

Texas Water Development Board

State Revolving Fund Program

New Issue Summary

Sale Date: The bonds are expected to price via negotiation around the week of May 8

Series: \$321,755,000 State Revolving Fund (SRF) Revenue Bonds, New Series 2023

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

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

Key Rating Drivers

Strong Financial Structure: Fitch Ratings' cash flow modeling demonstrates that Texas Water Development Board's (TWDB) combined CWSRF and DWSRF pool programs can continue to pay 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).

Strong Pool Quality: Approximately 73% 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 or general obligation pledges, or a combination of utility/general obligation pledges.

Average Pool Concentration: The largest single obligor and the top 10 obligors account for approximately 12% and 48% of the pool, respectively, which compares favorably relative to Fitch's SRF sector 'AAA' medians of 15% and 57%, respectively.

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

Rating Sensitivities

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

- The rating is at the highest level on Fitch's rating scale and cannot be upgraded.

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

- Inability to pass Fitch's 'AAA' liability rating stress hurdle due to any of the following:
 - Material increases in leveraging;
 - Significant deterioration in aggregate borrower credit quality or increased pool concentration.

Ratings

New Issue

\$321,755,000 State Revolving Fund Revenue Bonds, New Series 2023 AAA

Outstanding Debt

Approximately \$1,376,800,000 State Revolving Fund Revenue Bonds AAA

Rating Outlook

Stable

Applicable Criteria

State Revolving Fund and Municipal Finance Pool Program Rating Criteria (September 2021)

Related Research

Fitch Rates Texas Water Development Board's Series 2023 State Revolving Fund Revenue Bonds 'AAA'; Outlook Stable (April 2023)

U.S. Public Finance State Revolving Fund and Municipal Finance Pool - 2022 Peer Review (December 2021)

Analysts

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

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

Credit Profile

Through its SRF programs, the TWDB provides below-market rate financing to governmental entities within Texas for eligible clean water (CW) and drinking water (DW) projects. The new series 2023 bonds are the sixth 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 of the two funds.

Financial Structure Exhibits Strong Default Tolerance

Cash flow modeling demonstrates the combined program can continue to pay bond debt service even with hypothetical obligor defaults of 88% in the first four years of the program's life, and 100% in the 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 33%, as produced by the PSM. The rating stress hurdle is calculated based on overall pool credit quality as measured by the rating of underlying obligors, size, term and concentration.

As an additional 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 approximately 2.2x, which is considered very strong relative to Fitch's 2022 'AAA' median PASR of 1.9x.

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 by amounts held in certain accounts pledged to bondholders. Obligor repayments overcollateralize bond debt service by a minimum of 1.8x annually, which compares favorably with the 'AAA' rating category median of 1.6x.

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. Fitch consequently combines the programs in its modeling analyses. Fitch views the cross-collateralization feature favorably, as it improves overall diversity and provides the program with additional credit enhancement if there is a shortfall in either of the CWSRF and DWSRF programs.

Highly Rated Pool with Average Concentration

TWDB's CWSRF and DWSRF programs exhibit strong credit quality, with approximately 73% of the pool obligations held by investment-grade borrowers, including 61% 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 approximately 350 obligors. The top 10 obligors represent approximately 48% of TWDB's portfolio, which is slightly better than Fitch's 2022 'AAA' median of 57%. The three largest obligors include the city of Houston water and sewer system (AA/Stable; 12% of the total), North Texas Municipal Water District (not rated by Fitch; 10% of the total) and the Dallas water and sewer system (AA/Stable; 6% of the total). Each of the remaining obligors within the top 10 range from about 2% to 5% of the total pool.

