



PROJECT FUNDING REQUEST

BOARD DATE: July 22, 2021

Team Manager: Dain Larsen

ACTION REQUESTED

Approve by resolution a request from the City of McAllen (Hidalgo County) for \$18,000,000 in financing from the State Water Implementation Revenue Fund for Texas for construction of water system improvements.

STAFF RECOMMENDATION

☒ Approve ☐ No Action

BACKGROUND

The City of McAllen (City), located 50 miles west of Brownsville along the U.S. and Mexico border, provides water and wastewater service to a population of approximately 151,300.

PROJECT NEED AND DESCRIPTION

The City needs to improve its water accountability, leak detection, and conservation efforts by implementing a system wide advanced communication infrastructure network.

The City will replace approximately 50,000 existing water meters with smart meters with Advanced Metering Infrastructure System (AMI) capabilities that will allow two-way communication between the utility and meters. The AMI network will allow the City to improve its water conservation and accountability in the system by allowing for more accurate billing and quick and accurate leak detection and response.

Task	Schedule Date
Closing	November 18, 2021
Engineering Feasibility Report Completion(End of Planning Phase)	August 10, 2021
Design Phase	September 30, 2021
Start of Construction	February 14, 2022
Construction Completion	February 14, 2025

COMMITMENT PERIOD: FIVE (5) MONTHS TO EXPIRE DECEMBER 31, 2021.

KEY ISSUES

The City is submitting documentation for approvals, including the Engineering Feasibility Report, Environmental Review, and Plans and Specifications, prior to closing on funds in order to maintain the project schedule.

LEGALSpecial Conditions

None.

Attachments:

1. Financial Review
2. Project Budget
3. Resolution (21-)
4. Water Conservation Review
5. Location Map

Financial Review

City of McAllen

Attachment 1

Risk Score: 2A

Audit Reviewed: FY 2020

Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2019	City: 0.95%	State: 1.24%
Top 10 Revenue Customers as % Total Revenues	7%	<15%
Median Household Income as % of State	76%	100%
Days of Cash on Hand (3-year Average)	133 days	30-149 days
Net Fixed Assets/ Annual Depreciation	34 years	12-24 years
Debt Service Coverage Ratio	1.69x	1.0x
Debt-to-Operating Revenues	3.56x	4.00-5.99x
Unemployment Rate (April)	McAllen: 6.9%	State: 6.3%
Working Capital Ratio	1.22	> 1.0

Key Risk Score Strengths

- Pledged revenues are derived from utility system revenues and have historically provided a strong debt service coverage ratio.
- A high days cash on hand and good working capital provides the City with ample resources to cover short-term liabilities and shows a strong liquidity position.
- The City's household cost factor indicates that the monthly water and wastewater charges are in line with the City's median household income.

Key Risk Score Concerns

- The average population growth of the City is below the state average over the past 10 years, but connections are projected to remain stable and in line with historical counts.

PLEDGE

Legal Pledge Name	Utility 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	9,200	\$23.65	\$23.65	1.28	1.28
WASTEWATER	8,301	\$26.11	\$26.11		

TAXES

	2020 Tax Year Rate	Max Projected Tax Rate (2020)	Maximum Allowable Rate	3-Year Avg Current Tax Collections	Assessed Valuation
Maintenance & Operation	\$0.44	\$0.44	\$2.50	97%	\$12,153,373,214
Interest & Sinking	\$0.06	\$0.06			
Total Tax Rate	\$0.50	\$0.50			

Cost Savings

Based on a 20-year maturity schedule and current interest rates, the City could save approximately \$2,759,789 over the life of the financing.

Project Data Summary

Responsible Authority	McAllen
Program	SWIFT
Commitment Number	L1001425
Project Number	51071
List Year	2021
Type of Pledge	Revenue Pledge
Pledge Level (if applicable)	First Lien
Legal Description	\$18,000,000 City of McAllen, Texas Waterworks and Sewer System Revenue Bonds, Proposed Series 2021
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
Dain Larsen	Javier Pena	Donald Dawkins	Lauren Dill	Joe Reynolds

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY

City of McAllen

\$18,000,000 City of McAllen, Texas Waterworks and Sewer System Revenue Bonds, Proposed Series 2021

Dated Date:	11/18/2021	Source:	SWIFT-LOW-20YR
Delivery Date:	11/18/2021	Rate:	1.54%
First Interest:	8/1/2022	IUP Year:	N/A
First Principal:	2/1/2023	Case:	Revenue
Last Principal:	2/1/2042	Admin.Fee:	\$0
Fiscal Year End:	09/30	Admin. Fee Payment Date:	N/A
Required Coverage:	1.0	Rating:	AA

