Fort Worth, Texas

Ratings

Stand-Alone Credit Profile	aa

New Issue

$148,510,000 Water & Sewer System Revenue Refunding & Improvement bonds, Series 2021	AA

Outstanding Debt

Water & Sewer System Revenue Bonds	AA
Water & Sewer System Revenue Refunding & Improvement Bonds	AA
Water & Sewer System Revenue Refunding Bonds	AA

Rating Outlook

Stable

Applicable Criteria

Public Sector, Revenue-Supported Entities Rating Criteria (February 2021)

U.S. Water and Sewer Rating Criteria (March 2021)

Related Research

Fitch Rates Fort Worth, TX's Water and Sewer Rev Bonds 'AA'; Outlook Stable (May 2021)

New Issue Summary

Sale Date: June 9, 2021 via competitive bid

Series: Water and Sewer System Revenue Refunding and Improvement Bonds, Series 2021A

Purpose: Proceeds will be used to fund improvements and extensions to the city's combined water and sewer system, refund a portion of outstanding debt and pay costs of issuance.

Security: The bonds are payable from a first lien on the net revenues of the system, excluding impact fees. A debt service reserve fund will not be established for the series 2021 bonds.

The system's 'AA' bond rating and 'aa' SCP assessment reflect a very strong leverage profile within the business framework of very strong revenue defensibility and very low operating risk. Leverage, defined as net adjusted debt to adjusted funds available for debt service, has continued a favorable declining trend, averaging 4.6x since 2018. This favorable trend has been supported by improving cash balances. The system has a high degree of rate affordability, and the city retains legal autonomy to raise rates. The area continues to see strong growth with five-year CAGR of 2.5%. The operating cost burden is very low but influenced by its dependence on wholesale service providers.

Recently adopted changes to the city's pension plan were recorded in the fiscal 2020 audit and included a significant reduction in net pension liability and a large negative pension expense. These pension related changes contribute to variability in reported operating performance and therefore result in variability in Fitch calculated metrics. In fiscal 2020 days cash on hand registered a very high 400 days, compared to a more typical 130 days, coverage of full obligations was 3.1x, compared to 1.9x the year prior, and operating cost burden declined to $2,238, compared to $3,262 the year prior.

Notwithstanding distortion in the days on hand metric, cash balances did see improvement in fiscal 2020, growing to over $150 million, the highest level over the past five years. The city adopted a minimum cash balance policy in fiscal 2015 and has seen continuous improvement since that time. In fiscal 2021, the city cash defeased about $25 million of outstanding bonds, and the current offering will also refund a portion of system outstanding bonds. After holding rates flat in fiscal 2021, the city had expected to resume annual rate adjustments. However, due to expected expenditure reductions, continued growth-related revenue improvement and debt service savings, the city does not anticipate adjusting rates until fiscal 2025. The system's capital improvement plan (CIP) is about 10% greater than the prior year's plan and will be about 50% debt funded. Fitch's forward scenario points to leverage growing slightly but remaining relatively favorable around 5x to 6x.

Analysts

Teri Wenck
+1 512 215 3742
teri.wenck@fitchratings.com

Steve M. Murray
+1 512 215 3729
steve.murray@fitchratings.com

Key Rating Drivers

Revenue Defensibility 'aa'; Very Strong and Growing Service Area; Very Affordable Rates: Utility rates are very affordable for a large portion of customers and the city does not have plans for additional rate adjustments for the next several years. The assessment is further supported by the monopolistic utility services, the city's legal independent ability to increase rates without external approval and strong service area characteristics.

Operating Risks 'aa'; Very Low Operating Cost Burden: The system's operating cost burden is very low with moderate life cycle investment needs. Capital investment remains sound and is adequately supported by the system's $1.1 billion five-year capital improvement plan (CIP).

Financial Profile 'aa'; Very Strong Financial Profile: Leverage is expected to increase moderately after seeing several years of declines due to incremental increases in liabilities offset by improvements in cash balances and funds available for debt service. Although neutral to the assessment, cash balances have seen YoY growth and coverage of full obligations (COFO) has consistently been above 1.3x

Rating Sensitivities

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

- Sustained trend of leverage that approximates 5.0x to 6.0x in Fitch's base and stress scenarios, assuming stability in the revenue defensibility and operating risk assessments.
- Evidence of greater stability in operating performance.
- Continued strong growth in customer connections leading to higher connection fee revenue.

