

Texas Water Development Board

PROJECT FUNDING REQUEST

BOARD DATE: March 28, 2019

PRESENTED BY: Nancy Richards

APPLICANT	City of Nassau Bay
TYPE OF ASSISTANCE	\$3,000,000 Financing
LEGAL PLEDGE	First Lien on Water and Sewer Systems Revenues

STAFF RECOMMENDATION

Approve No Action

Approve by resolution a request from the City of Nassau Bay (Harris County) for \$3,000,000 in financing from the Texas Water Development Fund for planning, design, and construction of water and sewer system improvements.

PROJECT

Water and Sewer System Rehabilitation
Project Number 21778

BACKGROUND

The City of Nassau Bay (City) is located in southeast Harris County near the Clear Lake City area. The City's economy is entirely reliant on the economic activity in the Houston metro area, specifically the oil and gas industries which are moving east and southeast of Houston. The City provides water and sewer service to 1,510 connections with a service area population of 4,100.

To address aging infrastructure, the City proposes to rehabilitate approximately four miles of 40 to 50-year-old concrete water distribution lines and approximately two miles of wastewater lines.

FINANCIAL

Key Issues

None.

Pledge and Repayment

The City is pledging a first lien on the net revenues of the water and sewer system. The City's current average monthly water and sewer rate is \$59.40. Based on staff's analysis of

COMMITMENT PERIOD: ONE (1) YEAR TO EXPIRE ON MARCH 31, 2020

financial documentation received, a no-growth scenario, and current interest rates, the City will not need to increase the average monthly water and sewer rates to meet the existing and proposed debt service.

Cost Savings

Based on a 20-year maturity schedule and current interest rates, the City could save approximately \$102,474 over the life of the financing.

Internal Risk Score

Staff assigns a 2A to the City and the proposed project to be funded by Texas Water Development Board. This means the City's payment capacity is strong.

The results of the City's financial sustainability indicators are strong. These more heavily weighted risk score indicators show the City's short-term and long-term ability to repay the debt. The revenues available for debt service represent 1.08 times the current and proposed debt service requirements in the first year of principal repayment. Also, the City's level of reinvestment in the assets of the utility's infrastructure is moderate with an asset condition ratio of 16 years. An asset condition ratio of 12 to 24 years is considered typical.

The City's population has increased at an average annual rate of 0.32 percent since 2010, compared to an increase at an annual rate of 1.24 percent for the population of the state overall. The City's median household income is \$73,103, which is 128 percent of the median for the state overall. The average, unadjusted, unemployment rate for Harris County was 3.8 percent in November 2018, compared to 3.5 percent in the state overall.

The household cost factor compares the annual cost of water and wastewater services, including any anticipated rate increases required to pay the proposed debt, to the median household income for the service area. The City's household cost factor is 0.98 percent. The industry benchmark for the household cost factor is 2 percent for two services.

The system does maintain strong reserves with unrestricted cash and short-term investments of approximately 192 days of the operating expenses of the utility system. Any amount between 150 and 250 days is a strong level of liquidity.

The utility system self-supporting debt to operating revenues ratios, including the proposed loan, is 2.15. A debt to operating revenues ratio of 4 to 6 is considered typical.

The utility system rates are reviewed annually and increased as necessary to meet all debt service and reserve requirements. The utility system self-supporting debt is low to moderate, the overall debt burden is low, and the system liquidity level is strong. Based on these factors, the project with the City is assigned a risk score of 2A.

LEGAL

Key Issues

None.

CONDITIONS

Standard tax-exempt, net revenues, and Texas Water Development Fund conditions.

- Attachments:
1. Project Data Summary
 2. Debt Service Schedule
 3. Engineering/Environmental Review
 4. Project Budget
 5. Resolution (19-)
 6. Water Conservation Review
 7. Location Map

PROJECT DATA SUMMARY

Responsible Authority	City of Nassau Bay
Program	Texas Water Development Fund
Commitment Code	L1000915
Project Number	21778
Intended Use Plan Year	N/A
Type of Pledge	2-Revenue
Revenue Pledge Level	First
Legal Description	\$3,000,000 City of Nassau Bay, Texas Water and Sewer System Revenue Bonds, Proposed Series 2019
Tax-exempt or Taxable	Tax-exempt
Refinance	No
Outlay Requirement	No
Disbursement Method	Escrow
Outlay Type	N/A
Population	4,100
Rural	No
Water Connections	1,510
Wastewater Connections	1,510
Qualifies as Disadvantaged	N/A
Disadvantaged Level	N/A
Clean Water State Revolving Fund Type	N/A
Financial, Managerial, and Technical Review Complete?	N/A
Phase Committing	Planning, Design, and Construction
Pre-Design	Yes
Project Consistent with Water Plan	Yes
Water Conservation Plan	Adopted
Water Rights Certification Required	No
Internal Risk Score	2A
External Ratings (for SRF rates)	
Standard and Poor's	Non-Rated
Moody's	Non-Rated
Fitch	Non-Rated
Special Issues	None

