



PROJECT FUNDING REQUEST

BOARD DATE: May 9, 2024

Team Manager: Nancy Richards

ACTION REQUESTED

Consider approving by resolution a request from the City of Cut and Shoot (Montgomery County) for \$5,875,000 in financing from the Texas Water Development Fund for planning, design, and construction of a water system improvement project.

STAFF RECOMMENDATION

Approve No Action

BACKGROUND

The City of Cut and Shoot (City) is located in Montgomery County approximately 6 miles east of Conroe. The City provides water services to a population of approximately 5,900 residents and 2,250 connections.

PROJECT NEED AND DESCRIPTION

The City has experienced substantial growth in the last few years within its service area. The City is currently constructing a new water well to increase capacity; however, there has been enough proposed development to use all the new capacity. Additional proposed, permitted development requires a new water well and elevated storage.

With this funding, the City intends to drill a new 600 gallon per minute water well and install a 250,000-gallon elevated storage tank. This will enable the City to provide capacity for up to 1,700 connections within the City's service area.

PROJECT SCHEDULE

Task	Schedule Date
Closing	August 1, 2024
Engineering Feasibility Report Completion (End of Planning Phase)	September 16, 2024
Design Phase Completion	February 17, 2025
Start of Construction	May 19, 2025
Construction Completion	May 25, 2026

COMMITMENT PERIOD: FOUR (4) MONTHS TO EXPIRE SEPTEMBER 30, 2024

LEGAL/SPECIAL CONDITIONS

- adopt water conservation plan
- water rights certification

Attachments:

1. Financial Review
2. Project Budget
3. Resolution (24-)
4. Water Conservation Review
5. Location Map

Financial Review

City of Cut and Shoot

Risk Score: 2B

Audit Reviewed: FY 2023

Key Indicators

Indicator	Result	Benchmark
Population Growth, Average Annual 2010-2020	City: 0.16%	State: 1.49%
Top 10 Customers % of Total Revenue	23%	10-15%
Median Household Income as % of State	85%	100%
Days of Cash on Hand (3-year Average)	1,527 days	30-149 days
Net Fixed Assets/ Annual Depreciation	19 years	12-24 years
Debt Service Coverage Ratio	0.89x	1.0x
Debt-to-Operating Revenues	5.41x	4.00-5.99x
Unemployment Rate (January 2024)	City: 4.10%	State: 4.10%
Working Capital Ratio	4.06	> 1.0
Cash Balance Ratio	83.61%	0-9.99%

Key Risk Score Strengths

- The City's days of cash on hand exceed the benchmark, indicating sufficient reserves for operating expenses.
- A high working capital ratio indicates the City has high liquidity and ample resources to cover its short-term liabilities.
- The City's cash balance has grown from \$1,329,781 in 2018 to \$1,919,224 in 2023. With a cash balance ratio of 83.61%, the City demonstrates solid financial health and resilience.

Key Risk Score Concerns

- The top ten customers make up 23 percent of the total system revenues, the two largest being Huntsman Petrochemical and Montgomery County MUD 145, making up 17.25 percent. A stress test was conducted to remove these revenues, and it projects that the City would need a \$9.13 rate increase to meet coverage.
- Based on audited 2023 revenues, the City has a 0.89 times debt service coverage ratio with a projected \$2.39 maximum rate increase in 2031. However, the 2023 audit does not capture the \$2.50 rate increase that the City implemented in September 2023. Based on the rate increase implemented in September 2023, the City meets the 1.00 debt service coverage requirement.

PLEDGE

Legal Pledge Name	Water 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 (Year 2023)	Current Household Cost Factor	Projected Household Cost Factor
Water	5,000	\$35.00	\$35.00	0.80	0.80

Cost Savings

Based on a 30-year maturity schedule and current interest rates, the City could save approximately \$222,633 over the life of the financing.