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

- An increase in leverage that consistently exceeds 9.0x in Fitch's base and stress case scenarios, assuming stability in the revenue defensibility and operating risk assessments.

Credit Profile

The system is an enterprise fund of the city of Fort Worth, Texas (GO IDR, 'AA'; Stable Outlook) and provides retail service to approximately 270,000 water connections and 258,000 sewer connections in the city and a portion of the surrounding area. In addition, the system provides wholesale water and sewer treatment to numerous surrounding communities for a total service area population of over 1.2 million. In addition, the city's extraterritorial jurisdiction is sizable and provides opportunity for future annexation and growth.

The city purchases raw water on a wholesale basis under a long-term contract with Tarrant Regional Water District (TRWD). Raw water for the city and its 33 wholesale water customers is treated at city owned and operated water treatment facilities. The majority of the city and its 23 wholesale sewer customers' sewer flows are treated at the city's owned and operated sewer facility, but a small portion are treated at Trinity River Authority (TRA) sewer treatment plants.

Fitch considers the system to be a related entity to the city for rating purposes given the city's oversight of the system, including the authority to establish rates and operations. The credit quality of the city does not currently constrain the bond rating. However, as a result of being a related entity, the issue ratings could become constrained by a material decline in the general credit quality of the city.

Rating History

Rating	Action	Outlook/ Watch	Date
AA	Affirmed	Stable	5/17/21
AA	Downgraded	Stable	4/10/13
AA+	Revised	Stable	4/30/10
AA	Downgraded	Stable	8/9/07
AA+	Affirmed	Stable	3/14/03
AA+	Upgraded	—	10/6/00
AA	Assigned	—	1/9/96

Coronavirus Consideration

The outbreak of coronavirus and related government containment measures have not materially impaired the system's operational or financial performance to date and are not expected to have a material impact going forward.

Revenue Defensibility

Revenue Defensibility is very strong, assessed at 'aa' with all of its revenue derived from services or business lines exhibiting monopolistic characteristics in a service area with very favorable demographic trends. The system has independent legal ability to increase service rates without external approval.

Adopted fiscal 2021 water and sewer rates for residential retail customers produce a monthly bill of $77.73 (assuming Fitch's standard usage of 7,500 gallons per month for water and 6,000 gallons per month for sewer), and are considered affordable for about 85% of customers. Rate adjustments have moderated, following a period of higher rate increases related to costlier wholesale purchases. No rate adjustments were made in fiscal 2021, and the city no longer expects additional adjustment will be needed until fiscal 2025. Fitch expects rate flexibility to remain consistent with the current assessment given the city's plans for no rate adjustments for the immediate future.

Fort Worth is a major anchor in the Dallas-Fort Worth regional economy with a population of over 900,000. The metropolitan area employment base is extensive and supports overall demand. While military-related spending still accounts for a significant part of the local economy, recent gains in other sectors such as services, construction, and trade have diversified the labor force. In addition, ranching, manufacturing, technology, education, and aerospace are significant components of the Fort Worth area economy and serve to diversify economic activity.

Service area characteristics are supported by strong customer growth that averages about 2% each year. Income levels are on par with the national average and unemployment typical hovers just under the national average. Growth is expected to remain strong with service connections expected to see 2% annual growth for residential customers and 1% annual growth for commercial and industrial customers. Top ten system users are diverse and account for about 4% of total revenues.

No asymmetric rating factor considerations affect the revenue defensibility assessment.

Operating Risk

The utility's Operating Risk is assessed at 'aa', which considers a very low operating cost burden and modest life-cycle investment needs. The system's fiscal years 2022-2026 CIP totals almost $1.1 billion, a 10% increase compared to the prior year's CIP. System CIP is focused on meeting growth needs and extending the useful life of existing assets. The system has a favorable life cycle ratio of 32% or less since fiscal year 2014. Capital expenditures routinely outpace depreciation, which also supports the 'aa' assessment; favorable capex levels are expected to continue.

Fitch expects the system's operating risk assessment to remain in line with historical norms and stay consistent with the current assessment for the intermediate future. Management anticipates realizing several cost savings measures over the forecast period that include: reduced annual debt service, lower contracted power costs, improvements in biosolid handling and installation of automated meters eliminating costs associated with manual meter reading.

