



## PROJECT FUNDING REQUEST

**BOARD DATE:** July 27, 2022

**Team Manager:** Dain Larsen

### ACTION REQUESTED

Approve by resolution a request from the Alliance Regional Water Authority (Hays, Caldwell, Guadalupe, Comal, Bexar Counties) for \$10,000,000 in financial assistance from the State Water Implementation Revenue Fund for Texas for the construction of water system improvements.

### STAFF RECOMMENDATION

Approve       No Action

### BACKGROUND

The Alliance Regional Water Authority (Authority) was created in 2007 by the cities of San Marcos, Kyle, and Buda, and Canyon Regional Water Authority (Sponsors) to develop their long-term water supply. The combined population served of approximately 193,000 is projected to expand to approximately 315,000 within 18 years.

### PROJECT NEED AND DESCRIPTION

By 2033, each of the Sponsors will not be able to meet their water demand with currently available water sources. These communities are expanding rapidly with the continued growth of the dynamic San Antonio and Austin regions to the south and north. In 2018, the Authority and Guadalupe Blanco River Authority agreed to jointly develop their water supply projects, adding the cities of New Braunfels and Lockhart, along with the Goforth Special Utility District which serves an area just east of the City of Buda.

To meet the projected supply shortfall by 2033 the Authority has developed a project to connect the Sponsors to a wellfield with an initial combined capacity of 15,000 acre-feet per year and treatment facilities in eastern Caldwell County. The Authority's first project phase connected the cities of Buda and Kyle. The second phase, currently under construction, is to jointly construct with the Guadalupe Blanco River Authority (GBRA) a wellfield in eastern Caldwell County, a 33.5 million gallons per day water treatment plant nearby, a raw water line to the water treatment plant, a transmission line to a booster pump station (BPS) approximately six miles east of San Marcos, and two transmission lines from the BPS with eight connection points to connect the participating communities. Both phases were funded by the State Water Implementation Fund for Texas in 2017 and 2020.

<b>COMMITMENT PERIOD: FIVE (5) MONTHS TO EXPIRE DECEMBER 31, 2022</b>
---

The Authority is requesting additional funding for the portion of the existing project that includes the segment of transmission line from the BPS to delivery points in and near Kyle approximately 10 miles to the north of the BPS.

<b>Task</b>	<b>Schedule Date</b>
Closing	November 16, 2022
Engineering Feasibility Report Completion(End of Planning Phase)	December 9, 2022
Design Phase	December 20, 2022
Start of Construction	February 21, 2023
Construction Completion	December 31, 2024

### **KEY ISSUES**

Each Sponsor is responsible to repay debt service for its allocated amount, which is based on the amount of water each of them receive from the Authority. Each Sponsor will be required to pay its allocated share of debt service regardless of whether the projected amount of water is received.

The Authority plans to close prior year project commitments in the current year. The Financial Review section (Attachment No. 1) includes the amount committed in 2021. Shown below is the pro rata allocation between the Sponsors for debt service payments, outstanding balances for prior multi-year commitments, and the currently requested commitments.

<b>Sponsor</b>	<b>Allocated Debt Service</b>	<b>2021 Commitment</b>	<b>Current Request</b>	<b>Total Amount</b>
City of San Marcos	35.86	\$13,625,000	\$3,585,000	\$17,210,000
City of Kyle	28.17	\$10,705,000	\$2,815,000	\$13,520,000
City of Buda	5.08	\$1,930,000	\$510,000	\$2,440,000
Canyon Regional Water Authority	30.89	\$11,740,000	\$3,090,000	\$14,830,000
<b>Total</b>		<b>\$38,000,000</b>	<b>\$10,000,000</b>	<b>\$48,000,000</b>

### **LEGAL**

#### Special Conditions

- None

#### Attachments:

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

# Financial Review

## Alliance Regional Water Authority

Risk Score: CRWA – 2B

Audit Reviewed: FY 2021

Kyle – 2A

San Marcos – 2A

Buda – 2A

### Key Indicators

Indicator	CRWA	Kyle	San Marcos	Buda	Benchmark
Population Growth, Average Annual 2010-2020	County: 3.47%	City: 5.01%	City: 4.17%	City: 7.55%	State: 1.49%
Top 10 Customers % of Total Revenue	99.36%	21.66%	10.80%	0.559%	10-15%
Median Household Income as % of State	106%	128%	65%	145%	100%
Days of Cash on Hand (3-year Average)	337 days	796 days	2,548 days	2,864 days	30-149 days
Net Fixed Assets/ Annual Depreciation	35 years	53 years	18 years	46 years	12-24 years
Debt Service Coverage Ratio	0.95x	2.28x	4.81x	0.81x	1.0x
Debt-to-Operating Revenues	7.96x	3.71x	2.07x	5.38x	4.00-5.99x
Unemployment Rate (April 2022)	County: 2.87%	City: 2.60%	City: 3.00%	County: 2.60%	State: 3.70%
Working Capital Ratio	0.77	6.29	4.98	8.00	> 1.0

#### Key Risk Score Strengths

- Current water system revenues for Kyle and San Marcos are adequate to maintain coverage of all existing and proposed debt.
- A high working capital ratio provides the cities of Kyle, San Marcos, and Buda with ample resources to cover short-term liabilities and shows a strong liquidity position.
- The days of cash on hand for Canyon Regional Water Authority, Kyle, San Marcos, and Buda are above the benchmark, indicating they can pay operating expenses with the cash available.

