



PROJECT FUNDING REQUEST

BOARD DATE: July 24, 2025

Team Manager: Joe Koen

ACTION REQUESTED

Consider approving by resolution a request from the City of Fort Worth (Tarrant, Denton, Parker, Wise Counties) for a) \$180,000,000 in financing from the Texas Water Development Fund for construction of a water treatment plant expansion project; and b) a waiver from the requirement to include funds to mitigate water loss as part of this project.

STAFF RECOMMENDATION

☒ Approve ☐ No Action

BACKGROUND

The City of Fort Worth (City) is located in Tarrant County approximately 33 miles west of Dallas. The City provides water services to a population of approximately 1,400,000 residents and is a wholesale water provider to several neighboring communities. Its population is expected to grow exponentially by 2028.

In 2024, the Texas Water Development Board approved a \$125,000,000 commitment to plan, design, and construct an expansion of the Eagle Mountain Water Treatment Plant (EMWTP) and increase its capacity by 35 million gallons per day (MGD). Due to increased construction and material costs, more funding is required to complete the expansion.

PROJECT NEED AND DESCRIPTION

The City's Eagle Mountain Water Treatment Plant (EMWTP) has a treatment capacity of 105 million gallons per day (MGD). The water demand at the EMWTP is expected to be 140MGD by 2028. The City needs to expand the capacity of EMWTP to meet this projected demand.

The City is requesting additional funding to continue to construct an expansion to the EMWTP. This expansion includes the addition of a raw water ozone system, flocculation and sedimentation basins, biological filtration, membrane filtration, and disinfection, and other improvement. This project will expand the capacity of EMWTP by 35 MGD, with the ability to expand capacity by an additional 50 MGD, for a total capacity of 190 MGD, to meet future demand. This project will allow the City to meet projected water needs as well as provide redundancy and flexibility within the system to address future needs.

COMMITMENT PERIOD: FIVE (5) MONTHS TO EXPIRE DECEMBER 31, 2025

PROJECT SCHEDULE

Task	Schedule Date
Engineering Feasibility Report Completion (End of Planning Phase)	July 31, 2025
Design Phase Completion	August 25, 2025
Start of Construction	October 20, 2025
Closing	December 16, 2025
Construction Completion	June 10, 2029

KEY ISSUES

The City is requesting a waiver from having to include funds to mitigate water loss as part of this project. The City is above its threshold for real loss. In its waiver request, the City shows they budget annually \$200,000 to contract a third-party to conduct leak surveys to validate and repair leaks. In addition, the City owns and utilizes acoustic leak detection equipment for internal leak surveys and implemented four district meter areas (DMAs) to date, which have led to corrective action. Additionally, the City tracks cast iron replacement with a goal of replacing 20 miles of pipe annually. These actions will help mitigate the City's real water loss, which justifies the request for a water loss waiver.

LEGAL/SPECIAL CONDITIONS

- Water rights certification

Attachments:

1. Financial Review
2. Project Budget
3. Resolution (25-)
4. Water Conservation Review
5. Water Loss Waiver Request
6. Location Map

Financial Review City of Fort Worth

Attachment 1

Risk Score: 2A

Audit Reviewed: FY 2024

Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2020	City: 2.17%	State: 1.49%
Top 10 Customers % of Total Revenue	3%	10-15%
Median Household Income as % of State	100%	100%
Days of Cash on Hand (3-year Average)	227 days	30-149 days
Net Fixed Assets/ Annual Depreciation	33 years	12-24 years
Debt Service Coverage Ratio	1.85x	1.0x
Debt-to-Operating Revenues	2.72x	4.00-5.99x
Unemployment Rate (April, 2025)	City: 3.5%	State: 3.7%
Working Capital Ratio	3.24	> 1.0

Key Risk Score Strengths

- The City maintains a high debt service coverage ratio, reflecting robust financial health and strong cash flow relative to its debt obligations. This indicates a well-managed budget, ample revenue streams, and a strong ability to meet debt payments without financial strain. The lowest coverage within the first ten years of the proposed financing is 1.85x coverage in 2026, with the highest being 2.66x coverage in 2035.
- The City's working capital ratio is above the benchmark, indicating its robust liquidity position and ample resources to cover its short-term liabilities efficiently.
- The projected household cost factor is 1.16 percent, indicating that utility rates are not projected to create a burden on the City's constituency.