City council and employees recently approved a reform pack for the city's single employer pension plan that adjusts benefits, increases both employee and city contributions, along with other adjustments. The city recorded the adopted plan changing in fiscal 2020 resulting in a decline in the system's Fitch-adjusted net pension liability to about $299 million, down from $331 million. Since 2017, pension expense had claimed a larger percentage of operating costs, rising from between 6% and 7% in fiscal years 2014 and 2015, respectively to about 12% in fiscal 2019. Fitch believes that recent reforms provide for long term plan viability.

Wholesale purchase service costs also influence the system's operating cost burden. Total costs for purchased water and sewer treatment from the TRWD and TRA generally account for about

32% of total operating expenses (excluding depreciation) and are paid prior to debt service on the bonds. Fort Worth is TRWD's largest customer, accounting for over 60% of TRWD's sales. The TRWD's debt burden has grown due to investment in the integrated pipeline project (IPL), which is expected to provide long range water supplies through 2040.

TRWD debt doubled from 2010 to 2015, and additional debt is planned through 2022, translating into higher purchased water costs for the city. As TRWD moves through its capital expansion cycles, rate adjustments have been necessary to support rising wholesale pass-through costs. City management informed Fitch that TRWD rate increases have slowed as the IPL project nears completion. Following several years of above average increases in purchased water costs, the city's purchased water costs saw declines in fiscal years 2019 and 2020.

No asymmetric rating factor considerations affect the operating risk assessment.

Financial Profile

The financial profile is assessed at 'aa'. Leverage was 4.4x at the end of 2020, taking into consideration pension related adjustments. This continues a downward trend in leverage, declining from 6.3x over the last five audited fiscal years. The improvement in net leverage is in large part due to improving cash balances and increased reserves for debt service. The liquidity profile is neutral, although improved in recent years. Cash balances have improved following the city adoption of formal policies in 2015 relating to minimum cash balances, which target cash balances of no less than 100 days cash on hand (DCOH) with a goal of 150 DCOH. This policy should help ensure cash balances remain adequate.

City financial projections through fiscal 2025 (which exclude connection fees and all non-cash expenses) point to all-in DSC around 1.8x to 1.9x. The forecast assumes no additional rate increases, but expects growth in accounts and volume to produce increasing revenues. Management has expressed its commitment to maintaining all-in coverage at its policy of 1.5x or above before transfers by adjusting rates as needed. The city expects to issue about $606 million in revenue bonds, state revolving loans and to use its commercial paper program to finance about 50% of its current CIP.

Fitch Analytical Stress Test (FAST)

The FAST considers the potential trend of key ratios in a base case and a stress case, with the stress case designed to impose capital costs 10% above expected levels and evaluate potential variability in projected key ratios. Fitch used management-provided forecast, CIP and expected debt issuance in formulating the FAST base case scenario. Fitch made additional overrides to include the cash defeasance in fiscal 2021 and an adjustment for pension expense that approximates the fiscal 2016 pension expense. Factoring in these assumptions, leverage is expected to increase based on moderate revenue growth and planned additional debt of $606 million over the fiscal 2021 to 2025 period. Leverage in the base case peaks in fiscal 2024 at 6.2x and 6.5x in the stress case.

Asymmetric Additional Risk Considerations

No asymmetric additive risk considerations affected this rating determination.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg

