

PROJECT FUNDING REQUEST

BOARD DATE: May 9, 2024 **Team Manager:** Joe Koen

ACTION REQUESTED

Consider approving by resolution a request from the City of Fort Worth (Tarrant County) for \$59,000,000 in financing from the Clean Water State Revolving Fund for construction of a wastewater treatment plant improvement project.

STAFF RECOMMEN	DATION
Approve	No Action

BACKGROUND

The City of Fort Worth (City) is the fifth largest city in the state of Texas and the county seat of Tarrant County. The City provides water and wastewater services to approximately 284,057 water and 272,052 wastewater connections.

PROJECT NEED AND DESCRIPTION

The City's Village Creek Water Reclamation Facility's small diameter primary clarifiers were constructed between 1956 and 1976 and are past their useful life. These clarifiers are inefficient and difficult to maintain and operate. Currently half the small diameter clarifiers are out of operation, making it difficult to maintain permitted water quality discharge requirements.

The City proposes to replace twelve 80-foot primary clarifiers with three 190-foot clarifiers. The new clarifiers will be larger and more efficient than the existing clarifiers and increase the rated capacity. This will help the City to maintain discharge water quality.

PROJECT SCHEDULE

Task	Schedule Date
Closing	September 1, 2024
Engineering Feasibility Report Completion	October 31, 2024
(End of Planning Phase)	
Design Phase Completion	December 2, 2024
Start of Construction	February 28, 2025
Construction Completion	February 26, 2027

COMMITMENT PERIOD: TWELVE (12) MONTHS TO EXPIRE MAY 31, 2025

Attachments:

- 1. Financial Review
- 2. Project Budget
- 3. Resolution (24-)
- 4. Water Conservation Review
- 5. Location Map

Financial Review City of Fort Worth

Risk Score: 2A Audit Reviewed: FY 2022

Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2020	City: 2.17%	State: 1.49%
Top 10 Customers % of Total Revenue	16%	10-15%
Median Household Income as % of State	101%	100%
Days of Cash on Hand (3-year Average)	272 days	30-149 days
Net Fixed Assets/ Annual Depreciation	33 years	12-24 years
Debt Service Coverage Ratio	0.86x	1.0x
Debt-to-Operating Revenues	2.16	4.00-5.99x
Unemployment Rate (January 2024)	City: 4.10%	State: 4.10%
Working Capital Ratio	1.73	> 1.0
Cash Balance Ratio	12%	0-9.99%

Key Risk Score Strengths

- The City's days of cash on hand are above the benchmark, indicating sufficient reserves for operating expenses.
- The City's self-supported debt-to-operating revenue ratio of 2.16 indicates a strong ability to service debt with its operating revenue, which enhances the financial stability of the water system.

Key Risk Score Concerns

- The City is pledging first lien revenues as the source of repayment. Based on audited 2022 revenues, the City has a 0.86 times debt service coverage ratio. However, this does not include a \$2.72 rate increase that the City implemented in January of 2024. To meet the 1.0 required coverage ratio, the City is projected to need a rate increase of \$8.96 in 2025 to service the propose debt. Additionally, the projected household cost factor is within the benchmark with this projected rate increase.
- The top ten water customers collectively account for 16 percent of the City's water system, surpassing the benchmark. It's worth noting that the City of Southlake, despite being the highest customer, contributes only 3.28% of the total revenue.

PLEDGE

Legal Pledge Name	Water and Sewer System Revenue
Type of Pledge	☐ Tax ☑ Revenue ☐ Tax & Revenue ☐ Contract ☐ Other
Revenue Pledge Level	☑ First ☐ Second ☐ Third ☐ N/A

RATES AND CHARGES

Average Residential Use	Gallons/Month	Current Rates	Projected Rates (Year 2025)	Current Household Cost Factor	Projected Household Cost Factor
Water	7,638	\$39.91	\$48.87	1.39	1.56
Wastewater	4,444	\$32.04	\$32.04	1.59	1.30

Cost Savings

Based on a 30-year maturity schedule and current interest rates, the City could save approximately \$10,255,159 over the life of the financing.