PLEDGE

Legal Pledge Name	Water and Sewer System Revenues
Type of Pledge	<input type="checkbox"/> Tax <input checked="" type="checkbox"/> Revenue <input type="checkbox"/> Tax & Revenue <input type="checkbox"/> Contract <input type="checkbox"/> Other
Revenue Pledge Level	<input checked="" type="checkbox"/> First <input type="checkbox"/> Second <input type="checkbox"/> Third <input type="checkbox"/> N/A

RATES AND CHARGES

Average Residential Use	Gallons/Month	Current Rates	Projected Rates	Current Household Cost Factor	Projected Household Cost Factor
Water	7,241	\$38.22	\$38.22	1.16	1.16
Wastewater	4,431	\$31.95	\$31.95		

Cost Savings

Based on a 30-year maturity schedule and current interest rates, the City could save approximately \$14,145,212.43 over the life of the financing.

Project Data Summary

Responsible Authority	City of Fort Worth
Program	SWIFT
Commitment Number	L1002203
Project Number	51092
List Year	2025
Type of Pledge	Revenue Pledge
Pledge Level (if applicable)	First Lien
Legal Description	\$180,000,000 City of Fort Worth, Texas Water and Sewer System Revenue Bonds, Proposed Series 2025
Tax-exempt or Taxable	Tax-Exempt
Refinance	No
Outlay Requirement	No
Disbursement Method	Escrow
Outlay Type	Outlay <> Escrow Release
Qualifies as Disadvantaged	No
SWIFT Financing Type	Low-Interest
Financial Managerial & Technical Complete	N/A
Phases Funded	Construction
Pre-Design	No
Project Consistent with State Water Plan	Yes
Water Conservation Plan	Adopted
Overall Risk Score	2A

PROJECT TEAM

Team Manager	Financial Analyst	Engineering Reviewer	Environmental Reviewer	Attorney
Joe Koen	Kyle DuQuesnay	Jason Asbury	Kylie Beard	Marshall Walters

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY
City of Fort Worth

\$180,000,000 City of Fort Worth, Texas Water and Sewer System Revenue Bonds Proposed Series 2025

Dated Date:	12/16/2025	Source:	SWIFT-LOW-30YR
Delivery Date:	12/16/2025	Rate:	4.36%
First Interest:	2/15/2026	IUP Year:	2025
First Principal:	2/15/2026	Case:	Revenue
Last Principal:	2/15/2055	Admin.Fee:	\$0
Fiscal Year End:	09/30	Admin. Fee Payment Date:	N/A
Required Coverage:	1.0		

