BRAZOS G
WATER PLANNING GROUP

Brazos
River Authority

2021 Brazos G Regional Water Plan

Volume I
Executive Summary and Regional Water Plan

October 2020

HDR FREESE AND NICHOLS SUSAN ROTH water and wastewater consulting

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BRAZOS G
WATER PLANNING GROUP

On October 28, 2020, the Brazos G Regional Water Planning Group approved the 2021 Brazos G Regional Water Plan and directed the Brazos River Authority and HDR Engineering, Inc. to submit the approved plan to the Texas Water Development Board.

R. Wayne Wilson
Chairman, Brazos G Regional Water Planning Group

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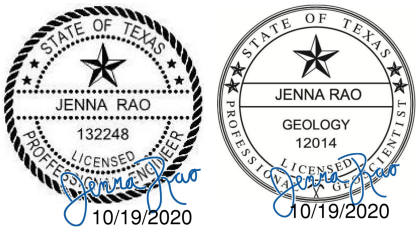
2021 Brazos G Regional Water Plan

David D. Dunn, PE



Jenna Rao, PG, PE

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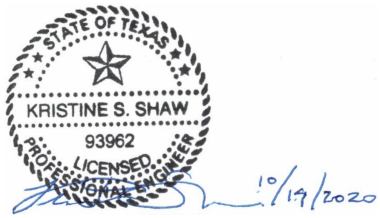

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Acronyms

Term	Definition
AAC	annual average capacity
acft	acre-feet
acft/yr	acre-feet per year
ARP	aquifer recharge project
ASR	aquifer storage and recovery
BRA	Brazos River Authority
Brazos WAM	Brazos River Basin water availability model
DCP	drought contingency plan
DFC	desired future conditions
DOR	drought of record
GAM	groundwater availability model
GCD	groundwater conservation district
GMA	groundwater management area
gpcd	gallons per capita per day
IBT	interbasin transfer
IH-35	Interstate Highway 35
LCRA	Lower Colorado River Authority
MAG	modeled available groundwater
mg/l	milligrams per liter
MGD	million gallons per day
MWD	municipal water district
MWP	major water provider
NOAA	National Oceanic and Atmospheric Administration
NRD	normal-rated design
PDI	precipitation deficit index
PDSI	Palmer Drought Severity Index
PWS	public water system
RWPG	regional water planning group
SDWA	Safe Drinking Water Act
SWIFT	State Water Implementation Fund for Texas
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDS	total dissolved solids
TMDL	total maximum daily load
TPWD	Texas Parks and Wildlife Department
TRA	Trinity River Authority
TRWD	Tarrant Regional Water District
TWC	Texas Water Code
TWDB	Texas Water Development Board
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WAM	water availability model

WPP	watershed protection plan
WRAP	Water Rights Analysis Package
WTP	water treatment plant
WUG	water user group
WWP	wholesale water provider

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ES

Executive Summary

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Executive Summary

ES.1 Background

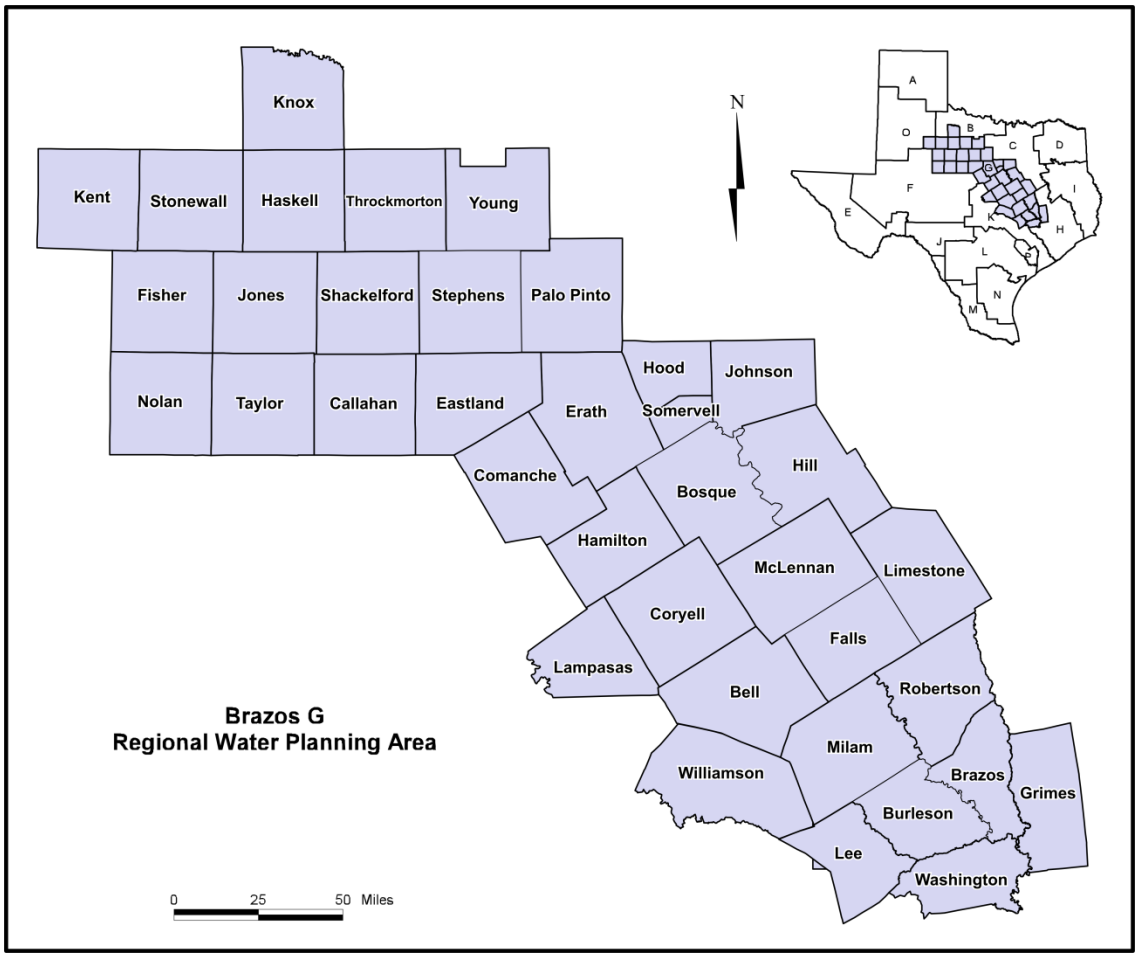
Since 1957, the Texas Water Development Board (TWDB) has been charged with preparing a comprehensive and flexible long-term plan for the development, conservation, and management of the state's water resources. The current state water plan, Water for Texas, January 2017, was produced by the TWDB and based on approved regional water plans pursuant to requirements of Senate Bill 1 (SB1), enacted in 1997 by the 75th Legislature, and further modified by subsequent legislation. As stated in SB1, the purpose of the regional water planning effort is to:

> "Provide for the orderly development, management, and conservation of water resources and preparation for and response to drought conditions in order that sufficient water will be available at a reasonable cost to ensure public health, safety, and welfare; further economic development; and protect the agricultural and natural resources of that particular region."

SB1 also provides that future regulatory and financing decisions of the Texas Commission on Environmental Quality (TCEQ) and the TWDB be consistent with approved regional plans.

The TWDB is the state agency designated to coordinate the overall statewide planning effort. The Brazos G Area, which is comprised of all or portions of 37 counties (Figure ES-1), is one of the State's 16 regional water planning areas established by the TWDB. The Brazos G Regional Water Planning Group (BGRWPG) was originally appointed by the TWDB to represent a wide range of legislatively-defined stakeholder interests and acts as the steering and decision-making body of the regional planning effort. As members (who serve without pay) leave the planning group, new members are appointed by the BGRWPG through solicitation of nominations. The BGRWPG adopted bylaws to govern its operations and, in accordance with its bylaws, designated the Brazos River Authority (BRA) as the administrative agency and principal contractor to receive grants from the TWDB to develop the water plan. Mr. Stephen Hamlin and Ms. Pamela Hanneman currently serve as the Regional Planning Project Managers for the BRA, assisted by Jennifer White. The BGRWPG selected HDR Engineering, Inc. (HDR) as the prime consultant for the planning and engineering tasks necessary for plan development. The firms of Freese and Nichols, Inc. and Susan Roth Consulting, LLC have contributed as subconsultants to HDR.

Figure ES-1. Brazos G Regional Water Planning Area



The BGRWPG consists of 23 voting members who represent the following 12 interest groups:

- the public,
- counties,
- municipalities,
- industries,
- agriculture,
- the environment,
- small businesses,
- electric-generating utilities,
- river authorities,
- water districts,
- water utilities, and
- groundwater management areas.

The BGRWPG also includes several non-voting members who participate in the deliberations of the BGRWPG and contribute excellent knowledge and insight to the group. Table ES-1 lists the voting and non-voting members and interest groups represented on the BGRWPG who contributed to the development of the 2021 Brazos G Regional Water Plan (both current and recently resigned).

The regional water plans are developed on a 5-year cycle, with previous plans developed in 2001, 2006, 2011, and 2016. In accordance with legislative and rule requirements, all of the regional water plans must be completed and adopted by October 14, 2020. The TWDB will then compile the 16 plans into the 2022 State Water Plan. The regional water plans will continue to be updated every 5 years.

Table ES-1. Current and Recent Brazos G RWPG Members

Interest Group	Name
Voting Members	
Agricultural	Judge Dale Spurgin Wayne Wilson (Chairman)
Counties	Judge David Blackburn Judge Scott M. Felton Commissioner Gary Myers Commissioner Tim Brown (Jan 2019) Commissioner Mike Sutherland (Jan 2019)
Electric Generating Utilities	Gary L. Spicer
Environmental	Luci Dunn Kevin Wagner (July 2017)
Industry	Terrill Tomecek
Municipalities	Jim Briggs Tommy O'Brien Wiley Stem Jerry K. "Kenny" Weldon
Public	Gary Newman
River Authorities	David Collinsworth Phil Ford (Apr 2018)
Small Business	Gail L. Peek
Water Districts	Joe Cooper Kelly Kinard
Groundwater Management Areas	Dirk Aaron Dale Adams Zach Holland Mike McGuire Gary Westbrook Judy Parker (May 2018)
Water Utilities	Charles Beseda
Non-Voting Members	
Texas Water Development Board	Jean Devlin Thomas Barnett (former)
Texas Parks and Wildlife Department	Jennifer Bronson-Wilson
Texas Department of Agriculture	Michelle Bobo David Kercheval (former)
Texas State Soil and Water Conservation Board	Rusty Ray

* Date represents date of resignation.

The planning horizon to be used is the 50-year period from 2020 to 2070. This planning period allows for long-term forecast of future water demands and supplies sufficiently in advance of needs to allow for appropriate water management measures to be implemented. As required by statute, the TWDB has promulgated planning rules and guidelines to focus the efforts and to provide for general consistency among the planning areas so that the regional plans can then be aggregated into the overall State Water Plan.

The 2021 Brazos G Regional Water Plan is organized in accordance with TWDB guidelines by chapter as follows.

ES	Executive Summary
Chapter 1	Description of the Brazos G Area
Chapter 2	Projected Population and Water Demands
Chapter 3	Evaluation of Current Water Supplies
Chapter 4	Comparison of Water Demands with Water Supplies to Determine Needs
Chapter 5	County and Wholesale Water Provider Plans (Volume I)
Chapter 5	Evaluation of Water Management Strategies (Volume II)
Chapter 6	Consistency with Long Term Protection of the State's Water, Agricultural and Natural Resources
Chapter 7	Drought Response Information, Activities and Recommendations
Chapter 8	Recommendations for Unique Stream Segments, Unique Reservoir Sites and Other Legislative Policy Recommendations
Chapter 9	Infrastructure Financing
Chapter 10	Public Participation and Adoption of Plan
Chapter 11	Implementation and Comparison to the 2016 Brazos G Regional Water Plan
Appendices	Various appendices containing supporting information

ES.2 Description of the Brazos G Area

The Brazos G Area can be described by a single word—**diverse**. From the piney woods of Brazos and Grimes Counties to the rolling plains of Nolan County; from sparsely populated Stonewall County to rapidly-growing Williamson County, often listed as the fastest growing county in the nation; from the prodigious Carrizo-Wilcox Aquifer in the southeast to the meager dribbles from windmills in Shackelford County; from 44 inches of annual rainfall in the east to 24 inches annually in the west (in a good year); from the Chisholm Trail through Stephens County to the NAFTA trail known as Interstate Highway 35 (IH-35); these diverse characteristics make for a wide variation in water supplies, demands, and availability of affordable options to meet needs.

ES.3 Population and Water Demand Projections

The Texas Water Development Board (TWDB) publishes population and water demand projections for each county in the state for use by the regional water planning groups. Population projections were developed for municipal water user groups (WUGs), which are defined as private or publically-owned water systems that provide more than 100 acre-feet per year (acft/yr) for municipal use, and "County-Other" to capture those people living outside the WUG-sized utilities. In the Brazos G Area, population projections were completed for 283 municipal WUGs, including 37 County-Other WUGs. Multiple municipal WUGs are located in more than one county, resulting in 389 individual municipal WUG projections when the portions of WUGs located in different counties are separated. Water demand projections were also developed for other types of use on a county-wide basis, including manufacturing, steam-electric, mining, irrigation, and livestock uses.

Figure ES-2 illustrates population growth in the entire Brazos G Regional Water Planning Area (BGRWPA) for 1900 to 2010 and projected growth for 2020 to 2070.

Population trends may be further understood by dividing the planning region into three subregions: the northwestern Rolling Plains, the central IH-35 Corridor, and the southeastern Lower Basin. Figure ES-3 illustrates historical population growth in the three sub-regions from 1900 to 2010 and projected growth from 2020 to 2070. Projected growth is greatest in the IH-35 Corridor.

Water demand projections have been compiled for six categories of water use: (1) Municipal, (2) Manufacturing, (3) Steam-Electric Cooling, (4) Mining, (5) Irrigation, and (6) Livestock. Each of the non-municipal uses is aggregated on a county basis, and is defined as a separate water user group (WUG) within each county. The TWDB has developed and provided water demand projections for each of the five non-municipal WUGs in each of the 37 counties in the Brazos G Area.

Figure ES-2. Historical and Projected Brazos G Area Population

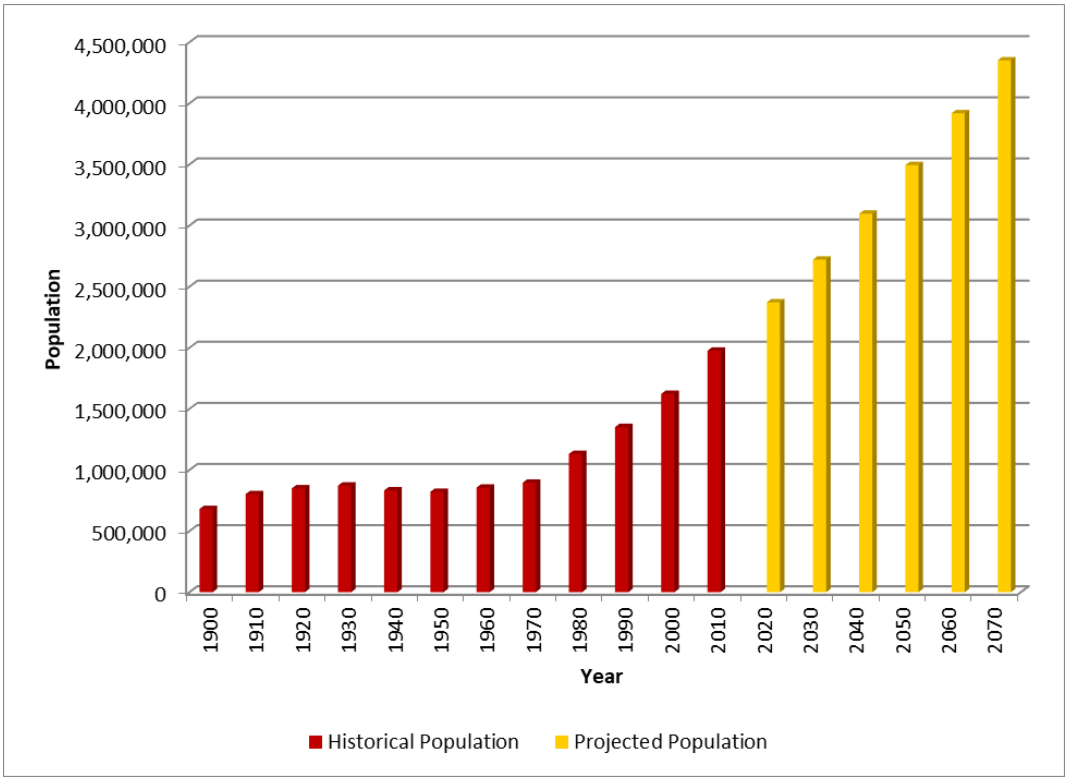
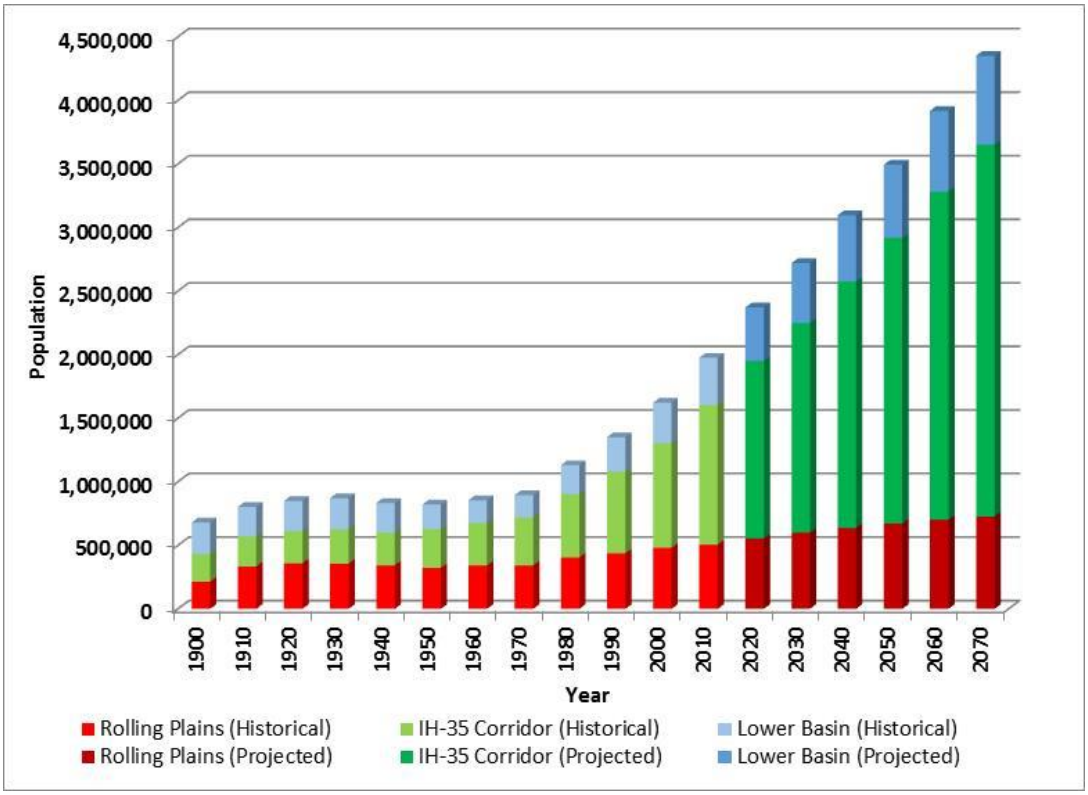


Figure ES-3. Historical and Projected Population by Subregion



Annual total water use for the region is projected to increase from 853,170 acft in 2010 to 1,408,066 acft in 2070, a 65 percent increase, as shown in Table ES-2 and Figure ES-4. The six types of water use as percentages of total water use are shown for 2010 and 2070 in Figure ES-5. Municipal and steam-electric water use as percentages of the total water use are projected to increase from 2010 to 2070, while mining, irrigation, and livestock water use are projected to decrease as percentages of the total. Manufacturing use is projected to retain at about the same percentage of the total water use.

Table ES-2. Brazos G Area Total Water Demand by Type of Use (acre-feet/year)

Water Use	Historical		Projections[1]					
	2000	2010	2020	2030	2040	2050	2060	2070
Municipal	311,291	326,414	401,393	449,056	502,943	561,736	626,523	694,285
Manufacturing	60,522	46,131	12,695	16,175	16,175	16,175	16,175	16,175
Steam-Electric	97,921	76,545	232,894	232,894	232,894	232,894	232,894	232,894
Mining	4,382	53,383	61,586	66,272	59,340	58,423	58,917	60,838
Irrigation	232,911	298,754	359,497	359,497	353,696	352,526	355,955	355,955
Livestock	53,222	51,943	47,939	47,939	47,939	47,939	47,939	47,939
Brazos G Total	760,249	853,170	1,116,004	1,171,833	1,212,987	1,269,693	1,338,403	1,408,086

[1] Projections from Texas Water Development Board. Note that Municipal projections are for the portions of WUGs located in Brazos G for which Brazos G is the primary region, and not for WUGs for which Brazos G is not primary.

