenue and general obligation pledges.

The combined pool is larger than average with roughly 320 obligors. The top 10 obligors represent approximately 52% of TWDB's portfolio, which is slightly better than Fitch's 2019 'AAA' median of 56%. Outstanding water and/or wastewater revenue bonds issued by the city of Houston (16% of the total), Trinity River Authority (10% of the total) and the San Antonio Water System (8% of the total) are rated 'AA', 'AA+' and 'AA', respectively. Each of the remaining obligors within the top 10 range between 2% and 4% of the total pool.

Rating History (Abbreviated)

Rating	Action	Outlook/ Watch	Date
AAA	Affirmed	Stable	4/7/20
AAA	Affirmed	Stable	2/15/19
AAA	Assigned	Stable	3/7/18

Largest Borrowers

Borrower	Outstanding (\$)	% of Portfolio
Houston	602,690,000	15.8
Trinity River Authority	378,120,000	9.9
San Antonio Water System	310,725,000	8.2
Fort Worth	135,610,000	3.6
Dallas	132,000,000	3.5
Pearland	105,570,000	2.8
McAllen	98,900,000	2.6
Granbury	81,470,000	2.1
Trinity River Authority	69,610,000	1.8
Laredo	67,115,000	1.8
Total	1,981,810,000	52.1

Source: Fitch Ratings, TWDB.

Sound Program Management, Underwriting and Monitoring

The TWDB establishes the financial terms of the obligors. In doing so, the board determines that an eligible obligor has the financial capability to ensure payment of debt service. TWDB's staff is also responsible for monitoring obligors' compliance with covenants and their overall financial profiles.

Series Comparison

	2019 'AAA' Median ^a	TWDB Ser. 2020	TWDB Ser. 2019	TWDB Ser. 2018
Revolving Fund Type	–	CWSRF/DWSRF	CWSRF/DWSRF	CWSRF/DWSRF
Purpose	–	Financing	Financing	Financing
Total New Issuance (\$ Mil.)	–	481.7	267.2	344.4
Fitch Rating	–	AAA	AAA	AAA
Rating Date	–	4/7/20	2/14/19	3/7/2018
Fitch Default Tolerance Test (%)				
Minimum Default Tolerance Rate	100.0	100.0	100.0	100.0
Less: Fitch PSM Stress Hurdle	31.6	33.5	31.2	30.3
Rating Stress Cushion	68.4	66.5	68.8	69.7
Financial Structure (\$ Mil.)				
Total Outstanding Program Bonds	577	984	556	508
Program Assets (\$ Mil.)				
Total Pledged Revenues Excluding Reserves	1,853	4,478	4,527	3,065
Total Pledged Revenues Including Reserves	1,996	4,478	4,527	3,114
Debt Service Reserve Fund (DSRF) Balance	23	0	0	0
Program Liabilities (\$ Mil.)				
Total Debt Service	752	1,522	872	777
Financial Ratios				
Projected Minimum Annual Debt Service Coverage (x)	1.5	2.3	3.4	3.4
Program Asset Strength Ratio (x)	1.9	2.9	5.2	4.0
DSRF as % of Bonds Outstanding	6.6	0.0	0.0	0.0
Portfolio Summary				
No. of Borrowers	227	318	297	279
Implied WA Pool Rating (PSM)	BBB	A–	BBB+	A–
WA Life (Years)	17.0	24.0	22.6	23.4
% Investment Grade	74.3	86.4	84.6	87.3
Top 10 Concentration (%)	55.7	52.1	54.3	59.1
Largest Single Borrower (%)	16.6	15.8	17.5	16.8
Largest Borrower Composite Rating	AA	AA	AA	AA
Security Pledge Distribution (%)				
Pledge 1	–	Utility Revenues (76.4)	Utility Revenues (61.4)	Utility Revenues (83.5)
Pledge 2	–	GO and Utility (22.6)	GO and Utility (37)	GO (16.5)
Pledge 3	–	GO (1.0)	GO (1.6)	–
Pledge 4	–	–	–	–

^aBased on data collected for Fitch's peer review (through October 2019). PSM – Portfolio Stress Model. WA – Weighted average.
Source: Fitch Ratings, TWDB.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

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](https://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. 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 © 2020 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.