

Texas Water Development Board

PROJECT FUNDING REQUEST

BOARD DATE: July 23, 2015

TEAM MANAGER: Nancy Richards

APPLICANT	North Fort Bend Water Authority
TYPE OF ASSISTANCE	\$251,845,000 Northeast Water Purification Plant Expansion \$304,000,000 Second Source Transmission Line (96-inch)
LEGAL PLEDGE	Water System Junior Lien Revenue Bonds

STAFF RECOMMENDATION

☒ Approve ☐ No Action

ACTION REQUESTED

Approve, by resolution, a request from the **North Fort Bend Water Authority (Fort Bend County)** for a \$555,845,000 multi-year loan commitment from the State Water Implementation Revenue Fund for Texas to finance the planning, acquisition, design, and construction of the Northeast Water Purification Plant expansion and the Second Source Transmission Line.

BACKGROUND

Passed by the 83rd Legislature and approved by Texas voters through a constitutional amendment the State Water Implementation Fund for Texas (SWIFT) and, the State Water Implementation Revenue Fund for Texas (SWIRFT) were created to provide affordable, alternative financing options to develop projects that are recommended water management strategies in the State Water Plan. The program, referred to as SWIFT, provides financing through low-interest loans, deferral of loan repayments, and incremental repurchase terms for projects with state ownership aspects. All SWIFT projects presented for consideration have been prioritized based on criteria outlined in Texas Administrative Code Title 31 §363.1304 and are included on the prioritized list of projects approved by the Board on May 6, 2015.

Multi-Year Commitment	Expiration Date
\$8,670,000 Series 2015	December 31, 2015
\$11,025,000 Series 2016	December 31, 2016
\$87,360,000 Series 2017	December 31, 2017
\$121,040,000 Series 2018	December 31, 2018
\$244,110,000 Series 2019	December 31, 2019
\$39,590,000 Series 2020	December 31, 2020
\$20,940,000 Series 2021	December 31, 2021
\$23,110,000 Series 2022	December 31, 2022

*Project: Northeast Water Purification Plant Expansion**Project Number 51023*

Groundwater subsidence in the greater Houston area coupled with increasing water demands requires that the North Fort Bend Water Authority (Authority) and its four regional partners expand the existing Northeast Water Purification Plant (Plant). The Authority will co-fund the expansion of the Plant to increase the water treatment capacity from 80 million gallons per day (MGD) to 400 MGD. The expansion will provide the participants with additional surface water supply to help meet the regulatory requirements of the Harris-Galveston Subsidence District and the Fort Bend Subsidence District. The Authority will own approximately 21% of the plant capacity. The regional partners have all submitted applications for their proposed shares which will be presented for consideration in tandem with this request.

NORTHEAST WATER PURIFICATION PLANT REGIONAL PARTNERS

ENTITY	APPROXIMATE % SHARE OF PROJECT CAPACITY	AMOUNT
NORTH FORT BEND WA	21%	\$251,845,000
CENTRAL HARRIS CO. RWA	2%	\$22,655,000
NORTH HARRIS CO. RWA	35%	\$551,760,000
WEST HARRIS CO. RWA	26%	\$306,200,000
CITY OF HOUSTON	16%	\$183,635,000
TOTAL	100%	\$1,316,095,000

*Project: Second Source Transmission Line (96-inch)**Project Number 51022*

The 96-inch transmission line will start at the Northeast Water Purification Plant and bring treated surface water approximately 40 miles to the West Harris County Regional Water Authority and North Fort Bend Water Authority on the west side of Houston. The project also includes two large booster pump stations that will push the water along the route and will require several large meter stations.

SECOND SOURCE TRANSMISSION LINE REGIONAL PARTNERS

ENTITY	APPROXIMATE % SHARE OF PROJECT CAPACITY	AMOUNT
WEST HARRIS CO. RWA	55%	\$325,440,000
NORTH FORT BEND WA	45%	\$304,000,000
TOTAL	100%	\$629,440,000

FINANCIALKey Issues

The SWIFT program has the ability to offer applicants multi-year funding commitments. This flexibility allows the TWDB to manage program demands while allowing the applicant to fund large projects over time. Each annual commitment installment will have its own expiration date and the applicable subsidy rate will be applied for up to five years only.

The Authority has requested a multi-year commitment over a period of eight years, 2015 through 2022. The subsidy rate of 22% will be applied to loans closing before 2020.

Pledge and Repayment

The Authority is pledging junior lien on the water system net revenues to repay the proposed debt. The pledged revenues consist of net revenues and additional coverage amounts transferred from the Authority's Coverage Fund to its Revenue Fund. The Authority will review its net revenues annually to ensure the necessary rate and charges are in place to repay current and the proposed SWIFT debt service.