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$180,000,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2026	\$226,563,000	\$113,736,374	\$3,625,000	2.81%	\$4,784,262	\$8,409,262	\$122,145,636	1.85
2027	226,563,000	111,686,448	3,530,000	2.77%	7,132,383	10,662,383	122,348,831	1.85
2028	226,563,000	100,833,949	3,630,000	2.78%	7,033,036	10,663,036	111,496,985	2.03
2029	226,563,000	100,808,576	3,730,000	2.80%	6,930,359	10,660,359	111,468,935	2.03
2030	226,563,000	98,772,226	3,840,000	2.85%	6,823,419	10,663,419	109,435,645	2.07
2031	226,563,000	89,796,221	3,950,000	2.92%	6,711,029	10,661,029	100,457,249	2.26
2032	226,563,000	89,782,461	4,070,000	2.99%	6,592,512	10,662,512	100,444,973	2.26
2033	226,563,000	85,045,441	4,195,000	3.05%	6,467,692	10,662,692	95,708,133	2.37
2034	226,563,000	85,020,873	4,325,000	3.17%	6,335,167	10,660,167	95,681,040	2.37
2035	226,563,000	74,522,240	4,470,000	3.26%	6,193,755	10,663,755	85,185,994	2.66
2036	226,563,000	68,804,432	4,620,000	3.46%	6,040,968	10,660,968	79,465,399	2.85
2037	226,563,000	64,984,622	4,785,000	3.57%	5,875,629	10,660,629	75,645,251	3.00
2038	226,563,000	64,996,460	4,965,000	3.69%	5,698,613	10,663,613	75,660,073	2.99
2039	226,563,000	65,002,291	5,155,000	3.80%	5,509,064	10,664,064	75,666,355	2.99
2040	226,563,000	64,998,497	5,355,000	3.90%	5,306,696	10,661,696	75,660,193	2.99
2041	226,563,000	61,788,236	5,570,000	4.01%	5,090,595	10,660,595	72,448,831	3.13
2042	226,563,000	61,802,806	5,800,000	4.12%	4,859,437	10,659,437	72,462,243	3.13
2043	226,563,000	61,828,230	6,050,000	4.23%	4,611,999	10,661,999	72,490,229	3.13
2044	226,563,000	61,853,056	6,315,000	4.29%	4,348,585	10,663,585	72,516,641	3.12
2045	226,563,000	61,881,122	6,590,000	4.37%	4,069,137	10,659,137	72,540,258	3.12
2046	226,563,000	61,903,691	6,895,000	4.55%	3,768,284	10,663,284	72,566,975	3.12
2047	226,563,000	59,320,398	7,215,000	4.55%	3,447,281	10,662,281	69,982,680	3.24
2048	226,563,000	53,270,578	7,550,000	4.55%	3,111,378	10,661,378	63,931,956	3.54
2049	226,563,000	50,537,891	7,900,000	4.55%	2,759,890	10,659,890	61,197,781	3.70
2050	226,563,000	45,432,986	8,270,000	4.55%	2,392,023	10,662,023	56,095,008	4.04
2051	226,563,000	40,874,278	8,660,000	4.63%	2,003,401	10,663,401	51,537,679	4.40
2052	226,563,000	37,569,215	9,070,000	4.63%	1,592,952	10,662,952	48,232,167	4.70
2053	226,563,000	29,029,202	9,500,000	4.63%	1,163,056	10,663,056	39,692,258	5.71
2054	226,563,000	18,555,885	9,950,000	4.63%	712,789	10,662,789	29,218,674	7.75
2055	226,563,000	-	10,420,000	4.63%	241,223	10,661,223	10,661,223	21.25
		\$1,984,438,684	\$180,000,000		\$137,606,607	\$317,606,607	\$2,302,045,291	

AVERAGE (MATURITY) LIFE	17.55 YEARS
NET INTEREST RATE	4.356%
COST SAVINGS	\$7,170,412
AVERAGE ANNUAL REQUIREMENT	\$10,586,887