#### Key Risk Score Concerns

- Canyon Regional Water Authority's top ten customers total 100 percent due to being a wholesaler with 13 members and a service area that spans from the counties of Atascosa to Hays and Caldwell. The Authority charges its members based on usage and projects funded for the update or expansion of the member's systems.
- The City of Buda and Canyon Regional Water Authority are projected to require rate increases. Staff projections indicate the City of Buda would need an \$18.00 rate increase in 2025 and Canyon Regional Water Authority will need a rate increase of approximately \$2.18 per 1,000 gallons by 2028 for the repayment of the proposed obligation.
- While the City of Kyle's top ten total customers as a percentage of revenues is over 20 percent, the biggest client of the City is less than four percent of total water revenues.

**PLEDGE**

Legal Pledge Name	Contract Revenue
Type of Pledge	<input type="checkbox"/> Tax <input type="checkbox"/> Revenue <input type="checkbox"/> Tax & Revenue <input checked="" 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-Kyle**

Average Residential Use	Gallons/Month	Current Rates	Projected Rates	Current Household Cost Factor	Projected Household Cost Factor
WATER	2,325	\$83.75	\$83.75	1.98	1.98
WASTEWATER	3,133	\$47.05	\$47.05		

**RATES AND CHARGES-San Marcos**

Average Residential Use	Gallons/Month	Current Rates	Projected Rates	Current Household Cost Factor	Projected Household Cost Factor
WATER	2,325	\$58.05	\$58.05	3.09	3.09
WASTEWATER	3,133	\$46.26	\$46.26		

**RATES AND CHARGES-Buda**

Average Residential Use	Gallons/Month	Current Rates	Projected Rates (Year 2025)	Current Household Cost Factor	Projected Household Cost Factor
WATER	2,325	\$49.17	\$58.18	1.49	1.73
WASTEWATER	3,133	\$62.18	\$71.18		

Cost Savings

Based on a 30-year maturity schedule and current interest rates, Canyon Regional Water Authority could save approximately \$2,320,899 and the City of Kyle could save approximately \$1,177,465 over the life of the financing.

Based on a 20-year maturity schedule and current interest rates, the City of San Marcos could save approximately \$2,114,766 and the City of Buda could save approximately \$203,025 over the life of the financing.

## Project Data Summary

<b>Responsible Authority</b>	Alliance Regional Water Authority
<b>Program</b>	SWIFT
<b>Commitment Number</b>	L1001536, L1001543, L1001544, L1001545
<b>Project Number</b>	51044
<b>List Year</b>	2022
<b>Type of Pledge</b>	Contract Revenue Pledge
<b>Pledge Level (if applicable)</b>	First Lien
<b>Legal Description</b>	\$3,090,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - Canyon Regional Water Authority), Series 2022A, \$2,815,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - City of Kyle, Texas), Series 2022B, \$3,585,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - City of San Marcos, Texas), Series 2022C, \$510,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - City of Buda, Texas), Series 2022D
<b>Tax-exempt or Taxable</b>	Tax-Exempt
<b>Refinance</b>	No
<b>Outlay Requirement</b>	No
<b>Disbursement Method</b>	Escrow
<b>Outlay Type</b>	Outlay <> Escrow Release
<b>Qualifies as Disadvantaged</b>	No
<b>SWIFT Financing Type</b>	Low-Interest
<b>Financial Managerial &amp; Technical Complete</b>	N/A
<b>Phases Funded</b>	Construction
<b>Pre-Design</b>	No
<b>Project Consistent with State Water Plan</b>	Yes
<b>Water Conservation Plan</b>	Adopted
<b>Overall Risk Score - CRWA</b>	2B
<b>Overall Risk Score - Kyle</b>	2A
<b>Overall Risk Score - San Marcos</b>	2A
<b>Overall Risk Score - Buda</b>	2A

### PROJECT TEAM

Team Manager	Financial Analyst	Engineering Reviewer	Environmental Reviewer	Attorney
Dain Larsen	Arnoldo Rubio	Gian Villareal	Kristin Miller	Marshall Walters

ISSUE BEING EVALUATED  
FOR ILLUSTRATION PURPOSES ONLY  
Alliance Regional Water Authority

**\$14,830,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - Canyon Regional Water Authority), Series 2022A\***

<b>Dated Date:</b> 11/16/2022	<b>Source:</b> SWIFT-LOW-30YR
<b>Delivery Date:</b> 11/16/2022	<b>Rate:</b> 3.36%
<b>First Interest:</b> 8/15/2023	<b>IUP Year:</b> 2022
<b>First Principal:</b> 8/15/2024	<b>Case:</b> Contract Revenue
<b>Last Principal:</b> 8/15/2052	<b>Admin.Fee:</b> \$0
<b>Fiscal Year End:</b> 09/30	<b>Admin. Fee Payment Date:</b> N/A
<b>Required Coverage:</b> 1.0	