Project Data Summary

Responsible Authority	Cut and Shoot
Program	WDF
Commitment Number	L1001760
Project Number	21828
List Year	2023
Type of Pledge	Revenue Pledge
Pledge Level (if applicable)	First Lien
Legal Description	\$5,875,000 City of Cut and Shoot, Texas Water System Revenue Bonds, Proposed Series 2024
Tax-exempt or Taxable	Tax-Exempt
Refinance	No
Outlay Requirement	No
Disbursement Method	Escrow
Outlay Type	Outlay <> Escrow Release
Qualifies as Disadvantaged	No
Financial Managerial & Technical Complete	N/A
Phases Funded	Planning, Design, and Construction
Pre-Design	Yes
Project Consistent with State Water Plan	Yes
Water Conservation Plan	Approvable
Overall Risk Score	2B

PROJECT TEAM

Team Manager	Financial Analyst	Engineering Reviewer	Environmental Reviewer	Attorney
Nancy Richards	Chelsea Duran	Jose Garza	Britt Paredes	Breann Hunter

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY
City of Cut and Shoot

\$5,875,000 City of Cut and Shoot, Texas, Water System Revenue Bonds, Proposed Series 2024

Dated Date: 8/1/2024	Source: WDF
Delivery Date: 8/1/2024	Rate: 4.66%
First Interest: 3/1/2025	IUP Year: 2023
First Principal: 9/1/2025	Case: Revenues
Last Principal: 9/1/2054	Admin.Fee: \$0
Fiscal Year End: 06/30	Admin. Fee Payment Date: N/A
Required Coverage: 1.0	

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$5,875,000 ISSUE			TOTAL DEBT SERVICE	COVERAGE	
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT			
2025	\$518,524	\$285,500	\$0	-	\$157,075	\$442,575	1.17	
2026	579,359	285,500	25,000	3.30%	268,859	579,359	1.00	
2027	579,359	285,500	25,000	3.21%	268,045	578,545	1.00	
2028	579,359	285,500	25,000	3.13%	267,252	577,752	1.00	
2029	579,359	285,500	25,000	3.10%	266,474	576,974	1.00	
2030	579,359	285,500	25,000	3.10%	265,699	576,199	1.01	
2031	580,345	285,500	30,000	3.11%	264,845	580,345	1.00	
2032	580,345	285,500	30,000	3.10%	263,913	579,413	1.00	
2033	580,345	285,500	30,000	3.11%	262,982	578,482	1.00	
2034	580,345	285,500	30,000	3.17%	262,040	577,540	1.00	
2035	580,345	285,500	30,000	3.37%	261,059	576,559	1.01	
2036	580,345	285,500	30,000	3.60%	260,013	575,513	1.01	
2037	580,345	285,500	35,000	3.79%	258,810	579,310	1.00	
2038	580,345	285,500	35,000	3.98%	257,450	577,950	1.00	
2039	580,345	285,500	35,000	4.11%	256,034	576,534	1.01	
2040	580,345	285,500	40,000	4.20%	254,475	579,975	1.00	
2041	580,345	285,500	40,000	4.28%	252,779	578,279	1.00	
2042	580,345	142,750	40,000	4.35%	251,053	433,803	1.34	
2043	580,345	-	185,000	4.40%	246,113	431,113	1.35	
2044	580,345	-	335,000	4.44%	234,606	569,606	1.02	
2045	580,345	-	350,000	4.63%	219,067	569,067	1.02	
2046	580,345	-	365,000	4.63%	202,514	567,514	1.02	
2047	580,345	-	380,000	4.63%	185,268	565,268	1.03	
2048	580,345	-	395,000	4.63%	167,326	562,326	1.03	
2049	580,345	-	415,000	4.64%	148,554	563,554	1.03	
2050	580,345	-	435,000	4.73%	128,638	563,638	1.03	
2051	580,345	-	455,000	4.73%	107,590	562,590	1.03	
2052	580,345	-	475,000	4.73%	85,595	560,595	1.04	
2053	580,345	-	495,000	4.73%	62,655	557,655	1.04	
2054	580,345	-	520,000	4.73%	38,650	558,650	1.04	
2055	580,345	-	540,000	4.88%	13,176	553,176	1.05	
		\$4,996,250	\$5,875,000		\$6,438,605	\$12,313,605	\$17,309,855	

AVERAGE (MATURITY) LIFE	23.51 YEARS
NET INTEREST RATE	4.662%
COST SAVINGS	\$222,633
AVERAGE ANNUAL REQUIREMENT	\$397,213

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
Cut and Shoot
21828 - The City of Cut and Shoot Water Well #6
and EST