Project Data Summary

Fort Worth
CWSRF
L1001782
73954
2024
Revenue Pledge
First Lien
\$59,000,000 City of Fort Worth, Texas, Water and Sewer System Revenue Bonds Series 2024
Tax-Exempt
No
Yes
Escrow
Outlay <> Escrow Release
No
Non-Equivalency
N/A
Construction
No
N/A
Adopted
2A

		PROJECT TEAM		
Team Manager	Financial Analyst	Engineering Reviewer	Environmental Reviewer	Attorney
Joe Koen	Raul Flores	Jason Asbury	Kylie Beard	Marshall Walters

ISSUE BEING EVALUATED FOR ILLUSTRATION PURPOSES ONLY City of Fort Worth

§59,000,000 City of Fort Worth, Texas, Water and Sewer System Revenue Bonds Series 2024

Dated Date: 9/1/2024 CWSRF-NON-EQUIVALENCY Source: **Delivery Date:** 9/1/2024 Rate: 2.51% First Interest: 3/1/2025 **IUP Year:** 2024 Revenue Only First Principal: 9/1/2025 Case: Last Principal: 9/1/2054 Admin.Fee: \$1,014,742 Fiscal Year End: 09/30 Admin. Fee Payment Date: 9/1/2024 Required Coverage: 1.0

	PROJECTED	CURRENT		\$59,000,00	00 ISSUE			
FISCAL YEAR	NET SYSTEM REVENUES	DEBT SERVICE	PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT	TOTAL DEBT SERVICE	COVERAGE
2025	\$265,911,727	\$263,362,303	\$1,200,000	1.85%	\$1,349,424	\$2,549,424	\$265,911,727	1.00
2026	265,911,727	249,307,540	1,330,000	1.67%	1,327,224	2,657,224	251,964,764	1.06
2027	265,911,727	240,118,106	1,405,000	1.59%	1,305,013	2,710,013	242,828,119	1.10
2028	227,963,000	213,799,762	1,435,000	1.51%	1,282,674	2,717,674	216,517,435	1.05
2029	227,963,000	202,968,693	1,490,000	1.48%	1,261,005	2,751,005	205,719,698	1.11
2030	227,963,000	189,249,114	1,490,000	1.49%	1,238,953	2,728,953	191,978,067	1.19
2031	227,963,000	174,527,653	1,520,000	1.50%	1,216,752	2,736,752	177,264,405	1.29
2032	227,963,000	168,963,630	1,550,000	1.51%	1,193,952	2,743,952	171,707,582	1.33
2033	227,963,000	158,677,021	1,580,000	1.52%	1,170,547	2,750,547	161,427,568	1.41
2034	227,963,000	150,161,969	1,610,000	1.53%	1,146,531	2,756,531	152,918,500	1.49
2035	227,963,000	138,444,884	1,640,000	1.72%	1,121,898	2,761,898	141,206,782	1.61
2036	227,963,000	127,389,178	1,675,000	1.87%	1,093,690	2,768,690	130,157,868	1.75
2037	227,963,000	118,303,693	1,710,000	2.02%	1,062,368	2,772,368	121,076,061	1.88
2038	227,963,000	115,434,545	1,755,000	2.18%	1,027,826	2,782,826	118,217,370	1.93
2039	227,963,000	112,121,830	1,800,000	2.28%	989,567	2,789,567	114,911,397	1.98
2040	227,963,000	106,707,205	1,900,000	2.34%	948,527	2,848,527	109,555,732	2.08
2041	227,963,000	98,472,183	1,900,000	2.41%	904,067	2,804,067	101,276,249	2.25
2042	227,963,000	90,502,778	2,000,000	2.46%	858,277	2,858,277	93,361,054	2.44
2043	227,963,000	85,185,343	2,150,000	2.52%	809,077	2,959,077	88,144,420	2.59
2044	227,963,000	64,989,101	2,225,000	2.55%	754,897	2,979,897	67,968,997	3.35
2045	227,963,000	65,015,983	2,500,000	2.60%	698,159	3,198,159	68,214,142	3.34
2046	227,963,000	59,235,833	2,300,000	2.63%	633,159	2,933,159	62,168,992	3.67
2047	227,963,000	56,644,381	2,350,000	2.67%	572,669	2,922,669	59,567,050	3.83
2048	227,963,000	42,197,691	2,450,000	2.70%	509,924	2,959,924	45,157,615	5.05
2049	227,963,000	39,471,045	2,500,000	2.73%	443,774	2,943,774	42,414,819	5.37
2050	227,963,000	34,354,984	2,635,000	2.74%	375,524	3,010,524	37,365,508	6.10
2051	227,963,000	29,783,865	2,650,000	2.76%	303,325	2,953,325	32,737,190	6.96
2052	227,963,000	26,465,946	2,700,000	2.78%	230,185	2,930,185	29,396,131	7.75
2053	227,963,000	17,917,641	2,750,000	2.79%	155,125	2,905,125	20,822,766	10.95
2054	227,963,000	-	2,800,000	2.80%	78,400	2,878,400	2,878,400	79.20
		\$3,439,773,898	\$59,000,000		\$26,062,509	\$85,062,509	\$3,524,836,407	