Cost Savings

Based on a 30-year maturity schedule and current interest rates, the Authority could save approximately \$963,587 over the life of the \$8,670,000 Series 2015 loan by utilizing TWDB funding.

Internal Risk Score

Staff assigns a risk score of 2B to the Authority, which means that the applicant's repayment capacity is strong. The applicant's earnings trends and coverage ratios, while sound, may be more susceptible to adverse effects of changes in circumstances and economic conditions than the higher rated obligations. The median household income for the service area is \$85,297, which is well above the State average of \$51,900. The Authority is in good financial condition and has experienced significant growth over the years. The Authority has \$29,698,209 in unrestricted funds, this represents more than two years of operating expenses. The Authority encompasses approximately 90,153 acres (140.9 square miles) with 69 utility districts and 2 cities, Fulshear and Arcola, with 140 producing wells subject to Authority pumpage fee. The Authority continues to experience positive upward trends in net income, customer growth, and net assets.

LEGAL

Key Issues

None.

Conditions

Standard SWIFT, tax-exempt, junior lien revenue conditions.

- Attachments:
1. Project Data Summary
 2. Debt Service Schedule
 3. Total Project Budget
 4. Engineering/Environmental Review/Budget-Plant
 5. Engineering/Environmental Review/Budget-96 inch Line
 6. Resolution (15-)
 7. Water Conservation Review
 8. Location Map

Responsible Authority	North Fort Bend Water Authority	
Program	State Water Implementation Fund for Texas	
Commitment Codes	LM15028 LM16028 LM17028 LM18028 LM19028	Project No. 51023
	LM15024 LM16024 LM17024 LM18024 LM19024 LM20024 LM21024 LM22024	Project No. 51022
Project Number	51023- Northeast Water Purification Plant 51022- Second Source Transmission Line (96-inch)	
Intended Use Plan Year	N/A	
Fund Number	361	
Type of Pledge	5	
Revenue Pledge Level	Second	
Legal Description	North Fort Bend Water Authority Water System Junior Lien Revenue Bonds Proposed Series 2015	
Tax-Exempt or Taxable	Tax-Exempt	
Refinance	No	
Outlay Requirement	No	
Disbursement Method	Escrow	
Outlay Type	N/A	
Population	237,000	
Rural	No	
Water Connections	Wholesale Provider	
Wastewater Connections	Wholesale Provider	
Qualifies as Disadvantaged	No	
Disadvantaged Level	9	
Clean Water State Revolving Fund Type	N/A	
Financial, Managerial and Technical Review Complete?	N/A	
SWIFT Financing Type	Low-Interest Loan	
SWIFT Characteristics	N/A	
Phase Committing	P, A, D, and C	
Pre-Design	Yes	
Project Consistent with Water Plan	Yes	
Water Conservation Plan	Adopted	
Water Rights Certification Required	N/A	
Internal Risk Score	2B	

External Ratings	
Standard and Poor's	A+ Revenue
Moody's	N/A
Fitch	A+ Revenue
Special Issues	Multi-year Funding Requested for SWIFT

Project Team

Team Manager	Nancy Richards
Financial Analyst	Charles R. Nichols
Engineering Reviewer	James Bronikowski
Environmental Reviewer	Jean Devlin
Attorney	Annette Mass

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY
North Fort Bend Water Authority
Water System Junior Lien Revenue Bonds Proposed Series 2015

Dated Date: 12/1/2015
Delivery Date: 12/1/2015
First Interest: 6/1/2016
First Principal: 12/1/2016
Last Principal: 12/1/2045
Fiscal Year End: 12/31
Required Coverage: 1.0

Source: SWIFT-LOW
Insurance: No
Case: Revenue
Admin.Fee: \$ -
Admin. Fee Payment Date: N/A