Largest Borrowers

Borrower	Outstanding (\$)	% of Portfolio
City of Houston	595,910,000	11.7
North Texas Municipal Water District	488,560,000	9.6
Dallas	308,985,000	6.1
San Antonio	273,540,000	5.4
Pearland	258,390,000	5.1
Austin	136,525,000	2.7
Riverbend Water Resources	108,045,000	2.1
Arlington	96,575,000	1.9
Fort Worth	96,415,000	1.9

Rating History

Rating	Action	Outlook/ Watch	Date
AAA	Affirmed	Stable	4/10/23
AAA	Affirmed	Stable	5/12/22
AAA	Affirmed	Stable	9/9/21
AAA	RNA	Stable	3/26/21
AAA	Affirmed	Stable	4/7/20
AAA	RNA	Stable	1/30/20
AAA	Affirmed	Stable	2/15/19
AAA	Assigned	Stable	3/7/18

McAllen	85,510,000	1.7
Total	2,448,455,000	48.1

Source: Fitch Ratings, TWDB

Strong Program Management, Underwriting and Management

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. Delinquencies are very rare and no permanent defaults have occurred in the TWDB's CWSRF/DWSRF programs' histories.

Series Comparison

	2020 'AAA' Median ^a	TWDB Ser. 2021	TWDB Ser. 2020	TWDB Ser. 2019	TWDB Ser. 2018
Revolving Fund Type	–	CWSRF/DWSRF	CWSRF/DWSRF	CWSRF/DWSRF	CWSRF/DWSRF
Purpose	–	Financing	Financing	Financing	Financing
Total New Issuance (\$ Mil.)	–	350.0	264.6	413.6	481.7
Fitch Rating	–	AAA	AAA	AAA	AAA
Rating Date	–	4/10/2023	5/13/2022	9/9/2021	4/7/2020
Fitch Default Tolerance Test (%)					
Minimum Default Tolerance Rate	100.0	87.7	95.7	100.0	100.0
Less: Fitch PSM Stress Hurdle	30.8	32.5	30.3	28.4	33.5
Rating Stress Cushion	69.2	55.1	65.4	71.6	66.5
Financial Structure (\$ Mil.)					
Total Outstanding Program Bonds	345.0	1698.6	1451.8	1214.6	983.8
Program Assets (\$ Mil.)					
Total Pledged Revenues Excluding Reserves	1,950	5,620	5,215	4,983	4,478
Total Pledged Revenues Including Reserves	1,957	5,620	5,215	4,983	4,478
Debt Service Reserve Fund Balance	5.0	0.0	0.0	0.0	0.0
Program Liabilities (\$ Mil.)					
Total Debt Service	705	2,518	2,123	1,781	1,522
Financial Ratios					
Projected Minimum Annual DSC (x)	1.6	1.8	2.0	2.4	2.3
Program Asset Strength Ratio (x)	1.9	2.2	2.5	2.8	2.9
DSRF as % of Bonds Outstanding	0.7	0.0	0.0	0.0	0.0
Portfolio Summary					
No. of Borrowers	165	350	338	341	318
Implied WA Pool Rating (PSM)	BBB	BBB	BBB	BBB+/BBB	A-
WA Life (Years)	16.9	24.6	24.9	24.8	24.0
% Investment Grade	73.0	72.7	77.9	81.5	86.4
Top 10 Concentration (%)	57.3	48.1	50.9	50.9	52.1
Largest Single Borrower (%)	15.3	11.7	12.9	11.7	15.8
Largest Borrower Composite Rating	AA-	AA	AA	AA	AA
Security Pledge Distribution (%)					
Pledge 1	–	Utility Revenues	Utility Revenues	Utility Revenues	Utility Revenues
		76.8	78.5	77.9	76.4
Pledge 2	–	GO and Utility	GO and Utility	GO and Utility	GO and Utility
		21.6	20.8	21.5	22.6
Pledge 3	–	GO	GO	GO	GO
		1.6	0.7	0.6	1.0

^aBased on data collected for Fitch's peer review (through Oct. 31, 2022). 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.

DISCLAIMER & DISCLOSURES

All Fitch Ratings (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>. In addition, the following <https://www.fitchratings.com/rating-definitions-document> details Fitch's rating definitions for each rating scale and rating categories, including definitions relating to default. 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>. Fitch may have provided another permissible or ancillary service to the rated entity or its related third parties. Details of permissible or ancillary service(s) for which the lead analyst is based in an ESMA- or FCA-registered Fitch Ratings company (or branch of such a company) can be found on the entity summary page for this issuer on the Fitch Ratings website.

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.

Copyright © 2023 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.