



PROJECT FUNDING REQUEST

BOARD DATE: June 25, 2025

Team Manager: David Firgens

ACTION REQUESTED

Consider approving by resolution a request from the City of San Antonio, acting by and through the San Antonio Water System (Bexar County), for \$11,755,102 in financial assistance consisting of \$5,760,000 in financing and \$5,995,102 in principal forgiveness funding from the Drinking Water State Revolving Fund Lead Service Replacement Program to fund the required lead service line inventory.

STAFF RECOMMENDATION

☒ Approve ☐ No Action

BACKGROUND

The Infrastructure Investment and Jobs Act, 2021, Pub. L. 117-58 (IIJA) appropriated capitalization grant funds for Federal Fiscal Years (FFY) 2022 to 2026 for lead service line replacement projects and associated activities directly connected to the identification, planning, design, and replacement of lead service lines. Projects being presented for consideration have been scored and ranked using prioritization criteria in the Drinking Water State Revolving Fund Lead Service Line Replacement State Fiscal Year 2023 Intended Use Plan. The prioritized list of projects was approved by the Texas Water Development Board in August 2023. All financial assistance will be made at the ratio of 51 percent principal forgiveness and 49 percent financing.

The City of San Antonio (City) is located 80 miles south of Austin. The City provides water and wastewater services to a population of approximately 2,014,059 residents and approximately 565,595 water and 505,846 wastewater connections

PROJECT NEED AND DESCRIPTION

The City has approximately 640,000 service lines in its water distribution system and presumes that some of its water lines are composed of lead or galvanized materials. SAWS needs to inventory its system to identify the location of these water lines and to replace them.

The City has inventoried approximately 44 percent of the water service lines in its distribution system and no lead service lines have been identified. The City estimates completion of inventory by December 2026. The City does not request funding for the replacement of any potential lead service lines it may identify.

COMMITMENT PERIOD: TWELVE (12) MONTHS TO EXPIRE JUNE 30, 2026
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PROJECT SCHEDULE

Task	Schedule Date
Closing	September 15, 2025
Inventory Completion	December 31, 2026

KEY ISSUES

The City qualifies for principal forgiveness from the Drinking Water State Revolving Fund Lead Service Line Replacement Program. The City qualifies as disadvantaged for this funding program due to 51 percent or more of the benefiting households having an annual median household income that does not exceed 150 percent of that of the state.

To reimburse inventory work, the proposed project is eligible for \$5,995,102 in principal forgiveness and \$5,760,000 in financing at zero-percent interest with a term of up to 15 years.

The City's pledge is on parity with its previous financial assistance from the Texas Water Development Board. The City's existing ordinances require that it maintain rates and charges to produce net revenues at least equal to 1.25 times the interest and principal of the senior lien obligations, and to produce net revenues at least equal to 1.0 times the interest and principal of the junior and subordinate lien obligations. The System currently generates approximately \$420 million in net revenues available for debt service, which provides 1.79 times coverage of the annual existing and proposed debt service during the first year of principal repayment on the proposed loan.

LEGAL/SPECIAL CONDITIONS

- Executed principal forgiveness agreement
- Return of surplus funds

Attachments:

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

Financial Review

City of San Antonio

Attachment 1

Risk Score: 2A

Audit Reviewed: FY 2024

Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2020	City: 0.78%	State: 1.49%
Top 10 Customers % of Total Revenue	6%	10-15%
Median Household Income as % of State	92%	100%
Days of Cash on Hand (3-year Average)	619 days	30 -149 days
Net Fixed Assets/ Annual Depreciation	31 years	12 - 24 years
Debt Service Coverage Ratio	1.79x	1.00x
Debt-to-Operating Revenues	3.74x	4.00 - 5.99x
Unemployment Rate (March 2025)	City: 3.70%	State: 4.00%
Working Capital Ratio	7.12	> 1.00

Key Risk Score Strengths

- The City maintains a high debt service coverage ratio, demonstrating its strong ability to generate sufficient revenue to cover debt obligations. This solid financial cushion provides assurance of its capacity to meet future debt service requirements and supports its overall credit strength.
- 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. This financial stability supports ongoing infrastructure projects, public services, and economic development without excessive reliance on short-term borrowing.
- The City has a low percentage of revenue derived from its top ten customers, indicating a well-diversified customer base that reduces reliance on any single entity.