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$18,000,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2022	\$16,249,960	\$8,545,637	\$0	-	\$155,108	\$155,108	\$8,700,745	1.87
2023	16,249,960	8,582,813	825,000	0.15%	220,088	1,045,088	9,627,902	1.69
2024	16,249,960	8,516,344	830,000	0.25%	218,432	1,048,432	9,564,776	1.70
2025	16,249,960	8,519,687	830,000	0.37%	215,859	1,045,859	9,565,546	1.70
2026	16,249,960	7,471,234	835,000	0.48%	212,320	1,047,320	8,518,553	1.91
2027	16,249,960	7,470,144	840,000	0.60%	207,796	1,047,796	8,517,939	1.91
2028	16,249,960	7,474,511	845,000	0.70%	202,318	1,047,318	8,521,829	1.91
2029	16,249,960	7,467,694	850,000	0.80%	195,961	1,045,961	8,513,655	1.91
2030	16,249,960	7,469,861	855,000	0.88%	188,799	1,043,799	8,513,659	1.91
2031	16,249,960	7,025,187	865,000	0.92%	181,058	1,046,058	8,071,245	2.01
2032	16,249,960	5,019,899	875,000	1.15%	172,047	1,047,047	6,066,946	2.68
2033	16,249,960	5,031,599	885,000	1.34%	161,087	1,046,087	6,077,685	2.67
2034	16,249,960	5,030,958	895,000	1.50%	148,445	1,043,445	6,074,402	2.68
2035	16,249,960	5,028,100	910,000	1.56%	134,634	1,044,634	6,072,734	2.68
2036	16,249,960	5,028,065	925,000	1.65%	119,905	1,044,905	6,072,969	2.68
2037	16,249,960	5,030,842	945,000	1.73%	104,099	1,049,099	6,079,941	2.67
2038	16,249,960	5,031,557	960,000	1.80%	87,285	1,047,285	6,078,842	2.67
2039	16,249,960	5,040,534	980,000	1.86%	69,531	1,049,531	6,090,065	2.67
2040	16,249,960	5,042,993	995,000	1.92%	50,865	1,045,865	6,088,858	2.67
2041	16,249,960	3,689,036	1,015,000	1.98%	31,265	1,046,265	4,735,301	3.43
2042	16,249,960	3,698,606	1,040,000	2.04%	10,608	1,050,608	4,749,214	3.42
		\$131,215,298	\$18,000,000		\$3,087,506	\$21,087,506	\$152,302,805	

AVERAGE (MATURITY) LIFE	11.11 YEARS
NET INTEREST RATE	1.544%
COST SAVINGS	\$2,759,789
AVERAGE ANNUAL REQUIREMENT	\$7,252,515

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

McAllen

51071 - McAllen Citywide AMI/AMR
Infrastructure Upgrade Project

Attachment 2

Budget Items	This Commitment	TWDB Funds	Total
Construction			
Construction	\$17,100,000.00	\$17,100,000.00	\$17,100,000.00
Subtotal for Construction	\$17,100,000.00	\$17,100,000.00	\$17,100,000.00
Contingency			
Contingency	\$900,000.00	\$900,000.00	\$900,000.00
Subtotal for Contingency	\$900,000.00	\$900,000.00	\$900,000.00
Total	\$18,000,000.00	\$18,000,000.00	\$18,000,000.00

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF
\$18,000,000 TO CITY OF MCALLEN
FROM THE STATE WATER IMPLEMENTATION REVENUE FUND FOR TEXAS
THROUGH THE PROPOSED PURCHASE OF
\$18,000,000 CITY OF MCALLEN, TEXAS WATERWORKS AND SEWER SYSTEM REVENUE
BONDS,
PROPOSED SERIES 2021

(21 -)

WHEREAS, the City of McAllen (City) has filed an application for financial assistance in the amount of \$18,000,000 from the State Water Implementation Revenue Fund for Texas (SWIRFT) to finance the construction of certain water supply project(s) identified as Project No. 51071 (Project); and

WHEREAS, the City seeks financial assistance from the Texas Water Development Board (TWDB) through the TWDB's proposed purchase of \$18,000,000 City of McAllen , Texas Waterworks and Sewer System Revenue Bonds, Proposed Series 2021, (together with all authorizing documents (Obligations)), all as is more specifically set forth in the application and in recommendations of the Executive Administrator's staff; and