Budget Items	TWDB Funds	Total
Construction		
Construction	\$3,770,500	\$3,770,500
Subtotal for Construction	\$3,770,500	\$3,770,500
Basic Engineering Services		
Construction Engineering	\$78,410	\$78,410
Design	\$158,800	\$158,800
Subtotal for Basic Engineering Services	\$237,210	\$237,210
Special Services		
Application	\$35,000	\$35,000
Environmental	\$35,000	\$35,000
Geotechnical	\$15,000	\$15,000
O&M Manual	\$7,500	\$7,500
Permits	\$10,000	\$10,000
Project Management (by engineer)	\$12,500	\$12,500
Special Services (Electrical)	\$42,500	\$42,500
Special Services (Materials Testing)	\$82,500	\$82,500
Special Service (Hydrogeologic report)	\$94,923	\$94,923
Surveying	\$7,500	\$7,500
Testing	\$25,000	\$25,000
Water Conservation Plan	\$10,000	\$10,000
Water Distribution Modeling	\$7,500	\$7,500
Subtotal for Special Services	\$384,923	\$384,923
Fiscal Services		
Bond Counsel	\$30,000	\$30,000
Bond Reserve Fund	\$400,814	\$400,814
Capitalized Interest	\$528,750	\$528,750
Financial Advisor	\$73,750	\$73,750
Fiscal/Legal	\$40,000	\$40,000
Issuance Costs	\$26,129	\$26,129
Subtotal for Fiscal Services	\$1,099,443	\$1,099,443
Other		
Project Legal Expenses	\$5,875	\$5,875
Subtotal for Other	\$5,875	\$5,875
Contingency		
Contingency	\$377,050	\$377,050
Subtotal for Contingency	\$377,050	\$377,050
Total	\$5,875,000	\$5,875,000

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF
\$5,875,000 TO CITY OF CUT AND SHOOT
FROM THE FINANCIAL ASSISTANCE ACCOUNT OF
THE TEXAS WATER DEVELOPMENT FUND II
THROUGH THE PROPOSED PURCHASE OF
\$5,875,000 CITY OF CUT AND SHOOT, TEXAS WATER SYSTEM REVENUE BONDS
PROPOSED SERIES 2024

(24-)

Recitals:

The City of Cut and Shoot, located in Montgomery County, Texas, (City), filed an application for financial assistance in the amount of \$5,875,000 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. 21828.

The City seeks financial assistance from the Texas Water Development Board (TWDB) in the amount of \$5,875,000 through the TWDB's purchase of \$5,875,000 City of Cut and Shoot, Texas Water System Revenue Bonds, Proposed Series 2024 (together with all authorizing documents (Obligations)), 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 first lien on water system revenue as sufficient security for the repayment of the Obligations.

The commitment is approved for funding under the TWDB's pre-design funding option, and initial and future releases of funds are subject to 31 TAC § 363.16.

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 City, from all sources, for the ultimate repayment of the cost of the water supply project, including interest.

Findings:

1. The public interest requires state assistance in the water supply project, in accordance with Texas Water Code § 17.125(a)(1).
2. In its opinion the tax or revenue pledged by the City will be sufficient to meet all the Obligations assumed by the City during the succeeding period of not more than 50 years, in accordance with Texas Water Code § 17.125(a)(2).
3. The City has submitted a proposed program of water conservation 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 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. 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).
6. The current water audit required by Texas Water Code § 16.0121 has been completed by the City and filed with the TWDB, in accordance with Texas Water Code § 16.053(j).

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

A commitment is made by the TWDB to the City of Cut and Shoot for financial assistance in the amount of \$5,875,000 from the Financial Assistance Account of the Texas Water Development Fund II, to be evidenced by the TWDB's purchase of \$5,875,000 City of Cut and Shoot, Texas Water System Revenue Bonds, Proposed Series 2024. This commitment will expire on September 30, 2024.

This 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.
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 complied with all

of the requirements of the laws under which the Obligations were issued; that the Obligations were issued in conformance with the Constitution and laws of the State of Texas; and that the Obligations are valid and binding obligations of the City.