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	PRINCIPAL PAYMENT	INTEREST RATE	\$8,670,000 ISSUE		TOTAL DEBT SERVICE	COVERAGE
					INTEREST PAYMENT	TOTAL PAYMENT		
2016	35,401,891	21,221,745	290,000	0.35%	213,336	503,336	21,725,081	1.63
2017	35,401,891	21,229,945	290,000	0.71%	212,336	502,336	21,732,281	1.63
2018	35,401,891	21,229,195	290,000	0.92%	210,268	500,268	21,729,463	1.63
2019	35,401,891	21,230,683	290,000	1.08%	207,614	497,614	21,728,297	1.63
2020	35,401,891	21,227,638	290,000	1.28%	204,485	494,485	21,722,123	1.63
2021	35,401,891	21,224,281	290,000	1.49%	200,768	490,768	21,715,049	1.63
2022	35,401,891	21,231,750	290,000	1.71%	196,438	486,438	21,718,188	1.63
2023	35,401,891	21,228,425	290,000	1.83%	191,476	481,476	21,709,901	1.63
2024	35,401,891	21,223,225	290,000	1.92%	186,175	476,175	21,699,400	1.63
2025	35,401,891	21,227,644	290,000	2.02%	180,601	470,601	21,698,245	1.63
2026	35,401,891	21,229,594	290,000	2.26%	174,734	464,734	21,694,328	1.63
2027	35,401,891	21,229,844	290,000	2.44%	168,195	458,195	21,688,039	1.63
2028	35,401,891	21,226,656	290,000	2.59%	161,122	451,122	21,677,778	1.63
2029	35,401,891	21,230,406	290,000	2.70%	153,611	443,611	21,674,017	1.63
2030	35,401,891	21,231,294	290,000	2.80%	145,786	435,786	21,667,080	1.63
2031	35,401,891	21,228,019	290,000	2.88%	137,672	427,672	21,655,691	1.63
2032	35,401,891	21,152,043	290,000	2.95%	129,314	419,314	21,571,358	1.64
2033	35,401,891	21,076,531	290,000	3.01%	120,757	410,757	21,487,288	1.65
2034	35,401,891	21,000,644	290,000	3.06%	112,033	402,033	21,402,677	1.65
2035	35,401,891	10,296,979	290,000	3.11%	103,159	393,159	10,690,138	3.31
2036	35,401,891	6,006,000	290,000	3.15%	94,146	384,146	6,390,146	5.54
2037	35,401,891	-	290,000	3.19%	85,008	375,008	375,008	94.40
2038	35,401,891	-	290,000	3.22%	75,754	365,754	365,754	96.79
2039	35,401,891	-	290,000	3.25%	66,408	356,408	356,408	99.33
2040	35,401,891	-	290,000	3.28%	56,971	346,971	346,971	102.03
2041	35,401,891	-	290,000	3.31%	47,453	337,453	337,453	104.91
2042	35,401,891	-	290,000	3.33%	37,860	327,860	327,860	107.98
2043	35,401,891	-	290,000	3.34%	28,203	318,203	318,203	111.26
2044	35,401,891	-	290,000	3.36%	18,505	308,505	308,505	114.75
2045	35,401,891	-	260,000	3.37%	8,767	268,767	268,767	131.72
		\$ 419,182,540	\$ 8,670,000		\$ 3,928,955	\$ 12,598,955	\$ 431,781,495	

AVERAGE (MATURITY) LIFE	15.45 YEARS
NET INTEREST RATE	2.933%
COST SAVINGS	\$963,587
AVERAGE ANNUAL REQUIREMENT	\$14,392,717

ISSUE BEING EVALUATED
FOR ILLUSTRATION PURPOSES ONLY
North Fort Bend Water Authority
Water System Junior Lien Revenue Bonds Proposed Series 2016-2021

Dated Date: 12/1/2016
Delivery Date: 12/1/2016
First Interest: 6/1/2017
First Principal: 12/1/2017
Last Principal: 12/1/2045
Fiscal Year End: 12/31
Required Coverage: 1.0

Source: SWIFT-LOW
Insurance: No
Case: Revenue
Admin.Fee: \$ -
Admin. Fee Payment Date: N/A