WHEREAS, the City has offered a pledge of the net revenues of the City's Waterworks and Sewer System as sufficient security for the repayment of the Obligations; and

WHEREAS, subject to the City's use of an approved debt service structure, interest rate subsidies are available to the City for State Fiscal Year 2021 at up to the following levels: 25% for financial assistance for a term of 20 years, 18% for financial assistance for a term of 21 to 25 years, and 14% for financial assistance for a term of 26 to 30 years.; and

WHEREAS, the interest rate subsidies provided above are based on assumptions necessary to generate an optimum debt service structure for the anticipated TWDB SWIRFT bond issuance, and are subject to modification as necessary to preserve and maintain the integrity of the SWIRFT Program; and

WHEREAS, the TWDB hereby finds:

1. that 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;
2. that 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. that a water conservation plan has been submitted and implemented in accordance with Texas Water Code § 16.4021 and 31 TAC § 363.1309(b)(1);
4. that the City satisfactorily completed all requests by the Executive Administrator or a regional planning group for information relevant to the Project, including a water infrastructure financing survey under Texas Water Code § 16.053(q), in accordance with 31 TAC § 363.1309(b)(2);
5. that the City has acknowledged its legal obligation to comply with any applicable requirements of federal law relating to contracting with disadvantaged business enterprises and any applicable state law relating 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 resolves as follows:

A commitment is made by the TWDB to City of McAllen for financial assistance in the amount of \$18,000,000 from the State Water Implementation Revenue Fund for Texas, to be evidenced by the TWDB's proposed purchase of \$18,000,000, Texas Waterworks and Sewer System Revenue Bonds, Proposed Series 2021. This commitment will expire on December 31, 2021.

Such 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;
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 said Obligations were issued; that said Obligations were issued in conformity with the Constitution and laws of the State of Texas; and that said 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 that executed agreement to the TWDB consistent with the terms and conditions described in the financing agreement;
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;

The Following Conditions Must Be Included in the Obligations:

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 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 such rule, such 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 such Obligations, and the beneficial owners of the TWDB's bonds if the City is an obligated person with respect to such bonds under SEC Rule 15c2-12;
12. the Obligations must contain a provision requiring the City to levy a tax and/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 include a provision requiring the City to use any proceeds from the Obligations that are determined to be surplus proceeds remaining after completion of the Project and completion of a final accounting in a manner approved by the Executive Administrator;

14. 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;
15. financial assistance proceeds are public funds and, as such, 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;
16. financial assistance proceeds shall not be used by the City when sampling, testing, removing or disposing of contaminated soils and/or media at the Project site. The Obligations shall include an environmental indemnification provision wherein the City agrees to indemnify, hold harmless and protect the TWDB from any and all claims, causes of action or damages to the person or property of third parties arising from the sampling, analysis, transport, storage, treatment, recycling and disposition of any contaminated sewage sludge, contaminated sediments and/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 include a provision stating that the City shall 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 form in accordance with 31 TAC § 363.42(c)(1);
19. the Obligations must contain a provision stating that the City shall 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 Obligations must include a provision prohibiting 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 § 141 of the Internal Revenue Code as amended (Code) and the Treasury Regulations promulgated thereunder (Regulations);
21. 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 § 148(a) of the Code and Regulations, including to acquire or to replace funds that were used, directly or

indirectly, to acquire Nonpurpose Investments (as defined in the Code and Regulations) that produce a yield materially higher than the yield on the TWDB's bonds that are issued to provide financing for 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 such proceeds are needed for the facilities to be financed;
 - b. amounts invested in a bona fide debt service fund, within the meaning of § 1.148-1(b) of the Regulations; and
 - c. amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed the least of maximum annual debt service on the Obligations, 125% of average annual debt service on the Obligations, or 10 percent of the stated principal amount (or, in the case of a discount, the issue price) of the Obligations;
22. the Obligations must include a provision requiring the City take all necessary steps to comply with the requirement that certain amounts earned on the investment of gross proceeds of the Obligations be rebated to the federal government in order to satisfy the requirements of § 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 such 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 such Gross Proceeds and the obligations acquired therewith;
 - 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 § 148(f) of the Code, § 1.148-3 of the Regulations, and the rulings thereunder. The City shall maintain a copy of such calculations for at least six years after the final Computation Date;
 - c. 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 thereof for federal income tax purposes, pay to the United States the amount described in paragraph (b) above within 30 days after each Computation Date;