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

Attachment 2

City of Fort Worth

51092 - Eagle Mountain Water Treatment Plant - 35
MGD Expansion

Budget Items	Previous Commitments	Local and Other Funds	This Commitment	Total
Construction				
Construction	\$119,609,688.00	\$0.00	\$174,745,492.00	\$294,355,180.00
Subtotal for Construction	\$119,609,688.00	\$0.00	\$174,745,492.00	\$294,355,180.00
Basic Engineering Services				
Planning		\$15,503,908.00		\$15,503,908.00
Design		\$24,439,000.00		\$24,439,000.00
Subtotal for Basic Engineering Services		\$39,942,908.00		\$39,942,908.00
Special Services				
Environmental		\$61,000.00		\$61,000.00
Subtotal for Special Services		\$61,000.00		\$61,000.00
Fiscal Services				
Bond Reserve Fund	\$3,249,584.00	\$0.00	\$5,254,508.00	\$8,504,092.00
Fiscal/Legal	\$10,000.00	\$0.00		\$10,000.00
Issuance Costs	\$6,000.00	\$0.00		\$6,000.00
Subtotal for Fiscal Services	\$3,265,584.00	\$0.00	\$5,254,508.00	\$8,520,092.00
Contingency				
Contingency	\$2,124,728.00	\$0.00		\$2,124,728.00
Subtotal for Contingency	\$2,124,728.00	\$0.00		\$2,124,728.00
Total	\$125,000,000.00	\$40,003,908.00	\$180,000,000.00	\$345,003,908.00

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF
\$180,000,000 TO THE CITY OF FORT WORTH
THROUGH THE PROPOSED PURCHASE OF
\$180,000,000 CITY OF FORTH WORTH, TEXAS WATER AND SEWER SYSTEM
REVENUE BONDS, PROPOSED SERIES 2025A (EAGLE MOUNTAIN)

(25-)

Recitals:

The City of Fort Worth (City), located in Tarrant County, has filed an application for financial assistance in the amount of \$180,000,000 to finance the construction of a water supply project identified as Project No. 51092 (Project).

The City qualifies for financial assistance from the Texas Water Development Board (TWDB) through the TWDB's proposed purchase of \$180,000,000 City of Fort Worth, Texas Water and Sewer System Revenue Bonds, Proposed Series 2025A (Eagle Mountain) (Obligations), together with all authorizing documents, all as is more specifically set forth in the application and in recommendations of the Executive Administrator's staff.

The City has offered a pledge of a senior lien on the net revenues of the City's water and sewer system as sufficient security for the repayment of the Obligations.

The interest rate subsidies as approved by the Board at its April 10, 2025 meeting, are based on assumptions necessary to generate an optimum debt service structure for the anticipated TWDB SWIFT bond issuance and are subject to modification as necessary to preserve and maintain the integrity of the SWIFT Program.

The City requests a waiver of the requirement that a portion of the financial assistance received from the TWDB be used to mitigate the City's system water loss because the City annually contracts with a third-party to conduct leak surveys and repair leaks. Additionally, the City tracks cast iron replacement with a goal of replacing twenty miles of pipe annually.

In accordance with Texas Water Code § 17.124, the TWDB has considered all matters required by law and in particular the following:

1. The needs of the area to be served by the water supply project, the benefit of the water supply project to the area, the relationship of the water supply project to the overall, statewide water needs, and the relationship of the water supply project to the approved regional and state water plans.
2. And the availability of revenue to the City, from all sources, for the ultimate repayment of the cost of the water supply project, including interest.

Findings:

1. The application and assistance applied for meet the requirements of Texas Water Code, Chapter 15, Subchapters G and H and 31 TAC Chapter 363, Subchapters A and M; or the requirements of Chapter 17, Subchapters D, E, and L, and the TWDB's rules set forth in 31 TAC Chapter 363, Subchapter A.
2. The Project is a recommended water management strategy project in the State Water Plan adopted pursuant to Texas Water Code § 16.051, in accordance with Texas Water Code § 15.474(a).
3. The public interest requires state assistance in the financing of this project, in accordance with Texas Water Code § 17.125(a)(1).
4. The City has adopted and implemented a water conservation plan in accordance with Texas Water Code § 16.4021 and 31 TAC § 363.1309(b)(1).
5. The City has completed its current water audit and filed it with the TWDB in accordance with Texas Water Code §§ 16.0121 and 16.053(j) and 31 TAC § 358.6.
6. Based on the conditions described above, the City is satisfactorily addressing the City's system water loss, which supports a waiver of the requirement that a portion of the financial assistance received from the TWDB be used to mitigate the City's system water loss in accordance with Texas Water Code § 16.0121(g).
7. The City acknowledges its legal obligation to comply with any applicable requirements of federal law related to contracting with disadvantaged business enterprises and any applicable state law related to contracting with historically underutilized businesses, in accordance with Texas Water Code § 15.435(h) and 31 TAC § 363.1309(b)(3).