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	PRINCIPAL PAYMENT	INTEREST RATE	\$547,175,000 ISSUE		TOTAL DEBT SERVICE	COVERAGE
					INTEREST PAYMENT	TOTAL PAYMENT		
2017	60,253,422	21,732,281	18,870,000	0.71%	13,880,238	32,750,238	54,482,519	1.11
2018	60,253,422	21,729,463	18,870,000	0.92%	13,745,695	32,615,695	54,345,158	1.11
2019	60,253,422	21,728,297	18,870,000	1.08%	13,573,035	32,443,035	54,171,332	1.11
2020	60,253,422	21,722,123	18,870,000	1.28%	13,369,427	32,239,427	53,961,550	1.12
2021	60,253,422	21,715,049	18,870,000	1.49%	13,127,514	31,997,514	53,712,563	1.12
2022	60,253,422	21,718,188	18,870,000	1.71%	12,845,785	31,715,785	53,433,973	1.13
2023	60,253,422	21,709,901	18,870,000	1.83%	12,522,919	31,392,919	53,102,820	1.13
2024	60,253,422	21,699,400	18,870,000	1.92%	12,177,976	31,047,976	52,747,376	1.14
2025	60,253,422	21,698,245	18,870,000	2.02%	11,815,294	30,685,294	52,383,539	1.15
2026	60,253,422	21,694,328	18,870,000	2.26%	11,433,554	30,303,554	51,997,882	1.16
2027	60,253,422	21,688,039	18,870,000	2.44%	11,008,036	29,878,036	51,566,075	1.17
2028	60,253,422	21,677,778	18,870,000	2.59%	10,547,796	29,417,796	51,095,574	1.18
2029	60,253,422	21,674,017	18,870,000	2.70%	10,059,063	28,929,063	50,603,080	1.19
2030	60,253,422	21,667,080	18,870,000	2.80%	9,549,951	28,419,951	50,087,031	1.20
2031	60,253,422	21,655,691	18,870,000	2.88%	9,021,968	27,891,968	49,547,659	1.22
2032	60,253,422	21,571,358	18,870,000	2.95%	8,478,135	27,348,135	48,919,493	1.23
2033	60,253,422	21,487,288	18,870,000	3.01%	7,921,281	26,791,281	48,278,569	1.25
2034	60,253,422	21,402,677	18,870,000	3.06%	7,353,671	26,223,671	47,626,348	1.27
2035	60,253,422	10,690,138	18,870,000	3.11%	6,776,249	25,646,249	36,336,387	1.66
2036	60,253,422	6,390,146	18,870,000	3.15%	6,189,770	25,059,770	31,449,916	1.92
2037	60,253,422	375,008	18,870,000	3.19%	5,595,176	24,465,176	24,840,184	2.43
2038	60,253,422	365,754	18,870,000	3.22%	4,993,034	23,863,034	24,228,788	2.49
2039	60,253,422	356,408	18,870,000	3.25%	4,384,854	23,254,854	23,611,262	2.55
2040	60,253,422	346,971	18,870,000	3.28%	3,770,825	22,640,825	22,987,796	2.62
2041	60,253,422	337,453	18,870,000	3.31%	3,151,511	22,021,511	22,358,964	2.69
2042	60,253,422	327,860	18,870,000	3.33%	2,527,292	21,397,292	21,725,152	2.77
2043	60,253,422	318,203	18,870,000	3.34%	1,899,109	20,769,109	21,087,312	2.86
2044	60,253,422	308,505	18,870,000	3.36%	1,268,096	20,138,096	20,446,601	2.95
2045	60,253,422	268,767	18,815,000	3.37%	634,442	19,449,442	19,718,209	3.06
		\$ 410,056,416	\$ 547,175,000		\$ 243,621,697	\$ 790,796,697	\$ 1,200,853,113	

AVERAGE (MATURITY) LIFE	15 YEARS
NET INTEREST RATE	2.969%
COST SAVINGS	
AVERAGE ANNUAL REQUIREMENT	\$41,408,728

North Fort Bend Water Authority

Budget Items	TWDB Funds	TWDB Funding %	Local & Other Funds	Total Cost
Other				
Capacity Buy-In	\$552,813,189		\$4,345	\$552,817,534
Other Total	\$552,813,189	99.5%	\$4,345	\$552,817,534
Fiscal Services				
Financial Advisor	\$1,812,553		\$0	\$1,812,553
Bond Counsel	\$1,219,258		\$0	\$1,219,258
Fiscal Services Total	\$3,031,811	0.5%	\$0	\$3,031,811
Grand Total	\$555,845,000	100.0%	\$4,345	\$555,849,345

**North Fort Bend Water Authority
51023 – Northeast Water Purification Plant Expansion
Engineering and Environmental Review**

Engineering:

Key Issues:

None.

Project Need/Description

Need: The need for surface water treatment facility infrastructure improvements follows the passage of rules and regulations issued by the Harris-Galveston Subsidence District (Subsidence District) to decrease groundwater usage and consequently increase surface water usage in the Subsidence District. Groundwater subsidence in the greater Houston area coupled with increasing water demands requires that the City of Houston (City) and regional partners expand the existing Northeast Water Purification Plant (NEWPP).

Project Description: The City along with the North Harris County Regional Water Authority, West Harris County Regional Water Authority, Central Harris County Regional Water Authority, and North Fort Bend Water Authority (Authorities) is seeking financial assistance for the planning, design, and construction of an expansion to the existing NEWPP that will increase the surface water intake and treated water production capacity from 80 million gallons per day (MGD) to 400 MGD. The expansion will provide the project participants with an additional surface water supply to help achieve the regulatory requirements of the Harris-Galveston Subsidence District and the Fort Bend Subsidence District that restrict groundwater usage.