AVERAGE (MATURITY) LIFE	17.58 YEARS
NET INTEREST RATE	2.512%
COST SAVINGS	\$10,255,159
AVERAGE ANNUAL REQUIREMENT	\$2,835,417

Disclaimer: This is a working document and is provided as a courtesy. All information contained herein, including the proposed interest rate, is subject to change upon further review of the TWDB in accordance with 31 Texas Administrative Code Chapters 363, 371, 375, or 384, as applicable. The TWDB does not function as a financial advisor to anyone in connection with this financing. The information contained in this document is used by TWDB staff to analyze the application for financing is illustrative only and does not constitute any guaranty of future rates. The TWDB makes no claim regarding the applicability of the information at closing, at which time actual rates will be set.



Project Budget Summary

Fort Worth

73954 - Village Creek Water Reclamation Facility (VCWRF) Primary Clarifiers 1-12 Replacement & Improvement

Budget Items	TWDB Funds	Total
Construction		
Construction	\$56,362,103.00	\$56,362,103.00
Subtotal for Construction	\$56,362,103.00	\$56,362,103.00
Fiscal Services		
Bond Counsel	\$65,000.00	\$65,000.00
Bond Reserve Fund	\$1,465,005.00	\$1,465,005.00
Financial Advisor	\$68,350.00	\$68,350.00
Fiscal/Legal	\$9,500.00	\$9,500.00
Issuance Costs	\$15,300.00	\$15,300.00
Loan Origination Fee	\$1,014,742.00	\$1,014,742.00
Subtotal for Fiscal Services	\$2,637,897.00	\$2,637,897.00
Total	\$59,000,000.00	\$59,000,000.00

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD

APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF \$59,000,000 TO THE CITY OF FORT WORTH

FROM THE CLEAN WATER STATE REVOLVING FUND

THROUGH THE PROPOSED PURCHASE OF \$59,000,000 CITY OF FORT WORTH, TEXAS

WATER AND SEWER SYSTEM REVENUE BONDS,

PROPOSED SERIES 2024

(24 -)

Recitals:

The City of Fort Worth (City), located in Tarrant County has filed an application for financial assistance in the amount of \$59,000,000 from the Clean Water State Revolving Fund (CWSRF) to finance the construction of wastewater system improvements identified as Project No. 73954.

The City seeks financial assistance from the Texas Water Development Board (TWDB) through the TWDB's proposed purchase of \$59,000,000 City of Fort Worth, Texas Water and Sewer System Revenue Bonds, Proposed Series 2024 (together with all authorizing documents, (Obligations)), all as is more specifically set forth in the application and in recommendations of the TWDB's staff.

The City has offered a pledge of water and sewer system revenue as sufficient security for the repayment of the Obligations.

Findings:

- 1. The revenue or taxes pledged by the City will be sufficient to meet all the Obligations assumed by the City, in accordance with Texas Water Code § 15.607.
- 2. The application and assistance applied for meet the requirements of the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 et seq..
- 3. The term of the Obligations does not exceed the expected useful life of the project proposed by the City.
- 4. The City has adopted and implemented a water conservation program for the more efficient use of water that will meet reasonably anticipated local needs and conditions and that incorporates practices, techniques, or technology prescribed by the Texas Water Code and TWDB's rules.

5. The City has considered cost-effective, innovative, and nonconventional methods of treatment, in accordance with Texas Water Code § 15.007.

NOW THEREFORE, based on these findings, the TWDB resolves as follows:

A commitment is made by the TWDB to the City of Fort Worth for financial assistance in the amount of \$59,000,000 from the Clean Water State Revolving Fund through the TWDB's proposed purchase of \$59,000,000 City of Fort Worth, Texas Water and Sewer System Revenue Bonds, Proposed Series 2024. This commitment will expire on May 31, 2025.