3. This commitment is contingent upon the City's 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 Obligations can be called for early redemption only in inverse order of maturity, and 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.
5. The Obligations must provide that 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, 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 the bonds under SEC Rule 15c2-12.
6. The Obligations must require the City to levy a tax or maintain and collect sufficient rates and charges to produce system revenues in an amount necessary to meet the debt service requirements of all outstanding obligations and to maintain the funds required by the Obligations.
7. The Obligations must require the City to use any surplus financial assistance proceeds from the Obligations remaining after completion of a final accounting in a manner approved by the Executive Administrator.
8. The Obligations must provide that the TWDB may exercise all remedies available to it in law or equity, and any provision of the Obligations that restricts or limits the TWDB's full exercise of these remedies will be of no force and effect.
9. Financial assistance proceeds are public funds. Therefore, the Obligations must require that these proceeds be held at a designated state depository institution or

other properly chartered and authorized institution in accordance with the Public Funds Investment Act, Government Code, Chapter 2256 and the Public Funds Collateral Act, Government Code, Chapter 2257.

10. 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. The Obligations must provide that the City is solely responsible for liability resulting from acts or omissions of the City, its employees, contractors, or agents arising from the sampling, analysis, transport, storage, treatment, recycling, and disposition of any contaminated sewage sludge, contaminated sediments or contaminated media that may be generated by the City, its contractors, consultants, agents, officials, and employees as a result of activities relating to the Project to the extent permitted by law.
11. Before closing, the City must submit documentation evidencing the adoption and implementation of sufficient system rates and charges or, if applicable, the levy of an interest and sinking tax rate sufficient for the repayment of all system debt service requirements.
12. Before closing, and if required under the TWDB's financial assistance program and not previously provided with the application, the City must 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 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. Before closing, when any portion of financial assistance proceeds are to be held in escrow or in trust, the City must execute an escrow agreement or trust agreement, approved as to form and substance by the Executive Administrator, and must submit that executed agreement to the TWDB.
14. The Executive Administrator may require that the City execute a separate financing agreement in form and substance acceptable to the Executive Administrator.
15. The City must abide by all applicable construction contract requirements related to the use of iron and steel products produced in the United States, as required by Texas Government Code, Chapter 2252, Subchapter F and Texas Water Code § 17.183.

16. 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).

Conditions Related To Tax-Exempt Status:

17. Before closing, the City's bond counsel must prepare a written opinion that states 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.
18. Before closing, the City's bond counsel must prepare a written opinion that states the Obligations are not "private activity bonds." Bond counsel may rely on covenants and representations of the City when rendering this opinion.
19. 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 of 1986, as amended (Code) and the Treasury Regulations promulgated thereunder (Regulations).
20. 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 used, directly or indirectly, to acquire Nonpurpose Investments (as defined in the Code and Regulations) that produce a yield materially higher than the yield on the TWDB's bonds issued to provide the financial assistance (Source Series Bonds), other than Nonpurpose Investments acquired with:
 - a. proceeds of the TWDB's Source Series Bonds invested for a reasonable temporary period of up to three (3) years after the issue date of the Source Series Bonds until 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.

21. The Obligations must require the City to 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 on its books of account) separately and apart from all other funds (and receipts, expenditures, and investments) 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 with those proceeds;
 - b. calculate the Rebate Amount, as defined in the Code and Regulations, with respect to its financial assistance, not less frequently than each Computation Date, in accordance with rules set forth in § 148(f) of the Code, § 1.148-3 of the Regulations, and the rulings under the Code. The City must maintain a copy of such calculations for at least six years after the final Computation Date;
 - c. as additional consideration for the making of the financial assistance, and in order to induce the making of the 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 for federal income tax purposes, pay to the United States the amount described in paragraph (b) above within 30 days after each Computation Date; and
 - d. exercise reasonable diligence to assure that no errors are made in the calculations required by paragraph (b) and, if an error is made, to discover and promptly correct the error within a reasonable amount of time after discovery, including payment to the United States of any interest and any penalty required by the Regulations.
22. 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.
23. 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.

24. 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”).
25. 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.
26. The transcript must include evidence that the information reporting requirements of § 149(e) of the Code will be satisfied. This requirement may be satisfied by filing an IRS Form 8038 with the Internal Revenue Service. In addition, the 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 14 days of closing. The Executive Administrator may withhold the release of funds for failure to comply.
27. The Obligations must provide that neither the City nor a related party 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.
28. Before closing, the City must provide certification that the average weighted maturity of the Obligations purchased by the TWDB does not exceed 120 percent of the average reasonably expected economic life of the Project.