Project Schedule:

Project Task	Schedule Date
Closing	12/1/2015
Engineering Feasibility Report Completion (End of Planning Phase)	12/31/2016
Start of Construction	12/31/2017
Design Phase Complete	12/31/2018
Construction Completion	1/31/2025

Environmental Section:

Key Issues:

None known at this time.

Environmental Summary:

Pursuant to the requirements of 31 Texas Administrative Code (TAC) §363.14, all financial assistance shall be conditioned to read that funding for 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.

Houston
51023 - Northeast Water Purification Plant Expansion

Budget Items	Houston	North Fort Bend Water Authority	Central Harris County Regional Water Authority	North Harris County Regional Water Authority	West Harris County Regional Water Authority	TWDB Total Funds
Construction						
Construction	\$164,613,118	\$0	\$0	\$336,094,399	\$0	\$500,707,517
Construction Total	\$164,613,118	\$0	\$0	\$336,094,399	\$0	\$500,707,517
Basic Engineering Services						
Planning	\$1,502,421	\$0	\$0	\$32,021,093	\$0	\$33,523,514
Design	\$12,423,339	\$0	\$0	\$49,074,352	\$0	\$61,497,691
Construciton						
Engineering	\$4,177,947	\$0	\$0	\$0	\$0	\$4,177,947
Basic Engineering Services Total	\$18,103,707	\$0	\$0	\$81,095,445	\$0	\$99,199,152
Contingency						
Contingency	\$0	\$0	\$0	\$68,897,149	\$0	\$68,897,149
Contingency Total	\$0	\$0	\$0	\$68,897,149	\$0	\$68,897,149
Other						
Capacity Buy-In	\$0	\$250,799,616	\$19,256,750		\$306,200,000	\$576,256,366
Other Total	\$0	\$250,799,616	\$19,256,750	\$0	\$306,200,000	\$576,256,366
Fiscal Services						
Financial Advisor	\$0	\$645,886	\$0	\$652,142	\$0	\$1,298,028
Bond Counsel	\$0	\$399,498	\$0	\$1,480,000	\$0	\$1,879,498
Capitalized Interest	\$0	\$0	\$0	\$34,194,200	\$0	\$34,194,200
Fiscal/Legal	\$0	\$0	\$3,398,250	\$170,000	\$0	\$3,568,250
Bond Reserve Fund	\$0	\$0	\$0	\$28,488,665	\$0	\$28,488,665
Issuance Costs	\$918,175	\$0	\$0	\$688,000	\$0	\$1,606,175
Fiscal Services Total	\$918,175	\$1,045,384	\$3,398,250	\$65,673,007	\$0	\$71,034,816
Grand Total	\$183,635,000	\$251,845,000	\$22,655,000	\$551,760,000	\$306,200,000	\$1,316,095,000

**North Fort Bend Water Authority
51022 – Second Source Transmission Line (96-inch)
Engineering and Environmental Review**

Engineering:Key Issues:

None.

Project Need/Description

Need: In order to meet the Harris Galveston Subsidence District Regulatory Plan for conversion from groundwater to surface or alternative water source, the West Harris County Regional Water Authority and North Fort Bend Water Authority (Authorities) are collaborating to increase their surface water supply from the City of Houston's expanded Northeast Water Purification Plant (NEWPP). The Authorities must pipe the water from the plant and transport it 40 miles via this project to their respective constituents.

Project Description: The Authorities are seeking financial assistance for the planning, design, and construction of a transmission waterline system that will bring treated surface water approximately 40 miles from the expanded NEWPP on the east side of Houston at Lake Houston to the Authorities on the west side of Houston. The project also includes two large booster pump stations that will push the water along the route and several large meter stations.

Project Schedule:

Project Task	Schedule Date
Closing	12/1/2015
Engineering Feasibility Report Completion (End of Planning Phase)	3/31/2016
Start of Construction	1/31/2018
Design Phase Complete	7/1/2019
Construction Completion	3/31/2024

Environmental Section:Key Issues:

None known at this time.

Environmental Summary:

Pursuant to the requirements of 31 Texas Administrative Code (TAC) §363.14, all financial assistance shall be conditioned to read that funding for acquisition, 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.