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$14,830,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2023	\$16,764,669	\$16,419,077	\$0	-	\$345,592	\$345,592	\$16,764,669	1.00
2024	17,242,480	16,434,978	345,000	1.87%	462,503	807,503	17,242,480	1.00
2025	17,242,480	15,935,453	350,000	1.99%	456,051	806,051	16,741,504	1.03
2026	17,242,480	15,954,194	355,000	2.05%	449,086	804,086	16,758,280	1.03
2027	17,242,480	15,959,249	365,000	2.13%	441,809	806,809	16,766,057	1.03
2028	17,242,480	15,974,735	370,000	2.23%	434,034	804,034	16,778,769	1.03
2029	17,242,480	12,192,254	380,000	2.35%	425,783	805,783	12,998,037	1.33
2030	17,242,480	11,876,140	390,000	2.42%	416,853	806,853	12,682,993	1.36
2031	17,242,480	11,889,874	400,000	2.49%	407,415	807,415	12,697,289	1.36
2032	17,242,480	11,903,034	410,000	2.54%	397,455	807,455	12,710,489	1.36
2033	17,242,480	9,017,092	420,000	2.71%	387,041	807,041	9,824,133	1.76
2034	17,242,480	9,017,275	430,000	2.86%	375,659	805,659	9,822,934	1.76
2035	17,242,480	9,020,831	440,000	2.97%	363,361	803,361	9,824,192	1.76
2036	17,242,480	5,522,432	455,000	3.07%	350,293	805,293	6,327,725	2.72
2037	17,242,480	5,521,557	470,000	3.14%	336,325	806,325	6,327,881	2.72
2038	17,242,480	5,158,383	485,000	3.22%	321,567	806,567	5,964,950	2.89
2039	17,242,480	4,990,457	500,000	3.28%	305,950	805,950	5,796,407	2.97
2040	17,242,480	5,000,480	515,000	3.34%	289,550	804,550	5,805,030	2.97
2041	17,242,480	5,002,187	535,000	3.38%	272,349	807,349	5,809,536	2.97
2042	17,242,480	4,229,634	550,000	3.42%	254,266	804,266	5,033,899	3.43
2043	17,242,480	4,220,940	570,000	3.37%	235,456	805,456	5,026,396	3.43
2044	17,242,480	4,214,860	590,000	3.37%	216,247	806,247	5,021,106	3.43
2045	17,242,480	4,206,613	610,000	3.37%	196,364	806,364	5,012,977	3.44
2046	17,242,480	3,485,291	630,000	3.37%	175,807	805,807	4,291,098	4.02
2047	17,242,480	3,477,402	650,000	3.37%	154,576	804,576	4,281,978	4.03
2048	17,242,480	2,982,527	670,000	3.67%	132,671	802,671	3,785,198	4.56
2049	17,242,480	2,975,615	695,000	3.67%	108,082	803,082	3,778,697	4.56
2050	17,242,480	1,737,036	725,000	3.67%	82,575	807,575	2,544,611	6.78
2051	17,242,480	-	750,000	3.67%	55,968	805,968	805,968	21.39
2052	17,242,480	-	775,000	3.67%	28,443	803,443	803,443	21.46
		\$234,319,599	\$14,830,000		\$8,879,123	\$23,709,123	\$258,028,722	

\*Includes prior year SWIFT commitment LM221443 for \$11,740,000 the authority plans to close in the current year.

<b>AVERAGE (MATURITY) LIFE</b>	<b>17.83 YEARS</b>
<b>NET INTEREST RATE</b>	<b>3.358%</b>
<b>COST SAVINGS</b>	<b>\$2,320,899</b>
<b>AVERAGE ANNUAL REQUIREMENT</b>	<b>\$790,304</b>

*Disclaimer: This is a working document and is provided as a courtesy. All information contained herein, including the proposed interest rate, is subject to change upon further review of the TWDB in accordance with 31 Texas Administrative Code Chapters 363, 371, 375, or 384, as applicable. The TWDB does not function as a financial advisor to anyone in connection with this financing. The information contained in this document is used by TWDB staff to analyze the application for financing is illustrative only and does not constitute any guaranty of future rates. The TWDB makes no claim regarding the applicability of the information at closing, at which time actual rates will be set.*

ISSUE BEING EVALUATED  
FOR ILLUSTRATION PURPOSES ONLY  
Alliance Regional Water Authority