Figure ES-4. Total Historical and Projected Water Demand

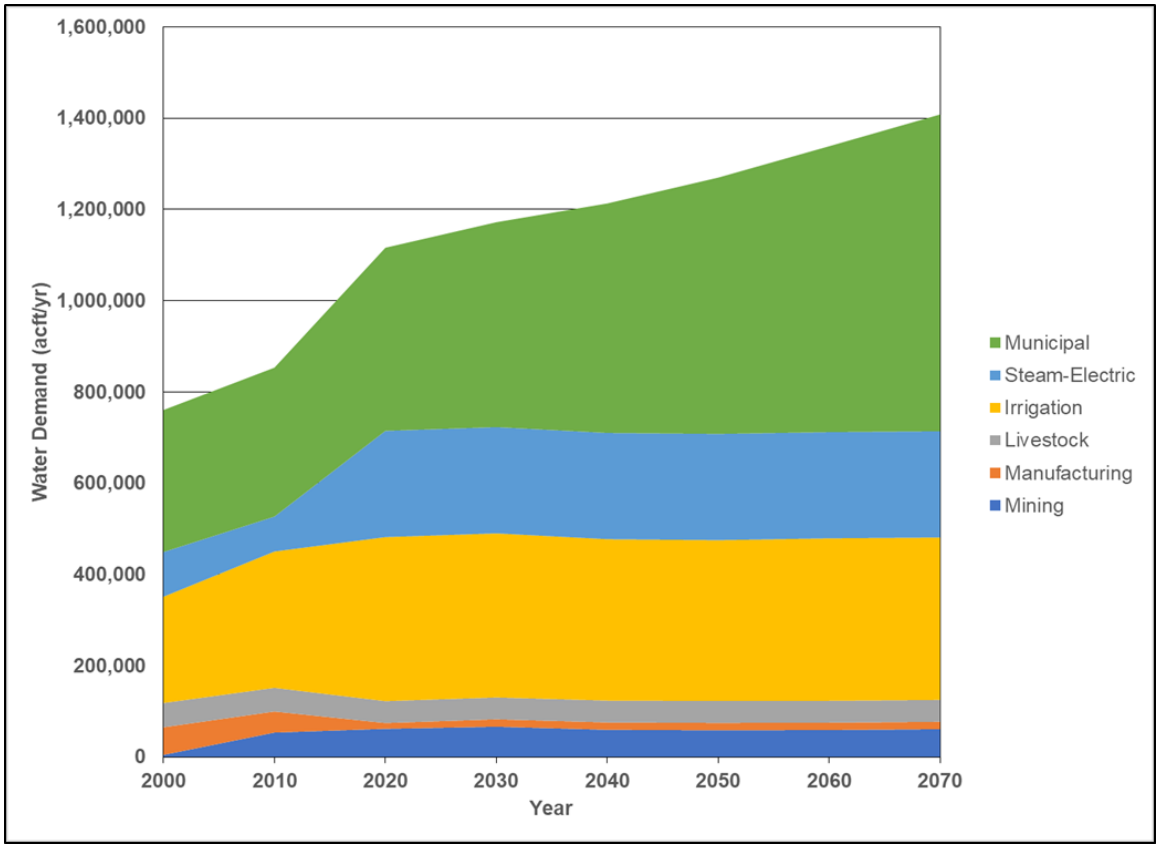
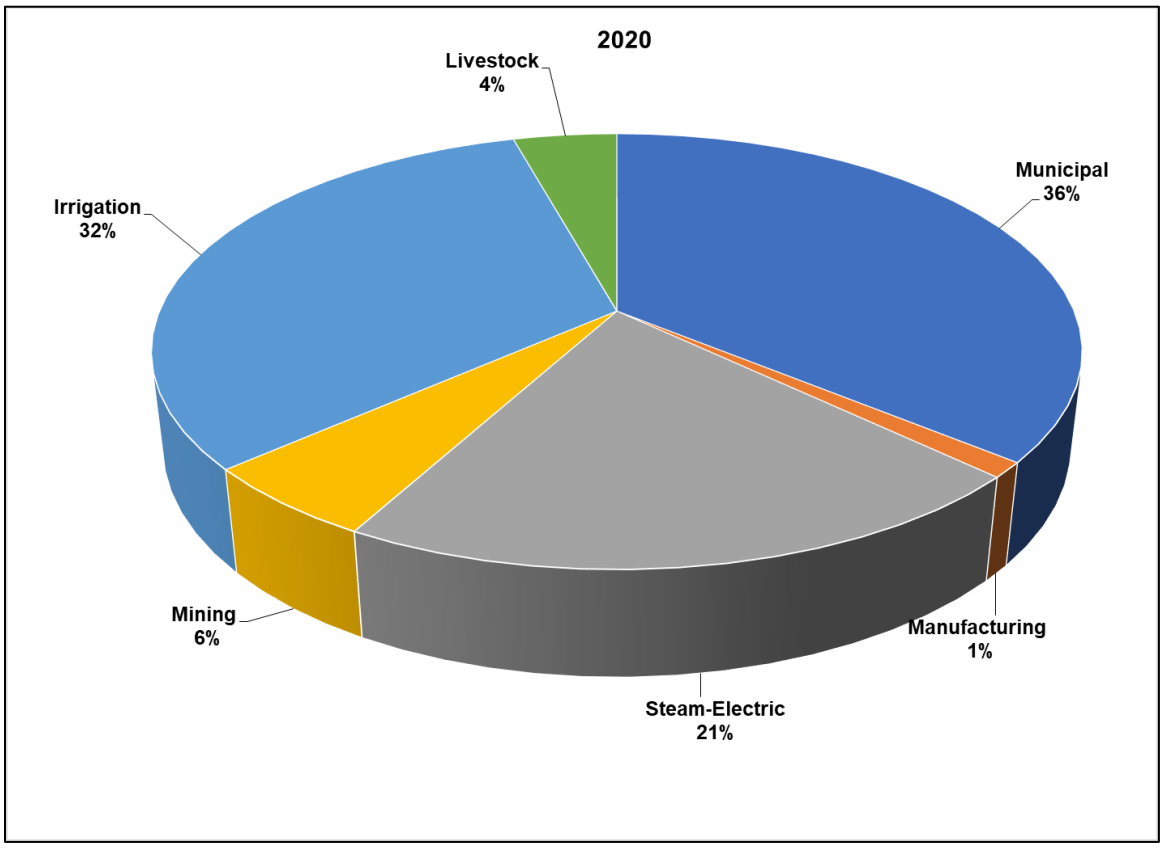
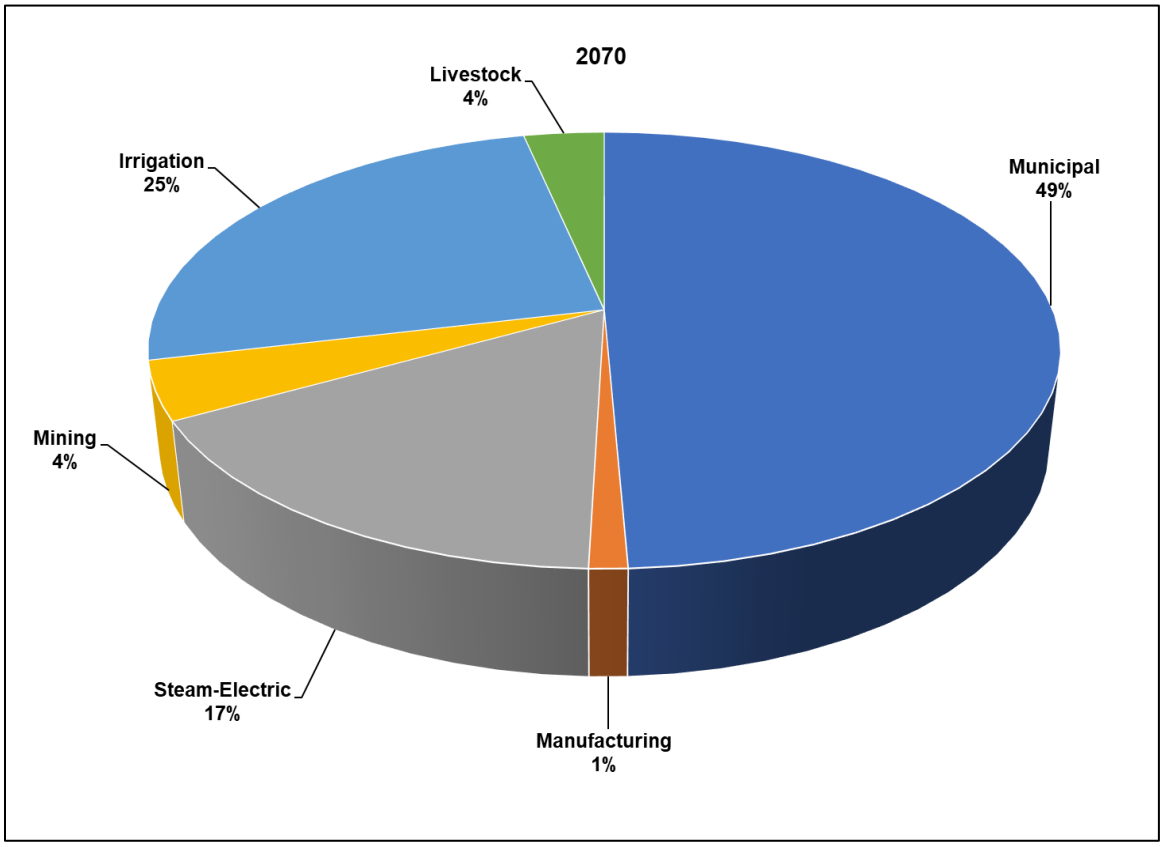


Figure ES-5. Total Water Demand in 2020 and 2070





ES.4 Water Supply

ES.4.1 Surface Water Supplies

Streamflow in the Brazos River and its tributaries, along with reservoirs in the Brazos River Basin, Colorado River Basin, and Trinity River Basin, comprise the surface water supply of the Brazos G Area. Diversions and use of this surface water occurs throughout the entire area. However, the supply of surface water varies greatly through the area due to the large variation in rainfall and a correspondingly large variation in evaporation rates. The principal tributaries to the Brazos River in the planning area are the Clear Fork, the Double Mountain Fork, the Salt Fork, Bosque River, Little River, Navasota River, Little Brazos River and Yegua Creek. Major water supply reservoirs are owned by the BRA (three in the planning area), U.S. Army Corps of Engineers (nine in the area), West Central Texas MWD, the City of Abilene, and Texas Utilities. The western part of the area is heavily dependent on surface water sources, largely due to limited quantities of groundwater.

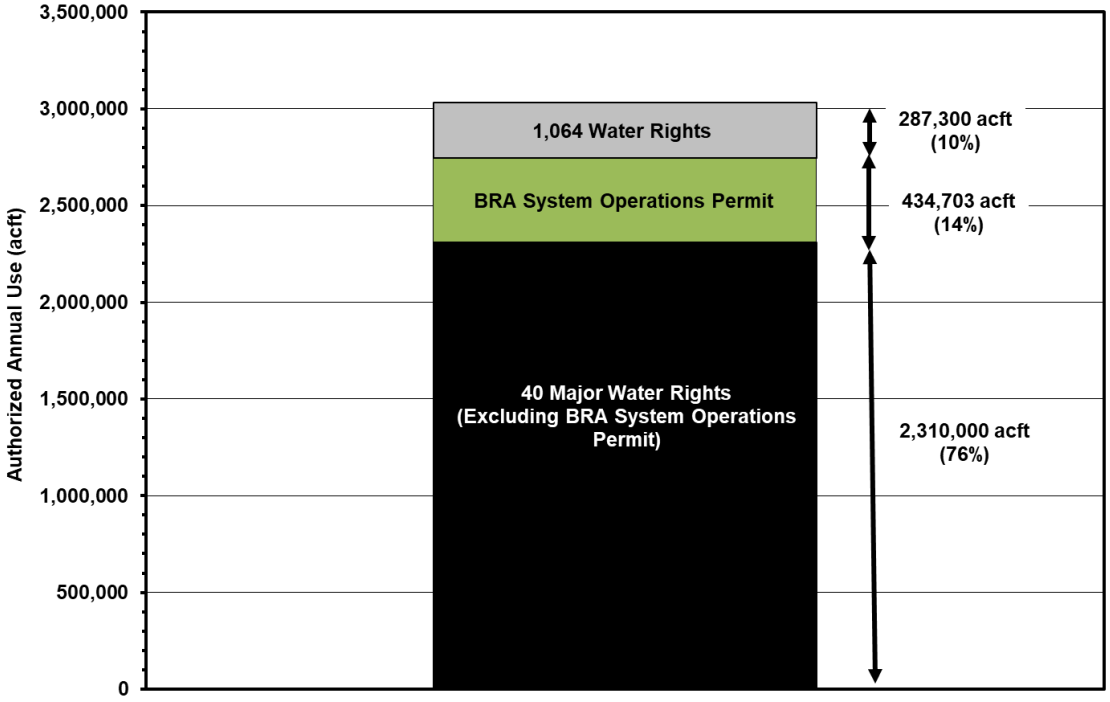
Surface Water Rights

The State of Texas owns the surface water resources of the State, and issues water rights to utilize surface water. The TCEQ maintains a database of all active water rights referred to as WRactive, which is available for download from the TCEQ website. The November 2019 version of this database was obtained from the TCEQ and the summary statistics that follow are based on the information contained in that particular version of the database. At the time of the 2016 Brazos G Plan development, a total of 1,090 active water rights existed in the Brazos River Basin, with a total authorized diversion of 2,584,000 acft/yr. Since the 2016 Plan, the TCEQ has issued 15 new water rights or amendments to existing rights, increasing the total authorized diversion amount by 447,500 acft/yr to a new total of about 3,032,000 acft/yr. The most notable new water right issued in the Brazos River Basin since the 2016 Plan is the Brazos River Authority (BRA) System Operations Permit (Permit No. 12-5851), authorizing a combined diversion amount of up to 434,703 acft/yr at numerous locations within the Brazos G and Region H areas. Figure ES-6 shows a comparison of significant water rights in the Brazos River Basin by number of rights and diversion volume.

The Brazos Basin Water Availability Model (Brazos WAM) Run 3 maintained by the TCEQ was used to determine surface water supply available to WUGs and WWPs in the Brazos G Area. The model input data were modified to account for expected future return flows (discharge of wastewater effluent), future sedimentation conditions for major reservoirs, and existing subordination agreements. The hydrologic data for the model were extended from the existing 1997 through 2015 using a set of estimated naturalized flows and evaporation for the entire basin for the years 1998–2015. The resulting model is termed the Brazos G WAM. Firm yield supply was computed for each major reservoir (greater than 5,000 acft authorized storage capacity), and smaller reservoirs that serve as municipal water supplies. Supplies for run-of-river water rights are based on the minimum annual supply (computed on a monthly basis). Surface water supplies were allocated to individual WUGs and WWPs based upon a listing of water right ownership as maintained by TCEQ, and contractual agreements between water rights holders and

wholesale customers. Supplies were constrained based upon facility limitations to access the raw water supply, such as intake capacity and water treatment plant capacity.

Figure ES-6. Comparison of Water Rights in the Brazos River Basin



New Drought of Record

The drought of record has been considered the drought of the 1950's drought, which forms the basis for water supply determinations for most of the state. Chapter 7 contains an analysis to determine if a new drought or droughts of record have occurred since the 1950's drought, focused on the two recent droughts centered around 2006 and 2011. An analysis of updated critical periods for reservoir yield analysis using the extended period for the Brazos G WAM, naturalized streamflows, and the Palmer Drought Severity Index indicates that a new drought of record has occurred in the upper Brazos Basin (above Possum Kingdom Reservoir), but that the 1950's drought should continue to be considered the drought of record for the mid and lower Brazos G Area.

ES.4.2 Groundwater Supplies

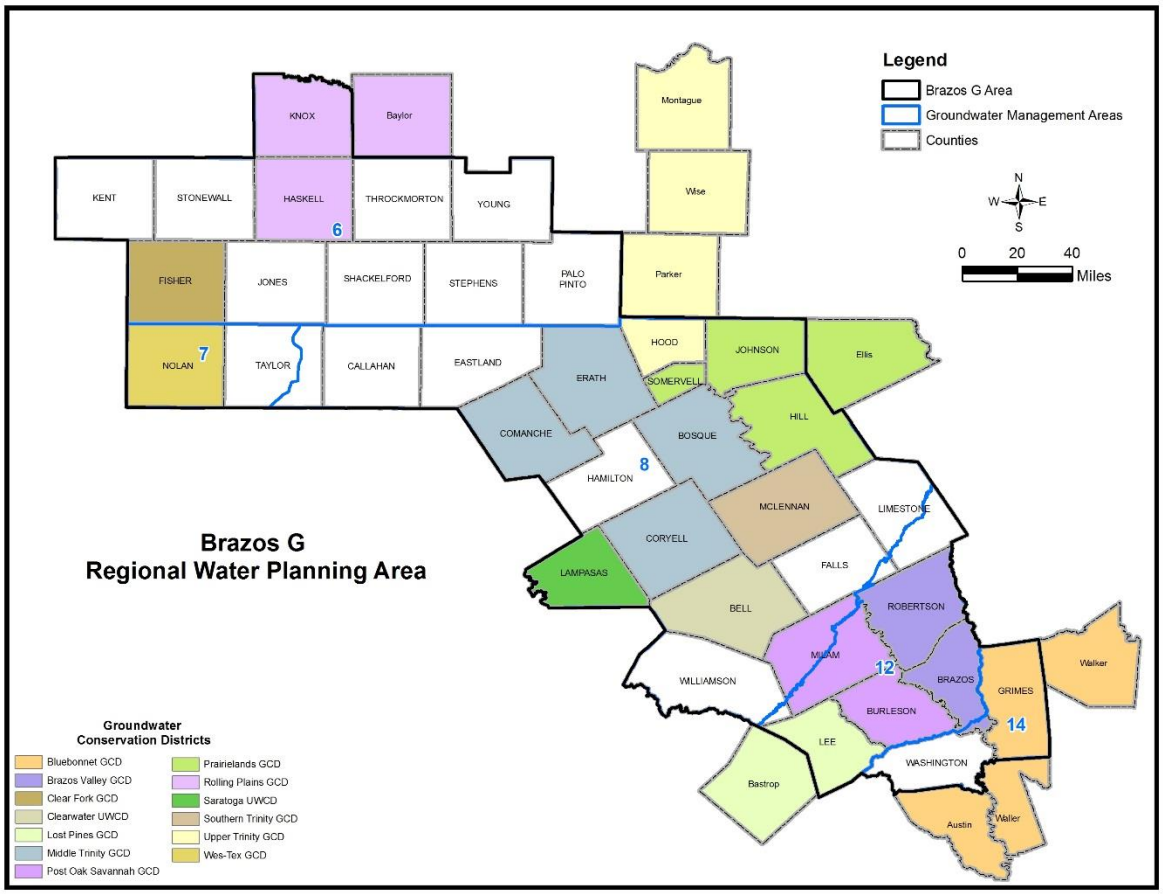
Groundwater supplies in 21 counties in the Brazos G Area are regulated by 13 Groundwater Conservation Districts (GCDs). These GCDs are part of Groundwater Management Areas 6, 7, 8, 12, and 14, which are tasked with determining Desired Future Conditions (DFCs) and the Modeled Available Groundwater (MAG) for the jointly-regulated aquifers in their areas. The GCDs and GMAs affecting the Brazos G Area are shown in Figure ES-7. The MAG serves as the maximum annual supply that can be developed from an aquifer within a county for the purposes of regional water planning. For aquifers without a MAG determination, water availability estimates used in the 2016

Plan were adopted by the BGRWPG for use in the 2021 Plan, or pumping from those aquifers when incorporated into a MAG determination was used.

Fifteen aquifers underlie parts of the Brazos G Area and, if developed fully, can provide a combined reliable supply of about 500,100 acft/yr, (2070 decade) based on the MAGs and other availability estimates for aquifers without a MAG estimate. The Seymour Aquifer supplies significant quantities of water in the western part of the region. Other aquifers that are depended on in the western part of the region are the Dockum and the Edwards-Trinity. The Trinity and Edwards-BFZ (Northern Segment) are heavily relied upon in the IH-35 corridor and to the west. In the eastern part of the region, the Carrizo-Wilcox is a prolific water supply with lesser amounts pumped from the Queen City, Sparta, and Brazos River Alluvium.

MAG was allocated to each existing user based upon currently installed well capacity for municipal WUGs and WWPs, and recent pumping estimates for county-aggregated WUGs. When the existing capacities exceeded the MAG, supplies were adjusted proportionally so that the MAG would not be exceeded.