**West Harris County Regional Water Authority
51022 - Second Source Transmission Line (96-inch)**

Budget Items	West Harris County Regional Water Authority	North Fort Bend Water Authority	Total TWDB Funds
Construction			
Construction	\$225,271,276	\$0	\$225,271,276
Construction Total	\$225,271,276	\$0	\$225,271,276
Basic Engineering Services			
Planning	\$26,833	\$0	\$26,833
Design	\$16,840,089	\$0	\$16,840,089
Construction Engineering	\$14,891,435	\$0	\$14,891,435
Basic Engineering Services Total	\$31,758,357	\$0	\$31,758,357
Special Services			
Environmental	\$14,790	\$0	\$14,790
Special Services Total	\$14,790	\$0	\$14,790
Contingency			
Contingency	\$0	\$0	\$0
Contingency Total	\$0	\$0	\$0
Other			
Capacity Buy-In: NFBWA Share	\$0	\$302,013,574	\$302,013,574
Capacity Buy-In: WHCRWA Bellaire Pump Station	\$10,564	\$0	\$10,564
Land/Easements Acquisition	\$20,993,941	\$0	\$20,993,941
Centerpoint Easement Fees	\$105,640	\$0	\$105,640
Other Total	\$21,110,145	\$302,013,574	\$323,123,719
Fiscal Services			
Financial Advisor	\$0	\$1,166,666	\$1,166,666
Bond Counsel	\$0	\$819,760	\$819,760
Fiscal/Legal	\$47,285,432	\$0	\$47,285,432
Fiscal Services Total	\$47,285,432	\$1,986,426	\$49,271,858
Grand Total	\$325,440,000	\$304,000,000	\$629,440,000

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE TO
NORTH FORT BEND WATER AUTHORITY
IN THE FORM OF A MULTI-YEAR COMMITMENT
FROM THE STATE WATER IMPLEMENTATION REVENUE FUND FOR TEXAS
THROUGH THE PROPOSED PURCHASE OF
\$555,845,000 NORTH FORT BEND WATER AUTHORITY WATER SYSTEM JUNIOR LIEN
REVENUE BONDS PROPOSED SERIES 2015 THROUGH PROPOSED SERIES 2022

(15-)

WHEREAS, the North Fort Bend Water Authority, located in Fort Bend County, Texas, (Authority) has filed applications for financial assistance in the total amount of \$555,845,000 from the State Water Implementation Revenue Fund for Texas (SWIRFT), to finance the planning, design, acquisition, and construction of certain water supply project(s) identified below; and

WHEREAS, the Authority seeks financial assistance from the Texas Water Development Board (TWDB) in the form of a multiyear commitment through the TWDB's proposed purchase of \$555,845,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2015 through Proposed Series 2022, (together with all authorizing documents "Obligations"), all as is more specifically set forth in the application and in recommendations of the Executive Administrator's staff; and

WHEREAS, the Authority has offered a pledge of a junior lien on system 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 § 363.1307; and

WHEREAS the commitment is approved for an interest rate subsidy through December 31, 2019; and

WHEREAS, interest rate subsidies are available to the Authority at the following levels: 35.5% for loans of a term of 20 years, 27% for loans of a term of 25 years, and 22% for loans of a term of 30 years. The interest rate subsidy applicable to each proposed series will be set through each financing agreement executed between the TWDB and the Authority, pursuant to this Resolution; and

WHEREAS, the TWDB hereby finds:

1. that the application and assistance applied for meet the requirements of Texas Water Code, Chapter 15, Subchapters G and H and 31 TAC Chapter 363, Subchapters A and M;
2. that the project is a recommended water management strategy in the State Water Plan adopted pursuant to Texas Water Code § 16.051, in accordance with Texas Water Code § 15.474(a);
3. that a water conservation plan, if required by Texas Water Code § 11.1271, has been submitted and implemented in accordance with 31 TAC § 363.1309(b)(1);

4. that the Authority satisfactorily completed any request by the Executive Administrator or a regional planning group for information relevant to the project, including a water infrastructure financing survey under Texas Water Code § 16.053(q), in accordance with 31 TAC § 363.1309(b)(2);
5. that the current water audit, if required by Texas Water Code § 16.0121, has been completed by the Authority and filed with the TWDB in accordance with 31 TAC § 358.6;
6. that the Authority has acknowledged its legal obligation to comply with any applicable requirements of federal law relating to contracting with disadvantaged business enterprises, and any applicable state law relating to contracting with historically underutilized businesses, in accordance with Texas Water Code § 15.435(h) and 31 TAC § 363.1309(b)(3).

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

A commitment is made by the TWDB to North Fort Bend Water Authority for financial assistance in the amount of \$555,845,000 from the State Water Implementation Revenue Fund for Texas, to be evidenced by the TWDB's proposed purchase of North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, in accordance with the schedule proposed below.