The commitment is conditioned as follows.

Standard Conditions:

- 1. The commitment is contingent on a future sale of bonds by the TWDB or on the availability of funds on hand as determined by the TWDB. If the financial assistance is funded with available cash-on-hand, the TWDB reserves the right to change the designated source of funds to bond proceeds issued for the purpose of reimbursing funds used to provide the financial assistance approved in this Resolution.
- 2. The commitment is contingent upon the issuance of a written approving opinion of the Attorney General of the State of Texas stating that all the requirements of the laws under which the Obligations are issued have been complied with; that the Obligations were issued in conformity with the Constitution and laws of the State of Texas; and that the Obligations are valid and binding obligations of the City.
- 3. The commitment is contingent upon the City's compliance with all applicable requirements contained in 31 TAC Chapter 375.
- 4. The Obligations must provide that the City agrees to comply with all the conditions set forth in the TWDB Resolution.
- 5. The Obligations must provide that the Obligations can be called for early redemption on any date beginning on or after the first interest payment date which is 10 years from the dated date of the Obligations at a redemption price of par, together with accrued interest to the date fixed for redemption.
- 6. The City, or an obligated person for whom financial or operating data is presented to the TWDB in the application for financial assistance either individually or in combination with other issuers of the City's Obligations, at a minimum and regardless of the amount of the Obligations, must agree to comply with requirements for continuing disclosure on an ongoing basis substantially in the manner required by the Securities and Exchange Commission (SEC) in 17 CFR

§ 240.15c2-12 (Rule 15c2-12) and determined as if the TWDB were a Participating Underwriter within the meaning of the rule, the continuing disclosure undertaking being for the benefit of the TWDB and the beneficial owners of the City's Obligations, if the TWDB sells or otherwise transfers the Obligations, and the beneficial owners of the TWDB's bonds if the City is an obligated person with respect to the bonds under SEC Rule 15c2-12.

- 7. The Obligations must require the City to levy a tax or maintain and collect sufficient rates and charges, as applicable, to produce system funds in an amount necessary to meet the debt service requirements of all outstanding obligations and to maintain the funds established and required by the Obligations.
- 8. The Obligations must require the City to use any proceeds from the Obligations that are determined to be remaining unused funds for enhancements to the original project that are explicitly approved by the Executive Administrator or, if no enhancements are authorized by the Executive Administrator, requiring the City to submit a final accounting and disposition of any unused funds. Remaining unused funds are those funds unspent after the original approved project is completed.
- 9. The Obligations must require the City to use any proceeds from the Obligations that are determined to be surplus funds in a manner approved by the Executive Administrator. Surplus funds are funds remaining after completion of the project and completion of a final accounting.
- 10. The Obligations must provide that the TWDB may exercise all remedies available to it in law or equity and any provision of the Obligations that restricts or limits the TWDB's full exercise of these remedies shall be of no force and effect.
- 11. Proceeds of this commitment are public funds. Therefore, the Obligations must require that these proceeds shall be held at a designated state depository institution or other properly chartered and authorized institution in accordance with the Public Funds Investment Act, Government Code, Chapter 2256, and the Public Funds Collateral Act, Government Code, Chapter 2257.
- 12. Proceeds of this commitment must not be used by the City when sampling, testing, removing, or disposing of contaminated soils or media at the project site. The Obligations must provide that the City is solely responsible for liability resulting from acts or omissions of the City, its employees, contractors, or agents arising from the sampling, analysis, transport, storage, treatment, recycling, and disposition of any contaminated sewage sludge, contaminated sediments or contaminated media that may be generated by the City, its contractors, consultants, agents, officials, and employees as a result of activities relating to the Project to the extent permitted by law.