**\$13,520,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - City of Kyle, Texas), Series 2022B\***

Dated Date:	11/16/2022	Source:	SWIFT-LOW-30YR
Delivery Date:	11/16/2022	Rate:	3.36%
First Interest:	8/15/2023	IUP Year:	2022
First Principal:	8/15/2024	Case:	Contract Revenue
Last Principal:	8/15/2052	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	\$13,520,000 ISSUE			TOTAL PAYMENT	TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT			
2023	\$13,983,420	\$5,238,878	-	-	\$315,105	\$315,105	\$5,553,984	2.52
2024	13,983,420	5,401,976	\$315,000	1.87%	421,703	736,703	6,138,678	2.28
2025	13,983,420	5,462,036	320,000	1.99%	415,812	735,812	6,197,848	2.26
2026	13,983,420	5,458,267	325,000	2.05%	409,444	734,444	6,192,711	2.26
2027	13,983,420	5,439,933	330,000	2.13%	402,782	732,782	6,172,715	2.27
2028	13,983,420	5,357,192	340,000	2.23%	395,753	735,753	6,092,944	2.30
2029	13,983,420	5,121,849	345,000	2.35%	388,171	733,171	5,855,020	2.39
2030	13,983,420	5,148,732	355,000	2.42%	380,063	735,063	5,883,795	2.38
2031	13,983,420	5,111,653	365,000	2.49%	371,472	736,472	5,848,125	2.39
2032	13,983,420	5,159,726	370,000	2.54%	362,384	732,384	5,892,110	2.37
2033	13,983,420	5,149,617	380,000	2.71%	352,986	732,986	5,882,602	2.38
2034	13,983,420	5,115,907	390,000	2.86%	342,688	732,688	5,848,594	2.39
2035	13,983,420	5,111,182	405,000	2.97%	331,534	736,534	5,847,716	2.39
2036	13,983,420	5,040,789	415,000	3.07%	319,505	734,505	5,775,294	2.42
2037	13,983,420	5,047,590	430,000	3.14%	306,765	736,765	5,784,355	2.42
2038	13,983,420	5,040,460	440,000	3.22%	293,263	733,263	5,773,722	2.42
2039	13,983,420	5,044,728	455,000	3.28%	279,095	734,095	5,778,822	2.42
2040	13,983,420	5,046,120	470,000	3.34%	264,171	734,171	5,780,291	2.42
2041	13,983,420	5,050,808	485,000	3.38%	248,473	733,473	5,784,280	2.42
2042	13,983,420	5,051,418	500,000	3.42%	232,080	732,080	5,783,498	2.42
2043	13,983,420	5,038,411	520,000	3.37%	214,980	734,980	5,773,390	2.42
2044	13,983,420	5,041,709	535,000	3.37%	197,456	732,456	5,774,164	2.42
2045	13,983,420	5,035,982	555,000	3.37%	179,426	734,426	5,770,408	2.42
2046	13,983,420	4,850,625	575,000	3.37%	160,723	735,723	5,586,348	2.50
2047	13,983,420	4,835,081	595,000	3.37%	141,345	736,345	5,571,426	2.51
2048	13,983,420	4,380,745	615,000	3.67%	121,294	736,294	5,117,039	2.73
2049	13,983,420	4,381,064	635,000	3.67%	98,723	733,723	5,114,787	2.73
2050	13,983,420	3,247,316	660,000	3.67%	75,419	735,419	3,982,735	3.51
2051	13,983,420	-	685,000	3.67%	51,197	736,197	736,197	18.99
2052	13,983,420	-	710,000	3.67%	26,057	736,057	736,057	19.00
		\$140,409,792	\$13,520,000		\$8,099,859	\$21,619,859	\$162,029,651	

\*Includes prior year SWIFT commitment LM221444 for \$10,705,000 the authority plans to close in the current year.

AVERAGE (MATURITY) LIFE	17.84 YEARS
NET INTEREST RATE	3.359%
COST SAVINGS	\$1,177,465
AVERAGE ANNUAL REQUIREMENT	\$720,662

*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.*

ISSUE BEING EVALUATED  
FOR ILLUSTRATION PURPOSES ONLY  
Alliance Regional Water Authority

**\$17,210,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - City of San Marcos, Texas), Series 2022C\***

<b>Dated Date:</b>	<b>11/16/2022</b>	<b>Source:</b>	<b>SWIFT-LOW-20YR</b>
<b>Delivery Date:</b>	<b>11/16/2022</b>	<b>Rate:</b>	<b>2.63%</b>
<b>First Interest:</b>	<b>8/15/2023</b>	<b>IUP Year:</b>	<b>2022</b>
<b>First Principal:</b>	<b>8/15/2024</b>	<b>Case:</b>	<b>Contract Revenue</b>
<b>Last Principal:</b>	<b>8/15/2042</b>	<b>Admin.Fee:</b>	<b>\$0</b>
<b>Fiscal Year End:</b>	<b>09/30</b>	<b>Admin. Fee Payment Date:</b>	<b>N/A</b>
<b>Required Coverage:</b>	<b>1.0</b>		