Figure ES-7. Groundwater Conservation Districts and Groundwater Management Areas Located Wholly or Partially in the Brazos G Area



ES.4.3 Water Quality

Natural salt pollution has been recognized as a serious and widespread water quality problem in the Brazos River Basin. No other pollution source, man-made or natural, has had the impact of the natural salt sources located in the upper basin. Due to these water quality issues, some sources of water—particularly from Lake Whitney, Lake Granbury, and Possum Kingdom Reservoir—may limit their suitability for some uses and require higher cost, advanced treatment (desalination). As the Brazos River flows to the Gulf, inflows from tributaries dilute the concentration of dissolved minerals, improving the quality of water.

ES.4.4 Supply and Demand Comparison

Supplies are compared with projected demands, and shortages (needs) or surpluses are computed for each WUG and WWP. Detailed tabulations of water needs from various DB22 reports are presented in the Executive Summary Appendix.

A comparison of total supplies available (developed groundwater supplies and firm surface water) with demand for all use categories in the planning area shows a surplus past the year 2040. These mask shortages that are projected to occur to individual water supply entities and water user groups. Even within most counties that have projected overall surpluses, there are individual entities that do not have sufficient supply to meet projected needs. Every county in the Brazos G Area has at least one WUG with a projected shortage.

ES.4.5 Water Supply Strategies to Meet Needs

The water management strategies in Table ES-3 were identified by the BGRWPG as potentially feasible to meet shortages. These strategies were evaluated by the consultant team and compared to criteria adopted by the BGRWPG. The methods by which the strategies were evaluated and the technical evaluations of the potentially feasible water management strategies are presented in Volume II.

Table ES-3. Potentially Feasible Water Management Strategies Evaluated for the 2021 Brazos G Regional Water Plan

Chapter (Volume II)	*Water Management Strategy and Description*
2	**Water Conservation** (implement accelerated use of various water conservation techniques to achieve water savings above what is already included in the TWDB water demand projections)
3	**Wastewater Reuse** (use highly treated wastewater treatment plant effluent to meet non-potable and potable water needs)
4	**New Reservoirs** (new or updated evaluations of the following proposed new reservoirs) • Brazos River Main Stem Off-Channel Reservoirs • Brushy Creek Reservoir • Cedar Ridge Reservoir • Coryell County Off-Channel Reservoir • City of Groesbeck Off-Channel Reservoir • Hamilton County Reservoir • NCTMWA Lake Creek Reservoir • Red River Off-Channel Reservoir near Arthur City • South Bend Reservoir • New Throckmorton Reservoir • Turkey Peak Dam - Lake Palo Pinto Enlargement
5	**Groundwater** • City of Bryan Groundwater Strategies • City of College Station Groundwater Strategies • Williamson County Groundwater Strategies
6	**BRA System Operations**
7	**Conjunctive Use** (conjunctively use surface water supplies with available groundwater supplies) • Lake Granger Augmentation • Oak Creek Reservoir and Champion Well Field
8	**Aquifer Storage and Recovery** (Inject or percolate excess surface water into groundwater aquifers, storing for future use) • City of Bryan ASR • City of College Station ASR • Lake Georgetown ASR • Lake Granger ASR • Johnson County SUD and Acton MUD ASR • Trinity ASR in McLennan County
9	**Regional Water Supply Projects** • Bosque County Regional Project • Milam County Groundwater and Alcoa Supply for Williamson County • Brushy Creek RUA Water Supply Project • East Williamson County Water Supply Project • Lake Belton to Stillhouse Hollow Pipeline • Lake Whitney Water Supply Project (Cleburne) • Somervell County Water Supply Project • Trinity Basin Supplies to the Middle Brazos • West Texas Water Partnership Supply to Abilene (Region F evaluation)
10	**Augmentation of Existing Reservoir Supplies** • Lake Aquilla Storage Reallocation • Lake Granger Storage Reallocation • Lake Whitney Reallocation • Lake Whitney Over-Drafting Supply with Off-Channel Reservoir • Millers Creek Reservoir Augmentation
11	**Control of Naturally Occurring Salinity**
12	**Brush Control** (increase deep percolation and discharge to streams by removing unwanted brush
13	**Miscellaneous Strategies** (various pipelines, treatment plants and groundwater wells to meet projected needs of water user groups and wholesale water providers)

ES.5 Water Plan Findings

Conservation is considered first as a water management strategy for all WUGs with identified needs before any other water management strategies. Second-Tier water needs are those water needs remaining after implementation of conservation and direct reuse strategies. A presentation of Second-Tier water needs for each WUG is included in Reports 7 and 8 in the Executive Summary Appendix. The individual plans for each WUG in Chapter 5 also include a presentation of water needs remaining after advanced conservation.

The 2021 Brazos G Regional Water Plan includes recommendations for 103,439 acft/yr of municipal conservation savings and another 38,315 acft/yr for wastewater reuse. The conservation savings are in excess of those already included in the TWDB demand projections. Conservation savings for municipal users reflect a 1% annual reduction in per capita consumption until a target of 140 gallons per capita per day (GPCD) is reached. Conservation recommendations for several entities in Williamson County go beyond this and call for a reduction to a target of 120 GPCD by 2070.

Water management strategies and projects recommended to meet water needs are presented for WUGs and WWPs in Chapter 5. Table ES-4 includes a summary of recommended strategies and projects.

Table ES-4. Summary of Strategies and Projects Recommended for WUGs and/or WWPs

Recommended Strategies and Projects	WUGs Receiving Supply[1]	Supply Developed						Total Project Cost
		2020	2030	2040	2050	2060	2070	
Municipal Conservation	100	0	23,441	45,098	64,776	86,273	103,439	$614,324,416
Irrigation Conservation	20	8,308	13,848	18,980	18,898	19,139	19,139	ND
Industrial Conservation	33	1,689	3,027	3,785	3,775	3,858	4,024	ND
Leave Needs Unmet-Municipal	17	(17,082)						ND
Leave Needs Unmet – non-Municipal	21	(148,500)	(148,167)	(138,496)	(138,473)	(139,983)	(143,845)	ND
Purchase of Water/Voluntary Redistribution	19	3,106	2,059	1,864	1,984	2,872	5,639	ND
Increased or New WTP Capacity	12	8,603	21,240	27,326	27,294	26,409	26,181	$270,297,000
Reuse	13	25,759	39,630	38,035	38,315	38,315	38,315	$313,657,000
Blaine Groundwater	6	1,062	1,049	1,001	958	921	888	$2,530,000
Cross Timbers Groundwater	5	878	878	878	878	878	878	$1,954,000
Edwards Groundwater	3	757	740	734	585	585	1,200	$2,798,000
Ellenburger-San Saba Groundwater	1	88	106	120	139	162	187	$2,051,000
Gulf Coast Groundwater	5	1,965	2,187	1,853	1,539	1,250	1,212	$9,526,359
Marble Falls Groundwater	1	211	203	195	198	201	204	$2,054,000
Sparta Groundwater	2	25	25	663	663	663	663	$5,164,000

Table ES-4. Summary of Strategies and Projects Recommended for WUGs and/or WWPs

Recommended Strategies and Projects	WUGs Receiving Supply[1]	Supply Developed						Total Project Cost
		2020	2030	2040	2050	2060	2070	
Trinity Groundwater	26	16,436	16,348	16,406	16,540	17,895	19,353	$123,115,000
Woodbine Groundwater	1	158	158	158	158	158	158	$870,000
ASR	11	0	25,240	38,185	38,185	40,685	42,685	$684,664,000
Williamson County Groundwater Supply - South Option	5	0	7,379	10,075	10,621	10,761	10,903	$4,015,016,000
Somervell County Water Supply Project	4	0	1,533	1,533	1,533	1,533	1,533	$36,250,000
Turkey Peak Reservoir	3	0	5,951	5,923	5,908	5,894	5,881	$102,530,000
Bosque County Regional Project	5	1,070	1,070	1,070	1,070	1,070	1,070	$27,097,000
NCTMWA Lake Creek Reservoir	5	12,900	12,900	12,900	12,900	12,900	12,900	$259,001,000
Alcoa Property Supply	2	0	0	0	2,133	10,064	18,068	$241,689,000
BRA System Operations Supply	22	14,211	16,175	15,978	14,357	14,397	14,432	$192,175,000
Brushy Creek RUA Water Supply Project	4	36,448	36,311	36,175	36,039	35,903	35,766	$326,793,406
Coryell County Off-Channel Reservoir	4	3,135	3,135	3,135	3,135	3,135	3,135	$82,584,000
Brushy Creek Reservoir	1	0	2,000	2,000	2,000	2,000	2,000	$33,229,000
Lake Whitney Desalination Phase 1	1	0	0	0	0	4,257	4,257	$91,701,000
Lake Whitney Desalination Phase 2	1	0	0	0	0	0	3,136	$30,567,000
Groesbeck Off-Channel Reservoir	1	1,755	1,755	1,755	1,755	1,755	1,755	$23,599,000
Oak Creek Reservoir Conjunctive Use	4	475	512	549	586	623	660	ND
Cedar Ridge Reservoir	13	0	23,201	23,226	23,252	23,283	23,311	$283,646,000
New Throckmorton Reservoir	2	3,500	3,500	3,500	3,500	3,500	3,500	$68,103,000
BRA Supply (Lake Granger) through the East Williamson County Water Supply Project	1	0	0	0	56	56	56	$30,264,420
Lake Aquilla Reallocation	1	0	0	0	0	2,483	2,483	$2,158,000
Lake Granger Augmentation Phase I (Trinity Wells)	1	0	0	0	0	0	0	$96,685,000
Lake Granger Augmentation Phase II	25	0	16,510	17,848	15,640	15,612	17,847	$845,564,000

Table ES-4. Summary of Strategies and Projects Recommended for WUGs and/or WWPs

Recommended Strategies and Projects	WUGs Receiving Supply[1]	Supply Developed						Total Project Cost
		2020	2030	2040	2050	2060	2070	
Belton to Stillhouse Pipeline	1	0	5,000	5,000	5,000	5,000	5,000	$67,993,000
Lake Whitney Hydropower Reallocation	1	0	0	0		12,000	26,000	$253,824,000
Upper Basin Chloride Control Project	2	0	949	949	949	949	949	$116,906,000
Cameron New Little River Pump Station	4	0	2,792	2,792	2,792	2,792	2,792	$13,006,000

ND - costs and/or supply from strategy not determined
1 – Number of WUGs that would receive supply from the strategy.

Total new supplies of water into the Brazos G Area total 424,436 acft/yr, comprised of newly developed groundwater, supply transferred from other regions, newly developed surface water supplies, or supplies made available through conservation or augmentation of existing facilities. These totals do not reflect water trades between users of existing supplies in Brazos G, but represent entirely new supplies to the Brazos G Area. Total project costs for these new supplies exceed $9 billion.

Contracts entered into by the BRA for supply developed by the recently-authorized System Operations Permit will supply more than 15,000 acft/yr of new supply to Brazos G WUGs.

Overdrafting of Lakes Georgetown and Granger when the reservoirs are nearly full and injecting part of this supply into the Trinity Aquifer through Aquifer Storage and Recovery (ASR) projects can yield an additional 20,545 acft/yr of supply when the ASR well field is operated in conjunction with the reservoirs.

Williamson County is projected to experience substantial growth in County-Other, which is specifically outside of areas that will be served by existing WUGs. The 2021 Plan includes multiple strategies to meet the needs of Williamson County-Other users, but successful development of these projects will require considerable cooperation amongst current WUGs and WWPs, and possibly formation of a regional provider to develop the large projects needed to meet these needs.

Existing supplies combined with recommended water management strategies do not exceed the Modeled Available Groundwater (MAG) from any aquifer in any county. This is a planning requirement which limits the number of available water management strategies in some cases. For example, in Burleson County, all remaining MAG from the Carrizo-Wilcox Aquifer is slated to be transported out of the Brazos G Area for use in Regions K and L through the recently completed Vista Ridge project. A small portion of the water is recommended to be sold to Williamson County entities.

Future utilization of existing supplies and new water management strategies will increase use from the water supply sources available to users in the Brazos G Area.

Alternative water management strategies are presented in the Executive Summary Appendix. An alternative strategy can replace a recommended strategy by a vote of the

regional water planning group at a regularly scheduled meeting without needing to pursue the process prescribed by the TWDB for amending a regional water plan.

The BGRWPG has recommended that irrigation, manufacturing, mining and steam-electric needs in some counties remain unmet, because there are no water management strategies identified that can economically meet those needs, or recent information indicates that projected water demands creating those needs will not develop. In addition, some municipal needs remain unmet in 2020 due to required infrastructure not being available. These needs are typically only unmet should a drought of severity equivalent to the drought of record occur prior to strategies scheduled to be in place by 2030. A summary of unmet needs is presented in Table ES-5.

Implementation of the 2021 Brazos G Regional Water Plan provides for the development of new water supplies that will be reliable in the event of a repeat of the most severe drought on record. Implementation of all recommended water management strategies would often provide supplies sufficient to meet more than the projected needs with which the strategies are associated.

Table ES-5. Needs for WUGs Left Unmet in the 2021 Brazos G Regional Water Plan

County	Water User Group	Needs Left Unmet (acft/yr)					
		2020	2030	2040	2050	2060	2070
Municipal WUGs							
Stonewall	Aspermont	39					
McLennan	County-Other	222					
Williamson	County-Other	32					
Coryell	Fort Gates	260					
Coryell	Gatesville	1,041					
Bell and Williamson	Georgetown	10,307					
Young	Graham	1,457					
Limestone	Groesbeck	688					
Haskell	Haskell	477					
McLennan	Hewitt	480					
Williamson	Hutto	907					
Knox	Knox City	226					
Lampasas	Lampasas	128					
Palo Pinto	Mineral Wells	342					
Knox	Munday	242					
Brazos	Texas A&M University	99					

County	Water User Group	Needs Left Unmet (acft/yr)					
		2020	2030	2040	2050	2060	2070
Throckmorton	Throckmorton	135					
Non-Municipal WUGs							
Comanche	Irrigation	14,114	12,382	11,707	11,739	11,707	11,738
Haskell	Irrigation	14,932	13,881	10,540	10,809	11,711	11,825
Knox	Irrigation	13,160	14,678	10,394	8,418	7,954	10,147
Nolan	Irrigation	7,890	7,659	7,428	7,428	7,428	7,428
Robertson	Irrigation	10,476	12,222	11,521	12,106	12,217	12,309
Stephens	Irrigation	86	83	80	80	80	80
Wiliamson	Irrigation				146	146	146
Bell	Manufacturing	123					
Bosque	Mining	360	414	207	188	152	141
Haskell	Mining	90	87	77	69	61	55
Hill	Mining	187					
Lee	Mining	1					
Limestone	Mining	6,849	6,271	6,016	6,457	6,891	7,467
Shackelford	Mining	336	501	309	201	95	16
Somervell	Mining		44				
Stephens	Mining	3,323	3,295	2,557	1,968	1,440	990
Taylor	Mining	245					
Williamson	Mining	4,567	5,493	6,407	7,515	8,656	9,962
Hill	Steam-Electric	4,120	4,120	4,120	4,120	4,120	4,120
Milam	Steam-Electric	32,254	32,254	32,254	32,254	32,254	32,254
Somervell	Steam-Electric	35,387	34,783	34,879	34,975	35,071	35,167
Total Municipal		**17,082**					
Total Irrigation		**60,658**	**60,905**	**51,670**	**50,726**	**51,243**	**53,673**
Total Manufacturing		**123**					
Total Mining		**15,958**	**16,105**	**15,573**	**16,398**	**17,295**	**18,631**
Total Steam-Electric		**71,761**	**71,157**	**71,253**	**71,349**	**71,445**	**71,541**
Total Brazos G		**165,582**	**148,167**	**138,496**	**138,473**	**139,983**	**143,845**

ES.6 Other Aspects of the 2021 Brazos G Regional Water Plan

In addition to providing a roadmap for development of supplies to meet future water needs in the basin, the 2021 Brazos G Regional Water Plan includes other elements of value and interest to water supply managers and others in the Brazos G Area.

- The plan provides a concise summary of physiographic, hydrologic and natural resources in the Brazos G Area,
- The plan provides a comprehensive understanding of how water supplies have been developed and are managed in the Brazos G Area,
- The plan provides information on appropriate droughts of record in the Brazos G Area,
- The plan provides recommendations for drought management and emergency supply measures that may assist water managers with developing plans for their systems, and
- The plan includes recommendations to the TWDB and the Texas Legislature regarding key water policy issues and the direction of water supply management in Texas.

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ES.7 Executive Summary Appendix – Required Reports from DB22 (reflecting database entries as of October 8, 2020)

Report	Description
1	WUG Population Projections
2	WUG Water Demands
3	WUG Category – Summary
4	Source Water Availability
5	WUG Existing Water Supplies
6	WUG Identified Water Needs/Surpluses
7	WUG Second-Tier Identified Water Needs
8	WUG Second-Tier Identified Water Needs – Summary
9	Source Water Balance
10a	Comparison of WUG Availability, Supply, Demands, and Needs to 2016 RWP
10b	Comparison of Source Availability to 2016 RWP
11	WUG Unmet Needs
12	WUG Unmet Needs – Summary
13	WUG Recommended Water Management Strategies
14	Recommended Projects Associated with Water Management Strategies
15	WUG Alternative Water Management Strategies
16	Alternative Projects Associated with Water Management Strategies
17	WUG Management Supply Factor
18	Recommended Water Management Strategies Requiring a New or Amended IBT Permit
19	WUG Recommended Conservation WMS Associated with Recommended IBT WMS
20	Recommended WMS Supplies Unallocated to WUGs
21	Summary of WMS Users by WMS Type
22	Summary of WMS Users by Source
23	MWP Existing Sales and Transfers
24	MWP Recommended WMS and Projects

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
439 WSC	10,220	12,327	14,490	16,700	18,961	21,285
ARMSTRONG WSC	2,616	2,810	2,994	3,168	3,338	3,507
BARTLETT	827	972	1,123	1,272	1,417	1,561
BELL COUNTY WCID 2	2,239	2,535	2,835	3,130	3,419	3,704
BELL COUNTY WCID 3	7,403	10,072	13,930	16,468	18,362	20,216
BELL MILAM FALLS WSC	2,255	2,430	2,596	2,754	2,909	3,061
BELTON	21,753	25,571	29,514	33,433	37,278	41,063
CENTRAL TEXAS COLLEGE DISTRICT	70	71	71	71	71	71
DOG RIDGE WSC	5,211	6,126	7,070	8,008	8,930	9,836
EAST BELL WSC	3,486	4,122	4,781	5,436	6,079	6,710
ELM CREEK WSC	2,257	2,685	3,129	3,572	4,006	4,434
FORT HOOD	16,936	17,196	17,282	17,282	17,282	17,282
GEORGETOWN*	2,967	3,488	4,027	4,562	5,086	5,602
HARKER HEIGHTS	31,372	36,879	42,566	48,218	53,763	59,222
HOLLAND	1,100	1,132	1,154	1,172	1,189	1,206
JARRELL-SCHWERTNER	2,264	2,826	3,488	4,182	4,956	5,751
KEMPNER WSC*	1,900	2,166	2,393	2,603	2,803	2,991
KILLEEN	144,243	169,560	195,711	221,697	247,195	272,291
LITTLE ELM VALLEY WSC	1,505	1,769	2,042	2,313	2,580	2,842
MOFFAT WSC	4,019	4,242	4,440	4,621	4,799	4,974
MORGANS POINT RESORT	5,077	6,110	7,187	8,261	9,315	10,353
PENDLETON WSC	2,284	2,430	2,565	2,691	2,813	2,934
ROGERS	1,343	1,450	1,551	1,648	1,743	1,837
SALADO WSC	6,001	6,648	7,288	7,913	8,525	9,128
TEMPLE	81,736	96,082	110,900	125,626	140,074	154,295
THE GROVE WSC	1,218	1,306	1,509	1,709	1,904	2,098
TROY	2,049	2,321	2,598	2,869	3,136	3,398
WEST BELL COUNTY WSC	4,911	5,321	5,348	5,348	5,348	5,348
COUNTY-OTHER	2,694	2,971	3,248	3,525	7,405	11,107
BRAZOS BASIN TOTAL	**371,956**	**433,618**	**497,830**	**560,252**	**624,686**	**688,107**
BELL COUNTY TOTAL	**371,956**	**433,618**	**497,830**	**560,252**	**624,686**	**688,107**
CHILDRESS CREEK WSC	2,226	2,432	2,537	2,602	2,644	2,670
CLIFTON	3,859	4,215	4,398	4,513	4,585	4,629
CROSS COUNTRY WSC	756	825	860	883	897	905
HIGHLAND PARK WSC	415	452	474	491	505	516
HILCO UNITED SERVICES*	1,420	1,530	1,610	1,694	1,774	1,863
MERIDIAN	1,764	1,927	2,011	2,062	2,097	2,117
MUSTANG VALLEY WSC	2,104	2,299	2,399	2,459	2,500	2,525
SMITH BEND WSC	751	820	856	878	892	689
VALLEY MILLS	1,370	1,495	1,560	1,601	1,626	1,642
COUNTY-OTHER	5,645	6,189	6,442	6,564	6,609	6,806
BRAZOS BASIN TOTAL	**20,310**	**22,184**	**23,147**	**23,747**	**24,129**	**24,362**
BOSQUE COUNTY TOTAL	**20,310**	**22,184**	**23,147**	**23,747**	**24,129**	**24,362**
BRYAN	84,196	99,959	118,714	140,827	167,176	211,266
COLLEGE STATION	100,854	129,102	165,261	195,852	195,852	195,852
TEXAS A&M UNIVERSITY	11,851	12,000	12,000	12,000	12,000	12,000
WELLBORN SUD	16,864	25,740	29,094	32,870	37,074	41,402