PLEDGE

Legal Pledge Name	Junior Lien Utility System Revenues
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	Current Household Cost Factor	Projected Household Cost Factor
Water	6,275	\$34.93	\$34.93	1.17	1.17
Wastewater	5,052	\$25.66	\$25.66		

Cost Savings

Based on a 15-year maturity schedule and current interest rates, the City could save approximately \$2,109,658 over the life of the financing. The City is also saving \$5,995,000 in principal forgiveness.

Project Data Summary

Responsible Authority	City of San Antonio
Program	DWSRF
Commitment Number	L1002147, LF1002148
Project Number	63081
List Year	2023
Type of Pledge	Revenue Pledge
Pledge Level (if applicable)	Second Lien
Legal Description	\$5,760,000 City of San Antonio, Texas Water System Junior Lien Revenue Bonds, Taxable Proposed Series 2025, \$5,995,102 Principal Forgiveness Agreement
Tax-exempt or Taxable	Taxable
Refinance	No
Outlay Requirement	Yes
Disbursement Method	Escrow
Outlay Type	Outlay = Escrow Release
Qualifies as Disadvantaged	Yes
State Revolving Fund Type	Equivalency
Financial Managerial & Technical Complete	Yes
Phases Funded	Planning
Pre-Design	No
Project Consistent with State Water Plan	N/A
Water Conservation Plan	Adopted
Overall Risk Score	2A

PROJECT TEAM				
Team Manager	Financial Analyst	Engineering Reviewer	Environmental Reviewer	Attorney
David Firgens	Sarah Smaardyk	Kyleigh Dixon	Stephannie Resendez	Marshall Walters

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY
City of San Antonio

\$5,760,000 San Antonio, Texas Water System Junior Lien Revenues Bonds, Taxable Proposed Series 2025

Dated Date:	9/15/2025	Source:	DWSRF-EQUIVALENCY
Delivery Date:	9/15/2025	Rate:	0.00%
First Interest:	3/15/2026	IUP Year:	2023
First Principal:	3/15/2026	Case:	Revenue
Last Principal:	3/15/2040	Admin.Fee:	\$112,941
Fiscal Year End:	12/31	Admin. Fee Payment Date:	9/15/2025
Required Coverage:	1.2		

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$5,760,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2026	\$420,048,000	\$234,247,168	\$385,000	-	\$0	\$385,000	\$234,630,142	1.79
2027	420,048,000	229,888,369	385,000	-	-	385,000	230,273,369	1.82
2028	420,048,000	226,650,260	385,000	-	-	385,000	227,035,260	1.85
2029	420,048,000	247,515,606	385,000	-	-	385,000	247,900,606	1.69
2030	420,048,000	251,565,396	385,000	-	-	385,000	251,950,396	1.67
2031	420,048,000	252,060,635	385,000	-	-	385,000	252,445,635	1.66
2032	420,048,000	252,055,354	385,000	-	-	385,000	252,440,354	1.66
2033	420,048,000	251,700,828	385,000	-	-	385,000	252,085,828	1.67
2034	420,048,000	258,540,460	385,000	-	-	385,000	258,925,460	1.62
2035	420,048,000	262,680,776	385,000	-	-	385,000	263,065,776	1.60
2036	420,048,000	258,971,986	385,000	-	-	385,000	259,356,986	1.62
2037	420,048,000	259,008,854	385,000	-	-	385,000	259,393,854	1.62
2038	420,048,000	248,287,202	385,000	-	-	385,000	248,672,202	1.69
2039	420,048,000	245,755,927	385,000	-	-	385,000	246,140,927	1.71
2040	420,048,000	220,363,833	370,000	-	-	370,000	220,733,833	1.90
		\$3,699,292,653	\$5,760,000		\$0	\$5,760,000	\$3,705,050,626	

AVERAGE (MATURITY) LIFE	7.48 YEARS
NET INTEREST RATE	0.000%
COST SAVINGS	\$2,109,658
AVERAGE ANNUAL REQUIREMENT	\$384,000