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$17,210,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2023	\$28,345,126	\$5,575,754	\$0	-	\$311,703	\$311,703	\$5,887,457	4.81
2024	28,345,126	5,574,536	745,000	1.64%	417,149	1,162,149	6,736,685	4.21
2025	28,345,126	5,576,315	755,000	1.74%	404,931	1,159,931	6,736,246	4.21
2026	28,345,126	5,580,490	770,000	1.79%	391,794	1,161,794	6,742,284	4.20
2027	28,345,126	5,532,071	785,000	1.86%	378,011	1,163,011	6,695,082	4.23
2028	28,345,126	5,525,029	800,000	1.95%	363,410	1,163,410	6,688,439	4.24
2029	28,345,126	5,528,806	815,000	2.06%	347,810	1,162,810	6,691,616	4.24
2030	28,345,126	5,518,936	830,000	2.12%	331,021	1,161,021	6,679,957	4.24
2031	28,345,126	5,519,720	850,000	2.18%	313,425	1,163,425	6,683,145	4.24
2032	28,345,126	5,520,165	870,000	2.22%	294,895	1,164,895	6,685,060	4.24
2033	28,345,126	5,516,094	885,000	2.37%	275,581	1,160,581	6,676,675	4.25
2034	28,345,126	5,514,216	910,000	2.50%	254,607	1,164,607	6,678,823	4.24
2035	28,345,126	5,514,437	930,000	2.60%	231,857	1,161,857	6,676,294	4.25
2036	28,345,126	5,520,847	955,000	2.68%	207,677	1,162,677	6,683,524	4.24
2037	28,345,126	5,518,075	980,000	2.75%	182,083	1,162,083	6,680,158	4.24
2038	28,345,126	5,520,451	1,005,000	2.81%	155,133	1,160,133	6,680,583	4.24
2039	28,345,126	4,469,104	1,035,000	2.87%	126,892	1,161,892	5,630,996	5.03
2040	28,345,126	4,472,180	1,065,000	2.92%	97,188	1,162,188	5,634,367	5.03
2041	28,345,126	2,625,068	1,095,000	2.95%	66,090	1,161,090	3,786,157	7.49
2042	28,345,126	-	1,130,000	2.99%	33,787	1,163,787	1,163,787	24.36
		\$100,122,290	\$17,210,000		\$5,185,041	\$22,395,041	\$122,517,330	

\*Includes prior year SWIFT commitment LM221445 for \$13,625,000 the authority plans to close in the current year.

<b>AVERAGE (MATURITY) LIFE</b>	<b>11.45 YEARS</b>
<b>NET INTEREST RATE</b>	<b>2.632%</b>
<b>COST SAVINGS</b>	<b>\$2,114,766</b>
<b>AVERAGE ANNUAL REQUIREMENT</b>	<b>\$1,119,752</b>

*Disclaimer: This is a working document and is provided as a courtesy. All information contained herein, including the proposed interest rate, is subject to change upon further review of the TWDB in accordance with 31 Texas Administrative Code Chapters 363, 371, 375, or 384, as applicable. The TWDB does not function as a financial advisor to anyone in connection with this financing. The information contained in this document is used by TWDB staff to analyze the application for financing is illustrative only and does not constitute any guaranty of future rates. The TWDB makes no claim regarding the applicability of the information at closing, at which time actual rates will be set.*



ISSUE BEING EVALUATED  
FOR ILLUSTRATION PURPOSES ONLY  
Alliance Regional Water Authority

**\$2,440,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project - City of Buda, Texas), Series 2022D\***

<b>Dated Date:</b> 11/16/2022	<b>Source:</b> SWIFT-LOW-20YR
<b>Delivery Date:</b> 11/16/2022	<b>Rate:</b> 2.63%
<b>First Interest:</b> 8/15/2023	<b>IUP Year:</b> 2022
<b>First Principal:</b> 8/15/2024	<b>Case:</b> Contract Revenue
<b>Last Principal:</b> 8/15/2042	<b>Admin.Fee:</b> \$0
<b>Fiscal Year End:</b> 09/30	<b>Admin. Fee Payment Date:</b> N/A
<b>Required Coverage:</b> 1.0	

FISCAL YEAR	PROJECTED NET SYSTEM REVENUES	CURRENT DEBT SERVICE	\$2,440,000 ISSUE				TOTAL DEBT SERVICE	COVERAGE
			PRINCIPAL PAYMENT	INTEREST RATE	INTEREST PAYMENT	TOTAL PAYMENT		
2023	\$4,603,468	\$4,559,275	-	-	\$44,193	\$44,193	\$4,603,468	1.00
2024	4,718,590	4,554,446	\$105,000	1.64%	59,144	164,144	4,718,590	1.00
2025	4,722,744	4,560,323	105,000	1.74%	57,422	162,422	4,722,744	1.00
2026	3,840,106	3,627,969	110,000	1.79%	55,595	165,595	3,793,564	1.01
2027	3,840,106	3,617,085	110,000	1.86%	53,626	163,626	3,780,710	1.02
2028	3,840,106	3,624,931	115,000	1.95%	51,580	166,580	3,791,510	1.01
2029	3,840,106	3,618,807	115,000	2.06%	49,337	164,337	3,783,144	1.02
2030	3,840,106	3,392,900	120,000	2.12%	46,968	166,968	3,559,868	1.08
2031	3,840,106	3,163,778	120,000	2.18%	44,424	164,424	3,328,202	1.15
2032	3,840,106	3,063,073	125,000	2.22%	41,808	166,808	3,229,881	1.19
2033	3,840,106	3,066,651	125,000	2.37%	39,033	164,033	3,230,684	1.19
2034	3,840,106	3,069,306	130,000	2.50%	36,071	166,071	3,235,376	1.19
2035	3,840,106	3,057,072	130,000	2.60%	32,821	162,821	3,219,893	1.19
2036	3,840,106	3,067,144	135,000	2.68%	29,441	164,441	3,231,584	1.19
2037	3,840,106	3,068,493	140,000	2.75%	25,823	165,823	3,234,316	1.19
2038	3,840,106	2,963,809	145,000	2.81%	21,973	166,973	3,130,781	1.23
2039	3,840,106	2,968,479	145,000	2.87%	17,898	162,898	3,131,377	1.23
2040	3,840,106	2,701,342	150,000	2.92%	13,737	163,737	2,865,079	1.34
2041	3,840,106	2,331,589	155,000	2.95%	9,357	164,357	2,495,945	1.54
2042	3,840,106	1,722,605	160,000	2.99%	4,784	164,784	1,887,389	2.03
		\$65,799,077	\$2,440,000		\$735,029	\$3,175,029	\$68,974,106	

\*Includes prior year SWIFT commitment LM221446 for \$1,930,000 the authority plans to close in the current year.