Issuer Summary

($000, Audited Years Ended Sept. 30)	2016	2017	2018	2019	2020[a]
Revenue Defensibility					
% of Total Revs from Monopolistic Services	**100**	**100**	**100**	**100**	**100**
Service Area Characteristics					
Service Area Population	856,177	874,809	893,216	909,585	N.A.
Total Customer Count	472,328	484,000	497,000	509,723	528,000
Five-Year Total Customer Count CAGR	**1.6**	**1.8**	**2.1**	**2.1**	**2.5**
Service Area MHI ($)	54,876	57,309	59,255	62,187	N.A.
Service Area MHI/US MHI (%)	**99**	**99**	**98**	**99**	**N.A.**
Service Area Unemployment Rate (%)	4.2	3.9	3.7	3.4	7.6
Service Area Unemployment Rate/US Unemployment Rate (%)	**86**	**89**	**95**	**92**	**94**
Rate Flexibility					
Total Monthly Bill (7,500 gallons/6,000 gallons)	69.18	70.65	74.72	74.72	77.73
% of Population w/Unaffordable bill	**16**	**16**	**16**	**15**	**N.A.**
Operating Risks					
Operating Cost Burden					
Operating Cost Burden ($/mg)	**3,391**	**3,685**	**3,454**	**3,262**	**2,238**
Capital Planning and Management					
Life Cycle Ratio (%)	**31**	**31**	**31**	**32**	**31**
CapEx/Depreciation (%)	92	158	145	124	229
Five-Year Avg Capital Expenditures/Depreciation (%)	**154**	**149**	**144**	**139**	**150**
Financial Profile ($000)					
Current Unrestricted Cash/Investments	81,786	93,996	110,312	97,861	152,355
Current Cash Available	**81,786**	**93,996**	**110,312**	**97,861**	**152,355**
Available Cash	**81,786**	**93,996**	**110,312**	**97,861**	**152,355**
Current Restricted Cash/Invest (Debt Service or Debt Service Reserve)	3,733	4,052	4,067	—	—
Noncurrent Restricted Cash/Invest (Debt Service or Debt Service Reserve)	4,580	13,657	41,205	57,080	36,376
Funds Restricted for Debt Service	**8,313**	**17,709**	**45,272**	**57,080**	**36,376**
Total Debt	831,583	870,675	854,089	885,417	953,524
Capitalized Fixed Charges	211,574	210,798	231,633	208,756	207,796
Adjusted Net Pension Liability	244,414	344,076	330,275	331,737	299,971
Available Cash	81,786	93,996	110,312	97,861	152,355
Funds Restricted for Debt Service	8,313	17,709	45,272	57,080	36,376
Net Adjusted Debt	**1,197,472**	**1,313,844**	**1,260,413**	**1,270,969**	**1,272,560**
Total Operating Revs	417,299	425,615	468,171	453,437	478,888
Purchased Water/Sewer Services	86,357	86,040	94,544	85,207	84,815
Other Operating Expenses	183,347	194,883	196,730	178,187	54,112
EBITDA	**147,595**	**144,692**	**176,897**	**190,043**	**339,961**
Investment Income/(Loss)	2,170	1,906	5,232	20,932	14,535
Other Cash Revenues/(Expenses)	—	—	146	461	—
Capital Contributions	12,129	15,136	26,076	24,202	42,828
FADS	**161,894**	**161,734**	**208,351**	**235,638**	**397,324**
Fixed Services Expense	30,225	30,114	33,090	29,822	29,685
Net Transfers In/(Out)	(26,190)	(23,259)	(25,613)	(26,202)	(25,716)
Pension Expense	22,926	43,727	41,908	40,530	(109,501)[b]

Issuer Summary

($000, Audited Years Ended Sept. 30)	2016	2017	2018	2019	2020[a]
Adjusted FADS	**188,855**	**212,315**	**257,736**	**279,789**	**291,793**
Net Adjusted Debt to Adjusted FADS (x)	**6.3**	**6.2**	**4.9**	**4.5**	**4.4**
FADS	161,894	161,734	208,351	235,638	397,324
Fixed Services Expense	30,225	30,114	33,090	29,822	29,685
Net Transfers In/(Out)	(26,190)	(23,259)	(25,613)	(26,202)	(25,716)
Adjusted FADS for COFO	**165,929**	**168,589**	**215,828**	**239,258**	**401,293**
Total Annual Debt Service (Automatic Calculation)	98,242	100,588	98,526	99,100	100,209
Fixed Services Expense	30,225	30,114	33,090	29,822	29,685
Adjusted Debt Service (Including Fixed Services Expense)	**128,467**	**130,702**	**131,616**	**128,922**	**129,894**
Coverage of Full Obligations (COFO) (x)	**1.29**	**1.29**	**1.64**	**1.86**	**3.09**
COFO exc. Connection Fees (x)	**1.20**	**1.17**	**1.44**	**1.67**	**2.76**
Current Days Cash on Hand	**111**	**122**	**138**	**136**	**400**
Liquidity Cushion Ratio (Days)	**111**	**122**	**138**	**136**	**400**
All-in DSC (x)	1.65	1.61	2.11	2.38	3.96

[a]Recently adopted changes to the city's pension plan were recorded in the fiscal 2020 audit and included a significant reduction in net pension liability and a large negative pension expense. These pension related changes contribute to variability in reported operating performance, and therefore, result in variability in Fitch calculated metrics.
[b]Based on Fitch calculations. N.A. – Not available. Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Source: Fitch Ratings, Fitch Solutions, Fort Worth (TX).

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.