- d. exercise reasonable diligence to assure that no errors are made in the calculations required by paragraph (b) and, if such error is made, to discover and promptly to correct such error within a reasonable amount of time thereafter, including payment to the United States of any interest and any penalty required by the Regulations;
- 23. 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;
- 24. 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 § 149(b) of the Code;
- 25. 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 obligations of the borrower in contravention of section 149(d) of the Code (related to “advance refundings”);
- 26. the Obligations must provide that neither the City nor a related party thereto 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:

- 27. the Obligations shall be on parity with any existing obligations that are secured with the same pledge of security as the proposed Obligations; and
- 28. the Obligations shall be governed by the additional debt test and reserve requirement as provided in the outstanding \$1,190,000 City of McAllen, Texas Waterworks and Sewer System Revenue Bonds, Series 2012 (L120016), \$7,110,000 City of McAllen, Texas Waterworks and Sewer System Revenue Bonds, Series 2016 (L1000529), \$7,000,000 City of McAllen, Texas Waterworks and Sewer System Revenue Bonds, Series 2018-A (L1000747), and \$12,000,000 City of McAllen, Texas Waterworks and Sewer System Revenue Bonds, Series 2018-B (L1000746).

Conditions to Close or for Release of Funds:

- 29. prior to closing, the City shall 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;
- 30. prior to 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;

31. prior to 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;
32. prior to 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;
33. prior to 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;
34. 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;
35. the transcript must include evidence that the information reporting requirements of § 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 § 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;

APPROVED and ordered of record this, the 22nd day of July 2021.

TEXAS WATER DEVELOPMENT BOARD

Brooke T. Paup, Chairwoman

DATE SIGNED: _____

ATTEST:

Jeff Walker, Executive Administrator

☒ Water
 ☐ Wastewater
 ☐ Other

WATER CONSERVATION REVIEW

June 2021
Project ID:
51071

Entity: City of McAllen

Other entity:

WATER CONSERVATION PLAN DATE: 2018

☐ Approvable
 ☒ Adopted

	Total GPCD	Residential GPCD	Water Loss GPCD
Baseline	157	85	16
5-year Goal	151	120	15
10-year Goal	148	119	13

WATER LOSS AUDIT YEAR: 2020

Water Loss GPCD: <u>17.0</u>	Water Loss (percent): <u>10.7</u>	Water Loss (gal/ connection/day): <u>45.9</u>
Service connections: <u>58,567</u>	Length of main lines (miles): <u>732</u>	Connections per mile: <u>80.0</u>
Retail population: <u>153,546</u>	ILI ¹ : <u>2.8</u>	Wholesale Adjusted: <u>Yes</u>

1 – Infrastructure Leakage Index only applicable if > 16 connections per mile and > 3,000 service connections

WATER LOSS THRESHOLDS

Water Loss Project: Yes

Threshold Type	Apparent Loss Gallons per connection per day	Real Loss Gallons per mile per day	Real Loss Gallons per connection per day	Apparent Loss Threshold Gallons per connection per day	Real Loss Threshold Gallons per mile per day	Real Loss Threshold Gallons per connection per day
Population > 10K	9	NA	36	21	NA	39

Does the applicant meet Water Loss Threshold Requirements? Yes

ADDITIONAL INFORMATION

The utility's water conservation plan states that its goals are to ensure an uninterrupted supply of water in an amount sufficient to satisfy the essential needs of its customers. The plan further outlines the utility's conservation strategies for reducing the volume of water withdrawn from its water supply, for reducing the loss or waste of water, for increasing the recycling and reuse of water, and for preventing the pollution of water in an effort to maintain water quality. To achieve some of these goals, the utility has enacted an aggressive meter testing program to identify and address poorly functioning meters. It also promotes and encourages water conservation during summer months when water consumption increases significantly to increase both public and employee awareness regarding water conservation. Furthering its goals, the utility has a water recycle/reuse program providing treated wastewater effluent on the municipal golf course and contracts to sell treated wastewater effluent to local industrial plants to reduce potable use.

STAFF NOTES AND RECOMMENDATIONS

This project is to replace the existing customer meters with smart meters with Advanced Metering Infrastructure System (AMI) capabilities that will allow two-way communication between the utility and meters. The AMI network will allow the utility to better manage accurate water billing, ensure that any leaks are quickly found and remedied, and increase water conservation and accountability in the system.

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.

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 size and 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 McAllen Hidalgo County