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
WICKSON CREEK SUD	11,202	12,965	14,731	16,815	18,992	21,339
COUNTY-OTHER	2,687	2,687	2,687	2,687	2,687	2,687
BRAZOS BASIN TOTAL	**227,654**	**282,453**	**342,487**	**401,051**	**433,781**	**484,546**
BRAZOS COUNTY TOTAL	**227,654**	**282,453**	**342,487**	**401,051**	**433,781**	**484,546**
CALDWELL	4,896	5,060	5,276	5,312	5,412	5,498
DEANVILLE WSC	3,186	3,244	3,379	3,356	3,401	3,440
MILANO WSC	1,774	1,908	1,994	2,079	2,146	2,203
SNOOK	865	930	970	1,013	1,045	1,072
SOMERVILLE	1,530	1,686	1,848	2,033	2,226	2,432
SOUTHWEST MILAM WSC	786	845	883	921	950	975
COUNTY-OTHER	5,502	6,273	6,488	7,021	7,262	7,402
BRAZOS BASIN TOTAL	**18,539**	**19,946**	**20,838**	**21,735**	**22,442**	**23,022**
BURLESON COUNTY TOTAL	**18,539**	**19,946**	**20,838**	**21,735**	**22,442**	**23,022**
BAIRD	1,601	1,601	1,601	1,601	1,601	1,601
CALLAHAN COUNTY WSC	1,859	1,990	2,062	2,098	2,127	2,144
CLYDE	2,961	3,170	3,283	3,342	3,387	3,414
EULA WSC	997	1,068	1,106	1,126	1,141	1,151
HAMBY WSC	152	159	163	167	169	171
POTOSI WSC	79	85	88	89	91	92
COUNTY-OTHER	1,391	1,545	1,630	1,672	1,703	1,724
BRAZOS BASIN TOTAL	**9,040**	**9,618**	**9,933**	**10,095**	**10,219**	**10,297**
CALLAHAN COUNTY WSC	238	255	264	269	272	274
CLYDE	831	890	922	938	950	958
COLEMAN COUNTY SUD*	241	258	267	273	276	277
CROSS PLAINS	1,134	1,214	1,257	1,280	1,296	1,307
EULA WSC	1,502	1,608	1,665	1,697	1,719	1,733
COUNTY-OTHER	1,496	1,661	1,753	1,799	1,832	1,854
COLORADO BASIN TOTAL	**5,442**	**5,886**	**6,128**	**6,256**	**6,345**	**6,403**
CALLAHAN COUNTY TOTAL	**14,482**	**15,504**	**16,061**	**16,351**	**16,564**	**16,700**
COMANCHE	4,491	4,670	4,791	4,947	5,081	5,208
DE LEON	2,296	2,387	2,448	2,529	2,597	2,662
COUNTY-OTHER	7,620	7,922	8,127	8,393	8,621	8,834
BRAZOS BASIN TOTAL	**14,407**	**14,979**	**15,366**	**15,869**	**16,299**	**16,704**
COUNTY-OTHER	95	99	101	105	107	110
COLORADO BASIN TOTAL	**95**	**99**	**101**	**105**	**107**	**110**
COMANCHE COUNTY TOTAL	**14,502**	**15,078**	**15,467**	**15,974**	**16,406**	**16,814**
CENTRAL TEXAS COLLEGE DISTRICT	710	710	710	710	710	710
COPPERAS COVE	35,213	39,984	45,294	49,935	54,882	59,807
CORYELL CITY WATER SUPPLY DISTRICT	4,950	5,619	6,366	7,019	7,714	8,407
ELM CREEK WSC	395	450	509	561	617	673
FLAT WSC	467	530	601	662	727	793
FORT GATES WSC	1,913	2,173	2,461	2,714	2,983	3,250
FORT HOOD	14,014	14,014	14,014	14,014	14,014	14,014
GATESVILLE	17,489	19,858	22,494	24,799	27,257	29,702
KEMPNER WSC*	3,542	3,978	4,371	4,755	5,120	5,463
MOUNTAIN WSC	1,639	1,861	2,109	2,326	2,555	2,785
MULTI COUNTY WSC	2,445	2,777	3,145	3,468	3,811	4,153

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
MUSTANG VALLEY WSC	28	30	31	33	33	33
OGLESBY	645	732	829	914	1,005	1,095
THE GROVE WSC	181	191	219	249	277	305
COUNTY-OTHER	2,474	4,864	7,599	9,942	12,494	15,050
BRAZOS BASIN TOTAL	**86,105**	**97,771**	**110,752**	**122,101**	**134,199**	**146,240**
CORYELL COUNTY TOTAL	**86,105**	**97,771**	**110,752**	**122,101**	**134,199**	**146,240**
CISCO	4,108	4,197	4,201	4,203	4,203	4,203
EASTLAND	3,946	4,032	4,035	4,035	4,035	4,035
FORT GRIFFIN SUD	12	14	14	14	14	14
GORMAN	1,082	1,106	1,107	1,107	1,107	1,107
RANGER	2,654	2,712	2,715	2,715	2,715	2,715
RISING STAR	867	886	887	887	887	887
STAFF WSC	1,269	1,295	1,296	1,296	1,296	1,296
STEPHENS REGIONAL SUD	140	144	144	144	144	144
COUNTY-OTHER	4,899	5,007	5,012	5,012	5,012	5,012
BRAZOS BASIN TOTAL	**18,977**	**19,393**	**19,411**	**19,413**	**19,413**	**19,413**
COUNTY-OTHER	312	319	319	319	319	319
COLORADO BASIN TOTAL	**312**	**319**	**319**	**319**	**319**	**319**
EASTLAND COUNTY TOTAL	**19,289**	**19,712**	**19,730**	**19,732**	**19,732**	**19,732**
DUBLIN	4,449	4,833	5,198	5,199	5,545	5,864
GORDON	31	33	35	36	37	38
STEPHENVILLE	19,044	21,209	23,037	24,781	26,430	27,953
COUNTY-OTHER	18,611	20,848	22,698	24,811	26,462	27,989
BRAZOS BASIN TOTAL	**42,135**	**46,923**	**50,968**	**54,827**	**58,474**	**61,844**
ERATH COUNTY TOTAL	**42,135**	**46,923**	**50,968**	**54,827**	**58,474**	**61,844**
BELL MILAM FALLS WSC	1,149	1,207	1,221	1,191	1,228	1,265
BRUCEVILLE EDDY	1,061	1,144	1,507	1,599	1,691	1,782
CEGO-DURANGO WSC	1,054	1,108	1,119	1,093	1,126	1,160
EAST BELL WSC	318	335	338	329	340	349
LITTLE ELM VALLEY WSC	78	90	104	117	131	144
MARLIN	6,772	7,115	7,189	7,020	7,233	7,453
NORTH MILAM WSC	17	17	19	20	20	21
ROSEBUD	1,553	1,632	1,648	1,610	1,659	1,709
WEST BRAZOS WSC	1,303	1,369	1,383	1,350	1,392	1,434
COUNTY-OTHER	6,108	6,380	6,082	5,797	5,916	6,047
BRAZOS BASIN TOTAL	**19,413**	**20,397**	**20,610**	**20,126**	**20,736**	**21,364**
FALLS COUNTY TOTAL	**19,413**	**20,397**	**20,610**	**20,126**	**20,736**	**21,364**
ROBY	666	666	666	666	666	666
ROTAN	1,667	1,667	1,667	1,667	1,667	1,667
THE BITTER CREEK WSC	1,013	1,013	1,013	1,013	1,013	1,013
COUNTY-OTHER	655	655	655	655	655	655
BRAZOS BASIN TOTAL	**4,001**	**4,001**	**4,001**	**4,001**	**4,001**	**4,001**
FISHER COUNTY TOTAL	**4,001**	**4,001**	**4,001**	**4,001**	**4,001**	**4,001**
DOBBIN PLANTERSVILLE WSC*	425	492	543	597	642	681
G & W WSC*	3,117	4,173	4,973	5,820	6,521	7,134
NAVASOTA	7,529	7,771	7,955	8,149	8,310	8,450
TDCJ LUTHER UNITS	1,478	1,615	1,720	1,830	1,922	2,001

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
TDCJ W PACK UNIT	1,687	1,845	1,964	2,089	2,194	2,285
WICKSON CREEK SUD	4,221	4,699	5,177	5,740	6,331	6,965
COUNTY-OTHER	2,169	2,219	2,226	2,218	2,179	2,113
BRAZOS BASIN TOTAL	**20,626**	**22,814**	**24,558**	**26,443**	**28,099**	**29,629**
DOBBIN PLANTERSVILLE WSC*	1,369	1,586	1,751	1,925	2,068	2,194
G & W WSC*	411	550	656	767	860	941
COUNTY-OTHER	4,184	4,279	4,293	4,278	4,203	4,075
SAN JACINTO BASIN TOTAL	**5,964**	**6,415**	**6,700**	**6,970**	**7,131**	**7,210**
WICKSON CREEK SUD	371	413	455	505	556	612
COUNTY-OTHER	2,480	2,537	2,545	2,536	2,491	2,416
TRINITY BASIN TOTAL	**2,851**	**2,950**	**3,000**	**3,041**	**3,047**	**3,028**
GRIMES COUNTY TOTAL	**29,441**	**32,179**	**34,258**	**36,454**	**38,277**	**39,867**
HAMILTON	2,991	3,047	3,047	3,047	3,047	3,047
HICO	1,387	1,406	1,406	1,406	1,406	1,406
MULTI COUNTY WSC	575	592	592	592	592	592
COUNTY-OTHER	3,609	3,658	3,658	3,658	3,658	3,658
BRAZOS BASIN TOTAL	**8,562**	**8,703**	**8,703**	**8,703**	**8,703**	**8,703**
HAMILTON COUNTY TOTAL	**8,562**	**8,703**	**8,703**	**8,703**	**8,703**	**8,703**
HASKELL	3,239	3,272	3,290	3,322	3,372	3,444
STAMFORD	34	34	34	34	35	36
COUNTY-OTHER	2,640	2,667	2,680	2,708	2,746	2,805
BRAZOS BASIN TOTAL	**5,913**	**5,973**	**6,004**	**6,064**	**6,153**	**6,285**
HASKELL COUNTY TOTAL	**5,913**	**5,973**	**6,004**	**6,064**	**6,153**	**6,285**
BIROME WSC	727	774	806	839	864	884
BOLD SPRINGS WSC	155	167	178	188	199	209
BRANDON IRENE WSC*	376	400	417	434	447	457
CHATT WSC	640	681	710	738	760	778
DOUBLE DIAMOND UTILITIES	1,863	1,939	2,018	2,078	2,126	2,213
FILES VALLEY WSC*	788	839	873	909	936	952
GHOLSON WSC	677	752	818	885	952	1,017
HILCO UNITED SERVICES*	4,039	4,352	4,579	4,819	5,048	5,201
HILL COUNTY WSC	3,446	3,669	3,820	3,976	4,093	4,189
HILLSBORO	9,313	9,916	10,324	10,744	11,063	11,226
ITASCA	1,611	1,715	1,785	1,857	1,913	1,958
JOHNSON COUNTY SUD*	135	148	165	182	199	216
PARKER WSC	237	252	263	274	281	287
POST OAK SUD*	138	148	157	171	190	210
WHITNEY	2,570	2,624	2,732	2,843	2,928	2,997
WOODROW OSCEOLA WSC	3,406	3,626	3,775	3,929	4,046	4,141
COUNTY-OTHER	1,622	1,780	1,760	1,728	1,591	1,546
BRAZOS BASIN TOTAL	**31,743**	**33,782**	**35,180**	**36,594**	**37,636**	**38,481**
BIROME WSC	14	15	16	16	17	17
BRANDON IRENE WSC*	1,374	1,463	1,523	1,584	1,633	1,669
CHATT WSC	86	91	95	99	102	104
FILES VALLEY WSC*	1,750	1,863	1,939	2,019	2,078	2,113
HUBBARD	1,585	1,687	1,756	1,827	1,882	1,912
ITASCA	116	124	129	134	138	141
PARKER WSC	48	51	53	55	57	58

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
POST OAK SUD*	760	815	863	941	1,049	1,159
COUNTY-OTHER	352	386	381	374	345	335
TRINITY BASIN TOTAL	**6,085**	**6,495**	**6,755**	**7,049**	**7,301**	**7,508**
HILL COUNTY TOTAL	**37,828**	**40,277**	**41,935**	**43,643**	**44,937**	**45,989**
ACTON MUD	19,353	31,209	39,017	43,099	47,606	52,589
GRANBURY	14,656	17,791	20,037	21,972	23,458	24,596
LIPAN	946	1,098	1,206	1,299	1,370	1,425
SANTO SUD*	55	60	63	67	70	75
TOLAR	1,026	1,230	1,377	1,502	1,599	1,673
COUNTY-OTHER	25,170	19,625	16,340	16,137	14,618	11,929
BRAZOS BASIN TOTAL	**61,206**	**71,013**	**78,040**	**84,076**	**88,721**	**92,287**
COUNTY-OTHER	110	86	71	71	64	52
TRINITY BASIN TOTAL	**110**	**86**	**71**	**71**	**64**	**52**
HOOD COUNTY TOTAL	**61,316**	**71,099**	**78,111**	**84,147**	**88,785**	**92,339**
ACTON MUD	255	411	514	569	627	693
BETHESDA WSC*	854	985	1,121	1,269	1,430	1,601
BURLESON*	34	41	48	53	59	66
CLEBURNE	38,220	42,564	51,236	60,121	70,546	78,919
DOUBLE DIAMOND UTILITIES	122	127	132	136	139	249
GODLEY	1,009	1,139	1,271	1,418	1,574	1,743
JOHNSON COUNTY SUD*	13,667	14,948	16,680	18,413	20,145	21,877
KEENE	1,015	1,189	1,368	1,564	1,776	2,002
PARKER WSC	2,321	2,904	3,506	4,165	4,877	5,638
RIO VISTA	1,117	1,366	1,623	1,906	2,210	2,535
COUNTY-OTHER	2,850	3,455	2,581	1,412	446	482
BRAZOS BASIN TOTAL	**61,464**	**69,129**	**80,080**	**91,026**	**103,829**	**115,805**
ALVARADO	4,174	4,715	5,273	5,884	6,544	7,250
BETHANY WSC	3,879	4,392	4,921	5,501	6,127	6,797
BETHESDA WSC*	17,326	19,991	22,740	25,755	29,007	32,489
BURLESON*	34,317	41,810	48,814	53,315	59,244	66,522
CROWLEY*	61	96	132	170	212	257
FORT WORTH*	0	0	0	5,036	8,057	10,072
GRANDVIEW	1,755	1,981	2,214	2,470	2,745	3,039
JOHNSON COUNTY SUD*	28,366	31,025	34,620	38,215	41,810	45,405
KEENE	6,292	7,368	8,478	9,696	11,009	12,414
MANSFIELD*	2,576	3,695	4,849	6,115	7,481	8,942
MOUNTAIN PEAK SUD*	3,579	4,362	5,170	6,056	7,012	8,035
PARKER WSC	687	859	1,038	1,233	1,443	1,669
VENUS*	3,335	3,848	4,377	4,957	5,583	6,253
COUNTY-OTHER	6,024	7,302	5,454	2,985	944	1,018
TRINITY BASIN TOTAL	**112,371**	**131,444**	**148,080**	**167,388**	**187,218**	**210,162**
JOHNSON COUNTY TOTAL	**173,835**	**200,573**	**228,160**	**258,414**	**291,047**	**325,967**
ABILENE	5,203	5,508	5,721	5,904	6,056	6,180
ANSON	2,565	2,716	2,821	2,912	2,986	3,047
HAMBY WSC	449	471	483	493	500	506
HAMLIN	2,254	2,386	2,478	2,559	2,623	2,678
HAWLEY WSC	4,795	5,070	5,266	5,433	5,570	5,681

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
STAMFORD	3,305	3,499	3,635	3,751	3,848	3,926
COUNTY-OTHER	2,853	3,026	3,154	3,260	3,354	3,428
BRAZOS BASIN TOTAL	**21,424**	**22,676**	**23,558**	**24,312**	**24,937**	**25,446**
JONES COUNTY TOTAL	**21,424**	**22,676**	**23,558**	**24,312**	**24,937**	**25,446**
JAYTON	682	682	682	682	682	682
COUNTY-OTHER	116	134	134	134	134	134
BRAZOS BASIN TOTAL	**798**	**816**	**816**	**816**	**816**	**816**
KENT COUNTY TOTAL	**798**	**816**	**816**	**816**	**816**	**816**
BAYLOR SUD*	7	7	7	7	7	7
KNOX CITY	1,147	1,194	1,218	1,247	1,270	1,290
MUNDAY	1,327	1,381	1,410	1,443	1,470	1,492
COUNTY-OTHER	1,230	1,271	1,300	1,331	1,357	1,379
BRAZOS BASIN TOTAL	**3,711**	**3,853**	**3,935**	**4,028**	**4,104**	**4,168**
RED RIVER AUTHORITY OF TEXAS*	111	124	125	128	128	129
COUNTY-OTHER	25	26	26	27	28	28
RED BASIN TOTAL	**136**	**150**	**151**	**155**	**156**	**157**
KNOX COUNTY TOTAL	**3,847**	**4,003**	**4,086**	**4,183**	**4,260**	**4,325**
COPPERAS COVE	1,040	1,401	1,759	2,126	2,450	2,742
CORIX UTILITIES TEXAS INC*	1,301	1,333	1,413	1,497	1,557	1,619
KEMPNER WSC*	9,563	10,572	11,350	12,146	12,851	13,485
LAMPASAS	7,852	8,680	9,320	9,973	10,551	11,072
COUNTY-OTHER	925	965	850	729	645	555
BRAZOS BASIN TOTAL	**20,681**	**22,951**	**24,692**	**26,471**	**28,054**	**29,473**
CORIX UTILITIES TEXAS INC*	925	947	1,004	1,065	1,107	1,151
COUNTY-OTHER	194	202	178	153	135	117
COLORADO BASIN TOTAL	**1,119**	**1,149**	**1,182**	**1,218**	**1,242**	**1,268**
LAMPASAS COUNTY TOTAL	**21,800**	**24,100**	**25,874**	**27,689**	**29,296**	**30,741**
AQUA WSC*	2,832	3,184	3,386	3,460	3,509	3,536
GIDDINGS	2,809	3,158	3,359	3,433	3,482	3,508
LEE COUNTY WSC*	5,087	5,720	6,083	6,215	6,304	6,351
LEXINGTON	1,373	1,545	1,642	1,679	1,702	1,715
SOUTHWEST MILAM WSC	291	328	348	357	361	364
COUNTY-OTHER	935	1,051	1,118	1,140	1,158	1,168
BRAZOS BASIN TOTAL	**13,327**	**14,986**	**15,936**	**16,284**	**16,516**	**16,642**
GIDDINGS	2,983	3,354	3,568	3,645	3,697	3,725
LEE COUNTY WSC*	2,470	2,777	2,953	3,018	3,061	3,084
COUNTY-OTHER	351	394	420	428	435	438
COLORADO BASIN TOTAL	**5,804**	**6,525**	**6,941**	**7,091**	**7,193**	**7,247**
LEE COUNTY TOTAL	**19,131**	**21,511**	**22,877**	**23,375**	**23,709**	**23,889**
BIROME WSC	98	105	109	113	117	118
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	391	410	424	444	460	470
COOLIDGE	647	717	774	837	888	924
GROESBECK	4,377	4,419	4,453	4,490	4,520	4,502
MART	5	8	10	12	14	16
MEXIA	5,178	5,774	6,259	6,791	7,222	7,528
POINT ENTERPRISE WSC*	532	561	584	605	623	636
POST OAK SUD*	54	58	61	66	71	76