NOW THEREFORE, based on these findings, the TWDB commits to the following:

1. For the reasons stated above, the TWDB waives the requirements of Texas Water Code § 16.0121(g).
2. A commitment is made by the TWDB to the City of Fort Worth for financial assistance in the amount of \$180,000,000 from the Financial Assistance Account of the Texas Water Development Fund II to be evidenced by the TWDB's proposed purchase of \$180,000,000 City of Fort Worth, Texas Water and Sewer System Revenue Bonds, Proposed Series 2025A (Eagle Mountain). This commitment will expire on December 31, 2025.

The commitment is subject to the following:

Standard Conditions:

1. This 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.

2. This commitment is contingent upon the issuance of a written approving opinion of the Attorney General of the State of Texas stating that the City has complied with all of the requirements of the laws under which the Obligations were issued; that the Obligations were issued in conformance with the Constitution and laws of the State of Texas; and that the Obligations are valid and binding obligations of the City.
3. This commitment is contingent upon the City's continued compliance with all applicable laws, rules, policies, and guidance as these may be amended from time to time to adapt to a change in law, in circumstances, or any other legal requirement.
4. This commitment is contingent upon the City executing a separate financing agreement, approved as to form and substance by the Executive Administrator, and submitting the executed agreement to the TWDB consistent with the terms and conditions described in it.
5. Interest rate subsidies for non-level debt service structure are subject to adjustment by the Executive Administrator.
6. The City shall use a paying agent/registrar in accordance with 31 TAC § 363.42(c)(2) and shall require the paying agent/registrar to provide a copy of all receipts documenting debt service payments to the TWDB and to the TWDB's designated Trustee.

Required Obligation Conditions:

7. 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 that 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.
8. The Obligations must provide that the City will comply with all applicable TWDB laws and rules related to the use of the financial assistance.
9. 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.
10. The Obligations must contain a provision requiring the City to maintain insurance coverage sufficient to protect the TWDB's interest in the project.
11. The Obligations must include a provision wherein 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 or obligated persons, will, at a minimum, regardless of the amount of the Obligations, covenant 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 SEC rule 15c2-12, 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.

12. The Obligations must require the City to levy a tax or maintain and collect sufficient rates and charges to produce system revenues 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.
13. The Obligations must require the City to use any surplus financial assistance proceeds from the Obligations remaining after completion of the Project and completion of a final accounting in a manner approved by the Executive Administrator.
14. 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.
15. Financial assistance proceeds are public funds. Therefore, the Obligations must require that these proceeds 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.
16. Financial assistance proceeds shall 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.
17. The Obligations must require the City to report to the TWDB the amounts of Project funds, if any, that were used to compensate historically underutilized businesses that worked on the Project, in accordance with 31 TAC § 363.1312.
18. The Obligations must contain a provision that the TWDB will purchase the Obligations, acting through the TWDB's designated Trustee, and the Obligations shall be registered in the name of Cede & Co. and closed in book-entry-only form in accordance with 31 TAC § 363.42(c)(1).
19. The City must abide by all applicable construction contract requirements related to the use of iron and steel products produced in the United States, as required by

Texas Government Code, Chapter 2252, Subchapter G and Texas Water Code § 17.183.

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 require the City to submit annually an audit prepared by a certified public accountant in accordance with generally accepted auditing standards.
22. The Obligations must include a provision that, if the collateral or credit pledged by the City securing the Obligations is rated by a nationally-recognized statistical rating agency, the City, or other obligated person, will not discontinue the rating issued by a nationally-recognized statistical rating agency until the underlying Obligations are retired or no longer held by TWDB.

