

# Texas Water Development Board

## PROJECT FUNDING REQUEST

**BOARD DATE:** August 18, 2022

**Team Manager:** Tom Barnett

### ACTION REQUESTED

Approve by resolution a request from the Moffat Water Supply Corporation (Bell County) for \$600,000 in financing from the Texas Water Development Fund for construction of a water system improvements project.

### STAFF RECOMMENDATION

Approve       No Action

### BACKGROUND

Moffat Water Supply Corporation (Corporation) is located in northern Bell County near Lake Belton, approximately 75 miles north of Austin. The Corporation provides water service to approximately 4,000 customers and 1,600 connections.

### PROJECT NEED AND DESCRIPTION

In December 2018, the Corporation received a \$3,300,000 commitment from the Texas Water Development Fund for planning, acquisition, design, and construction of a water system improvements project. Proposed project components included a new elevated storage tank, a new ground storage tank, pump station improvements, and demolition of some existing infrastructure.

Early in the design phase, the project team updated each of the budget line items and determined that additional funding would be needed to complete construction. The Corporation requests an additional \$600,000 to address the shortfall in construction funds and provide for adequate contingency.

### PROJECT SCHEDULE

Task	Schedule Date
Engineering Feasibility Report Completion (End of Planning Phase)	August 13, 2021
Closing of Proposed New Commitment	October 15, 2022
Design Phase Completion	November 1, 2022
Start of Construction	February 1, 2023
Construction Completion	February 1, 2024

### KEY ISSUES

This existing Texas Water Development Board (TWDB) funded project is currently in progress. Demolition of the 100,000-gallon standpipe is complete. In May 2022, the Corporation received notice-to-proceed concurrence from the TWDB to begin construction of the new 200,000-gallon elevated storage tank. The Corporation plans to utilize remaining project funds along with this current additional funding request to construct a

**COMMITMENT PERIOD:** TWELVE (12) MONTHS TO EXPIRE AUGUST 31, 2023

new ground storage tank and make other improvements at its Pump Station 1. These items will be bid together as one contract to complete the project.

**LEGAL**

The special conditions for this item are:

- Notification of change to legal status
- Notification of conveyance or conversion

Attachments:

1. Financial Review
2. Project Budget
3. Resolution (22- )
4. Water Conservation Review
5. Location Map

# Financial Review

## Moffat Water Supply Corporation

Attachment 1

Risk Score: 2B

Audit Reviewed: FY 2021

### Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2020	County: 1.8%	State: 1.49%
Top 10 Customers % of Total Revenue	3%	10-15%
Median Household Income as % of State	89%	100%
Days of Cash on Hand (3-year Average)	243 days	30-149 days
Net Fixed Assets/ Annual Depreciation	15 years	12-24 years
Debt Service Coverage Ratio	1.8x	1.0x
Debt-to-Operating Revenues	3.86	4.00-5.99x
Unemployment Rate (May, 2022)	County: 4.2%	State: 3.80%
Working Capital Ratio	16.26	> 1.0
Cash Balance Ratio	-4.13%	0 - 9.99%

### Key Risk Score Strengths

- Since 2017, connections have risen 11.92 percent, with revenues rising at a similar rate.
- The Corporation has an adequate revenue stream to maintain coverage of both its existing debt and the proposed loan obligation.
- The Corporation's top ten customers make up only three percent of total revenue, indicating it does not rely on a few large customers to generate income.

### Key Risk Score Concerns

- The Corporation's cash and cash equivalents has decreased by 57 percent since 2018. This is the result of the Corporation using its cash to purchase property for construction projects, heavy equipment for operations, and improvements to existing water system components. The majority of the money, \$479,985.10, was used to install 8,000 feet of 8-inch waterline to resolve hydraulic concerns.

### PLEDGE

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

### RATES AND CHARGES

Average Residential Use	Gallons/Month	Current Rates	Projected Rates	Current Household Cost Factor	Projected Household Cost Factor
WATER	7,494	\$89.19	\$89.19	2.95	2.95

### Cost Savings

Based on a 20-year maturity schedule and current interest rates, the Corporation could save approximately \$99,980 over the life of the financing.