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
PRAIRIE HILL WSC	846	903	951	1,002	1,048	1,079
SLC WSC	1,229	1,302	1,361	1,426	1,478	1,509
TRI COUNTY SUD	2,128	2,236	2,259	2,206	2,273	2,319
WHITE ROCK WSC	2,113	2,237	2,337	2,448	2,538	2,592
COUNTY-OTHER	2,704	2,614	2,599	2,643	2,580	2,740
BRAZOS BASIN TOTAL	**20,302**	**21,344**	**22,181**	**23,083**	**23,832**	**24,509**
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	195	205	211	221	230	234
COOLIDGE	427	473	511	552	586	610
MEXIA	3,280	3,658	3,964	4,301	4,575	4,768
POINT ENTERPRISE WSC*	250	264	274	284	293	299
POST OAK SUD*	98	105	112	119	128	137
WHITE ROCK WSC	18	19	20	21	22	22
COUNTY-OTHER	566	547	544	553	540	573
TRINITY BASIN TOTAL	**4,834**	**5,271**	**5,636**	**6,051**	**6,374**	**6,643**
LIMESTONE COUNTY TOTAL	**25,136**	**26,615**	**27,817**	**29,134**	**30,206**	**31,152**
AXTELL WSC	1,378	1,487	1,584	1,681	1,778	1,873
BELLMEAD	10,398	11,037	11,602	12,170	12,736	13,292
BIROME WSC	471	502	522	543	560	573
BOLD SPRINGS WSC	1,780	1,920	2,040	2,162	2,282	2,399
BRUCEVILLE EDDY	4,522	4,879	4,907	5,207	5,506	5,799
CENTRAL BOSQUE WSC	856	925	985	1,045	1,105	1,164
CHALK BLUFF WSC	2,646	2,646	2,646	2,646	2,646	2,646
CORYELL CITY WATER SUPPLY DISTRICT	763	915	1,049	1,184	1,319	1,451
CRAWFORD	727	739	749	759	769	779
CROSS COUNTRY WSC	2,503	2,540	2,571	2,603	2,636	2,667
EAST CRAWFORD WSC	967	1,044	1,111	1,179	1,247	1,314
ELM CREEK WSC	1,807	2,069	2,300	2,532	2,764	2,992
EOL WSC	1,894	2,044	2,177	2,311	2,443	2,574
GHOLSON WSC	1,760	1,956	2,129	2,302	2,476	2,645
H & H WSC	1,607	1,734	1,846	1,961	2,073	2,182
HEWITT	17,373	19,949	22,225	24,514	26,795	29,034
HIGHLAND PARK WSC	170	186	195	202	207	212
HILLTOP WSC	819	885	941	999	1,057	1,113
LACY LAKEVIEW	6,831	7,487	8,064	8,647	9,227	9,797
LEROY TOURS GERALD WSC	1,371	1,480	1,576	1,673	1,769	1,863
LEVI WSC	912	984	1,047	1,112	1,176	1,239
LORENA	1,968	2,218	2,440	2,662	2,884	3,101
MART	2,370	2,558	2,724	2,891	3,057	3,221
MCGREGOR	5,234	5,480	5,696	5,915	6,132	6,346
MCLENNAN COUNTY WCID 2	1,762	1,902	2,025	2,149	2,273	2,395
MOODY	1,566	1,690	1,800	1,911	2,020	2,129
NORTH BOSQUE WSC	2,229	2,743	3,197	3,653	4,108	4,554
PRAIRIE HILL WSC	611	652	687	723	756	787
RIESEL	1,241	1,279	1,314	1,348	1,383	1,417
ROBINSON	12,851	15,380	17,613	19,859	22,099	24,296
ROSS WSC	2,336	2,521	2,684	2,849	3,013	3,175
SPRING VALLEY WSC	1,934	2,088	2,223	2,359	2,495	2,628
TEXAS STATE TECHNICAL COLLEGE	579	624	664	704	743	783

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
VALLEY MILLS	23	33	42	52	61	70
WACO	132,512	142,778	151,846	160,966	170,055	178,976
WEST	2,706	2,807	2,896	2,986	3,075	3,163
WEST BRAZOS WSC	1,139	1,229	1,309	1,390	1,470	1,548
WINDSOR WATER	636	687	731	776	821	864
WOODWAY	9,045	9,762	10,396	11,033	11,669	12,292
COUNTY-OTHER	9,914	8,377	7,334	6,003	4,688	3,404
BRAZOS BASIN TOTAL	**252,211**	**272,216**	**289,887**	**307,661**	**325,373**	**342,757**
MCLENNAN COUNTY TOTAL	**252,211**	**272,216**	**289,887**	**307,661**	**325,373**	**342,757**
BELL MILAM FALLS WSC	1,506	1,596	1,659	1,739	1,808	1,873
CAMERON	5,904	6,254	6,504	6,820	7,089	7,343
MILANO WSC	1,841	1,951	2,027	2,127	2,210	2,290
NORTH MILAM WSC	1,410	1,494	1,553	1,629	1,693	1,753
ROCKDALE	6,004	6,362	6,613	6,934	7,210	7,468
SALEM ELM RIDGE WSC	842	892	927	973	1,011	1,047
SOUTHWEST MILAM WSC	6,262	6,634	6,898	7,232	7,519	7,789
THORNDALE	1,415	1,499	1,559	1,634	1,699	1,760
COUNTY-OTHER	1,050	1,111	1,156	1,212	1,262	1,306
BRAZOS BASIN TOTAL	**26,234**	**27,793**	**28,896**	**30,300**	**31,501**	**32,629**
MILAM COUNTY TOTAL	**26,234**	**27,793**	**28,896**	**30,300**	**31,501**	**32,629**
ROSCOE	1,402	1,481	1,535	1,593	1,639	1,679
SWEETWATER	12,196	12,880	13,347	13,852	14,258	14,609
THE BITTER CREEK WSC	1,462	1,543	1,600	1,660	1,709	1,751
COUNTY-OTHER	238	252	260	270	279	285
BRAZOS BASIN TOTAL	**15,298**	**16,156**	**16,742**	**17,375**	**17,885**	**18,324**
COUNTY-OTHER	836	883	915	950	978	1,001
COLORADO BASIN TOTAL	**836**	**883**	**915**	**950**	**978**	**1,001**
NOLAN COUNTY TOTAL	**16,134**	**17,039**	**17,657**	**18,325**	**18,863**	**19,325**
GORDON	636	684	717	747	771	790
LAKE PALO PINTO AREA WSC	1,004	1,077	1,127	1,173	1,208	1,235
MINERAL WELLS*	15,820	16,978	17,760	18,483	19,034	19,470
NORTH RURAL WSC*	1,631	1,750	1,831	1,905	1,962	2,006
PALO PINTO WSC	864	928	971	1,010	1,040	1,064
PARKER COUNTY SUD*	60	80	102	128	158	193
POSSUM KINGDOM WSC	1,946	2,088	2,185	2,273	2,341	2,394
SANTO SUD*	2,028	2,208	2,330	2,470	2,614	2,768
SPORTSMANS WORLD MUD	123	132	138	144	148	152
STEPHENS REGIONAL SUD	43	46	48	50	51	52
STRAWN	753	808	845	879	906	926
STURDIVANT PROGRESS WSC	2,606	2,807	2,942	3,079	3,196	3,305
COUNTY-OTHER	3,021	3,185	3,284	3,334	3,310	3,224
BRAZOS BASIN TOTAL	**30,535**	**32,771**	**34,280**	**35,675**	**36,739**	**37,579**
PALO PINTO COUNTY TOTAL	**30,535**	**32,771**	**34,280**	**35,675**	**36,739**	**37,579**
BETHANY HEARNE WSC	323	354	384	414	443	471
BREMOND	989	1,085	1,174	1,266	1,355	1,442
CALVERT	1,193	1,193	1,193	1,193	1,193	1,193
FRANKLIN	1,851	2,031	2,357	2,735	3,175	3,684

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	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
HEARNE	4,474	5,454	6,648	6,648	6,648	6,648
ROBERTSON COUNTY WSC	2,849	3,458	4,072	4,806	5,541	6,208
TWIN CREEK WSC	1,496	1,643	1,776	1,918	2,052	2,183
WELLBORN SUD	4,744	4,981	5,230	5,492	5,766	6,055
WICKSON CREEK SUD	422	483	544	616	691	772
COUNTY-OTHER	1,353	1,353	1,353	1,353	1,353	1,353
BRAZOS BASIN TOTAL	**19,694**	**22,035**	**24,731**	**26,441**	**28,217**	**30,009**
ROBERTSON COUNTY TOTAL	**19,694**	**22,035**	**24,731**	**26,441**	**28,217**	**30,009**
ALBANY	2,174	2,327	2,314	2,329	2,329	2,329
CALLAHAN COUNTY WSC	55	59	61	62	63	64
FORT GRIFFIN SUD	635	654	657	660	663	665
HAMBY WSC	431	452	464	473	480	486
STEPHENS REGIONAL SUD	16	16	16	16	16	16
COUNTY-OTHER	247	158	145	127	116	107
BRAZOS BASIN TOTAL	**3,558**	**3,666**	**3,657**	**3,667**	**3,667**	**3,667**
SHACKELFORD COUNTY TOTAL	**3,558**	**3,666**	**3,657**	**3,667**	**3,667**	**3,667**
GLEN ROSE	2,836	3,169	3,409	3,593	3,750	3,876
SOMERVELL COUNTY WATER DISTRICT	1,357	1,516	1,631	1,720	1,794	1,855
COUNTY-OTHER	5,289	5,909	6,355	6,700	6,995	7,227
BRAZOS BASIN TOTAL	**9,482**	**10,594**	**11,395**	**12,013**	**12,539**	**12,958**
SOMERVELL COUNTY TOTAL	**9,482**	**10,594**	**11,395**	**12,013**	**12,539**	**12,958**
BRECKENRIDGE	5,903	6,130	6,232	6,298	6,315	6,380
FORT BELKNAP WSC	50	52	53	53	54	54
FORT GRIFFIN SUD	679	705	710	716	719	721
POSSUM KINGDOM WSC	80	83	84	85	85	86
STAFF WSC	415	425	426	426	426	426
STEPHENS REGIONAL SUD	2,347	2,433	2,473	2,498	2,516	2,528
COUNTY-OTHER	453	465	477	487	526	498
BRAZOS BASIN TOTAL	**9,927**	**10,293**	**10,455**	**10,563**	**10,641**	**10,693**
STEPHENS COUNTY TOTAL	**9,927**	**10,293**	**10,455**	**10,563**	**10,641**	**10,693**
ASPERMONT	925	927	927	927	927	927
COUNTY-OTHER	576	577	577	577	577	577
BRAZOS BASIN TOTAL	**1,501**	**1,504**	**1,504**	**1,504**	**1,504**	**1,504**
STONEWALL COUNTY TOTAL	**1,501**	**1,504**	**1,504**	**1,504**	**1,504**	**1,504**
ABILENE	117,339	122,766	127,252	130,807	133,461	135,479
HAMBY WSC	286	300	307	314	318	322
HAWLEY WSC	624	660	686	707	725	740
MERKEL	3,024	3,163	3,279	3,370	3,439	3,491
POTOSI WSC	5,187	5,426	5,626	5,782	5,899	5,989
STEAMBOAT MOUNTAIN WSC	3,516	3,679	3,814	3,919	3,999	4,060
TYE	1,319	1,380	1,430	1,471	1,500	1,522
VIEW CAPS WSC	1,593	1,666	1,727	1,776	1,811	1,839
COUNTY-OTHER	5,618	5,876	6,099	6,276	6,410	6,505
BRAZOS BASIN TOTAL	**138,506**	**144,916**	**150,220**	**154,422**	**157,562**	**159,947**
COLEMAN COUNTY SUD*	153	160	166	171	174	177
LAWN	645	674	699	719	733	744
NORTH RUNNELS WSC*	326	339	342	344	346	348

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
STEAMBOAT MOUNTAIN WSC	894	936	970	997	1,017	1,032
COUNTY-OTHER	151	158	164	169	172	175
COLORADO BASIN TOTAL	**2,169**	**2,267**	**2,341**	**2,400**	**2,442**	**2,476**
TAYLOR COUNTY TOTAL	**140,675**	**147,183**	**152,561**	**156,822**	**160,004**	**162,423**
BAYLOR SUD*	15	15	15	15	16	16
FORT BELKNAP WSC	185	185	185	185	185	185
FORT GRIFFIN SUD	128	133	133	134	134	135
STEPHENS REGIONAL SUD	155	155	155	155	155	155
THROCKMORTON	846	846	846	846	846	846
COUNTY-OTHER	317	312	312	311	310	309
BRAZOS BASIN TOTAL	**1,646**	**1,646**	**1,646**	**1,646**	**1,646**	**1,646**
THROCKMORTON COUNTY TOTAL	**1,646**	**1,646**	**1,646**	**1,646**	**1,646**	**1,646**
BRENHAM	18,423	20,048	21,155	22,256	23,111	23,810
CENTRAL WASHINGTON COUNTY WSC	1,990	2,116	2,203	2,289	2,356	2,412
CHAPPELL HILL WSC	922	981	1,022	1,062	1,093	1,119
CORIX UTILITIES TEXAS INC*	3,690	3,926	4,087	4,247	4,372	4,473
WEST END WSC*	487	555	618	686	753	826
COUNTY-OTHER	10,638	10,840	10,960	11,073	11,148	11,188
BRAZOS BASIN TOTAL	**36,150**	**38,466**	**40,045**	**41,613**	**42,833**	**43,828**
COUNTY-OTHER	49	50	50	51	51	52
COLORADO BASIN TOTAL	**49**	**50**	**50**	**51**	**51**	**52**
WASHINGTON COUNTY TOTAL	**36,199**	**38,516**	**40,095**	**41,664**	**42,884**	**43,880**
BARTLETT	1,047	1,119	1,207	1,303	1,411	1,523
BELL MILAM FALLS WSC	289	363	455	554	666	783
BLOCK HOUSE MUD	6,419	6,419	6,419	6,419	6,419	6,419
BRUSHY CREEK MUD	20,248	20,248	20,248	20,248	20,248	20,248
CEDAR PARK*	81,716	90,641	90,641	90,641	90,641	90,641
FERN BLUFF MUD	5,793	5,793	5,793	5,793	5,793	5,793
FLORENCE	1,357	1,439	1,542	1,653	1,779	1,909
GEORGETOWN*	118,763	157,075	196,912	244,043	296,697	358,109
GRANGER	1,551	1,659	1,796	1,942	2,108	2,280
HUTTO	17,326	35,646	37,963	56,194	83,181	101,202
JARRELL-SCHWERTNER	4,786	5,838	7,118	8,499	10,044	11,656
JONAH WATER SUD	23,500	29,522	37,022	45,097	54,255	63,275
LEANDER*	48,575	74,150	97,757	121,365	150,905	185,879
LIBERTY HILL	2,063	2,592	3,250	3,959	4,763	5,595
MANVILLE WSC*	12,107	14,528	17,434	20,920	25,105	30,126
PALOMA LAKE MUD 1	2,339	3,210	3,210	3,210	3,210	3,210
PALOMA LAKE MUD 2	2,058	2,469	2,469	2,469	2,469	2,469
PFLUGERVILLE*	373	469	588	717	862	1,013
ROUND ROCK*	123,598	154,326	193,827	239,565	239,565	239,565
SONTERRA MUD	5,895	6,195	6,495	6,795	7,095	7,395
SOUTHWEST MILAM WSC	1,816	2,283	2,862	3,486	4,196	4,927
TAYLOR	17,233	18,728	20,589	22,594	24,868	27,220
THORNDALE	3	3	4	5	7	8
WALSH RANCH MUD	714	714	714	714	714	714
WILLIAMSON COUNTY MUD 10	3,402	3,402	3,402	3,402	3,402	3,402

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Region G Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
WILLIAMSON COUNTY MUD 11	4,074	4,084	4,094	4,104	4,114	4,124
WILLIAMSON COUNTY MUD 9	2,724	2,724	2,724	2,724	2,724	2,724
WILLIAMSON COUNTY WSID 3*	6,828	7,128	7,428	7,728	8,028	8,328
WILLIAMSON TRAVIS COUNTIES MUD 1*	4,596	4,596	4,596	4,596	4,596	4,596
COUNTY-OTHER*	14,627	9,577	22,635	34,738	74,696	110,308
BRAZOS BASIN TOTAL	**535,820**	**666,940**	**801,194**	**965,477**	**1,134,561**	**1,305,441**
COUNTY-OTHER*	24,599	16,107	38,067	58,420	125,619	185,510
COLORADO BASIN TOTAL	**24,599**	**16,107**	**38,067**	**58,420**	**125,619**	**185,510**
WILLIAMSON COUNTY TOTAL	**560,419**	**683,047**	**839,261**	**1,023,897**	**1,260,180**	**1,490,951**
BAYLOR SUD*	101	103	103	105	105	106
FORT BELKNAP WSC	3,761	3,969	4,116	4,275	4,427	4,577
GRAHAM	9,708	10,242	10,626	11,032	11,426	11,809
COUNTY-OTHER*	1,444	1,526	1,589	1,648	1,713	1,771
BRAZOS BASIN TOTAL	**15,014**	**15,840**	**16,434**	**17,060**	**17,671**	**18,263**
BAYLOR SUD*	22	22	23	23	23	23
FORT BELKNAP WSC	122	129	134	139	144	148
COUNTY-OTHER*	274	290	301	313	325	336
TRINITY BASIN TOTAL	**418**	**441**	**458**	**475**	**492**	**507**
YOUNG COUNTY TOTAL	**15,432**	**16,281**	**16,892**	**17,535**	**18,163**	**18,770**
REGION G POPULATION TOTAL	**2,371,064**	**2,720,696**	**3,097,007**	**3,494,544**	**3,918,197**	**4,351,042**

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
439 WSC	1,407	1,656	1,917	2,191	2,483	2,785
ARMSTRONG WSC	464	486	507	530	558	586
BARTLETT	158	181	205	230	256	282
BELL COUNTY WCID 2	305	335	367	402	438	474
BELL COUNTY WCID 3	1,207	1,601	2,176	2,552	2,840	3,125
BELL MILAM FALLS WSC	337	354	371	389	410	432
BELTON	3,791	4,353	4,951	5,568	6,198	6,824
CENTRAL TEXAS COLLEGE DISTRICT	12	12	11	11	11	11
DOG RIDGE WSC	724	821	924	1,036	1,152	1,268
EAST BELL WSC	423	482	547	615	686	756
ELM CREEK WSC	241	277	317	358	400	442
FORT HOOD	3,874	3,850	3,815	3,809	3,804	3,804
GEORGETOWN*	652	758	870	982	1,094	1,204
HARKER HEIGHTS	6,099	7,043	8,042	9,060	10,087	11,106
HOLLAND	108	106	103	103	104	105
JARRELL-SCHWERTNER	308	372	450	535	633	734
KEMPNER WSC*	332	371	405	437	470	501
KILLEEN	18,308	20,913	23,716	26,629	29,619	32,599
LITTLE ELM VALLEY WSC	272	313	356	400	445	490
MOFFAT WSC	469	478	487	499	517	535
MORGANS POINT RESORT	582	681	787	897	1,009	1,121
PENDLETON WSC	270	275	286	299	311	324
ROGERS	177	184	192	201	212	223
SALADO WSC	1,899	2,081	2,265	2,449	2,636	2,822
TEMPLE	20,095	23,231	26,532	29,903	33,301	36,666
THE GROVE WSC	177	184	209	235	261	288
TROY	185	199	215	233	254	275
WEST BELL COUNTY WSC	758	795	784	782	781	780
COUNTY-OTHER	453	483	523	567	1,191	1,785
MANUFACTURING	641	685	685	685	685	685
MINING	3,242	3,980	4,599	5,349	6,105	6,968
STEAM ELECTRIC POWER	4,714	4,714	4,714	4,714	4,714	4,714
LIVESTOCK	1,172	1,172	1,172	1,172	1,172	1,172
IRRIGATION	2,843	2,843	2,843	2,843	2,843	2,843
BRAZOS BASIN TOTAL	**76,699**	**86,269**	**96,343**	**106,665**	**117,680**	**128,729**
BELL COUNTY TOTAL	**76,699**	**86,269**	**96,343**	**106,665**	**117,680**	**128,729**
CHILDRESS CREEK WSC	343	365	373	379	384	388
CLIFTON	704	748	766	779	790	797
CROSS COUNTRY WSC	127	135	138	141	143	144
HIGHLAND PARK WSC	118	127	132	136	139	142
HILCO UNITED SERVICES*	198	207	213	222	232	244
MERIDIAN	235	247	252	255	258	261
MUSTANG VALLEY WSC	464	497	512	521	529	534
SMITH BEND WSC	99	105	107	108	110	85
VALLEY MILLS	267	285	292	297	301	304
COUNTY-OTHER	782	838	860	869	873	899
MANUFACTURING	9	11	11	11	11	11