- 13. Before closing, the City must submit documentation evidencing the adoption and implementation of sufficient system rates and charges or the levy of an interest and sinking tax rate sufficient for the repayment of all system debt service requirements.
- 14. Before closing, and if not previously provided with the application, the City must submit executed contracts for engineering, and, if applicable, financial advisor and bond counsel contracts, for the project that are satisfactory to the Executive Administrator. Fees to be reimbursed under the contracts must be reasonable in relation to the services performed, reflected in the contract, and acceptable to the Executive Administrator.
- 15. Before closing, when any portion of the financial assistance is to be held in escrow or in trust, the City must execute an escrow or trust agreement, approved as to form and substance by the Executive Administrator and shall submit that executed agreement to the TWDB.
- 16. The Executive Administrator may require the City to execute a separate financing agreement in form and substance acceptable to the Executive Administrator.
- 17. The Obligations must provide that the City must comply with all applicable federal laws and TWDB laws and rules related to the use of the financial assistance.
- 18. The Obligations must provide that the City must comply with all conditions as specified in the final environmental finding of the Executive Administrator when issued including the standard emergency discovery conditions for threatened and endangered species and cultural resources.
- 19. The Obligations must require the City to maintain insurance coverage sufficient to protect the TWDB's interest in the project.
- 20. The City must immediately notify TWDB in writing of any suit against it by the Attorney General of Texas under Texas Government Code § 2.103 and Texas Penal Code § 1.10(f), related to federal laws regulating firearms, firearm accessories, and firearm ammunition.
- 21. The Obligations must provide that the City must submit annually, an audit prepared by a certified public accountant in accordance with generally accepted auditing standards.

Tax-Exempt Conditions:

22. The City's bond counsel must prepare a written opinion that states that the interest on the Obligations is excludable from gross income or is exempt from federal

- income taxation. Bond counsel may rely on covenants and representations of the City when rendering this opinion.
- 23. The City's bond counsel opinion must state that the Obligations are not "private activity bonds." Bond counsel may rely on covenants and representations of the City when rendering this opinion.
- 24. The Obligations must prohibit the City from using the financial assistance in a manner that would cause the Obligations to become "private activity bonds" within the meaning of section 141 of the Internal Revenue Code of 1986, as amended (Code) and the Treasury Regulations promulgated under section 141 (Regulations).
- 25. The Obligations must provide that no portion of the proceeds of this financial assistance will be used, directly or indirectly, in a manner that would cause the Obligations to be "arbitrage bonds" within the meaning of section 148(a) of the Code and Regulations, including to acquire or to replace funds that were used, directly or indirectly, to acquire Nonpurpose Investments (as defined in the Code and Regulations) that produce a yield materially higher than the yield on the TWDB's bonds that are issued to provide the financial assistance (Source Series Bonds), other than Nonpurpose Investments acquired with:
 - a. proceeds of the TWDB's Source Series Bonds invested for a reasonable temporary period of up to three (3) years after the issue date of the Source Series Bonds until the proceeds are needed for the facilities to be financed;
 - b. amounts invested in a bona fide debt service fund, within the meaning of section 1.148-1(b) of the Regulations; and
 - c. amounts deposited in any reasonably required reserve or replacement fund to the extent the deposited amounts do not exceed the least of maximum annual debt service on the Obligations, 125% of average annual debt service on the Obligations, or 10 percent of the stated principal amount, or, in the case of a discount, the issue price of the Obligations.
- 26. The Obligations must require the City to take all necessary steps to comply with the requirement that certain amounts earned on the investment of gross proceeds of the Obligations be rebated to the federal government to satisfy the requirements of section 148 of the Code. The Obligations must provide that the City must:
 - a. account for all Gross Proceeds, as defined in the Code and Regulations, (including all receipts, expenditures, and investments) on its books of account separately and apart from all other funds, including receipts, expenditures, and investments, and retain all records of the accounting for at least six years after the final Computation Date. The City may, however, to

the extent permitted by law, commingle Gross Proceeds of this financial assistance with other money of the City, provided that the City separately accounts for each receipt and expenditure of the Gross Proceeds and the obligations acquired those proceeds;