<b>Responsible Authority</b>	Moffat WSC
<b>Program</b>	WDF
<b>Commitment Number</b>	L1001554
<b>Project Number</b>	21776
<b>List Year</b>	2018
<b>Type of Pledge</b>	Revenue Pledge
<b>Pledge Level (if applicable)</b>	First Lien
<b>Legal Description</b>	\$ 600,000 Moffat Water Supply Corporation, Water Revenue Loan Agreement
<b>Tax-exempt or Taxable</b>	Taxable
<b>Refinance</b>	No
<b>Outlay Requirement</b>	Yes
<b>Disbursement Method</b>	Escrow
<b>Outlay Type</b>	Outlay <> Escrow Release
<b>Qualifies as Disadvantaged</b>	No
<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>	2B

### PROJECT TEAM

<b>Team Manager</b>	<b>Financial Analyst</b>	<b>Engineering Reviewer</b>	<b>Environmental Reviewer</b>	<b>Attorney</b>
Tom Barnett	Jacob Berdoll	Ge Song	Tim Harlow	Marshall Walters

ISSUE BEING EVALUATED  
FOR ILLUSTRATION PURPOSES ONLY  
Moffat Water Supply Corporation

**\$ 600,000 Moffat Water Supply Corporation, Water Revenue Loan Agreement**

<b>Dated Date:</b>	10/15/2022	<b>Source:</b>	WDF
<b>Delivery Date:</b>	10/15/2022	<b>Rate:</b>	4.40%
<b>First Interest:</b>	4/15/2023	<b>IUP Year:</b>	2021
<b>First Principal:</b>	10/15/2023	<b>Case:</b>	Revenue Only
<b>Last Principal:</b>	10/15/2041	<b>Admin.Fee:</b>	\$0
<b>Fiscal Year End:</b>	09/30	<b>Admin. Fee Payment Date:</b>	N/A
<b>Required Coverage:</b>	1.0		

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$600,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2023	\$744,279	\$373,626	\$0	-	\$12,467	\$12,467	\$386,093	1.93
2024	744,279	369,968	22,500	2.95%	24,602	47,102	417,070	1.78
2025	744,279	350,386	23,500	3.10%	23,906	47,406	397,792	1.87
2026	744,279	348,395	24,500	3.35%	23,131	47,631	396,026	1.88
2027	744,279	351,196	25,000	3.50%	22,283	47,283	398,479	1.87
2028	744,279	348,792	26,000	3.60%	21,378	47,378	396,170	1.88
2029	744,279	346,288	27,000	3.75%	20,404	47,404	393,692	1.89
2030	744,279	348,579	28,000	3.85%	19,358	47,358	395,937	1.88
2031	744,279	350,508	29,000	3.95%	18,247	47,247	397,755	1.87
2032	744,279	347,120	30,000	4.05%	17,066	47,066	394,186	1.89
2033	744,279	348,522	31,000	4.15%	15,816	46,816	395,338	1.88
2034	744,279	349,729	32,000	4.25%	14,492	46,492	396,221	1.88
2035	744,279	345,579	33,500	4.35%	13,084	46,584	392,163	1.90
2036	744,279	346,059	34,500	4.45%	11,587	46,087	392,146	1.90
2037	744,279	346,318	35,500	4.55%	10,012	45,512	391,830	1.90
2038	744,279	346,357	37,000	4.60%	8,354	45,354	391,711	1.90
2039	744,279	346,176	38,000	4.66%	6,617	44,617	390,793	1.90
2040	744,279	345,680	39,500	4.66%	4,811	44,311	389,991	1.91
2041	744,279	344,866	41,000	4.66%	2,936	43,936	388,802	1.91
2042	744,279	348,710	42,500	4.66%	990	43,490	392,200	1.90
		\$7,002,854	\$600,000		\$291,542	\$891,542	\$7,894,396	

<b>AVERAGE (MATURITY) LIFE</b>	<b>11.04 YEARS</b>
<b>NET INTEREST RATE</b>	<b>4.402%</b>
<b>COST SAVINGS</b>	<b>\$99,980</b>
<b>AVERAGE ANNUAL REQUIREMENT</b>	<b>\$394,720</b>