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MINING	1,972	2,071	1,892	1,872	1,833	1,821
STEAM ELECTRIC POWER	2,880	2,880	2,880	2,880	2,880	2,880
LIVESTOCK	979	979	979	979	979	979
IRRIGATION	3,577	3,577	3,577	3,577	3,577	3,577
BRAZOS BASIN TOTAL	**12,754**	**13,072**	**12,984**	**13,026**	**13,039**	**13,066**
BOSQUE COUNTY TOTAL	**12,754**	**13,072**	**12,984**	**13,026**	**13,039**	**13,066**
BRYAN	14,944	17,356	20,223	23,804	28,205	35,620
COLLEGE STATION	16,451	20,480	25,877	30,439	30,382	30,363
TEXAS A&M UNIVERSITY	6,322	6,349	6,308	6,292	6,288	6,288
WELLBORN SUD	3,025	4,531	5,064	5,688	6,405	7,148
WICKSON CREEK SUD	1,138	1,277	1,424	1,610	1,813	2,035
COUNTY-OTHER	393	392	390	387	385	384
MANUFACTURING	1,770	1,780	1,780	1,780	1,780	1,780
MINING	1,088	1,610	1,433	1,144	923	814
STEAM ELECTRIC POWER	421	421	421	421	421	421
LIVESTOCK	1,243	1,243	1,243	1,243	1,243	1,243
IRRIGATION	39,243	39,243	39,243	39,243	39,243	39,243
BRAZOS BASIN TOTAL	**86,038**	**94,682**	**103,406**	**112,051**	**117,088**	**125,339**
BRAZOS COUNTY TOTAL	**86,038**	**94,682**	**103,406**	**112,051**	**117,088**	**125,339**
CALDWELL	1,027	1,043	1,072	1,072	1,091	1,108
DEANVILLE WSC	411	416	433	430	436	441
MILANO WSC	201	209	213	219	225	231
SNOOK	288	305	314	327	337	345
SOMERVILLE	273	292	315	346	378	412
SOUTHWEST MILAM WSC	126	132	135	140	144	148
COUNTY-OTHER	633	684	705	759	783	798
MANUFACTURING	117	117	117	117	117	117
MINING	995	1,923	1,512	1,100	686	428
LIVESTOCK	1,390	1,390	1,390	1,390	1,390	1,390
IRRIGATION	26,804	26,804	26,804	26,804	26,804	26,804
BRAZOS BASIN TOTAL	**32,265**	**33,315**	**33,010**	**32,704**	**32,391**	**32,222**
BURLESON COUNTY TOTAL	**32,265**	**33,315**	**33,010**	**32,704**	**32,391**	**32,222**
BAIRD	257	249	242	241	241	241
CALLAHAN COUNTY WSC	159	161	160	160	161	162
CLYDE	241	244	242	241	243	244
EULA WSC	67	72	74	76	77	77
HAMBY WSC	18	18	18	19	19	19
POTOSI WSC	12	13	13	13	13	14
COUNTY-OTHER	110	116	117	118	119	120
MINING	119	118	112	105	99	94
LIVESTOCK	359	359	359	359	359	359
IRRIGATION	172	172	172	172	172	172
BRAZOS BASIN TOTAL	**1,514**	**1,522**	**1,509**	**1,504**	**1,503**	**1,502**
CALLAHAN COUNTY WSC	20	21	20	20	21	21
CLYDE	68	68	68	67	68	69
COLEMAN COUNTY SUD*	30	31	31	31	31	31
CROSS PLAINS	193	200	203	205	208	209

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
EULA WSC	101	108	112	114	115	117
COUNTY-OTHER	119	124	126	126	128	130
MINING	109	109	102	96	91	86
LIVESTOCK	538	538	538	538	538	538
IRRIGATION	609	609	609	609	609	609
COLORADO BASIN TOTAL	**1,787**	**1,808**	**1,809**	**1,806**	**1,809**	**1,810**
CALLAHAN COUNTY TOTAL	**3,301**	**3,330**	**3,318**	**3,310**	**3,312**	**3,312**
COMANCHE	520	518	513	521	533	546
DE LEON	219	216	213	215	220	226
COUNTY-OTHER	799	794	785	794	813	833
MANUFACTURING	18	20	20	20	20	20
MINING	444	525	363	276	188	128
LIVESTOCK	3,142	3,142	3,142	3,142	3,142	3,142
IRRIGATION	32,117	32,117	32,117	32,117	32,117	32,117
BRAZOS BASIN TOTAL	**37,259**	**37,332**	**37,153**	**37,085**	**37,033**	**37,012**
COUNTY-OTHER	10	10	10	10	10	10
LIVESTOCK	101	101	101	101	101	101
COLORADO BASIN TOTAL	**111**	**111**	**111**	**111**	**111**	**111**
COMANCHE COUNTY TOTAL	**37,370**	**37,443**	**37,264**	**37,196**	**37,144**	**37,123**
CENTRAL TEXAS COLLEGE DISTRICT	120	117	115	114	114	114
COPPERAS COVE	4,181	4,562	5,030	5,474	5,999	6,533
CORYELL CITY WATER SUPPLY DISTRICT	808	898	1,005	1,101	1,207	1,315
ELM CREEK WSC	42	46	52	56	62	67
FLAT WSC	100	112	125	137	150	164
FORT GATES WSC	380	423	473	519	569	620
FORT HOOD	3,206	3,138	3,094	3,089	3,085	3,084
GATESVILLE	4,301	4,801	5,377	5,897	6,472	7,050
KEMPNER WSC*	618	681	739	799	858	916
MOUNTAIN WSC	257	284	317	347	380	414
MULTI COUNTY WSC	236	257	283	308	337	367
MUSTANG VALLEY WSC	6	6	7	7	7	7
OGLESBY	53	58	63	69	75	82
THE GROVE WSC	26	27	30	34	38	42
COUNTY-OTHER	290	562	873	1,139	1,429	1,721
MANUFACTURING	4	4	4	4	4	4
MINING	1,510	1,072	491	363	398	437
LIVESTOCK	1,133	1,133	1,133	1,133	1,133	1,133
IRRIGATION	310	310	310	310	310	310
BRAZOS BASIN TOTAL	**17,581**	**18,491**	**19,521**	**20,900**	**22,627**	**24,380**
CORYELL COUNTY TOTAL	**17,581**	**18,491**	**19,521**	**20,900**	**22,627**	**24,380**
CISCO	729	726	711	703	701	701
EASTLAND	622	617	603	595	594	594
FORT GRIFFIN SUD	2	2	2	2	2	2
GORMAN	94	91	87	87	86	86
RANGER	479	476	466	464	463	463
RISING STAR	99	97	94	93	92	92
STAFF WSC	128	124	119	118	117	117

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
STEPHENS REGIONAL SUD	15	15	15	14	14	14
COUNTY-OTHER	442	429	412	401	400	400
MANUFACTURING	48	56	56	56	56	56
MINING	1,123	1,132	896	689	500	417
LIVESTOCK	1,078	1,078	1,078	1,078	1,078	1,078
IRRIGATION	4,685	4,685	4,685	4,685	4,685	4,685
BRAZOS BASIN TOTAL	**9,544**	**9,528**	**9,224**	**8,985**	**8,788**	**8,705**
COUNTY-OTHER	28	27	26	26	25	25
MINING	41	41	33	25	18	15
LIVESTOCK	39	39	39	39	39	39
IRRIGATION	346	346	346	346	346	346
COLORADO BASIN TOTAL	**454**	**453**	**444**	**436**	**428**	**425**
EASTLAND COUNTY TOTAL	**9,998**	**9,981**	**9,668**	**9,421**	**9,216**	**9,130**
DUBLIN	418	430	445	436	464	490
GORDON	7	7	7	8	8	8
STEPHENVILLE	2,659	2,867	3,047	3,241	3,448	3,645
COUNTY-OTHER	2,605	2,833	3,022	3,269	3,479	3,678
MANUFACTURING	74	85	85	85	85	85
MINING	505	536	376	304	232	177
LIVESTOCK	5,739	5,739	5,739	5,739	5,739	5,739
IRRIGATION	7,026	7,026	7,026	7,026	7,026	7,026
BRAZOS BASIN TOTAL	**19,033**	**19,523**	**19,747**	**20,108**	**20,481**	**20,848**
ERATH COUNTY TOTAL	**19,033**	**19,523**	**19,747**	**20,108**	**20,481**	**20,848**
BELL MILAM FALLS WSC	172	176	174	168	173	178
BRUCEVILLE EDDY	196	206	267	280	296	312
CEGO-DURANGO WSC	176	180	178	173	178	183
EAST BELL WSC	39	39	39	37	38	39
LITTLE ELM VALLEY WSC	14	16	18	20	23	25
MARLIN	1,849	1,908	1,901	1,850	1,904	1,961
NORTH MILAM WSC	3	3	3	3	3	4
ROSEBUD	175	176	171	167	171	176
WEST BRAZOS WSC	186	189	186	181	186	191
COUNTY-OTHER	773	776	717	678	690	705
MINING	225	246	259	286	307	331
LIVESTOCK	1,833	1,833	1,833	1,833	1,833	1,833
IRRIGATION	7,448	7,448	7,448	7,448	7,448	7,448
BRAZOS BASIN TOTAL	**13,089**	**13,196**	**13,194**	**13,124**	**13,250**	**13,386**
FALLS COUNTY TOTAL	**13,089**	**13,196**	**13,194**	**13,124**	**13,250**	**13,386**
ROBY	124	121	119	117	117	117
ROTAN	194	185	180	179	179	179
THE BITTER CREEK WSC	134	129	125	124	124	124
COUNTY-OTHER	76	73	70	70	69	69
MANUFACTURING	157	185	185	185	185	185
MINING	407	402	359	313	273	238
LIVESTOCK	620	620	620	620	620	620
IRRIGATION	4,680	4,680	4,680	4,680	4,680	4,680
BRAZOS BASIN TOTAL	**6,392**	**6,395**	**6,338**	**6,288**	**6,247**	**6,212**
FISHER COUNTY TOTAL	**6,392**	**6,395**	**6,338**	**6,288**	**6,247**	**6,212**

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
DOBBIN PLANTERSVILLE WSC*	33	37	40	44	47	50
G & W WSC*	361	471	554	645	722	789
NAVASOTA	1,474	1,486	1,493	1,514	1,541	1,567
TDCJ LUTHER UNITS	289	311	329	348	365	380
TDCJ W PACK UNIT	397	429	453	480	504	524
WICKSON CREEK SUD	429	462	501	550	605	665
COUNTY-OTHER	306	302	294	292	286	277
MANUFACTURING	327	327	327	327	327	327
MINING	210	392	306	221	136	83
STEAM ELECTRIC POWER	10,682	10,682	10,682	10,682	10,682	10,682
LIVESTOCK	1,233	1,233	1,233	1,233	1,233	1,233
IRRIGATION	513	513	513	513	513	513
BRAZOS BASIN TOTAL	**16,254**	**16,645**	**16,725**	**16,849**	**16,961**	**17,090**
DOBBIN PLANTERSVILLE WSC*	105	118	129	140	150	159
G & W WSC*	48	62	73	85	95	104
COUNTY-OTHER	592	583	568	562	551	535
MINING	94	175	137	99	61	37
STEAM ELECTRIC POWER	4,334	4,334	4,334	4,334	4,334	4,334
LIVESTOCK	523	523	523	523	523	523
IRRIGATION	155	155	155	155	155	155
SAN JACINTO BASIN TOTAL	**5,851**	**5,950**	**5,919**	**5,898**	**5,869**	**5,847**
WICKSON CREEK SUD	38	41	44	48	53	58
COUNTY-OTHER	350	345	336	334	327	317
MINING	19	35	28	20	12	8
LIVESTOCK	367	367	367	367	367	367
TRINITY BASIN TOTAL	**774**	**788**	**775**	**769**	**759**	**750**
GRIMES COUNTY TOTAL	**22,879**	**23,383**	**23,419**	**23,516**	**23,589**	**23,687**
HAMILTON	512	508	497	490	489	489
HICO	180	176	171	168	167	167
MULTI COUNTY WSC	55	55	53	52	52	52
COUNTY-OTHER	450	437	422	421	420	420
MANUFACTURING	3	3	3	3	3	3
MINING	393	236	101	0	0	0
LIVESTOCK	1,393	1,393	1,393	1,393	1,393	1,393
IRRIGATION	694	694	694	694	694	694
BRAZOS BASIN TOTAL	**3,680**	**3,502**	**3,334**	**3,221**	**3,218**	**3,218**
HAMILTON COUNTY TOTAL	**3,680**	**3,502**	**3,334**	**3,221**	**3,218**	**3,218**
HASKELL	504	494	484	482	488	499
STAMFORD	9	8	8	8	9	9
COUNTY-OTHER	351	340	336	338	342	349
MINING	93	92	83	74	66	59
LIVESTOCK	444	444	444	444	444	444
IRRIGATION	58,239	58,239	56,022	56,188	57,281	57,281
BRAZOS BASIN TOTAL	**59,640**	**59,617**	**57,377**	**57,534**	**58,630**	**58,641**
HASKELL COUNTY TOTAL	**59,640**	**59,617**	**57,377**	**57,534**	**58,630**	**58,641**
BIROME WSC	102	105	108	111	114	117
BOLD SPRINGS WSC	22	23	24	25	26	28
BRANDON IRENE WSC*	50	51	51	53	54	56

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
CHATT WSC	84	86	88	91	93	95
DOUBLE DIAMOND UTILITIES	429	439	451	462	472	491
FILES VALLEY WSC*	121	125	127	131	135	137
GHOLSON WSC	89	96	102	109	117	125
HILCO UNITED SERVICES*	565	589	607	633	661	681
HILL COUNTY WSC	466	487	501	518	532	544
HILLSBORO	1,987	2,070	2,122	2,189	2,251	2,283
ITASCA	142	143	143	146	149	152
JOHNSON COUNTY SUD*	17	18	20	22	24	26
PARKER WSC	25	26	27	27	27	28
POST OAK SUD*	10	10	13	14	16	18
WHITNEY	492	492	504	520	534	547
WOODROW OSCEOLA WSC	311	311	314	325	333	341
COUNTY-OTHER	181	195	190	186	170	165
MANUFACTURING	1	1	1	1	1	1
MINING	1,307	952	620	322	349	378
LIVESTOCK	1,066	1,066	1,066	1,066	1,066	1,066
IRRIGATION	1,171	1,171	1,171	1,171	1,171	1,171
BRAZOS BASIN TOTAL	**8,638**	**8,456**	**8,250**	**8,122**	**8,295**	**8,450**
BIROME WSC	2	2	2	2	2	2
BRANDON IRENE WSC*	181	186	188	193	199	203
CHATT WSC	11	12	12	12	13	13
FILES VALLEY WSC*	268	277	283	292	299	304
HUBBARD	156	157	157	162	167	169
ITASCA	10	10	10	10	11	11
PARKER WSC	5	5	5	6	6	6
POST OAK SUD*	56	57	73	80	89	98
COUNTY-OTHER	39	42	41	40	37	36
MINING	327	238	155	81	87	94
STEAM ELECTRIC POWER	4,120	4,120	4,120	4,120	4,120	4,120
LIVESTOCK	271	271	271	271	271	271
IRRIGATION	579	579	579	579	579	579
TRINITY BASIN TOTAL	**6,025**	**5,956**	**5,896**	**5,848**	**5,880**	**5,906**
HILL COUNTY TOTAL	**14,663**	**14,412**	**14,146**	**13,970**	**14,175**	**14,356**
ACTON MUD	2,808	4,365	5,384	5,915	6,524	7,204
GRANBURY	1,738	2,046	2,267	2,466	2,627	2,753
LIPAN	115	130	140	150	158	164
SANTO SUD*	7	7	7	8	8	9
TOLAR	143	166	183	198	210	220
COUNTY-OTHER	2,631	1,944	1,612	1,584	1,429	1,164
MANUFACTURING	14	17	17	17	17	17
MINING	2,061	2,416	2,204	2,116	2,026	2,040
STEAM ELECTRIC POWER	17,709	17,709	17,709	17,709	17,709	17,709
LIVESTOCK	511	511	511	511	511	511
IRRIGATION	9,049	9,049	9,049	9,049	9,049	9,049
BRAZOS BASIN TOTAL	**36,786**	**38,360**	**39,083**	**39,723**	**40,268**	**40,840**
COUNTY-OTHER	12	8	7	7	6	5

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MINING	17	20	18	17	17	17
LIVESTOCK	2	2	2	2	2	2
TRINITY BASIN TOTAL	**31**	**30**	**27**	**26**	**25**	**24**
HOOD COUNTY TOTAL	**36,817**	**38,390**	**39,110**	**39,749**	**40,293**	**40,864**
ACTON MUD	37	57	71	78	86	95
BETHESDA WSC*	179	202	227	255	287	321
BURLESON*	5	6	7	8	8	10
CLEBURNE	6,969	7,580	8,977	10,446	12,234	13,678
DOUBLE DIAMOND UTILITIES	28	29	29	30	31	55
GODLEY	102	111	121	134	148	164
JOHNSON COUNTY SUD*	1,760	1,866	2,042	2,232	2,435	2,643
KEENE	69	80	92	105	119	135
PARKER WSC	246	297	351	413	482	556
RIO VISTA	154	183	214	249	288	330
COUNTY-OTHER	304	357	260	141	44	48
MANUFACTURING	1,572	1,866	1,866	1,866	1,866	1,866
MINING	2,075	1,402	762	509	584	672
STEAM ELECTRIC POWER	1,915	1,915	1,915	1,915	1,915	1,915
LIVESTOCK	1,161	1,161	1,161	1,161	1,161	1,161
IRRIGATION	284	284	284	284	284	284
BRAZOS BASIN TOTAL	**16,860**	**17,396**	**18,379**	**19,826**	**21,972**	**23,933**
ALVARADO	446	483	525	577	639	708
BETHANY WSC	363	392	426	468	520	576
BETHESDA WSC*	3,632	4,102	4,599	5,173	5,817	6,512
BURLESON*	5,186	6,179	7,121	7,728	8,570	9,616
CROWLEY*	9	14	19	24	30	36
FORT WORTH*	0	0	0	957	1,530	1,912
GRANDVIEW	182	197	213	234	259	287
JOHNSON COUNTY SUD*	3,653	3,874	4,238	4,633	5,055	5,484
KEENE	428	495	570	652	740	834
MANSFIELD*	706	1,003	1,310	1,647	2,013	2,405
MOUNTAIN PEAK SUD*	1,123	1,351	1,591	1,857	2,149	2,461
PARKER WSC	73	88	104	122	143	165
VENUS*	623	709	801	903	1,015	1,137
COUNTY-OTHER	641	753	549	298	94	101
MANUFACTURING	5	6	6	6	6	6
MINING	2,051	1,386	753	504	577	664
LIVESTOCK	291	291	291	291	291	291
IRRIGATION	282	282	282	282	282	282
TRINITY BASIN TOTAL	**19,694**	**21,605**	**23,398**	**26,356**	**29,730**	**33,477**
JOHNSON COUNTY TOTAL	**36,554**	**39,001**	**41,777**	**46,182**	**51,702**	**57,410**
ABILENE	945	975	992	1,012	1,036	1,057
ANSON	365	373	376	386	394	402
HAMBY WSC	54	55	55	55	55	56
HAMLIN	423	435	444	458	468	478
HAWLEY WSC	369	369	367	369	377	384
STAMFORD	840	872	892	917	939	958

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	358	372	382	392	402	411
MINING	239	234	218	199	183	169
LIVESTOCK	581	581	581	581	581	581
IRRIGATION	2,829	2,829	2,829	2,829	2,829	2,829
BRAZOS BASIN TOTAL	**7,003**	**7,095**	**7,136**	**7,198**	**7,264**	**7,325**
JONES COUNTY TOTAL	**7,003**	**7,095**	**7,136**	**7,198**	**7,264**	**7,325**
JAYTON	118	115	112	111	111	111
COUNTY-OTHER	14	15	15	15	15	15
MINING	38	38	35	32	29	26
LIVESTOCK	260	260	260	260	260	260
IRRIGATION	1,081	1,081	1,081	1,081	1,081	1,081
BRAZOS BASIN TOTAL	**1,511**	**1,509**	**1,503**	**1,499**	**1,496**	**1,493**
KENT COUNTY TOTAL	**1,511**	**1,509**	**1,503**	**1,499**	**1,496**	**1,493**
BAYLOR SUD*	2	2	1	1	1	1
KNOX CITY	237	240	242	248	252	256
MUNDAY	253	255	256	262	266	270
COUNTY-OTHER	126	123	123	125	127	129
MANUFACTURING	4	4	4	4	4	4
MINING	12	12	11	11	11	11
LIVESTOCK	407	407	407	407	407	407
IRRIGATION	35,189	35,189	31,902	30,465	32,333	32,333
BRAZOS BASIN TOTAL	**36,230**	**36,232**	**32,946**	**31,523**	**33,401**	**33,411**
RED RIVER AUTHORITY OF TEXAS*	27	30	30	30	30	30
COUNTY-OTHER	3	3	2	3	3	3
MINING	3	3	3	3	3	3
LIVESTOCK	102	102	102	102	102	102
IRRIGATION	8,793	8,793	7,972	7,613	8,080	8,080
RED BASIN TOTAL	**8,928**	**8,931**	**8,109**	**7,751**	**8,218**	**8,218**
KNOX COUNTY TOTAL	**45,158**	**45,163**	**41,055**	**39,274**	**41,619**	**41,629**
COPPERAS COVE	123	160	195	233	268	300
CORIX UTILITIES TEXAS INC*	203	203	212	223	231	240
KEMPNER WSC*	1,669	1,809	1,919	2,040	2,155	2,260
LAMPASAS	1,265	1,356	1,424	1,506	1,590	1,668
COUNTY-OTHER	124	128	112	96	84	73
MANUFACTURING	198	216	216	216	216	216
MINING	148	165	180	195	214	234
LIVESTOCK	397	397	397	397	397	397
IRRIGATION	140	140	140	140	140	140
BRAZOS BASIN TOTAL	**4,267**	**4,574**	**4,795**	**5,046**	**5,295**	**5,528**
CORIX UTILITIES TEXAS INC*	145	144	150	158	164	171
COUNTY-OTHER	26	27	24	20	18	15
MINING	50	56	61	66	72	79
LIVESTOCK	228	228	228	228	228	228
IRRIGATION	398	398	398	398	398	398
COLORADO BASIN TOTAL	**847**	**853**	**861**	**870**	**880**	**891**
LAMPASAS COUNTY TOTAL	**5,114**	**5,427**	**5,656**	**5,916**	**6,175**	**6,419**
AQUA WSC*	465	510	535	543	550	554