Project Team

Manager	Nancy Richards
Financial Analyst	Charles R. Nichols
Engineering Reviewer	Lucia Loera
Environmental Reviewer	Sara Sopczynski
Attorney	Annette Mass

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY
City of Nassau Bay

\$3,000,000 City of Nassau Bay Water and Sewer System Revenue Bonds, Proposed Series 2019

Dated Date: 8/1/2019	Source: WDF
Delivery Date: 8/1/2019	Rate: 3.42%
First Interest: 2/1/2020	IUP Year: N/A
First Principal: 8/1/2020	Case: Revenue
Last Principal: 8/1/2039	Admin.Fee: \$0
Fiscal Year End: 09/30	Admin. Fee Payment Date: N/A
Required Coverage: 1.0	

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$3,000,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2020	\$449,614	\$211,100	\$115,000	1.73%	\$91,456	\$206,456	\$417,556	1.08
2021	449,614	207,393	120,000	1.90%	89,466	209,466	416,859	1.08
2022	449,614	208,686	120,000	1.97%	87,186	207,186	415,872	1.08
2023	449,614	209,811	125,000	2.03%	84,822	209,822	419,633	1.07
2024	449,614	210,767	125,000	2.12%	82,285	207,285	418,052	1.08
2025	449,614	206,554	130,000	2.20%	79,635	209,635	416,189	1.08
2026	449,614	207,342	130,000	2.30%	76,775	206,775	414,117	1.09
2027	449,614	207,961	135,000	2.39%	73,785	208,785	416,746	1.08
2028	449,614	208,411	140,000	2.74%	70,558	210,558	418,969	1.07
2029	449,614	208,693	140,000	3.00%	66,722	206,722	415,415	1.08
2030	449,614	208,807	145,000	3.22%	62,522	207,522	416,329	1.08
2031	449,614	208,752	150,000	3.40%	57,853	207,853	416,605	1.08
2032	449,614	208,528	155,000	3.40%	52,753	207,753	416,281	1.08
2033	449,614	208,136	160,000	3.40%	47,483	207,483	415,619	1.08
2034	449,614	207,576	165,000	3.54%	42,043	207,043	414,619	1.08
2035	449,614	206,847	175,000	3.66%	36,202	211,202	418,049	1.08
2036	449,614	210,949	180,000	3.75%	29,797	209,797	420,746	1.07
2037	449,614	209,715	185,000	3.83%	23,047	208,047	417,762	1.08
2038	449,614	208,312	195,000	3.91%	15,962	210,962	419,274	1.07
2039	449,614	206,740	210,000	3.97%	8,337	218,337	425,077	1.06
		\$4,171,080	\$3,000,000		\$1,178,686	\$4,178,686	\$8,349,766	

AVERAGE (MATURITY) LIFE	11.5 YEARS
NET INTEREST RATE	3.417%
COST SAVINGS	\$102,474
AVERAGE ANNUAL REQUIREMENT	\$417,488

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.

Nassau Bay
21778 Water & Sewer Utilities Rehabilitation
Engineering and Environmental Review

Engineering:

Key Issues:

None.

Project Need/Description

Project Need: The City of Nassau Bay (City) is seeking to rehabilitate aging water and wastewater lines. Rehabilitation of water lines is needed to maintain service to existing customers. Rehabilitation of wastewater lines is needed to avoid compliance issues and maintain service to customers.

Project Description: The project involves the replacement of approximately 21,700 feet (4.1 miles) of aging water lines as well as the replacement of fire hydrants, valves, service line branches, and meter boxes. The wastewater rehabilitation will include replacement of approximately 12,350 feet (2.3 miles) of aging concrete pipes using trenchless methods along with replacement of manholes and service line branches.

Project Schedule:

Project Task	Schedule Date
Closing	8/1/2019
Engineering Feasibility Report Completion (End of Planning Phase)	7/15/2019
Design Phase Complete	10/15/2019
Start of Construction	12/15/2019
Construction Completion	12/15/2020

Environmental Section:

Key Issues:

None.

Environmental Summary:

As set forth in the preliminary environmental information submitted by the applicant, there are no known environmental, social, or permitting issues that would preclude construction of the project. Based on this initial environmental review, it is not anticipated that the proposed project's primary environmental impacts should be significant or adverse, nor should they affect project implementation.