Pledge Conditions:

29. 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 60 months following the issuance of the Obligations.
30. If the City has existing revenue obligations with the same pledge of security as the proposed Obligations that will remain outstanding after any financial assistance provided by the TWDB pursuant to this commitment, the lien or liens securing the Obligations issued to the TWDB must be at least on a parity with lien or liens securing the outstanding obligations.
31. The Obligations must provide 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 determined from the last completed fiscal year or a 12 consecutive calendar month period ending not more than 90 days preceding the adoption of the additional obligations as certified by a certified public accountant.

Special Conditions:

32. Before closing, the City must adopt and implement the water conservation program approved by the TWDB.
33. Before the release of construction funds for that portion of a project that proposes surface water or groundwater development, the Executive Administrator must have issued a written finding that the City has the right to use the water that the project financed by the TWDB will provide.
34. Before the release of construction funds for that portion of a project that proposes surface water or groundwater development, the Executive Administrator must have issued a written finding that the City has the right to use the water that the project financed by the TWDB will provide.

APPROVED and ordered of record this, the 9th day of May 2024.

TEXAS WATER DEVELOPMENT BOARD

Brooke T. Paup, Chairwoman

DATE SIGNED: _____

ATTEST:

Bryan McMath, Interim 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:

Apparent Loss GCD

Real Loss GCD

Threshold Type:

Reported

Threshold

Reported

Threshold

Does the applicant meet Water Loss Threshold Requirements?

Yes**No****NA****ADDITIONAL INFORMATION****STAFF NOTES AND RECOMMENDATIONS**

DEFINITIONS

Adopted refers to a water conservation plan that meets the minimum requirements of the water conservation plan rules and has been formally approved and adopted by the applicant's governing body.

Apparent losses are paper losses that occur when the water reaches a customer, but the volume is not accurately measured and/or recorded due to unauthorized consumption, customer meter inaccuracy, or billing system and collection data errors.

Approvable refers to a water conservation plan that substantially meets the minimum requirements of the water conservation plan rules but has not yet been adopted by the applicant's governing body.

Best Management Practices are voluntary efficiency measures that save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.

GPCD means gallons per capita per day.

GCD means gallons per connection per day.

GMD means gallons per mile per day.

Infrastructure Leakage Index (ILI) is the current annual real loss divided by the unavoidable annual real loss (theoretical minimum real loss) and only applies to utilities with more than 3,000 connections and a connection density of more than 16 connections per mile. The **ILI** is recommended to be less than 3 if water resources are greatly limited and difficult to develop, between 3 and 5 if water resources are adequate to meet long-term needs but water conservation is included in long-term water planning, and between 5 and 8 if water resources are plentiful, reliable, and easily extracted. The **ILI** is recommended as a benchmarking tool, but until there is increased data validity of the variables used in the calculation, the **ILI** should be viewed with care.

NA means not applicable.

Real losses are the physical losses, largely leakage, from the infrastructure: mains, valves, and storage tank overflows. Real loss constitutes background leakage (unreported and difficult to detect), unreported leakage (leaks that do not surface but could be detected), and reported leakage (leaks that often surface and those that are detected by the utility through leak detection).

Residential GPCD is the amount of residential water use (single and multi-family customer use) divided by the residential population divided by 365.

Total GPCD is the amount of total system input volume divided by the retail population divided by 365.

Total water loss is the sum of the apparent and real water losses.

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

Water Loss GPCD is the amount of water loss divided by the retail population divided by 365.

Water Loss per Connection per Day Calculated as the water loss volume divided by the number service connections divided by 365. This indicator allows for reliable performance tracking in the water utility's efforts to reduce water losses. It replaces water loss percentage.

Water Loss Thresholds are levels of real and apparent water loss determined by the connection density of a retail public utility, at or above which a utility receiving financial assistance from the Texas Water Development Board must use a portion of that financial assistance to mitigate the utility's system water loss.

Wholesale Adjusted represents that some utilities provide large volumes of wholesale water to other providers that travel through the general distribution system, so a calculation has been established to adjust for that volume of wholesale water. These adjustments are only applicable for use in determining whether a utility meets or exceeds water loss thresholds in review of their application for financial assistance. These adjustments should not be used for performance tracking or benchmarking.



City of Cut and Shoot Montgomery County