Tax-Exempt Conditions:

23. The Obligations must prohibit the City from using the proceeds of this 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 as amended (Code) and the Treasury Regulations promulgated under it (Regulations).
24. The Obligations must provide that no portion of the proceeds of the 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 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 amounts do not exceed the lesser 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.
25. The Obligations must require the City to take all necessary steps to comply with the requirement that amounts earned on the investment of gross proceeds of the

Obligations be rebated to the federal government in order to satisfy the requirements of section 148 of the Code. The Obligations must provide that the City will:

- a. account for all Gross Proceeds, as defined in the Code and Regulations, (including all receipts, expenditures, and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures, and investments thereof) 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 its 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 with the Gross Proceeds;
 - b. calculate the Rebate Amount, as defined in the Code and Regulations, with respect to its 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 the associated rulings. The City shall maintain a copy of the calculations for at least six years after the final Computation Date;
 - c. pay to the United States the amount described in paragraph (b) above within 30 days after each Computation Date as additional consideration for providing financial assistance and in order to induce providing 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 of TWDB's Bonds for federal income tax purposes;
 - d. exercise reasonable diligence to ensure that no errors are made in the calculations required by paragraph (b) and, if an error is made, to discover and promptly correct the error within a reasonable amount of time, including payment to the United States of any interest and any penalty required by the Regulations.
26. The Obligations must include a provision prohibiting 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.
 27. 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.
 28. The Obligations must contain a covenant that the City will refrain from using the proceeds of the Obligations to pay debt service on another issue of the borrower's obligations in contravention of section 149(d) of the Code (related to "advance refundings").

29. The Obligations must provide that neither the City nor a party related to it 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.

Pledge Conditions:

30. The Obligations shall be on parity with any existing obligations that are secured with the same pledge of security as the proposed Obligations.
31. The Obligations shall 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 2024B CWSRF (Village Creek).

Conditions To Close Or For Release Of Funds:

32. Before closing, the City must submit documentation evidencing the adoption and implementation of sufficient system rates and charges or, if applicable, the levy of an interest and sinking tax rate sufficient for the repayment of all system debt service requirements.
33. Before closing, if not previously provided with the application, the City shall submit executed contracts for engineering and, if applicable, financial advisor and bond counsel 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.
34. Before closing, when any portion of financial assistance is to be held in escrow or in trust, the City shall execute an escrow agreement or trust agreement, approved as to form and substance by the Executive Administrator, and shall submit that executed agreement to the TWDB.
35. Before closing, the City shall 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.
36. Before closing, the City shall submit to the escrow agent a closing memo signed by the Executive Administrator.
37. Before closing, 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.
38. Before closing, the City's bond counsel must prepare a written opinion that states that the Obligations are not "private activity bonds." Bond counsel may rely on covenants and representations of the City when rendering this opinion.

39. 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.
40. The transcript must include evidence that the information reporting requirements of section 149(e) of the Internal Revenue 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.

Special Conditions:

41. Before the release of construction funds for that portion of a Project that proposes surface water or groundwater development, the Executive Administrator must have issued a written finding that the City has the right to use the water that the Project financed by the TWDB will provide.

APPROVED and ordered of record this, the 24th day of July 2025.

TEXAS WATER DEVELOPMENT BOARD

L'Oreal Stepney, P.E., Chairwoman

DATE SIGNED: _____

ATTEST:

Bryan McMath, Executive Administrator

Review Date:

Project ID:

Water

Wastewater

Other

WATER CONSERVATION REVIEW

Entity:

Other entity:

WATER CONSERVATION PLAN DATE:**Approvable****Adopted**

	Total GPCD	Residential GPCD	Water Loss GPCD
Baseline			
5-year Goal			
10-year Goal			

WATER LOSS AUDIT YEAR:

Validation Required:

Validation Performed:

Service connections:

Length of main lines (miles):

Water Loss GCD:

Retail population:

Connections per mile:

Water Loss GPCD:

ILI:

Real Loss GMD:

WATER LOSS THRESHOLDS

Water Loss Project:

Waiver Requested:

Wholesale Adjusted:

Threshold Type:

Apparent Loss GCD		Real Loss GCD	
Reported	Threshold	Reported	Threshold

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.