<b>AVERAGE (MATURITY) LIFE</b>	<b>11.45 YEARS</b>
<b>NET INTEREST RATE</b>	<b>2.632%</b>
<b>COST SAVINGS</b>	<b>\$203,025</b>
<b>AVERAGE ANNUAL REQUIREMENT</b>	<b>\$158,751</b>

*Disclaimer: This is a working document and is provided as a courtesy. All information contained herein, including the proposed interest rate, is subject to change upon further review of the TWDB in accordance with 31 Texas Administrative Code Chapters 363, 371, 375, or 384, as applicable. The TWDB does not function as a financial advisor to anyone in connection with this financing. The information contained in this document is used by TWDB staff to analyze the application for financing is illustrative only and does not constitute any guaranty of future rates. The TWDB makes no claim regarding the applicability of the information at closing, at which time actual rates will be set.*



**Project Budget Summary**  
**Alliance Regional Water Authority**  
**51044 - Phase 1B**

Budget Items	Description	TWDB Project 51006 (L15007/L15036)	Previous Commitments	This Commitment	Local and Other Funds	Total
<b>Construction</b>						
Construction		\$5,960,440.94	\$216,500,506.46	\$8,831,691.00	\$65,820.49	\$231,358,458.90
<b>Subtotal for Construction</b>		<b>\$5,960,440.94</b>	<b>\$216,500,506.46</b>	<b>\$8,831,691.00</b>	<b>\$65,820.49</b>	<b>\$231,358,458.90</b>
<b>Basic Engineering Services</b>						
Construction Engineering		\$95,759.00	\$2,310,751.22	\$0.00	\$0.00	\$2,406,510.22
Design		\$409,657.00	\$12,001,983.62	\$0.00	\$0.00	\$12,411,640.62
Planning		\$44,517.00	\$10,286,398.78	\$0.00	\$0.00	\$10,330,915.78
<b>Subtotal for Basic Engineering Services</b>		<b>\$549,933.00</b>	<b>\$24,599,133.62</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$25,149,066.62</b>
<b>Special Services</b>						
Environmental		\$27,593.00	\$890,000.00	\$0.00	\$0.00	\$917,593.00
Geotechnical		\$30,789.00	\$885,000.00	\$0.00	\$0.00	\$915,789.00
Inspection		\$0.00	\$3,000,000.00	\$0.00	\$0.00	\$3,000,000.00
O&M Manual		\$0.00	\$60,000.00	\$0.00	\$0.00	\$60,000.00
Permits		\$0.00	\$150,000.00	\$0.00	\$0.00	\$150,000.00
Project Management (by engineer)		\$0.00	\$1,885,000.00	\$0.00	\$0.00	\$1,885,000.00
Surveying		\$54,322.00	\$1,205,000.00	\$0.00	\$0.00	\$1,259,322.00
Testing		\$0.00	\$1,500,000.00	\$0.00	\$0.00	\$1,500,000.00
<b>Subtotal for Special Services</b>		<b>\$112,704.00</b>	<b>\$9,575,000.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$9,687,704.00</b>
<b>Fiscal Services</b>						
Bond Counsel		\$185,500.00	\$1,564,085.00	\$73,805.00	\$0.00	\$1,822,890.00
Financial Advisor		\$169,151.00	\$1,983,991.26	\$73,805.00	\$0.00	\$2,226,947.26
Issuance Costs		\$7,490.00	\$75,345.00	\$39,400.00	\$0.00	\$122,235.00
<b>Subtotal for Fiscal Services</b>		<b>\$362,141.00</b>	<b>\$3,623,421.26</b>	<b>\$187,010.00</b>	<b>\$0.00</b>	<b>\$4,172,572.26</b>
<b>Other</b>						
Land/Easements Acquisition		\$458,955.00	\$6,994,954.02	\$0.00	\$0.00	\$7,453,909.02
Other (Describe)	GBRA (51055) Shared Contract CID 05; GBRA (51055) Shared Contract CID 03; Electric Utility Service 46%	\$0.00	\$2,206,984.14	\$0.00	\$0.00	\$2,206,984.14
<b>Subtotal for Other</b>		<b>\$458,955.00</b>	<b>\$9,201,938.16</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$9,660,893.16</b>
<b>Contingency</b>						
Contingency		\$45,826.06	\$14,910,000.50	\$981,299.00	\$0.00	\$15,937,125.56
<b>Subtotal for Contingency</b>		<b>\$45,826.06</b>	<b>\$14,910,000.50</b>	<b>\$981,299.00</b>	<b>\$0.00</b>	<b>\$15,937,125.56</b>
<b>Total</b>		<b>\$7,490,000.00</b>	<b>\$278,410,000.00</b>	<b>\$10,000,000.00</b>	<b>\$65,820.49</b>	<b>\$295,965,820.50</b>