- b. calculate the Rebate Amount, as defined in the Code and Regulations, with respect to this financial assistance, not less frequently than each Computation Date, in accordance with rules set forth in section 148(f) of the Code, section 1.148-3 of the Regulations, and related rulings. The City must maintain a copy of the calculations for at least six years after the final Computation Date;
- c. as additional consideration for the making of this commitment, and to induce the financial assistance by measures designed to ensure the excludability of the interest on the TWDB's Source Series Bonds from the gross income of the owners for federal income tax purposes, pay to the United States the amount described in paragraph (b) above within 30 days after each Computation Date; and
- d. exercise reasonable diligence to assure that no errors are made in the calculations required by paragraph (b) and, if an error is made, to discover and promptly to correct the error within a reasonable amount of time after including payment to the United States of any interest and any penalty required by the Regulations.
- 27. The Obligations must prohibit the City from taking any action that would cause the interest on the Obligations to be includable in gross income for federal income tax purposes.
- 28. The Obligations must provide that the City will not cause or permit the Obligations to be treated as "federally guaranteed" obligations within the meaning of section 149(b) of the Code.
- 29. The transcript must include a No Arbitrage Certificate or similar Federal Tax Certificate setting forth the City's reasonable expectations regarding the use, expenditure, and investment of the proceeds of the Obligations.
- 30. The Obligations must provide that the City will refrain from using the proceeds provided by this TWDB commitment or the proceeds of any prior bonds to pay debt service on another issue more than 90 days after the date of issue of the Obligations in contravention of the requirements of section 149(d) of the Code, relating to advance refundings.

- 31. The transcript must include evidence that the information reporting requirements of section 149(e) of the Code will be satisfied. This requirement may be satisfied by filing an IRS Form 8038 with the Internal Revenue Service. In addition, the applicable completed IRS Form 8038 or other evidence that the information reporting requirements of section 149(e) have been satisfied must be provided to the Executive Administrator within fourteen (14) days of closing. The Executive Administrator may withhold the release of funds for failure to comply.
- 32. The Obligations must provide that neither the City nor a related party will acquire any of the TWDB's Source Series Bonds in an amount related to the amount of the Obligations to be acquired from the City by the TWDB.
- 33. Before closing, the City must provide certification that the average weighted maturity of the Obligations purchased by the TWDB does not exceed 120% of the average reasonably expected economic life of the Project.

State Revolving Fund Conditions:

- 34. The City must submit outlay reports on a quarterly or monthly basis with sufficient documentation on costs in accordance with TWDB outlay report guidelines.
- 35. The Obligations must provide that all laborers and mechanics employed by contractors and subcontractors for projects be paid wages at rates not less than those prevailing on projects of a similar character in the locality in accordance with the Davis-Bacon Act, and the U.S. Department of Labor's implementing regulations. The City, all contractors, and all sub-contractors must ensure that all project contracts mandate compliance with Davis-Bacon. All contracts and subcontracts for the construction of the project carried out in whole or in part with financial assistance made available as provided must insert in full in any contract in excess of \$2,000 the contract clauses as provided by the TWDB.
- 36. The Obligations must provide that the City shall provide the TWDB with all information required to be reported in accordance with the Federal Funding Accountability and Transparency Act of 2006, Pub. L. 109-282, as amended by Pub. L. 110-252. The City shall obtain a Unique Entity Identification Number and shall register with System for Award Management (SAM) and maintain current registration at all times during which the Obligations are outstanding.
- 37. The Obligations must provide that all proceeds of this financial assistance will be timely and expeditiously used, as required by 40 CFR § 35.3135(d), and must provide that the City will adhere to the approved project schedule.
- 38. The Obligations must provide that the City will abide by all applicable construction contract requirements related to the use of iron and steel products produced in the

- United States, as required by 31 TAC § 375.3, 33 U.S.C. § 1388, and related State Revolving Fund Policy Guidelines.
- 39. The Obligations must provide that the City must comply with the requirements set forth in 33 U.S.C. § 1382 et seq. related to maintaining project accounts containing financial assistance for planning, design, acquisition, or construction in accordance with generally accepted accounting principles (GAAP). These standards and principles also apply to the reporting of underlying infrastructure assets.
- 40. The Obligations must provide that the City shall abide by the prohibition on certain telecommunications and video surveillance services or equipment as required by 2 CFR § 200.216.

Clean Water State Revolving Fund Conditions:

41. The City must pay at closing an origination fee approved by the Executive Administrator of the TWDB pursuant 31 TAC Chapter 375.

Pledge Conditions:

- 42. The Obligations must require the accumulation of a reserve fund of no less than average annual debt service requirements of the Obligations and the annual debt service requirements of all additional debt, to be accumulated in equal monthly installments over the initial sixty (60) months following the issuance of the Obligations.
- 43. The Obligations must be on parity with any existing obligations that are secured with the same pledge of security as the proposed Obligations.
- 44. The Obligations must be governed by the additional debt test and reserve requirement as provided in the outstanding City of Fort Worth, Texas Water and Sewer System Revenue Bonds, Series 20009, 2015, 2015B, 2017, 2017B, and 2020.