Pursuant to the requirements of 31 Texas Administrative Code § 363.14, all financial assistance shall be conditioned to read that funding for planning, design, and construction costs for specific project elements will not be released until the environmental review has been completed and a favorable environmental determination has been issued.



Project Budget Summary
Nassau Bay
21778 - Water & Sewer Utilities
Rehabilitation

Budget Items	TWDB Funds	Total
Construction		
Construction	\$2,440,667.00	\$2,440,667.00
Subtotal for Construction	\$2,440,667.00	\$2,440,667.00
Basic Engineering Services		
Construction Engineering	\$33,695.00	\$33,695.00
Design	\$123,550.00	\$123,550.00
Planning	\$67,390.00	\$67,390.00
Subtotal for Basic Engineering Services	\$224,635.00	\$224,635.00
Special Services		
Application	\$500.00	\$500.00
Environmental	\$7,500.00	\$7,500.00
Geotechnical	\$30,300.00	\$30,300.00
Surveying	\$96,800.00	\$96,800.00
Testing	\$12,000.00	\$12,000.00
Water Conservation Plan	\$3,000.00	\$3,000.00
Subtotal for Special Services	\$150,100.00	\$150,100.00
Fiscal Services		
Bond Counsel	\$25,000.00	\$25,000.00
Financial Advisor	\$24,094.00	\$24,094.00
Fiscal/Legal	\$2,500.00	\$2,500.00
Issuance Costs	\$8,906.00	\$8,906.00
Subtotal for Fiscal Services	\$60,500.00	\$60,500.00
Contingency		
Contingency	\$124,098.00	\$124,098.00
Subtotal for Contingency	\$124,098.00	\$124,098.00
Total	\$3,000,000.00	\$3,000,000.00

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF
\$3,000,000 TO THE CITY OF NASSAU BAY
FROM THE FINANCIAL ASSISTANCE ACCOUNT OF
THE TEXAS WATER DEVELOPMENT FUND II
THROUGH THE PROPOSED PURCHASE OF
\$3,000,000 CITY OF NASSAU BAY, TEXAS WATER AND SEWER SYSTEM REVENUE
BONDS,
PROPOSED SERIES 2019

(19 -)

WHEREAS, the City of Nassau Bay (City), located in Harris County, Texas, has filed an application for financial assistance in the amount of \$3,000,000 from the Financial Assistance Account of the Texas Water Development Fund II, established by Texas Water Code § 17.959, to finance water and wastewater system improvements, identified as Project No. 21778; and

WHEREAS, the City seeks financial assistance from the Texas Water Development Board (TWDB) in the amount of \$3,000,000 through the TWDB's purchase of \$3,000,000 City of Nassau Bay, Texas Water and Sewer System Revenue Bonds, Proposed Series 2019 (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 City has offered a pledge of first lien on the net revenue as sufficient security for the repayment of the Obligations; and

WHEREAS, 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; and

WHEREAS, in accordance with Texas Water Code §§ 17.124 and 17.275, the TWDB has considered all matters required by law and in particular the following:

1. the water quality needs of the waters into which effluent from the treatment works will be discharged, the benefit of the treatment works to such water quality needs, the relationship of the treatment works to the overall, statewide water quality needs, and the relationship of the treatment works to water quality planning for the state;
2. 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
3. the availability of revenue to the City, from all sources, for the ultimate repayment of the cost of the treatment works and 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 the public interest will benefit from state assistance in the financing of this project, in accordance with Texas Water Code § 17.277(a);
3. that the City has adopted and implemented a water conservation program for the more efficient use of water that will meet reasonably anticipated local needs and conditions and that incorporates practices, techniques or technology prescribed by the Texas Water Code and TWDB's rules;
4. that in its opinion the tax and/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);
5. that the application and financial assistance requested meet the requirements of Texas Water Code, Chapter 17, Subchapters E, F, and L, and 31 TAC Chapter 363, Subchapter A;
6. that 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); and
7. that any treatment works to be financed under the application will consider cost-effective innovative, nonconventional methods of treatment such as rock reed, root zone, ponding, irrigation, or other methods that may have been developed by the National Aeronautics and Space Administration or the Tennessee Valley Authority, in accordance with Texas Water Code § 17.189.

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

A commitment is made by the TWDB to the City of Nassau Bay for financial assistance in the amount of \$3,000,000 from the Financial Assistance Account of the Texas Water Development Fund II, to be evidenced by the TWDB's purchase of \$3,000,000 City of Nassau Bay, Texas Water and Sewer System Revenue Bonds, Proposed Series 2019. This commitment will expire on March 31, 2020.