A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD  
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF  
\$10,000,000 TO ALLIANCE REGIONAL WATER AUTHORITY  
FROM THE STATE WATER IMPLEMENTATION REVENUE FUND FOR TEXAS  
THROUGH THE PROPOSED PURCHASE, IN ONE OR MORE SERIES, OF  
\$10,000,000 ALLIANCE REGIONAL WATER AUTHORITY CONTRACT REVENUE BONDS

(22- )

WHEREAS, the Alliance Regional Water Authority (Authority) has filed an application for financial assistance in the amount of \$10,000,000 from the State Water Implementation Revenue Fund for Texas (SWIRFT) to finance the construction of certain water supply project(s) identified as Project No. 51044 (Project); and

WHEREAS, the Authority seeks financial assistance from the Texas Water Development Board (TWDB) through the TWDB's proposed purchase, in one or more series, of \$10,000,000 Alliance Regional Water Authority Contract Revenue Bonds (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 contract revenues from the sponsoring public entities of Canyon Regional Water Authority and the Cities of Buda, Kyle, and San Marcos, Texas as sufficient security for the repayment of the Obligations; and

WHEREAS, subject to the Authority's use of an approved debt service structure, interest rate subsidies are available to the Authority for State Fiscal Year 2022 at up to the following levels: 25% for financial assistance for a term of 20 years, 18% for financial assistance for a term of 21 to 25 years, and 14% for financial assistance for a term of 26 to 30 years; and

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

WHEREAS, the TWDB hereby finds:

1. that the application and assistance applied for meet the requirements of Texas Water Code, Chapter 15, Subchapters G and H and 31 TAC Chapter 363, Subchapters A and M;
2. that the Project is a recommended water management strategy project in the State Water Plan adopted pursuant to Texas Water Code § 16.051, in accordance with Texas Water Code § 15.474(a);
3. that the Authority, a wholesale supplier of water, and all other contracting parties

have submitted and implemented a water conservation plan in accordance with Texas Water Code § 16.4021 and 31 TAC § 363.1309(b)(1);

4. 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 Alliance Regional Water Authority for financial assistance in the amount of \$10,000,000 from the State Water Implementation Revenue Fund for Texas, to be evidenced by the TWDB's proposed purchase, in one or more series, of Alliance Regional Authority Contract Revenue Bonds as follows:

- a. \$3,090,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project – Canyon Regional Water Authority), Proposed Series 2022A, to expire on December 31, 2022;
- b. \$2,815,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project – City of Kyle, Texas), Proposed Series 2022B, to expire on December 31, 2022;
- c. \$3,585,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project – City of San Marcos, Texas), Proposed Series 2022C, to expire on December 31, 2022; and
- d. \$510,000 Alliance Regional Water Authority Contract Revenue Bonds (Regional Water Supply Contract Project – City of Buda, Texas), Proposed Series 2022D, to expire on December 31, 2022.

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 Authority 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 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. interest rate subsidies for non-level debt service structure are subject to adjustment by the Executive Administrator;
6. the Authority shall use a paying agent/registrar in accordance with 31 TAC § 363.42(c)(2), and shall require the paying agent/registrar to provide a copy of all receipts documenting debt service payments to the TWDB and to the TWDB's designated Trustee;

The Following Conditions Must Be Included in the Obligations:

7. the Obligations must provide that the Obligations can be called for early redemption on any date beginning on or after the first interest payment date that is 10 years from the dated date of the Obligations, at a redemption price of par, together with accrued interest to the date fixed for redemption;
8. the Obligations must provide that the Authority will comply with all applicable TWDB laws and rules related to the use of the financial assistance;
9. the Obligations must provide that the Authority must comply with all conditions as specified in the final environmental finding of the Executive Administrator when issued, including the standard emergency discovery conditions for threatened and endangered species and cultural resources;
10. the Obligations must contain a provision requiring the Authority to maintain insurance coverage sufficient to protect the TWDB's interest in the project;
11. 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;

12. the Obligations must include a provision requiring the Authority to use any proceeds from the Obligations that are determined to be surplus proceeds remaining after completion of the Project and completion of a final accounting in a manner approved by the Executive Administrator;
13. 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;
14. 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;
15. financial assistance 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;
16. 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;
17. 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-only form in accordance with 31 TAC § 363.42(c)(1);
18. the Obligations must include a provision prohibiting the Authority from using the proceeds of this financial assistance in a manner that would cause the Obligations to become "private activity bonds" within the meaning of § 141 of the Internal Revenue Code as amended (Code) and the Treasury Regulations promulgated thereunder (Regulations);

19. the Obligations must provide that no portion of the proceeds of the financial assistance will be used, directly or indirectly, in a manner that would cause the Obligations to be “arbitrage bonds” within the meaning of § 148(a) of the Code and Regulations, including to acquire or to replace funds that were used, directly or indirectly, to acquire Nonpurpose Investments (as defined in the Code and Regulations) that produce a yield materially higher than the yield on the TWDB’s bonds that are issued to provide financing for the financial assistance (Source Series Bonds), other than Nonpurpose Investments acquired with:
  - a. proceeds of the TWDB’s Source Series Bonds invested for a reasonable temporary period of up to three (3) years after the issue date of the Source Series Bonds until such proceeds are needed for the facilities to be financed;
  - b. amounts invested in a bona fide debt service fund, within the meaning of § 1.148-1(b) of the Regulations; and
  - c. amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed the least of maximum annual debt service on the Obligations, 125% of average annual debt service on the Obligations, or 10 percent of the stated principal amount (or, in the case of a discount, the issue price) of the Obligations;
  