APPROVED and ordered of record this 9th day of May 2024.

	TEXAS WATER DEVELOPMENT BOARD
	Brooke T. Paup, Chairwoman
	DATE SIGNED:
ATTEST:	
Bryan McMath, Interim Exec	utive Administrator

Water
Wastewater
Other

Baseline

WATER CONSERVATION PLAN DATE:

WATER CONSERVATION REVIEW

Attachment 4 Review Date:

Project ID:

Adopted

Water Loss GPCD

Approvable

Residential GPCD

Entity: Other entity:

Total GPCD

5-year Goal					
,					
10-year Goal					
WATER LOSS AUDIT YEAR:					
Service connections: Retail population:	Length of main lines (miles): Connections per mile:		Water Loss GCD: Water Loss GPCD: ILI: Real Loss GMD:		
WATER LOSS THRESHOLDS		ect: Waiver Requested:			
Wholesale Adjusted:	Apparent Loss GCD		Real Loss GCD		
Threshold Type:	Reported	Threshold	Reported	Thre	shold
Does the applicant meet Water Loss Threshold Requirements?			Yes	No	NA
ADDITIONAL INFORMATION					

STAFF NOTES AND RECOMMENDATIONS

DEFINITIONS

Adopted refers to a water conservation plan that meets the minimum requirements of the water conservation plan rules and has been formally approved and adopted by the applicant's governing body.

Apparent losses are paper losses that occur when the water reaches a customer, but the volume is not accurately measured and/or recorded due to unauthorized consumption, customer meter inaccuracy, or billing system and collection data errors.

Approvable refers to a water conservation plan that substantially meets the minimum requirements of the water conservation plan rules but has not yet been adopted by the applicant's governing body.

Best Management Practices are voluntary efficiency measures that save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.

GPCD means gallons per capita per day.

GCD means gallons per connection per day.

GMD means gallons per mile per day.

Infrastructure Leakage Index (ILI) is the current annual real loss divided by the unavoidable annual real loss (theoretical minimum real loss) and only applies to utilities with more than 3,000 connections and a connection density of more than 16 connections per mile. The ILI is recommended to be less than 3 if water resources are greatly limited and difficult to develop, between 3 and 5 if water resources are adequate to meet long-term needs but water conservation is included in long-term water planning, and between 5 and 8 if water resources are plentiful, reliable, and easily extracted. The ILI is recommended as a bench marking tool, but until there is increased data validity of the variables used in the calculation, the ILI should be viewed with care.

NA means not applicable.

Real losses are the physical losses, largely leakage, from the infrastructure: mains, valves, and storage tank overflows. Real loss constitutes background leakage (unreported and difficult to detect), unreported leakage (leaks that do not surface but could be detected), and reported leakage (leaks that often surface and those that are detected by the utility through leak detection).

Residential GPCD is the amount of residential water use (single and multi-family customer use) divided by the residential population divided by 365.

Total GPCD is the amount of total system input volume divided by the retail population divided by 365.

Total water loss is the sum of the apparent and real water losses.

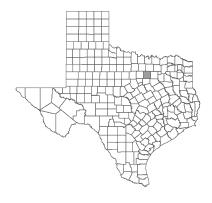
Water loss is the difference between the input volume and the authorized consumption within a water system. Water Loss consists of real losses and apparent losses.

Water Loss GPCD is the amount of water loss divided by the retail population divided by 365.

Water Loss per Connection per Day Calculated as the water loss volume divided by the number service connections divided by 365. This indicator allows for reliable performance tracking in the water utility's efforts to reduce water losses. It replaces water loss percentage.

Water Loss Thresholds are levels of real and apparent water loss determined by the connection density of a retail public utility, at or above which a utility receiving financial assistance from the Texas Water Development Board must use a portion of that financial assistance to mitigate the utility's system water loss.

Wholesale Adjusted represents that some utilities provide large volumes of wholesale water to other providers that travel through the general distribution system, so a calculation has been established to adjust for that volume of wholesale water. These adjustments are only applicable for use in determining whether a utility meets or exceeds water loss thresholds in review of their application for financial assistance. These adjustments should not be used for performance tracking or benchmarking.



City of Fort Worth Tarrant County