May 2, 2025

Mr. Bryan McMath, Executive Administrator
Texas Water Development Board
Water Supply & Infrastructure – Regional Water Planning and Development
Stephen F. Austin Building
1700 N Congress Ave, 5th Floor
Austin, Texas 78711

Re: City of Fort Worth Water – Abridged Application PIF#: 16549

Dear Mr. McMath,

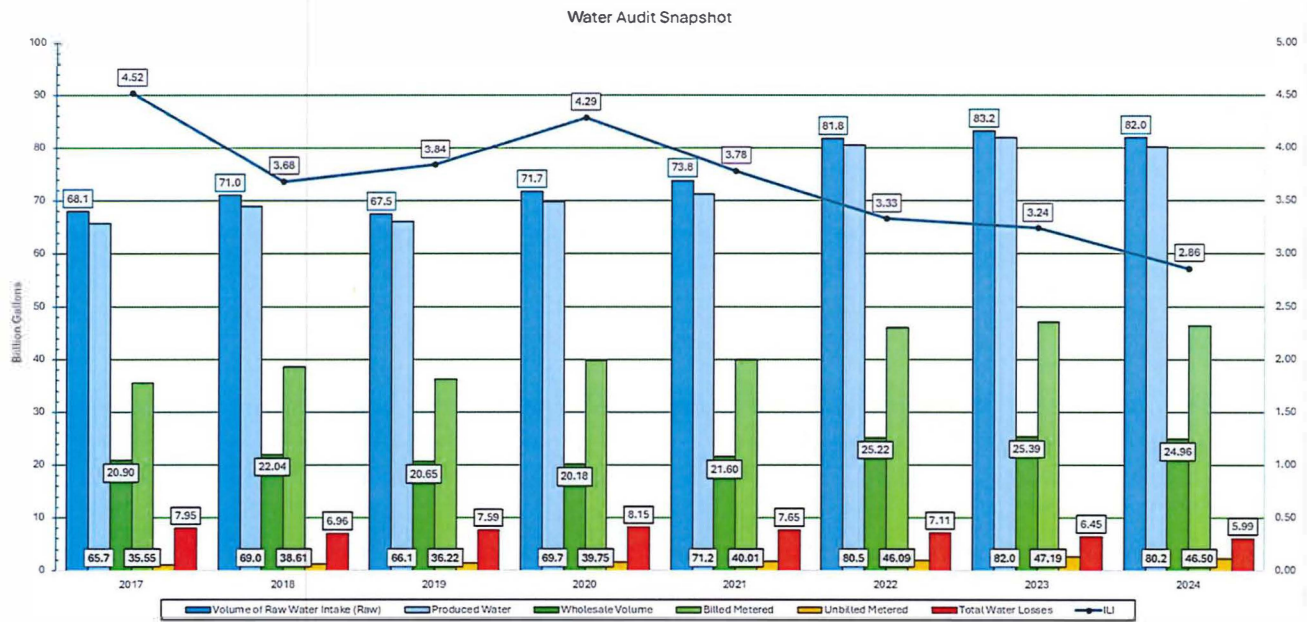
Similar to the letter submitted with PIF #15519 in 2024, this letter serves as the City of Fort Worth's formal request for a water loss waiver regarding the State Water Implementation Fund for Texas (SWIFT) fund application for the Eagle Mountain Water Treatment Plant Expansion – 35 MGD Expansion. As evident below, the City of Fort Worth has continued to aggressively and methodically reduce its water loss and invested time and resources to making lasting improvements. Fort Worth is, and has been, working on several approaches to address and minimize water loss, both apparent loss and real loss.