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
City of San Antonio 63081 -
Lead Service Line Replacement

Budget Items	TWDB Funds	Local and Other Funds	Total
Basic Engineering Services			
LSLR Inventory	\$11,091,180.00	\$1,826,041.00	\$12,917,221.00
Subtotal for Basic Engineering Services	\$11,091,180.00	\$1,826,041.00	\$12,917,221.00
Fiscal Services			
Bond Counsel	\$35,974.00	\$0.00	\$35,974.00
Bond Reserve Fund	\$452,119.00	\$0.00	\$452,119.00
Financial Advisor	\$24,404.00	\$0.00	\$24,404.00
Issuance Costs	\$38,484.00	\$0.00	\$38,484.00
Loan Origination Fee	\$112,941.00	\$0.00	\$112,941.00
Subtotal for Fiscal Services	\$663,922.00	\$0.00	\$663,922.00
Total	\$11,755,102.00	\$1,826,041.00	\$13,581,143.00

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF
\$11,755,102 TO THE CITY OF SAN ANTONIO
ACTING BY AND THROUGH
THE SAN ANTONIO WATER SYSTEM
FROM THE DRINKING WATER STATE REVOLVING FUND
THROUGH THE PROPOSED PURCHASE OF
\$5,760,000 CITY OF SAN ANTONIO, TEXAS WATER SYSTEM
JUNIOR LIEN REVENUE BONDS,
PROPOSED TAXABLE SERIES 2025
AND
\$5,995,102 IN PRINCIPAL FORGIVENESS

(25 -)

Recitals:

The City of San Antonio (City), located in Bexar County, acting by and through the San Antonio Water System, has applied for financial assistance in the amount of \$11,755,102 from the Drinking Water State Revolving Fund-Lead Service Line Replacement Program (DWSRF-LSLR) to finance the inventory of certain lead service lines identified as Project No. 63081.

The City seeks financial assistance from the Texas Water Development Board (TWDB) through the TWDB's proposed purchase of \$5,760,000 City of San Antonio, Texas Water System Junior Lien Revenue Bonds Proposed Taxable Series 2025 (Obligations), (together with all authorizing documents), and the execution of a Principal Forgiveness Agreement in an amount of \$5,995,102, 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 a junior lien on its system's net revenues, on parity with other junior lien pledges, 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 Safe Drinking Water Act, 42 U.S.C. §§ 300f *et seq.* and Pub. L. 117-58, 135 Stat. 1400-1401, as well as state law, in accordance with Texas Water Code § 15.607.
3. 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.

4. The City has completed a current water audit required by Texas Water Code § 16.0121 and 31 TAC § 358.6 and filed it with the TWDB in accordance with Texas Water Code § 16.053(j).
5. The City is therefore eligible for principal forgiveness through the DWSRF-LSLR in a total amount not to exceed \$5,995,000 and financial assistance in the amount of \$5,760,000 with a reduced interest rate of zero percent.

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

A commitment is made by the TWDB to the City of San Antonio, acting by and through the San Antonio Water System, for financial assistance in the amount of \$11,755,102 from the Drinking Water State Revolving Fund-Lead Service Line Replacement Program through the TWDB's proposed purchase of \$5,760,000 City of San Antonio, Texas Water System Junior Lien Revenue Bonds, Proposed Taxable Series 2025 and the execution of a Principal Forgiveness Agreement in the amount of \$5,995,102. This commitment will expire on June 30, 2026.

The commitment is conditioned as follows:

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. 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. This 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 were 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. This commitment is contingent upon the City's compliance with all applicable requirements contained in 31 TAC Chapter 371.
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 ten years from the dated date of the Obligations at a redemption price of par.
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, 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 the rule, this 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 those bonds under SEC Rule 15c2-12.