*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**  
**Moffat WSC**

**21776 - 200,000 Gallon Elevated Water Storage Tank**

Budget Items	Previous Commitments	This Commitment	Total TWDB Funds
<b>Construction</b>			
Construction Contract	\$2,235,000.00	\$600,000.00	\$2,835,000.00
<b>Subtotal for Construction</b>	<b>\$2,235,000.00</b>	<b>\$600,000.00</b>	<b>\$2,835,000.00</b>
<b>Basic Engineering Services</b>			
Construction Engineering	\$75,000.00	\$0.00	\$75,000.00
Design	\$150,000.00	\$0.00	\$150,000.00
Planning	\$35,000.00	\$0.00	\$35,000.00
<b>Subtotal for Basic Engineering Services</b>	<b>\$260,000.00</b>	<b>\$0.00</b>	<b>\$260,000.00</b>
<b>Special Services</b>			
Application	\$5,000.00	\$0.00	\$5,000.00
Environmental	\$30,000.00	\$0.00	\$30,000.00
Geotechnical	\$15,000.00	\$0.00	\$15,000.00
Inspection	\$40,000.00	\$0.00	\$40,000.00
O&M Manual	\$5,000.00	\$0.00	\$5,000.00
Permits	\$5,000.00	\$0.00	\$5,000.00
Project Management (by engineer)	\$25,000.00	\$0.00	\$25,000.00
Surveying	\$10,000.00	\$0.00	\$10,000.00
Testing	\$8,000.00	\$0.00	\$8,000.00
Water Conservation Plan	\$3,500.00	\$0.00	\$3,500.00
Leak Detection & System Mapping	\$75,000.00	\$0.00	\$75,000.00
Water Distribution Modeling	\$10,000.00	\$0.00	\$10,000.00
<b>Subtotal for Special Services</b>	<b>\$231,500.00</b>	<b>\$0.00</b>	<b>\$231,500.00</b>
<b>Fiscal Services</b>			
Financial Advisor	\$48,000.00	\$0.00	\$48,000.00
Fiscal/Legal	\$16,000.00	\$0.00	\$16,000.00
Issuance Costs	\$10,000.00	\$0.00	\$10,000.00
<b>Subtotal for Fiscal Services</b>	<b>\$74,000.00</b>	<b>\$0.00</b>	<b>\$74,000.00</b>
<b>Other</b>			
Administration	\$7,500.00	\$0.00	\$7,500.00
Land/Easements Acquisition	\$35,000.00	\$0.00	\$35,000.00
Project Legal Expenses	\$10,000.00	\$0.00	\$10,000.00
<b>Subtotal for Other</b>	<b>\$52,500.00</b>	<b>\$0.00</b>	<b>\$52,500.00</b>
<b>Contingency</b>			
Contingency	\$447,000.00	\$0.00	\$447,000.00
<b>Subtotal for Contingency</b>	<b>\$447,000.00</b>	<b>\$0.00</b>	<b>\$447,000.00</b>
<b>Total</b>	<b>\$3,300,000.00</b>	<b>\$600,000.00</b>	<b>\$3,900,000.00</b>

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD  
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF  
\$600,000 TO MOFFAT WATER SUPPLY CORPORATION  
FROM THE FINANCIAL ASSISTANCE ACCOUNT OF  
THE TEXAS WATER DEVELOPMENT FUND II  
THROUGH THE PROPOSED PURCHASE OF  
A PROMISSORY NOTE IN THE AMOUNT OF \$600,000  
AND EXECUTION OF A LOAN AGREEMENT

(22 - )

WHEREAS, the Moffat Water Supply Corporation (Corporation), located in Bell County, Texas, has filed an application for financial assistance in the amount of \$600,000 from the Financial Assistance Account of the Texas Water Development Fund II, established by Texas Water Code § 17.959, to finance water system improvements, identified as Project No. 21776; and

WHEREAS, the Corporation seeks financial assistance from the Texas Water Development Board (TWDB) in the amount of \$600,000 through the TWDB's purchase of a Promissory Note in the amount of \$600,000 and execution of a Loan Agreement (together with all authorizing documents (Obligations)), all as is more specifically set forth in the application and in recommendations of the TWDB's staff; and

WHEREAS, the Corporation has offered a pledge of a first lien on the gross revenues of the System and a first lien mortgage on the System as sufficient security for the repayment of the Obligations; and

WHEREAS, 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; and
2. the availability of revenue to the Corporation, from all sources, for the ultimate repayment of the cost of the water supply project, including interest.

WHEREAS, the TWDB hereby finds:

1. that the public interest requires state assistance in the water supply project, in accordance with Texas Water Code § 17.125(a)(1);
2. that in its opinion the tax and/or revenue pledged by the Corporation will be sufficient to meet all the Obligations assumed by the Corporation during the

succeeding period of not more than 50 years, in accordance with Texas Water Code § 17.125(a)(2);

3. that the Corporation 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. that the application and financial assistance requested meet the requirements of Chapter 17, Subchapters D, E, and L, Water Code, and the TWDB's rules set forth in 31 TAC Chapter 363, Subchapter A;
5. that the TWDB has approved a regional water plan for the region of the state that includes the area benefiting from the project and the needs to be addressed by the project will be addressed in a manner that is consistent with the approved regional and state water plans, as required by Texas Water Code § 16.053(j); and
6. that the current water audit required by Texas Water Code § 16.0121 has been completed by the Corporation and filed with the TWDB, in accordance with Texas Water Code § 16.053(j).