- a) \$8,670,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2015 to expire on December 31, 2015;
- b) \$11,025,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2016, to expire on December 31, 2016;
- c) \$87,360,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2017, to expire on December 31, 2017;
- d) \$121,040,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2018, to expire on December 31, 2018;
- e) \$244,110,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2019, to expire on December 31, 2019;
- f) \$39,590,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2020, to expire on December 31, 2020;
- g) \$20,940,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2021, to expire on December 31, 2021; and
- h) \$23,110,000 North Fort Bend Water Authority Water System Junior Lien Revenue Bonds, Proposed Series 2022, to expire on December 31, 2022.

Further, the commitment described above consists of the following Projects:

- a) Project No. 51023 (Northeast Water Purification Plant Expansion) in the amount of \$251,845,000; and
- b) Project No. 51022 (Second Source Transmission Line) in the amount of \$304,000,000.

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 all of the requirements of the laws under which said Obligations were issued have been complied with; 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 Authority;
3. this commitment is contingent upon the Authority's continued compliance with all applicable laws, rules, policies and guidance as these may be amended from time to time to adapt to a change in law, in circumstances, or any other legal requirement;
4. this commitment is contingent upon the Authority executing a separate financing agreement, approved as to form and substance by the Executive Administrator, and submitting that executed agreement to the TWDB consistent with the terms and conditions described in the financing agreement;
5. the Authority shall use a paying agent/registrar in accordance with 31 TAC Section 363.42(c)(2), and shall require the paying agent/registrar to provide a copy, to the TWDB and to the TWDB's designated Trustee, of all receipts documenting debt service payments.

The Following Conditions Must Be Included in the Obligations:

6. 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 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;
7. the Obligations must include a provision wherein the Authority, 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 Authority's Obligations or obligated persons, will, at a minimum, regardless of the amount of the Obligations, covenant to comply with requirements for continuing disclosure on an ongoing basis substantially in the manner required by Securities and Exchange Commission (SEC) in 17 CFR § 240.15c2-12 (Rule 15c2-12) and determined as if the TWDB were a Participating Underwriter within the meaning of such rule, such continuing disclosure undertaking being for the benefit of the TWDB and the beneficial owners of the Authority's Obligations, if the TWDB sells or otherwise transfers such Obligations, and the beneficial owners of the TWDB's bonds if the Authority is an obligated person with respect to such bonds under SEC Rule 15c2-12;
8. the Obligations must contain a provision requiring the Authority to 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;
9. the Obligations must include a provision requiring the Authority to use any loan proceeds from the Obligations that are determined to be surplus proceeds remaining after completion of the project for the following purposes as approved by the Executive Administrator: (1) 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 (2) eligible costs for the project as authorized by the Executive Administrator;

10. the Obligations must contain a provision that the TWDB may exercise all remedies available to it in law or equity, and any provision of the Obligations that restricts or limits the TWDB's full exercise of these remedies shall be of no force and effect;
11. loan 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;
12. loan proceeds shall not be used by the Authority 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 Authority agrees to indemnify, hold harmless and protect the TWDB from any and all claims, causes of action or damages to the person or property of third parties arising from the sampling, analysis, transport, storage, treatment, recycling and disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Authority, its contractors, consultants, agents, officials and employees as a result of activities relating to the project to the extent permitted by law;
13. the Obligations must include a provision stating that the Authority shall report to the TWDB the amounts of project funds, if any, that were used to compensate historically underutilized businesses that worked on the project, in accordance with 31 TAC § 363.1312;
14. the Obligations must contain a provision that the TWDB will purchase the Obligations, acting through the TWDB's designated Trustee, and the Obligations shall be registered in the name of Cede & Co. and closed in book-entry form in accordance with 31 TAC Section 363.42(c)(1);
15. the Obligations must include a provision prohibiting the Authority from using the proceeds of this loan in a manner that would cause the Obligations to become "private activity bonds" within the meaning of § 141 of the Internal Revenue Code of amended (Code) and the Treasury Regulations promulgated thereunder (Regulations);
16. 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) which 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;
17. the Obligations must include a provision requiring the Authority 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 Authority 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 Authority may, however, to the extent permitted by law, commingle Gross Proceeds of its loan with other money of the Authority, provided that the Authority 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 Authority 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;
18. the Obligations must include a provision prohibiting the Authority from taking any action that would cause the interest on the Obligations to be includable in gross income for federal income tax purposes;
19. the Obligations must provide that the Authority will not cause or permit the Obligations to be treated as "federally guaranteed" obligations within the meaning of § 149(b) of the Code;

20. the Obligations must provide that neither the Authority 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 Authority by the TWDB;

