



**PROJECT FUNDING REQUEST**

**BOARD DATE:** July 24, 2025

**Team Manager:** David Firgens

**ACTION REQUESTED**

Consider approving by resolution a request from the City of Austin (Travis County) for \$45,000,000 in financial assistance from the State Water Implementation Fund for Texas program for construction of water system improvements.

**STAFF RECOMMENDATION**

Approve       No Action

**BACKGROUND**

The City of Austin (City) is the state capital of Texas and county seat of Travis County. Founded in 1835, Austin is one of the oldest incorporated areas in Texas. The City is one of the fastest growing cities in the country and provides water, sewer, and reclaimed service to residences and businesses within the 1.1 million population. The City serves 255,494 water and 241,072 wastewater connections.

**PROJECT NEED AND DESCRIPTION**

The City's waterline services replacement program as part of their Water Conservation Strategy was established to systematically replace water service lines that are outdated and prone to service line breaks. The City used polybutylene tubing for their water service lines from the late 1960's to the mid 1980's. That material is prone to becoming brittle and leaking at a very high rate.

The City is requesting construction funds necessary to replace approximately 6,000 polybutylene water service lines with High-Density Polyethylene and copper tubing pipes. Replacing these polybutylene lines will assist the City with reducing water loss throughout the water distribution system.

**PROJECT SCHEDULE**

<b>Task</b>	<b>Schedule Date</b>
Closing	November 19, 2025
Engineering Feasibility Report Completion (End of Planning Phase)	February 27, 2026
Design Phase Completion	May 29, 2026
Start of Construction	February 1, 2027
Construction Completion	May 1, 2034

<b>Multi-Year Commitment:</b>	<b>Expiration Date</b>
\$3,000,000. Proposed Series 2025	December 31, 2025
\$5,000,000. Proposed Series 2026	December 31, 2026
\$5,000,000. Proposed Series 2027	December 31, 2027
\$5,000,000. Proposed Series 2028	December 31, 2028
\$27,000,000 Proposed Series 2029	December 31, 2029

## **KEY ISSUES**

The City has submitted a separate request for State Water Implementation Fund for Texas program funding for improvements to the City's reclaimed water distribution system to decrease their dependence on potable water and provide more reliable service.

The financial analysis included in Attachment 1 includes both 2025 City of Austin SWIFT loan applications (51096 and 51101) and new CWSRF application 73990.

### Attachments:

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

# Financial Review City of Austin

Risk Score: 2A

Audit Reviewed: FY 2024

## Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2020	City: 1.98%	State: 1.49%
Top 10 Customers % of Total Revenue	11%	10-15%
Cash Balance Ratio	-13.45%	0-9.9%
Median Household Income as % of State	119%	100%
Days of Cash on Hand (3-year Average)	280 days	30-149 days
Net Fixed Assets/ Annual Depreciation	23 years	12-24 years
Debt Service Coverage Ratio	1.55x	1.00x
Debt-to-Operating Revenues	3.51	4.00-5.99x
Unemployment Rate (April, 2025)	City: 3.00%	State: 3.70%
Working Capital Ratio	2.00	> 1.00

### Key Risk Score Strengths

- With 280 days of cash on hand, the City has sufficient unrestricted cash and short-term investments available for operating expenses, debt service payments, or to cover unforeseen expenses.
- A high working capital ratio provides the City with ample resources to cover short-term liabilities and shows a strong liquidity position.
- The City's water and sewer system revenues are sufficient to maintain coverage requirements on the existing and proposed obligations.

### Key Risk Score Concerns

- The high debt per capita of \$6,029 is mitigated by the projected population growth, low household cost factor and sufficient rates and charges.
- The cash balance ratio is negative due to the reallocation of funds to finance capital improvement and special revenue projects. The revenues of the general fund increased significantly during the past year. Property tax revenues increased \$37.2 million due to an increase in assessed property values and sales tax revenues increased by \$6.4 million due to population and economic growth.

### PLEDGE

Legal Pledge Name	Water & Wastewater System Revenue Bonds
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	5,800	\$46.38	\$46.38	1.29	1.29
Wastewater	4,000	\$46.75	\$46.75		

**TAXES**

	2024 Tax Year Rate	Max Projected Tax Rate (Year 2024)	Maximum Allowable Rate	3-Year Avg Current Tax Collections	Assessed Valuation
Maintenance & Operation	\$0.3815	\$0.3815	\$2.50	99%	\$236.287.849.464
Interest & Sinking	\$0.0961	\$0.0961			
Total Tax Rate	\$0.4776	\$0.4776			

**Cost Savings**

Based on a 20-year maturity schedule and current interest rates, the City could save approximately \$339,784.00 during the first year of the multi-year financing.