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

A commitment is made by the TWDB to the Moffat Water Supply Corporation for financial assistance in the amount of \$600,000 from the Financial Assistance Account of the Texas Water Development Fund II, to be evidenced by the TWDB's purchase of a Promissory Note in the amount of \$600,000 and execution of a Loan Agreement. This commitment will expire on August 31, 2023.

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. prior to closing, the Corporation must submit to the Executive Administrator an attorney's opinion confirming the legal authority for the Corporation to incur the debt;
3. this commitment is contingent upon the Corporation's 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), including but not limited to 31 TAC Chapter 363;



4. the Obligations must provide that the Corporation may prepay all or part of the amounts of principal and interest then due on the loan on any regularly scheduled payment date as specified in the Repayment Schedule, as revised, beginning no earlier than the first interest payment date that is 10 years from the date of the first delivery of funds from the TWDB to the Corporation pursuant to this Agreement;
5. the Obligations must include a provision wherein the Corporation, 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 Corporation's Obligations or obligated persons, will, at a minimum, 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 Corporation's Obligations, if the TWDB sells or otherwise transfers such Obligations, and the beneficial owners of the TWDB's bonds if the Corporation is an obligated person with respect to such bonds under SEC Rule 15c2-12;
6. the Obligations must contain a provision requiring the Corporation 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;
7. the Obligations must include a provision requiring the Corporation to use any surplus loan proceeds from the Obligations remaining after completion of a final accounting in a manner as approved by the Executive Administrator; and
8. 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;
9. 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;
10. financial assistance proceeds shall not be used by the Corporation 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 Corporation 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 and disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Corporation, its contractors, consultants, agents, officials and employees as a result of activities relating to the project to the extent permitted by law;

11. prior to closing, the Corporation 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;
12. prior to closing, and if required under the TWDB's financial assistance program and not previously provided with the application, the Corporation shall submit an executed engineering contract as appropriate for the project scope of work, and an executed financial advisor contract and executed bond counsel contract as appropriate for the work to be performed in obtaining the TWDB's financial assistance for the project, in a form and substance that are satisfactory to the Executive Administrator. Fees to be reimbursed under any consulting contract must be reasonable in relation to the services performed, must be reflected in the contract, and must be acceptable to the Executive Administrator;
13. prior to closing, when any portion of financial assistance proceeds are to be held in escrow or in trust, the Corporation 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;
14. the Executive Administrator may require that the Corporation execute a separate financing agreement in form and substance acceptable to the Executive Administrator;
15. the Corporation 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 F and Texas Water Code § 17.183;
16. the Obligations must include a provision stating that the Corporation's indebtedness to the TWDB shall be secured by:
  - a. a first or parity lien on the gross revenues of the Corporation's water system (System); and
  - b. a first or parity lien mortgage on the System;
17. upon closing or within 20 days after closing, the Corporation must file a Deed of Trust with the County Clerk of the county in which the property is located, as required by Business and Commerce Code, Chapter 9, or a Utility Security

Instrument with the Secretary of State's Office and corresponding notice with the County Clerk, as required by Business and Commerce Code, Chapter 261, as evidence of the TWDB's security interest in the Corporation's System. Within thirty (30) days of the date of each filing, the Corporation shall submit a copy of the recorded instrument to the TWDB;

18. upon closing or within 20 days after closing, the Corporation must file a security instrument with the Secretary of State's Office, as required by Business and Commerce Code, Chapter 9 or Chapter 261 to evidence the TWDB's security interest in any personal property directly related to water supply and/or sewer service, owned or to be acquired by the Corporation. A copy of the recorded security instrument shall be submitted by the Corporation to the TWDB within thirty (30) days of its filing with the Secretary of State's Office;
19. prior to closing, the Corporation must obtain a commitment from a title insurance company in accordance with the standards established by the Texas Department of Insurance, resulting in the issuance of a mortgagee title insurance policy on the property owned in fee simple, upon which the TWDB will be given a first or parity lien mortgage. A copy of the mortgagee title insurance policy shall be submitted to the TWDB within thirty (30) days of its execution;
20. prior to closing, the Corporation must cure any defects or liens upon the property listed in Schedule C of the title insurance company commitment that the Executive Administrator deems necessary;
21. prior to release of funds for construction, the Corporation must provide the TWDB with evidence that the necessary acquisitions of land, leases, easements, and rights-of-way have been completed, or that the Corporation has the legal authority necessary to complete the acquisitions;
22. prior to closing, the Corporation must submit to the Executive Administrator evidence that the Corporation's bylaws have been amended to include the following requirements:
  - a. as long as the Corporation is indebted for a loan or loans made by or through the TWDB, the bylaws shall not be altered, amended, or repealed without the prior written consent of the Executive Administrator; and
  - b. the Corporation is a nonprofit entity; no part of the income of the Corporation will be distributed to the Corporation's members, directors, or officers;
23. prior to closing, if the Corporation is pledging a lien on real property that is to be on parity with a lien or liens on real property securing debt that will remain outstanding after closing the TWDB's loan, then the Corporation must execute a Parity Agreement with each entity that holds such debt that is acceptable in form