Revenue Pledge

21. 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;
22. if the Authority 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 Obligations must contain a provision providing that the junior lien or liens securing the Obligations issued to the TWDB shall be at least on a parity with junior lien or liens securing such outstanding obligations;
23. the Obligations must contain a provision providing that no additional Series of Junior Lien Bonds or Junior Lien Notes shall be issued, nor shall any Junior Lien Obligations be incurred, unless there shall have been submitted to the Trustee:

(a) Historical Pledged Revenues. Pledged Revenues for the most recent Fiscal Year or 12 consecutive months out of the most recent 18 months, plus the amount in the Improvement Fund on the last Business Day for the most recent Fiscal Year, shall be certified by an independent certified public accountant for the Authority to have been at least equal to 110% of Maximum Annual Debt Service Requirements on all outstanding Parity Bonds, Parity Notes and Parity Obligations and on all Junior Lien Bonds, Junior Lien Notes and Junior Lien Obligations that will be outstanding after the issuance of such Series of Junior Lien Bonds or Junior Lien Notes or incurrence of such Junior Lien Obligations; or

(b) Proforma Pledged Revenues. The certification of an independent nationally recognized rate consultant to the effect that, based upon a recent increase in rates or charges imposed by the Authority, the Pledged Revenues of the Authority for the prior Fiscal Year or 12 consecutive months out of the most recent 18 months, calculated as if such increase in rates or charges had been effective during such a period, plus the amount in the Improvement Fund on the last Business Day for the most recent Fiscal Year, would have produced Pledged Revenues equal to at least 120% of Maximum Annual Debt Service Requirements for outstanding Parity Bonds, Parity Notes and Parity Obligations and for Junior Lien Bonds, Junior Lien Notes and Junior Lien Obligations that will be outstanding after the issuance of such Series of Junior Lien Bonds or Junior Lien Notes or incurrence of such Junior Lien Obligations; or

(c) Projected Pledged Revenues. The certification of an independent nationally recognized rate consultant to the effect that, based on the certification of an independent professional engineer described below, the projected Pledged Revenues for the first future Fiscal Year for which interest has not been capitalized for the Series of Junior Lien Bonds or Junior Lien Notes to be issued or Junior Lien Obligations to be incurred, plus the amount in the Improvement Fund on the last Business Day for the most recent Fiscal Year, will be at least equal to 120% of Maximum Annual Debt Service Requirements on all outstanding Parity Bonds, Parity Notes and Parity Obligations and on all Junior Lien Bonds, Junior Lien Notes and Junior Lien Obligations that will be outstanding after the issuance of such Series of Junior Lien Bonds

or Junior Lien Notes or incurrence of such Junior Lien Obligations. Such certification may rely on the certification of an independent professional engineer that forecasts the levels of (i) water pumpage within the Authority and within its Groundwater Reduction Plan during a forecast period; and/or (ii) water sales by the Authority during a forecast period based upon such engineer's evaluation of the Authority's anticipated construction and placement into service of components of the System that will permit the Authority to increase its sales of water during the forecast period;

Conditions to Close or for Release of Funds:

24. prior to closing, the Authority 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;
25. prior to closing, and if not previously provided with the application, the Authority shall submit executed contracts for engineering, and, if applicable, financial advisor and bond counsel contracts, for the project that are satisfactory to the Executive Administrator. Fees to be reimbursed under the contracts must be reasonable in relation to the services performed, reflected in the contract, and acceptable to the Executive Administrator;
26. prior to closing, when any portion of financial assistance is to be held in escrow or in trust, the Authority 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;
27. prior to release of funds for construction, the Authority must provide the TWDB with evidence that the necessary acquisitions of land, leases, easements, and rights-of-way have been completed, or that the Authority has the legal authority necessary to complete the acquisitions;
28. prior to release of funds for design or construction for specific project elements, the environmental review must be completed and a favorable environmental finding must have been issued;
29. prior to closing, the Authority'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 Authority when rendering this opinion;
30. prior to closing, the Authority's bond counsel must prepare a written opinion that also states that the Obligations are not "private activity bonds." Bond counsel may rely on covenants and representations of the Authority when rendering this opinion;
31. the transcript must include a No Arbitrage Certificate or similar Federal Tax Certificate setting forth the Authority's reasonable expectations regarding the use, expenditure and investment of the proceeds of the Obligations; and
32. 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.

APPROVED and ordered of record this, the 23rd day of July, 2015.

TEXAS WATER DEVELOPMENT BOARD

Bech K. Bruun, Chairman

DATE SIGNED: _____

ATTEST:

Kevin Patteson
Executive Administrator

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:

If population ≤ 10K, connections/mile < 32 :

If population ≤ 10K, connections/mile ≥ 32 :

If population > 10K :

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

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 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.

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.

**North Fort Bend Water Authority,
Fort Bend County**