7. The Obligations must contain a provision requiring 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 include a provision requiring the City to use any financial assistance proceeds from the Obligations that are determined to be remaining unused funds, which are those funds unspent after the original approved project is completed, for enhancements to the original project 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.
9. The Obligations must include a provision requiring the City to use any financial assistance proceeds from the Obligations 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 contain a provision 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 include a provision requiring 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, except for an LSLR project or associated activity directly connected to the identification, planning, design, and replacement of lead service lines or for an EC project to address PFAs or any contaminant listed on EPA's Contaminant Candidate Lists. The Obligations must include an environmental indemnification provision wherein the City agrees, and agrees to cause its construction contractors, to indemnify, hold harmless and protect the TWDB from any and all claims, causes of action, or damages arising from activities performed by the City or its construction contractors, including their officials and employees, in connection with the project, to the extent permitted by law.

13. Before closing, the City shall submit documentation evidencing the adoption and implementation of sufficient system rates and charges or the levy of an interest and sinking tax rate (if applicable) sufficient for the repayment of all system debt service requirements.
14. Before closing, and if not previously provided with the application, the City shall 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 shall 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 TWDB retains the option to purchase the Obligations in separate lots or on an installment basis, with delivery of the purchase price for each installment to be paid against delivery of the relevant installment of Obligations as approved by the Executive Administrator.
18. The Obligations must provide that the City will comply with all applicable TWDB laws and rules related to the use of the financial assistance.
19. 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.
20. The Obligations must contain a provision requiring the City to maintain insurance coverage sufficient to protect the TWDB's interest in the project.
21. The City must immediately notify TWDB, in writing, of any suit against it by the Attorney General of Texas under Texas Penal Code § 1.10(f) (related to federal laws regulating firearms, firearm accessories, and firearm ammunition).
22. The Obligations must provide that the City will submit annually an audit prepared by a certified public accountant in accordance with generally accepted auditing standards.
23. Before closing, the City shall submit to the escrow agent a closing memo signed by the Executive Administrator.

State Revolving Fund Conditions:

24. The City shall submit outlay reports with sufficient documentation on costs on a quarterly or monthly basis in accordance with TWDB outlay report guidelines.
25. The Obligations must include a provision stating that all laborers and mechanics employed by contractors and subcontractors for projects shall 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 shall 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 the financial assistance made available shall insert in full in any contract in excess of \$2,000 the contracts clauses as provided by the TWDB.
26. The Obligations must include a provision stating 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.
27. The Obligations shall provide that all financial assistance proceeds will be timely and expeditiously used, as required by 40 CFR § 35.3135(d), and shall provide that the City will adhere to the approved project schedule.
28. The Obligations and Principal Forgiveness Agreement must contain a covenant 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 § 371.4 and related State Revolving Fund Policy Guidelines.
29. The Obligations and Principal Forgiveness Agreement must contain a covenant that the City shall abide by the prohibition on certain telecommunications and video surveillance services or equipment as required by 2 CFR § 200.216.
30. The Obligations and Principal Forgiveness Agreement must contain a covenant that the City will abide by all applicable requirements related to the Build America, Buy America Act, Public Law 117-58 and 2 CFR part 184.

Drinking Water State Revolving Fund Conditions:

31. The City shall pay at closing an origination fee approved by the Executive Administrator of the TWDB pursuant to 31 TAC Chapter 371.
32. Before closing, the Texas Commission on Environmental Quality, must make a determination, the form and substance of which is satisfactory to the Executive Administrator, that the City has demonstrated the necessary financial, managerial,

and technical capabilities to proceed with the project or projects to be funded with the proceeds of these Obligations.

33. Before the release of funds for professional consultants including, but not limited to, the engineer, financial advisor, and bond counsel, as appropriate, the City must provide documentation that it has met all applicable state procurement requirements as well as all federal procurement requirements under the Disadvantaged Business Enterprises program.

Pledge Conditions:

34. The Obligations shall be on parity with any existing obligations that are secured with the same pledge of security as the proposed Obligations.
35. The Obligations shall be governed by the additional debt test and reserve requirement as provided in the outstanding City of San Antonio, Texas Water System Junior Lien Revenue Bonds, Series 2019B.

Special Conditions:

36. Before closing, the City shall execute a Principal Forgiveness Agreement in a form and substance acceptable to the Executive Administrator.
37. The Principal Forgiveness Agreement must include a provision stating that the City shall return any principal forgiveness funds that are determined to be surplus funds.

APPROVED and ordered of record this 25th day of June 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:

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.



San Antonio Water System Bexar County