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
GIDDINGS	560	615	644	653	662	666
LEE COUNTY WSC*	646	704	736	745	753	759
LEXINGTON	244	268	280	284	288	290
SOUTHWEST MILAM WSC	47	51	53	54	55	55
COUNTY-OTHER	97	103	108	111	112	113
MINING	2,480	2,480	0	0	0	0
LIVESTOCK	1,020	1,020	1,020	1,020	1,020	1,020
IRRIGATION	1,145	1,145	1,145	1,145	1,145	1,145
BRAZOS BASIN TOTAL	**6,704**	**6,896**	**4,521**	**4,555**	**4,585**	**4,602**
GIDDINGS	594	653	684	694	702	708
LEE COUNTY WSC*	313	342	357	361	366	368
COUNTY-OTHER	36	39	41	41	42	42
MANUFACTURING	7	8	8	8	8	8
MINING	700	700	0	0	0	0
LIVESTOCK	196	196	196	196	196	196
IRRIGATION	23	23	23	23	23	23
COLORADO BASIN TOTAL	**1,869**	**1,961**	**1,309**	**1,323**	**1,337**	**1,345**
LEE COUNTY TOTAL	**8,573**	**8,857**	**5,830**	**5,878**	**5,922**	**5,947**
BIROME WSC	14	14	15	15	15	16
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	155	161	165	172	178	182
COOLIDGE	106	115	122	131	139	144
GROESBECK	688	677	667	665	668	665
MART	1	1	1	2	2	2
MEXIA	348	388	421	456	485	506
POINT ENTERPRISE WSC*	58	59	59	61	62	63
POST OAK SUD*	4	4	5	6	6	6
PRAIRIE HILL WSC	140	145	150	156	163	168
SLC WSC	107	108	108	111	115	117
TRI COUNTY SUD	261	264	259	249	256	261
WHITE ROCK WSC	217	220	223	229	237	242
COUNTY-OTHER	257	237	227	226	220	233
MANUFACTURING	273	321	321	321	321	321
MINING	9,492	9,131	9,076	9,512	9,941	10,511
STEAM ELECTRIC POWER	22,936	22,936	22,936	22,936	22,936	22,936
LIVESTOCK	1,492	1,492	1,492	1,492	1,492	1,492
BRAZOS BASIN TOTAL	**36,549**	**36,273**	**36,247**	**36,740**	**37,236**	**37,865**
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	78	80	82	86	89	91
COOLIDGE	70	76	80	86	91	95
MEXIA	220	246	266	289	308	320
POINT ENTERPRISE WSC*	27	28	28	28	29	30
POST OAK SUD*	7	7	10	10	11	12
WHITE ROCK WSC	2	2	2	2	2	2
COUNTY-OTHER	54	50	48	47	46	49
MANUFACTURING	48	56	56	56	56	56
MINING	825	794	789	827	864	914
LIVESTOCK	178	178	178	178	178	178
IRRIGATION	7	7	7	7	7	7

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TRINITY BASIN TOTAL	**1,516**	**1,524**	**1,546**	**1,616**	**1,681**	**1,754**
LIMESTONE COUNTY TOTAL	**38,065**	**37,797**	**37,793**	**38,356**	**38,917**	**39,619**
AXTELL WSC	166	172	179	187	198	208
BELLMEAD	1,233	1,261	1,288	1,331	1,388	1,448
BIROME WSC	66	68	70	72	74	76
BOLD SPRINGS WSC	252	263	273	287	302	317
BRUCEVILLE EDDY	834	878	868	913	963	1,014
CENTRAL BOSQUE WSC	128	135	140	147	156	164
CHALK BLUFF WSC	268	258	249	244	243	243
CORYELL CITY WATER SUPPLY DISTRICT	125	146	166	186	206	227
CRAWFORD	148	147	146	147	148	150
CROSS COUNTRY WSC	419	416	414	415	419	424
EAST CRAWFORD WSC	328	350	369	390	412	434
ELM CREEK WSC	193	214	233	254	276	299
EOL WSC	231	240	249	261	276	290
GHOLSON WSC	232	250	265	284	304	325
H & H WSC	188	195	202	212	223	235
HEWITT	3,029	3,393	3,721	4,071	4,442	4,811
HIGHLAND PARK WSC	48	52	54	56	57	58
HILLTOP WSC	98	102	106	111	117	123
LACY LAKEVIEW	745	788	828	877	932	989
LEROY TOURS GERALD WSC	139	144	148	155	163	172
LEVI WSC	107	111	115	121	128	134
LORENA	319	351	379	410	443	476
MART	351	367	382	401	422	445
MCGREGOR	801	813	825	846	874	905
MCLENNAN COUNTY WCID 2	273	286	299	314	331	349
MOODY	200	208	215	224	236	249
NORTH BOSQUE WSC	566	687	795	905	1,017	1,127
PRAIRIE HILL WSC	101	105	108	113	118	122
RIESEL	163	162	162	164	167	172
ROBINSON	2,472	2,896	3,275	3,671	4,078	4,482
ROSS WSC	329	344	359	377	397	418
SPRING VALLEY WSC	265	278	289	303	320	337
TEXAS STATE TECHNICAL COLLEGE	888	954	1,013	1,073	1,132	1,193
VALLEY MILLS	4	6	8	10	11	13
WACO	31,279	33,063	34,676	36,494	38,495	40,503
WEST	457	461	466	474	487	501
WEST BRAZOS WSC	163	169	176	186	196	207
WINDSOR WATER	104	110	114	120	127	134
WOODWAY	3,465	3,690	3,892	4,114	4,347	4,579
COUNTY-OTHER	1,268	1,035	880	708	551	400
MANUFACTURING	4,792	7,458	7,458	7,458	7,458	7,458
MINING	2,538	3,000	3,060	3,508	3,832	4,216
STEAM ELECTRIC POWER	13,520	13,520	13,520	13,520	13,520	13,520
LIVESTOCK	1,953	1,953	1,953	1,953	1,953	1,953

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
IRRIGATION	4,962	4,962	4,962	4,962	4,962	4,962
BRAZOS BASIN TOTAL	**80,210**	**86,461**	**89,349**	**93,029**	**96,901**	**100,862**
MCLENNAN COUNTY TOTAL	**80,210**	**86,461**	**89,349**	**93,029**	**96,901**	**100,862**
BELL MILAM FALLS WSC	225	232	237	246	255	264
CAMERON	1,363	1,413	1,446	1,504	1,561	1,617
MILANO WSC	209	214	216	224	232	240
NORTH MILAM WSC	249	257	263	273	283	293
ROCKDALE	1,173	1,213	1,237	1,285	1,333	1,380
SALEM ELM RIDGE WSC	131	135	137	142	148	153
SOUTHWEST MILAM WSC	1,002	1,036	1,058	1,100	1,141	1,181
THORNDALE	183	188	190	196	203	211
COUNTY-OTHER	129	134	139	146	151	156
MANUFACTURING	12	13	13	13	13	13
MINING	14	14	14	14	14	14
STEAM ELECTRIC POWER	32,254	32,254	32,254	32,254	32,254	32,254
LIVESTOCK	2,761	2,761	2,761	2,761	2,761	2,761
IRRIGATION	6,502	6,502	6,502	6,502	6,502	6,502
BRAZOS BASIN TOTAL	**46,207**	**46,366**	**46,467**	**46,660**	**46,851**	**47,039**
MILAM COUNTY TOTAL	**46,207**	**46,366**	**46,467**	**46,660**	**46,851**	**47,039**
ROSCOE	199	203	205	211	216	222
SWEETWATER	1,953	1,996	2,017	2,084	2,140	2,192
THE BITTER CREEK WSC	193	196	197	204	209	214
COUNTY-OTHER	28	28	28	29	30	30
MANUFACTURING	448	528	528	528	528	528
MINING	101	100	90	80	71	63
LIVESTOCK	177	177	177	177	177	177
IRRIGATION	7,171	7,171	7,171	7,171	7,171	7,171
BRAZOS BASIN TOTAL	**10,270**	**10,399**	**10,413**	**10,484**	**10,542**	**10,597**
COUNTY-OTHER	98	99	100	101	104	107
MINING	124	122	110	98	87	78
LIVESTOCK	119	119	119	119	119	119
IRRIGATION	4,393	4,393	4,393	4,393	4,393	4,393
COLORADO BASIN TOTAL	**4,734**	**4,733**	**4,722**	**4,711**	**4,703**	**4,697**
NOLAN COUNTY TOTAL	**15,004**	**15,132**	**15,135**	**15,195**	**15,245**	**15,294**
GORDON	140	148	153	158	163	167
LAKE PALO PINTO AREA WSC	106	109	111	114	117	119
MINERAL WELLS*	2,579	2,692	2,759	2,840	2,919	2,985
NORTH RURAL WSC*	158	163	165	168	173	177
PALO PINTO WSC	115	120	123	126	129	132
PARKER COUNTY SUD*	6	8	10	13	16	19
POSSUM KINGDOM WSC	834	886	921	954	982	1,004
SANTO SUD*	254	267	275	288	304	322
SPORTSMANS WORLD MUD	122	131	136	142	146	150
STEPHENS REGIONAL SUD	5	5	5	5	5	5
STRAWN	145	152	156	160	165	169
STURDIVANT PROGRESS WSC	240	247	250	257	265	274
COUNTY-OTHER	281	280	277	277	274	267

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MANUFACTURING	11	13	13	13	13	13
MINING	656	847	625	480	336	235
STEAM ELECTRIC POWER	501	501	501	501	501	501
LIVESTOCK	1,929	1,929	1,929	1,929	1,929	1,929
IRRIGATION	3,011	3,011	3,011	3,011	3,011	3,011
BRAZOS BASIN TOTAL	**11,093**	**11,509**	**11,420**	**11,436**	**11,448**	**11,479**
PALO PINTO COUNTY TOTAL	**11,093**	**11,509**	**11,420**	**11,436**	**11,448**	**11,479**
BETHANY HEARNE WSC	43	45	48	51	54	58
BREMOND	181	193	205	220	235	250
CALVERT	190	183	180	180	179	179
FRANKLIN	274	291	330	379	439	509
HEARNE	759	898	1,065	1,062	1,060	1,060
ROBERTSON COUNTY WSC	424	500	578	675	776	869
TWIN CREEK WSC	265	284	302	324	345	367
WELLBORN SUD	851	877	910	950	996	1,045
WICKSON CREEK SUD	43	48	53	59	66	74
COUNTY-OTHER	152	146	145	144	144	144
MANUFACTURING	51	51	51	51	51	51
MINING	9,913	11,753	12,000	12,000	12,000	12,000
STEAM ELECTRIC POWER	45,866	45,866	45,866	45,866	45,866	45,866
LIVESTOCK	3,048	3,048	3,048	3,048	3,048	3,048
IRRIGATION	79,182	79,182	79,706	80,166	80,167	80,167
BRAZOS BASIN TOTAL	**141,242**	**143,365**	**144,487**	**145,175**	**145,426**	**145,687**
ROBERTSON COUNTY TOTAL	**141,242**	**143,365**	**144,487**	**145,175**	**145,426**	**145,687**
ALBANY	604	635	624	625	624	624
CALLAHAN COUNTY WSC	5	5	5	5	5	5
FORT GRIFFIN SUD	96	95	94	93	93	93
HAMBY WSC	52	52	52	53	53	54
STEPHENS REGIONAL SUD	2	2	2	2	2	2
COUNTY-OTHER	25	15	13	11	10	10
MANUFACTURING	13	13	13	13	13	13
MINING	562	747	558	442	328	243
LIVESTOCK	580	580	580	580	580	580
IRRIGATION	250	250	250	250	250	250
BRAZOS BASIN TOTAL	**2,189**	**2,394**	**2,191**	**2,074**	**1,958**	**1,874**
SHACKELFORD COUNTY TOTAL	**2,189**	**2,394**	**2,191**	**2,074**	**1,958**	**1,874**
GLEN ROSE	605	663	703	736	767	792
SOMERVELL COUNTY WATER DISTRICT	168	181	190	198	206	213
COUNTY-OTHER	644	698	736	769	800	827
MANUFACTURING	3	4	4	4	4	4
MINING	1,112	1,279	1,146	1,060	998	971
STEAM ELECTRIC POWER	70,362	70,362	70,362	70,362	70,362	70,362
LIVESTOCK	165	165	165	165	165	165
IRRIGATION	410	410	410	410	410	410
BRAZOS BASIN TOTAL	**73,469**	**73,762**	**73,716**	**73,704**	**73,712**	**73,744**
SOMERVELL COUNTY TOTAL	**73,469**	**73,762**	**73,716**	**73,704**	**73,712**	**73,744**
BRECKENRIDGE	1,002	1,012	1,006	1,004	1,005	1,015

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
FORT BELKNAP WSC	6	6	6	5	6	6
FORT GRIFFIN SUD	102	103	101	101	101	101
POSSUM KINGDOM WSC	34	35	35	36	36	36
STAFF WSC	42	41	39	39	38	38
STEPHENS REGIONAL SUD	257	254	250	247	248	249
COUNTY-OTHER	49	48	48	48	51	49
MANUFACTURING	7	8	8	8	8	8
MINING	5,064	5,141	4,458	3,825	3,257	2,773
LIVESTOCK	460	460	460	460	460	460
IRRIGATION	152	152	152	152	152	152
BRAZOS BASIN TOTAL	**7,175**	**7,260**	**6,563**	**5,925**	**5,362**	**4,887**
STEPHENS COUNTY TOTAL	**7,175**	**7,260**	**6,563**	**5,925**	**5,362**	**4,887**
ASPERMONT	249	245	241	241	240	240
COUNTY-OTHER	68	65	64	64	64	64
MANUFACTURING	58	58	58	58	58	58
MINING	584	576	512	446	388	338
LIVESTOCK	336	336	336	336	336	336
IRRIGATION	106	106	106	106	106	106
BRAZOS BASIN TOTAL	**1,401**	**1,386**	**1,317**	**1,251**	**1,192**	**1,142**
STONEWALL COUNTY TOTAL	**1,401**	**1,386**	**1,317**	**1,251**	**1,192**	**1,142**
ABILENE	21,316	21,723	22,058	22,428	22,838	23,181
HAMBY WSC	34	35	35	35	35	36
HAWLEY WSC	48	48	48	48	49	50
MERKEL	373	376	378	382	388	394
POTOSI WSC	801	819	836	851	866	879
STEAMBOAT MOUNTAIN WSC	300	302	305	309	313	318
TYE	184	186	188	191	195	197
VIEW CAPS WSC	195	197	199	202	205	208
COUNTY-OTHER	649	649	651	668	680	689
MANUFACTURING	585	671	671	671	671	671
MINING	293	293	274	259	247	236
LIVESTOCK	590	590	590	590	590	590
IRRIGATION	3	3	3	3	3	3
BRAZOS BASIN TOTAL	**25,371**	**25,892**	**26,236**	**26,637**	**27,080**	**27,452**
COLEMAN COUNTY SUD*	19	19	19	19	20	20
LAWN	128	131	133	136	138	140
NORTH RUNNELS WSC*	34	34	33	33	33	33
STEAMBOAT MOUNTAIN WSC	76	77	78	78	80	81
COUNTY-OTHER	17	17	18	18	18	19
MINING	98	98	92	87	82	79
LIVESTOCK	244	244	244	244	244	244
IRRIGATION	1,632	1,632	1,632	1,632	1,632	1,632
COLORADO BASIN TOTAL	**2,248**	**2,252**	**2,249**	**2,247**	**2,247**	**2,248**
TAYLOR COUNTY TOTAL	**27,619**	**28,144**	**28,485**	**28,884**	**29,327**	**29,700**
BAYLOR SUD*	3	3	3	3	3	3
FORT BELKNAP WSC	20	20	19	19	19	19
FORT GRIFFIN SUD	19	19	19	19	19	19

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
STEPHENS REGIONAL SUD	17	16	16	15	15	15
THROCKMORTON	185	181	177	177	177	177
COUNTY-OTHER	30	28	28	28	28	27
MINING	194	191	171	150	132	116
LIVESTOCK	493	493	493	493	493	493
IRRIGATION	157	157	157	157	157	157
BRAZOS BASIN TOTAL	**1,118**	**1,108**	**1,083**	**1,061**	**1,043**	**1,026**
THROCKMORTON COUNTY TOTAL	**1,118**	**1,108**	**1,083**	**1,061**	**1,043**	**1,026**
BRENHAM	4,329	4,627	4,821	5,038	5,225	5,382
CENTRAL WASHINGTON COUNTY WSC	254	262	268	275	283	289
CHAPPELL HILL WSC	141	147	150	155	159	163
CORIX UTILITIES TEXAS INC*	577	598	612	631	648	663
WEST END WSC*	53	58	62	68	74	82
COUNTY-OTHER	1,368	1,346	1,324	1,318	1,323	1,327
MANUFACTURING	577	583	583	583	583	583
MINING	569	866	703	538	373	264
LIVESTOCK	1,342	1,342	1,342	1,342	1,342	1,342
IRRIGATION	309	309	309	309	309	309
BRAZOS BASIN TOTAL	**9,519**	**10,138**	**10,174**	**10,257**	**10,319**	**10,404**
COUNTY-OTHER	6	6	6	6	6	6
LIVESTOCK	6	6	6	6	6	6
COLORADO BASIN TOTAL	**12**	**12**	**12**	**12**	**12**	**12**
WASHINGTON COUNTY TOTAL	**9,531**	**10,150**	**10,186**	**10,269**	**10,331**	**10,416**
BARTLETT	200	208	221	236	255	275
BELL MILAM FALLS WSC	43	53	65	78	94	110
BLOCK HOUSE MUD	846	828	818	814	812	811
BRUSHY CREEK MUD	3,084	3,022	2,985	2,965	2,960	2,959
CEDAR PARK*	16,857	18,582	18,490	18,457	18,441	18,434
FERN BLUFF MUD	1,187	1,175	1,168	1,163	1,161	1,161
FLORENCE	130	132	137	144	154	166
GEORGETOWN*	26,115	34,121	42,521	52,549	63,820	76,998
GRANGER	209	217	229	244	264	286
HUTTO	2,072	4,211	4,469	6,602	9,761	11,868
JARRELL-SCHWERTNER	650	768	919	1,088	1,283	1,488
JONAH WATER SUD	3,312	4,052	5,008	6,062	7,281	8,485
LEANDER*	6,562	9,846	12,920	16,012	19,897	24,500
LIBERTY HILL	220	267	329	398	478	560
MANVILLE WSC*	1,886	2,219	2,636	3,147	3,771	4,523
PALOMA LAKE MUD 1	305	409	403	400	399	399
PALOMA LAKE MUD 2	245	287	282	280	279	279
PFLUGERVILLE*	62	77	96	117	140	165
ROUND ROCK*	19,804	24,297	30,246	37,228	37,174	37,153
SONTERRA MUD	445	449	459	474	493	513
SOUTHWEST MILAM WSC	291	356	439	530	637	747
TAYLOR	2,844	3,010	3,245	3,527	3,873	4,237
THORNDALE	0	0	0	1	1	1
WALSH RANCH MUD	199	196	195	195	194	194

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Region G Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
WILLIAMSON COUNTY MUD 10	727	722	721	720	719	718
WILLIAMSON COUNTY MUD 11	820	816	816	817	818	820
WILLIAMSON COUNTY MUD 9	548	541	538	536	536	536
WILLIAMSON COUNTY WSID 3*	898	916	941	972	1,008	1,045
WILLIAMSON TRAVIS COUNTIES MUD 1*	598	584	576	572	571	570
COUNTY-OTHER*	2,271	1,452	3,396	5,188	11,130	16,424
MANUFACTURING*	812	963	963	963	963	963
MINING*	5,163	6,247	7,364	8,555	9,782	11,186
LIVESTOCK	1,656	1,656	1,656	1,656	1,656	1,656
IRRIGATION	333	333	333	333	333	333
BRAZOS BASIN TOTAL	**101,394**	**123,012**	**145,584**	**173,023**	**201,138**	**230,563**
COUNTY-OTHER*	3,818	2,442	5,711	8,724	18,719	27,620
COLORADO BASIN TOTAL	**3,818**	**2,442**	**5,711**	**8,724**	**18,719**	**27,620**
WILLIAMSON COUNTY TOTAL	**105,212**	**125,454**	**151,295**	**181,747**	**219,857**	**258,183**
BAYLOR SUD*	22	22	22	22	22	22
FORT BELKNAP WSC	416	426	431	443	456	472
GRAHAM	2,788	2,891	2,959	3,052	3,157	3,262
COUNTY-OTHER*	176	177	181	187	193	200
MANUFACTURING	36	44	44	44	44	44
MINING	163	241	171	132	92	64
STEAM ELECTRIC POWER	680	680	680	680	680	680
LIVESTOCK*	508	508	508	508	508	508
IRRIGATION*	491	491	491	491	491	491
BRAZOS BASIN TOTAL	**5,280**	**5,480**	**5,487**	**5,559**	**5,643**	**5,743**
BAYLOR SUD*	5	5	5	5	5	5
FORT BELKNAP WSC	14	14	14	14	15	15
COUNTY-OTHER*	33	34	34	35	37	38
MINING	24	35	25	19	13	9
LIVESTOCK*	83	83	83	83	83	83
IRRIGATION*	2	2	2	2	2	2
TRINITY BASIN TOTAL	**161**	**173**	**163**	**158**	**155**	**152**
YOUNG COUNTY TOTAL	**5,441**	**5,653**	**5,650**	**5,717**	**5,798**	**5,895**
REGION G DEMAND TOTAL	**1,121,088**	**1,177,994**	**1,220,273**	**1,279,213**	**1,349,926**	**1,421,583**