## Project Data Summary

<b>Responsible Authority</b>	City of Austin
<b>Program</b>	SWIFT
<b>Commitment Number</b>	LM2502201, LM2602201, LM2702201, LM2802201, LM2902201
<b>Project Number</b>	51101
<b>List Year</b>	2025
<b>Type of Pledge</b>	Revenue Pledge
<b>Pledge Level (if applicable)</b>	First Lien
<b>Legal Description</b>	\$3,000,000 City of Austin, Texas Water and Wastewater System Revenue Bonds, Proposed Series 2025B, \$5,000,000 City of Austin, Texas Water and Wastewater System Revenue Bonds, Proposed Series 2026, \$5,000,000 City of Austin, Texas Water and Wastewater System Revenue Bonds, Proposed Series 2027, \$5,000,000 City of Austin, Texas Water and Wastewater System Revenue Bonds, Proposed Series 2028, \$27,000,000 City of Austin, Texas Water and Wastewater System Revenue Bonds, Proposed Series 2029
<b>Tax-exempt or Taxable</b>	Tax-Exempt
<b>Refinance</b>	No
<b>Outlay Requirement</b>	No
<b>Disbursement Method</b>	Escrow
<b>Outlay Type</b>	Outlay <> Escrow Release
<b>Qualifies as Disadvantaged</b>	No
<b>SWIFT Financing Type</b>	Low-Interest
<b>Financial Managerial &amp; Technical Complete</b>	N/A
<b>Phases Funded</b>	Construction
<b>Pre-Design</b>	No
<b>Project Consistent with State Water Plan</b>	Yes
<b>Water Conservation Plan</b>	Adopted
<b>Overall Risk Score</b>	2A

### PROJECT TEAM

Team Manager	Financial Analyst	Engineering Reviewer	Environmental Reviewer	Attorney
David Firgens	Caaren Skrobarczyk	Sara Davila	Chris Caran	Marshall Walters





**Project Budget Summary**  
City of Austin  
51101 - Municipal Conservation

Budget Items	TWDB Funds	Total
<b>Construction</b>		
Construction	\$32,974,000.00	\$32,974,000.00
<b>Subtotal for Construction</b>	<b>\$32,974,000.00</b>	<b>\$32,974,000.00</b>
<b>Fiscal Services</b>		
Bond Counsel	\$178,000.00	\$178,000.00
Bond Reserve Fund	\$2,581,000.00	\$2,581,000.00
Financial Advisor	\$178,000.00	\$178,000.00
Issuance Costs	\$89,000.00	\$89,000.00
<b>Subtotal for Fiscal Services</b>	<b>\$3,026,000.00</b>	<b>\$3,026,000.00</b>
<b>Contingency</b>		
Contingency	\$9,000,000.00	\$9,000,000.00
<b>Subtotal for Contingency</b>	<b>\$9,000,000.00</b>	<b>\$9,000,000.00</b>
<b>Total</b>	<b>\$45,000,000.00</b>	<b>\$45,000,000.00</b>

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD  
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE TO  
THE CITY OF AUSTIN  
IN THE FORM OF A MULTI-YEAR COMMITMENT  
THROUGH THE PROPOSED PURCHASE OF  
\$45,000,000 CITY OF AUSTIN, TEXAS  
WATER AND WASTEWATER SYSTEM REVENUE BONDS  
PROPOSED SERIES 2025 THROUGH PROPOSED SERIES 2029

(25- )

Recitals:

The City of Austin (City), located in Travis County, has filed an application for financial assistance in the amount of \$45,000,000 to finance the construction of a water supply project identified as Project No. 51101 (Project).

The City qualifies for financial assistance from the Texas Water Development Board (TWDB) in the form of a multi-year commitment through the TWDB's proposed purchase of \$45,000,000 City of Austin, Texas Water and Wastewater System Revenue Bonds Proposed Series 2025 through Proposed Series 2029 (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 system revenue as sufficient security for the repayment of the Obligations.

Subject to the City's use of an approved debt service structure, the interest rate subsidy applicable to each subsequent proposed series may be different than the interest rate subsidy available for State Fiscal Year 2025 and will be set through each financing agreement executed between the TWDB and the City.

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 subsidies will be available to the City without regard to the source of funds.

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 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. The TWDB will provide financial assistance to the City of Austin in the amount of \$45,000,000 from the State Water Implementation Revenue Fund for Texas or from the Financial Assistance Account of the Texas Water Development Fund II to be evidenced by the TWDB's proposed purchase of one or more City of Austin, Texas Water and Wastewater System Revenue Bonds as follows:
  - a. \$3,000,000 Proposed Series 2025, to expire on December 31, 2025;
  - b. \$5,000,000 Proposed Series 2026, to expire on December 31, 2026;
  - c. \$5,000,000 Proposed Series 2027, to expire on December 31, 2027;
  - d. \$5,000,000 Proposed Series 2028, to expire on December 31, 2028; and
  - e. \$27,000,000 Proposed Series 2029, to expire on December 31, 2029.
2. The Executive Administrator is authorized to determine the source account, whether the State Water Implementation Revenue Fund for Texas or the Financial Assistance Account of the Texas Water Development Fund II for each subsequent series.

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 Austin, Texas Water and Wastewater System Revenue Bonds, Series 2024A.

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'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.
37. 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.
38. 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.

- 39. 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.
- 40. Before closing, the City shall submit to the escrow agent a closing memo signed by the executive administrator.

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**

	<b>Total GPCD</b>	<b>Residential GPCD</b>	<b>Water Loss GPCD</b>
<b>Baseline</b>			
<b>5-year Goal</b>			
<b>10-year Goal</b>			

**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:

Apparent Loss GCD

Real Loss GCD

Threshold Type:

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 benchmarking 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.

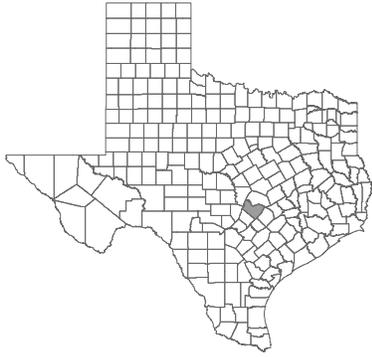
**Water loss** is the difference between the input volume and the authorized consumption within a water system. Water Loss consists of real losses and apparent losses.

**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 Austin Travis County