In 2019 the City contracted with an engineering consultant to review the methods the City utilized to monitor and address water loss. One of the deliverables of this project was the Real Water Loss Management Plan, which included a 5-Year roadmap for the City with recommendations on training, software, District Metered Areas, Pressure Management Areas, and other methods to help locate and reduce real losses within the water system. In 2024, the City initiated an update to the Real Water Loss Management Plan, to review all of the actions implemented from the previous plan, and develop and prioritize recommendations to further reduce water loss over the next 5-years.

To detail some of the actions the City takes to reduce water loss, the City owns and utilizes acoustic leak detection equipment to internally conduct proactive leak surveys. The City tracks Key Performance Indicators (KPIs), which includes internal proactive leak survey of 1.5 million linear feet/year. The City also budgets \$200,000 annually to contract with a third-party company to also conduct leak survey, who then coordinates with the City to validate and repair identified leaks. Between the internal and external leak surveys, the City's goal is to survey the entire system every four years (25% annually).

Fort Worth has also installed and commissioned four District Metered Area (DMA) to date. The DMAs have improved the monitoring of water loss and has led to corrective actions. Another Key Performance Indicator the City tracks is annual cast iron pipe replacement, with the goal of replacing 20 miles of cast iron pipe annually. Prioritizing the oldest cast iron pipe for replacement, pipeline replacement has the added benefit of reducing main breaks within the oldest pressure plane. The City has also been reviewing pressure plane boundaries and is in the process of adjusting pressure plane boundaries to improve pressure management, and serve lower elevation areas with an appropriate but reduced pressure, to further minimize water loss.

In 2022 the City has completed upgrading to Advance Metering Infrastructure (AMI), which has made drastic improvements to how data is gathered and used in regards to the annual Water Loss Audit. AMI has allowed the Utility to provide consistent, reliable and repeatable data yielding a higher level of confidence in the data used within the report. Immediate reductions in apparent losses were recognized, such as Systematic Data Handling Errors and Customer Meter Inaccuracy Losses. Perhaps the greatest area of improvement afforded by AMI is the reduction in real losses. AMI allows system users to quickly identify potential leaks and breaks and respond accordingly. The following chart shows current trends in water loss reductions when the same methodology is applied to years previous to the Utility making improvements in data collection and classification. Additional improvements to water loss mitigation, mentioned in this letter, are showing positive and immediate results as shown in the following chart.



Although the City of Fort Worth slightly exceeds the threshold of 30 gallons per connection per day, the City has and will continue to dedicate funds and resources to address water loss and apply the abovementioned strategies to further reduce water losses. Please accept this letter as the City's formal request to waive water loss threshold requirements at this time in order to move forward with our upcoming SWIFT fund opportunity for the Eagle Mountain Water Treatment Plant Expansion – 35 MGD Expansion. Please feel free to contact my office if you have any questions.

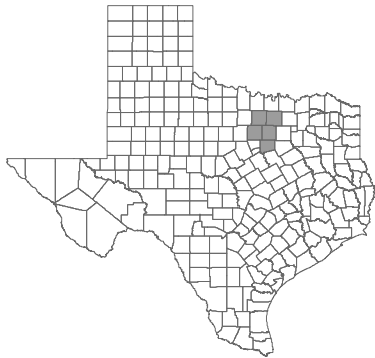
Sincerely,

Ch Hard

Chris Harder, PE
Water Director

**WATER DEPARTMENT
ADMINISTRATION**

The City of Fort Worth * 200 Texas Street * Fort Worth, Texas 76102
Tel: 817-392-8240 * Fax: 817-392-8195



**City of Fort Worth Tarrant,
Denton, Parker, & Wise
County**