20. 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 financial assistance 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 financial assistance, not less frequently than each Computation Date, in accordance with rules set forth in § 148(f) of the Code, § 1.148-3 of the Regulations, and the rulings thereunder. The Authority shall maintain a copy of such calculations for at least six years after the final Computation Date;

- c. as additional consideration for providing financial assistance, and in order to induce providing financial assistance by measures designed to ensure the excludability of the interest on the TWDB's Source Series Bonds from the gross income of the owners thereof for federal income tax purposes, pay to the United States the amount described in paragraph (b) above within 30 days after each Computation Date;
  - d. exercise reasonable diligence to assure that no errors are made in the calculations required by paragraph (b) and, if such error is made, to discover and promptly to correct such error within a reasonable amount of time thereafter, including payment to the United States of any interest and any penalty required by the Regulations;
- 21. 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;
  - 22. 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;
  - 23. the Obligations must contain a covenant that the Authority will refrain from using the proceeds of the Obligations to pay debt service on another issue of obligations of the borrower in contravention of § 149(d) of the Code (related to "advance refundings");
  - 24. 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;
  - 25. the Obligations must contain a provision requiring that, upon request by the Executive Administrator, the Authority shall submit annual audits of contracting parties for the Executive Administrator's review;
  - 26. the Obligations must contain a provision requiring the Authority to maintain and enforce the contracts with its customers so that the revenues paid to the Authority by its customers are sufficient to meet the revenue requirements of the Authority's obligations arising from the operation of the water system;
  - 27. the Obligations must contain a provision that the pledged contract revenues from the Authority may not be pledged to the payment of any additional parity obligations of the Authority secured by a pledge of the same contract revenues unless the Authority demonstrates to the Executive Administrator's satisfaction that the pledged contract revenues will be sufficient for the repayment of all Obligations and additional parity obligations;



Conditions to Close or for Release of Funds:

28. prior to closing, if not previously provided with the application, the Authority shall submit executed contracts for engineering and, if applicable, financial advisor and bond counsel, for the Project that are satisfactory to the Executive Administrator. Fees to be reimbursed under the contracts must be reasonable in relation to the services performed, reflected in the contract, and acceptable to the Executive Administrator;
29. 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;
30. 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;
31. prior to closing, the Authority'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 Authority when rendering this opinion;
32. 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;
33. the transcript must include evidence that the information reporting requirements of § 149(e) of the Internal Revenue Code will be satisfied. This requirement may be satisfied by filing an IRS Form 8038 with the Internal Revenue Service. In addition, the applicable completed IRS Form 8038 or other evidence that the information reporting requirements of § 149(e) have been satisfied must be provided to the Executive Administrator within fourteen (14) days of closing. The Executive Administrator may withhold the release of funds for failure to comply; and
34. prior to closing, the Authority must submit executed contracts between the Authority and the contracting parties regarding the contract revenues pledged to the payment of the Authority's Obligations, in form and substance acceptable to the Executive Administrator. Such contracts shall include provisions consistent with the provisions of this Resolution regarding the contracting parties' annual audits, the setting of rates and charges and collection of revenues sufficient to meet the Authority's debt service obligations and additional parity obligations.

APPROVED and ordered of record this, the 27th day of July 2022.

TEXAS WATER DEVELOPMENT BOARD

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

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

ATTEST:

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

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

Retail population:

Connections per mile:

(gal/connection/day):

Water Loss GPCD:

ILI<sup>1</sup>:

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

**WATER LOSS THRESHOLDS**

Water Loss Project:

Wholesale Adjusted:

Threshold Type

Apparent Loss Gallons per connection per day	Real Loss Gallons per mile per day	Real Loss Gallons per connection per day	Apparent Loss Threshold Gallons per connection per day	Real Loss Threshold Gallons per mile per day	Real Loss Threshold Gallons per connection per day

Does the applicant meet Water Loss Threshold Requirements?

Yes

No

NA

**ADDITIONAL INFORMATION**

**STAFF NOTES AND RECOMMENDATIONS**

## DEFINITIONS

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

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

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

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

**GPCD** means gallons per capita per day.

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

**NA** means not applicable.

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

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

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

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

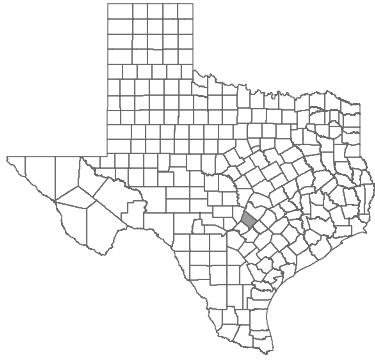
**Water loss** is the difference between the input volume and the authorized consumption within a water system. Water Loss consists of real losses and apparent losses.

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

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

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

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



# Alliance Regional Water Authority Hays County