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 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 (Early Redemption) only in inverse order of maturity, and on any date beginning on or after the first interest payment date which 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 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, 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;
6. 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;
7. the Obligations must include a provision requiring the City to use any loan proceeds from the Obligations remaining after completion of a final accounting for the following purposes: (1) subject to waiver of the Early Redemption call date in the Obligations, to redeem, in inverse annual order, the Obligations owned by the

TWDB; (2) deposit into the Interest and Sinking Fund or other debt service account for the payment of interest or principal on the Obligations owned by the TWDB; or (3) for those securities required to establish a reserve fund, deposit into a reserve fund;

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 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 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;
11. 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;
12. prior to closing, and if required under the TWDB's financial assistance program and not previously provided with the application, the City 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 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;

14. the Executive Administrator may require that the City execute a separate financing agreement in form and substance acceptable to the Executive Administrator;

Conditions Related To Tax-Exempt Status

15. 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;
16. 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;
17. 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);
18. the Obligations must provide that no portion of the proceeds of the loan 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 which 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 loan (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;
19. 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 loan 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 loan, 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 the making of the loan, and in order to induce the making of the loan 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;
20. 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;
 21. 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;
 22. 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");

23. 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;
24. 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 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;
25. 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 For The Loan

26. 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;
27. if the City 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;
28. the Obligations must contain a provision providing that additional revenue obligations may only be incurred if: (a) the Interest and Sinking Fund and Reserve Fund each contain the amount of money then required to be on deposit therein; (b) for either the preceding fiscal year or any consecutive 12-month period out of the 15-month period immediately preceding the month in which the bond ordinance authorizing the Additional Bonds is adopted, either the net system revenues, as certified by the Director of Finance of the City or the Deputy City Manager of the City, are at least one hundred and twenty five percent of the average annual debt service requirements after giving effect to the additional obligations; or net system revenues, adjusted to give effect to any rate increase or annexation of territory placed into effect or consummated prior to the adoption of the ordinance authorizing the additional bonds to the same extent as if such rate increase or annexation had been placed into effect or consummated prior to the commencement of the base period, would have been equal to at least the amount required above, as certified by the City Manager or a Deputy City Manager; and (c) provision is made in the bond ordinance authorizing the Additional Bonds then proposed to be issued for additional payments into the Interest and Sinking Fund

sufficient to provide for the payment of the increased principal of and interest on the Bonds resulting from the issuance of such Additional Bonds and additional payments into the reserve fund sufficient to provide for the accumulation therein of the increased reserve requirement resulting from the issuance of such Additional Bonds, by not later than sixty months from issuance of the Additional Bonds.

APPROVED and ordered of record this, the 28th day of March, 2019.

TEXAS WATER DEVELOPMENT BOARD

Peter M. Lake, Chairman

DATE SIGNED: _____

ATTEST:

Jeff Walker, Executive Administrator

Water
 Wastewater
 Other

WATER CONSERVATION REVIEW

Entity: _____

Review date: _____

WATER CONSERVATION PLAN DATE: **Approvable** **Adopted**

	Total GPCD	Residential GPCD	Water Loss GPCD	Water Loss Percent
Baseline				
5-year Goal				
10-year Goal				

WATER LOSS AUDIT YEAR:

Total water loss (GPCD): _____ Total water loss (percent): _____ Wholesale Water
 Total no. of connections: _____ Length of mains (miles): _____ Connections per mile: _____
 If > 16 connections per mile and > 3,000 connections, Infrastructure Leakage Index (ILI): _____

WATER LOSS THRESHOLDS:

	Apparent Loss Gallons per connection per day	Real Loss Gallons per mile per day	Real Loss Gallons per connection per day	Apparent Threshold Gallons per connection per day	Real Threshold Gallons per mile per day	Real Threshold Gallons per connection per day
If population ≤ 10K, connections/mile < 32 :			NA			NA
If population ≤ 10K, connections/mile ≥ 32 :		NA			NA	
If population > 10K :		NA			NA	

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 loss refers to unauthorized consumption, meter inaccuracy, billing adjustments, and waivers.

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 5,000 connections, average pressure greater than 35 psi, and a connection density of more than 32 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.

Produced water is the total amount of water purchased or produced by the utility.

Real loss comes from main breaks and leaks, storage tank overflows, customer service line breaks, and leaks.

Residential GPCD is the amount of water per capita used solely for residential use and ideally includes both single and multi-family customer use.

Total baseline GPCD is the amount of all water purchased or produced by the utility divided by the service area population and then 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 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.



Nassau Bay Harris County