and substance to the Executive Administrator; and

24. the Obligations shall include a special covenant prohibiting the Corporation from encumbering, pledging, or otherwise impairing the revenues of the System in any manner with respect to the payment of any Obligations or with respect to any liability, except for the payment of the following: (1) maintenance and operating expenses payable within the current fiscal year with current revenues; and (2) additional debt, and that the Corporation shall in no way encumber, pledge or otherwise impair its title to the land used by or for the System or any interests therein, including improvements and facilities of the System, without prior TWDB approval;

Pledge Conditions for The Loan:

25. the Obligations must require the accumulation of a reserve fund of no less than average annual debt service requirements, to be accumulated in equal monthly installments over the initial sixty (60) months following the issuance of the Obligations;
26. if the Corporation has existing revenue obligations with the same pledge of security as the proposed Obligations that will remain outstanding after any loan(s) made by the TWDB pursuant to this commitment, the lien or liens securing the Obligations issued to the TWDB shall be at least on a parity with lien or liens securing such outstanding obligations; and
27. the Obligations must contain a provision providing that additional revenue obligations may only be incurred if net system revenues are at least 1.25 times the average annual debt service requirements after giving effect to the additional obligations when net revenues are a) determined from the last completed fiscal year or a 12 consecutive calendar month period ending not more than ninety (90) days preceding the adoption of the additional obligations as certified by a certified public accountant; or b) the Corporation certifies that the Corporation is expected to continue to meet or exceed the net system revenue test with a minimum coverage of 1.25 times the average annual debt service requirement. An authorized representative of the Corporation must provide the calculations, identifying reasonable assumptions, in a manner and format that is acceptable to the Executive Administrator.

PROVIDED, however, the commitment is subject to the following special conditions:

Special Conditions:

28. the Corporation must notify the Executive Administrator in writing thirty (30) days prior to taking any actions to alter its legal status in any manner; and

29. the Obligations must include a provision requiring that the Corporation notify the Executive Administrator in writing prior to any action by it to convey its Obligations held by the TWDB to another entity; the conveyance and the assumption of the Obligations must be approved by the TWDB.

APPROVED and ordered of record this, the 18th day of August 2022.

TEXAS WATER DEVELOPMENT BOARD

\_\_\_\_\_  
Brooke T. Paup, Chairwoman

DATE SIGNED: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Jeff Walker, Executive Administrator

Review Date:

Project ID:

# WATER CONSERVATION REVIEW

- Water
- Wastewater
- Other

Entity:

Other entity:

**WATER CONSERVATION PLAN DATE:**

**Approvable**

**Adopted**

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

**WATER LOSS AUDIT YEAR:**

Service connections:

Length of main lines (miles):

Water Loss

Retail population:

Connections per mile:

(gal/connection/day):

Water Loss GPCD:

ILI<sup>1</sup>:

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

**WATER LOSS THRESHOLDS**

Water Loss Project:

Wholesale Adjusted:

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

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.

**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.

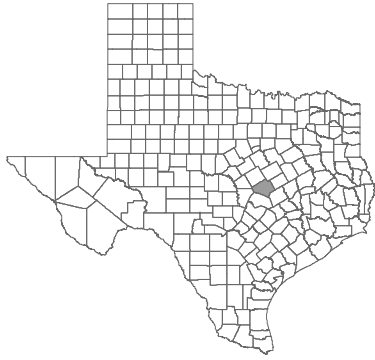
**Water loss** is the difference between the input volume and the authorized consumption within a water system. Water Loss consists of real losses and apparent losses.

**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.



## Moffat WSC Bell County