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Region G Water User Group (WUG) Category Summary

MUNICIPAL	2020	2030	2040	2050	2060	2070
POPULATION	2,169,072	2,528,046	2,869,821	3,233,727	3,546,934	3,879,321
DEMAND (acre-feet per year)	380,902	431,974	482,117	538,295	588,564	643,321
EXISTING SUPPLIES (acre-feet per year)	458,189	458,926	459,439	456,855	453,887	449,234
NEEDS (acre-feet per year)*	27,454	63,440	103,977	153,385	196,031	250,155

COUNTY-OTHER	2020	2030	2040	2050	2060	2070
POPULATION	201,992	192,650	227,186	260,817	371,263	471,721
DEMAND (acre-feet per year)	25,575	23,243	28,112	32,961	49,482	64,461
EXISTING SUPPLIES (acre-feet per year)	27,292	26,665	26,466	26,642	27,326	27,561
NEEDS (acre-feet per year)*	3,645	1,973	5,519	10,381	25,842	40,811

MANUFACTURING	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	12,695	16,175	16,175	16,175	16,175	16,175
EXISTING SUPPLIES (acre-feet per year)	30,050	31,473	32,291	33,028	33,761	34,677
NEEDS (acre-feet per year)*	1,024	3,458	3,088	2,718	2,379	1,916

MINING	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	61,586	66,272	59,340	58,423	58,917	60,838
EXISTING SUPPLIES (acre-feet per year)	39,877	39,965	40,072	40,180	40,292	40,287
NEEDS (acre-feet per year)*	30,305	31,798	28,925	29,692	30,753	33,008

STEAM ELECTRIC POWER	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	232,894	232,894	232,894	232,894	232,894	232,894
EXISTING SUPPLIES (acre-feet per year)	202,292	202,199	202,089	201,977	201,865	201,753
NEEDS (acre-feet per year)*	72,721	72,816	72,912	73,008	73,104	73,200

LIVESTOCK	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	47,939	47,939	47,939	47,939	47,939	47,939
EXISTING SUPPLIES (acre-feet per year)	47,939	47,939	47,939	47,939	47,939	47,939
NEEDS (acre-feet per year)*	0	0	0	0	0	0

IRRIGATION	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	359,497	359,497	353,696	352,526	355,955	355,955
EXISTING SUPPLIES (acre-feet per year)	296,688	290,554	289,845	290,069	292,880	290,461
NEEDS (acre-feet per year)*	75,658	81,687	76,700	75,374	76,180	78,660

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Category Summary report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

Region G Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
BLAINE AQUIFER	FISHER	BRAZOS	FRESH	12,855	12,820	12,855	12,820	12,855	12,820
BLAINE AQUIFER	KNOX	BRAZOS	FRESH	700	700	700	700	700	700
BLAINE AQUIFER	NOLAN	BRAZOS	FRESH	100	100	100	100	100	100
BLAINE AQUIFER	STONEWALL	BRAZOS	FRESH	8,700	8,700	8,700	8,700	8,700	8,700
BRAZOS RIVER ALLUVIUM AQUIFER	BOSQUE	BRAZOS	FRESH	830	830	830	830	830	830
BRAZOS RIVER ALLUVIUM AQUIFER	BRAZOS	BRAZOS	FRESH	81,581	80,311	80,081	79,976	79,913	79,872
BRAZOS RIVER ALLUVIUM AQUIFER	BURLESON	BRAZOS	FRESH	28,472	28,418	28,414	28,414	28,414	28,413
BRAZOS RIVER ALLUVIUM AQUIFER	FALLS	BRAZOS	FRESH	16,684	16,684	16,684	16,684	16,684	16,684
BRAZOS RIVER ALLUVIUM AQUIFER	GRIMES	BRAZOS	FRESH	5,112	5,112	5,112	5,112	5,112	5,112
BRAZOS RIVER ALLUVIUM AQUIFER	HILL	BRAZOS	FRESH	632	632	632	632	632	632
BRAZOS RIVER ALLUVIUM AQUIFER	MCLENNAN	BRAZOS	FRESH	15,023	15,023	15,023	15,023	15,023	15,023
BRAZOS RIVER ALLUVIUM AQUIFER	MILAM	BRAZOS	FRESH	47,818	47,785	47,779	47,775	47,773	47,771
BRAZOS RIVER ALLUVIUM AQUIFER	ROBERTSON	BRAZOS	FRESH	61,161	57,959	57,633	57,544	57,503	57,480
BRAZOS RIVER ALLUVIUM AQUIFER	WASHINGTON	BRAZOS	FRESH	5,770	5,770	5,770	5,770	5,770	5,770
CARRIZO-WILCOX AQUIFER	BRAZOS	BRAZOS	FRESH	53,350	55,977	59,302	63,683	65,742	65,742
CARRIZO-WILCOX AQUIFER	BURLESON	BRAZOS	FRESH	23,242	28,039	32,511	36,485	38,694	38,694
CARRIZO-WILCOX AQUIFER	FALLS	BRAZOS	FRESH	867	875	884	895	895	895
CARRIZO-WILCOX AQUIFER	GRIMES	BRAZOS	BRACKISH	3	3	3	3	8	3
CARRIZO-WILCOX AQUIFER	GRIMES	TRINITY	BRACKISH	1	1	1	1	4	1
CARRIZO-WILCOX AQUIFER	LEE	BRAZOS	FRESH	20,462	19,730	19,667	20,468	17,968	17,968
CARRIZO-WILCOX AQUIFER	LEE	COLORADO	FRESH	680	786	891	998	1,101	1,101
CARRIZO-WILCOX AQUIFER	LIMESTONE	BRAZOS	FRESH	11,353	11,483	11,664	11,966	11,966	11,966
CARRIZO-WILCOX AQUIFER	MILAM	BRAZOS	FRESH	23,928	20,211	19,119	21,366	22,327	22,327
CARRIZO-WILCOX AQUIFER	ROBERTSON	BRAZOS	FRESH	46,590	47,400	47,881	48,281	48,282	48,282
CARRIZO-WILCOX AQUIFER	WILLIAMSON	BRAZOS	FRESH	9	9	9	10	9	9
CARRIZO-WILCOX AQUIFER	WILLIAMSON	COLORADO	FRESH	0	0	0	0	0	0
CROSS TIMBERS AQUIFER	SHACKELFORD	BRAZOS	FRESH	712	712	712	712	712	712
CROSS TIMBERS AQUIFER	STEPHENS	BRAZOS	FRESH	620	620	620	620	620	620
CROSS TIMBERS AQUIFER	THROCKMORTON	BRAZOS	FRESH	364	364	364	364	364	364
CROSS TIMBERS AQUIFER	YOUNG	BRAZOS	FRESH	799	799	799	799	799	799
CROSS TIMBERS AQUIFER	YOUNG	TRINITY	FRESH	219	219	219	219	219	219
DOCKUM AQUIFER	FISHER	BRAZOS	FRESH	79	79	79	79	79	79
DOCKUM AQUIFER	KENT	BRAZOS	FRESH	6,250	6,250	6,250	6,250	6,250	6,250
DOCKUM AQUIFER	NOLAN	BRAZOS	FRESH	2,824	2,824	2,824	2,824	2,824	2,824
DOCKUM AQUIFER	NOLAN	COLORADO	FRESH	2,926	2,926	2,926	2,926	2,926	2,926
EDWARDS-BFZ AQUIFER	BELL	BRAZOS	FRESH	6,469	6,469	6,469	6,469	6,469	6,469
EDWARDS-BFZ AQUIFER	WILLIAMSON	BRAZOS	FRESH	3,351	3,351	3,351	3,351	3,351	3,351
EDWARDS-BFZ AQUIFER	WILLIAMSON	COLORADO	FRESH	101	101	101	101	101	101
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	NOLAN	BRAZOS	FRESH	302	302	302	302	302	302
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	NOLAN	COLORADO	FRESH	391	391	391	391	391	391
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	TAYLOR	BRAZOS	FRESH	331	331	331	331	331	331
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	TAYLOR	COLORADO	FRESH	158	158	158	158	158	158
ELLENBURGER-SAN SABA AQUIFER	LAMPASAS	BRAZOS	FRESH	1,685	1,680	1,685	1,680	1,685	1,680

* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
ELLENBURGER-SAN SABA AQUIFER	LAMPASAS	COLORADO	FRESH	916	913	916	913	916	913
GULF COAST AQUIFER SYSTEM	BRAZOS	BRAZOS	FRESH	1,189	1,189	1,189	1,189	1,189	1,189
GULF COAST AQUIFER SYSTEM	GRIMES	BRAZOS	FRESH	10,880	10,880	10,880	10,880	10,880	10,880
GULF COAST AQUIFER SYSTEM	GRIMES	SAN JACINTO	FRESH	2,194	2,194	2,194	2,194	2,194	2,194
GULF COAST AQUIFER SYSTEM	GRIMES	TRINITY	FRESH	922	922	922	922	922	922
GULF COAST AQUIFER SYSTEM	WASHINGTON	BRAZOS	FRESH	12,959	12,959	12,959	12,959	12,959	12,959
GULF COAST AQUIFER SYSTEM	WASHINGTON	COLORADO	FRESH	72	72	72	72	72	72
HICKORY AQUIFER	LAMPASAS	BRAZOS	FRESH	80	79	80	79	80	79
HICKORY AQUIFER	LAMPASAS	COLORADO	FRESH	34	34	34	34	34	34
HICKORY AQUIFER	WILLIAMSON	COLORADO	FRESH	0	0	0	0	0	0
MARBLE FALLS AQUIFER	LAMPASAS	BRAZOS	FRESH	1,958	1,952	1,958	1,952	1,958	1,952
MARBLE FALLS AQUIFER	LAMPASAS	COLORADO	FRESH	887	885	887	885	887	885
NAVASOTA RIVER ALLUVIUM AQUIFER	GRIMES	BRAZOS	FRESH	2,216	2,216	2,216	2,216	2,216	2,216
OTHER AQUIFER	SHACKELFORD	BRAZOS	FRESH	97	97	97	97	97	97
OTHER AQUIFER	STEPHENS	BRAZOS	FRESH	85	85	85	85	85	85
OTHER AQUIFER	WILLIAMSON	BRAZOS	FRESH	665	665	665	665	665	665
QUEEN CITY AQUIFER	BRAZOS	BRAZOS	FRESH	836	883	887	891	891	891
QUEEN CITY AQUIFER	BURLESON	BRAZOS	FRESH	416	447	447	447	447	447
QUEEN CITY AQUIFER	GRIMES	BRAZOS	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	GRIMES	TRINITY	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	LEE	BRAZOS	FRESH	709	713	716	721	727	727
QUEEN CITY AQUIFER	LEE	COLORADO	FRESH	48	61	75	89	102	102
QUEEN CITY AQUIFER	MILAM	BRAZOS	FRESH	53	56	56	56	56	56
QUEEN CITY AQUIFER	ROBERTSON	BRAZOS	FRESH	368	309	309	309	309	309
SEYMOUR AQUIFER	FISHER	BRAZOS	FRESH	6,718	6,132	6,149	6,472	6,490	6,131
SEYMOUR AQUIFER	HASKELL	BRAZOS	FRESH	41,750	41,636	41,750	41,636	41,750	41,636
SEYMOUR AQUIFER	JONES	BRAZOS	FRESH	2,918	2,918	2,918	2,918	2,918	2,918
SEYMOUR AQUIFER	KENT	BRAZOS	FRESH	1,181	1,180	1,180	1,179	1,179	1,179
SEYMOUR AQUIFER	KNOX	BRAZOS	FRESH	25,699	25,629	25,699	25,629	25,699	25,629
SEYMOUR AQUIFER	KNOX	RED	FRESH	3,337	1,011	525	901	3,467	1,344
SEYMOUR AQUIFER	STONEWALL	BRAZOS	FRESH	233	230	224	215	214	214
SEYMOUR AQUIFER	THROCKMORTON	BRAZOS	FRESH	115	115	115	115	115	115
SEYMOUR AQUIFER	YOUNG	BRAZOS	FRESH	309	258	258	258	258	258
SPARTA AQUIFER	BRAZOS	BRAZOS	FRESH	5,404	6,505	7,507	8,509	8,509	8,509
SPARTA AQUIFER	BURLESON	BRAZOS	FRESH	2,246	4,042	5,613	6,735	6,735	6,735
SPARTA AQUIFER	GRIMES	BRAZOS	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	GRIMES	SAN JACINTO	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	GRIMES	TRINITY	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	LEE	BRAZOS	FRESH	1,279	1,274	1,269	1,263	1,256	1,256
SPARTA AQUIFER	LEE	COLORADO	FRESH	204	213	221	230	238	238
SPARTA AQUIFER	ROBERTSON	BRAZOS	FRESH	510	510	510	510	510	510
TRINITY AQUIFER	BELL	BRAZOS	FRESH	9,267	9,241	9,267	9,241	9,267	9,241
TRINITY AQUIFER	BOSQUE	BRAZOS	FRESH	8,788	8,762	8,788	8,762	8,788	8,762
TRINITY AQUIFER	CALLAHAN	BRAZOS	FRESH	444	443	444	443	444	443
TRINITY AQUIFER	CALLAHAN	COLORADO	FRESH	1,285	1,282	1,285	1,282	1,285	1,282

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** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
TRINITY AQUIFER	COMANCHE	BRAZOS	FRESH	12,005	11,972	12,005	11,972	12,005	11,972
TRINITY AQUIFER	COMANCHE	COLORADO	FRESH	67	67	67	67	67	67
TRINITY AQUIFER	CORYELL	BRAZOS	FRESH	4,503	4,491	4,503	4,491	4,503	4,491
TRINITY AQUIFER	EASTLAND	BRAZOS	FRESH	5,194	5,180	5,194	5,180	5,194	5,180
TRINITY AQUIFER	EASTLAND	COLORADO	FRESH	553	552	553	552	553	552
TRINITY AQUIFER	ERATH	BRAZOS	FRESH	20,658	20,599	20,658	20,599	20,658	20,599
TRINITY AQUIFER	FALLS	BRAZOS	FRESH	1,438	1,434	1,438	1,434	1,438	1,434
TRINITY AQUIFER	HAMILTON	BRAZOS	FRESH	2,431	2,425	2,431	2,425	2,431	2,425
TRINITY AQUIFER	HILL	BRAZOS	FRESH	3,767	3,756	3,767	3,756	3,767	3,756
TRINITY AQUIFER	HILL	TRINITY	FRESH	262	261	262	261	262	261
TRINITY AQUIFER	HOOD	BRAZOS	FRESH	12,419	12,385	12,419	12,385	12,419	12,385
TRINITY AQUIFER	HOOD	TRINITY	FRESH	39	39	39	39	39	39
TRINITY AQUIFER	JOHNSON	BRAZOS	FRESH	3,898	3,888	3,898	3,888	3,898	3,888
TRINITY AQUIFER	JOHNSON	TRINITY	FRESH	5,524	5,508	5,524	5,508	5,524	5,508
TRINITY AQUIFER	LAMPASAS	BRAZOS	FRESH	1,596	1,591	1,596	1,591	1,596	1,591
TRINITY AQUIFER	LAMPASAS	COLORADO	FRESH	76	75	76	75	76	75
TRINITY AQUIFER	LEE	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LEE	COLORADO	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LIMESTONE	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LIMESTONE	TRINITY	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	MCLENNAN	BRAZOS	FRESH	20,691	20,635	20,691	20,635	20,691	20,635
TRINITY AQUIFER	MILAM	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	PALO PINTO	BRAZOS	FRESH	12	12	12	12	12	12
TRINITY AQUIFER	SOMERVELL	BRAZOS	FRESH	3,188	3,181	3,188	3,181	3,188	3,181
TRINITY AQUIFER	TAYLOR	BRAZOS	FRESH	5	5	5	5	5	5
TRINITY AQUIFER	TAYLOR	COLORADO	FRESH	9	9	9	9	9	9
TRINITY AQUIFER	WILLIAMSON	BRAZOS	FRESH	3,508	3,498	3,508	3,498	3,508	3,498
TRINITY AQUIFER	WILLIAMSON	COLORADO	FRESH	5	5	5	5	5	5
WOODBINE AQUIFER	HILL	BRAZOS	FRESH	285	284	285	284	285	284
WOODBINE AQUIFER	HILL	TRINITY	FRESH	303	302	303	302	303	302
WOODBINE AQUIFER	JOHNSON	BRAZOS	FRESH	24	24	24	24	24	24
WOODBINE AQUIFER	JOHNSON	TRINITY	FRESH	1,961	1,956	1,961	1,956	1,961	1,956
WOODBINE AQUIFER	MCLENNAN	BRAZOS	FRESH	0	0	0	0	0	0
YEGUA-JACKSON AQUIFER	BRAZOS	BRAZOS	FRESH	6,856	6,854	6,854	6,854	6,854	6,854
YEGUA-JACKSON AQUIFER	BURLESON	BRAZOS	FRESH	14,544	12,576	12,564	12,478	12,326	12,326
YEGUA-JACKSON AQUIFER	GRIMES	BRAZOS	FRESH	479	479	479	479	479	479
YEGUA-JACKSON AQUIFER	GRIMES	SAN JACINTO	FRESH	0	0	0	0	0	0
YEGUA-JACKSON AQUIFER	GRIMES	TRINITY	FRESH	308	308	308	308	308	308
YEGUA-JACKSON AQUIFER	LEE	BRAZOS	FRESH	157	157	157	157	157	157
YEGUA-JACKSON AQUIFER	LEE	COLORADO	FRESH	216	216	216	216	216	216
YEGUA-JACKSON AQUIFER	WASHINGTON	BRAZOS	FRESH	0	0	0	0	0	0
YEGUA-JACKSON AQUIFER	WASHINGTON	COLORADO	FRESH	157	157	157	157	157	157
			GROUNDWATER SOURCE AVAILABILITY TOTAL	769,913	766,807	776,348	790,548	796,312	793,176

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Region G Source Availability

REUSE SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
DIRECT REUSE	BELL	BRAZOS	FRESH	33,356	34,824	36,291	37,759	39,226	40,694
DIRECT REUSE	BRAZOS	BRAZOS	FRESH	6,645	8,340	10,035	11,730	13,425	15,120
DIRECT REUSE	JOHNSON	BRAZOS	FRESH	1,344	1,344	1,344	1,344	1,344	1,344
DIRECT REUSE	MCLENNAN	BRAZOS	FRESH	27,035	28,902	30,769	32,636	34,503	36,730
DIRECT REUSE	TAYLOR	BRAZOS	FRESH	1,016	1,016	1,016	1,016	1,016	1,016
DIRECT REUSE	WILLIAMSON	BRAZOS	FRESH	4,320	4,320	4,320	4,320	4,320	4,320
INDIRECT REUSE	TAYLOR	BRAZOS	FRESH	7,840	7,840	7,840	7,840	7,840	7,840
			REUSE SOURCE AVAILABILITY TOTAI	81,556	86,586	91,615	96,645	101,674	107,064

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
ABILENE LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	450	425	400	375	350	325
ALCOA LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	14,000	14,000	14,000	14,000	14,000	14,000
ALVARADO LAKE/RESERVOIR	RESERVOIR**	TRINITY	FRESH	800	800	800	800	800	800
ANSON NORTH LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	25	20	15	10	5	0
BAIRD LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	25	20	15	10	5	0
BRA SYSTEM OPERATIONS PERMIT SUPPLY	RESERVOIR**	BRAZOS	FRESH	149,510	153,630	157,750	161,870	165,990	170,110
BRAZOS LIVESTOCK LOCAL SUPPLY	BELL	BRAZOS	FRESH	1,172	1,172	1,172	1,172	1,172	1,172
BRAZOS LIVESTOCK LOCAL SUPPLY	BOSQUE	BRAZOS	FRESH	989	989	989	989	989	989
BRAZOS LIVESTOCK LOCAL SUPPLY	BRAZOS	BRAZOS	FRESH	1,322	1,322	1,322	1,322	1,322	1,322
BRAZOS LIVESTOCK LOCAL SUPPLY	BURLESON	BRAZOS	FRESH	1,508	1,508	1,508	1,508	1,508	1,508
BRAZOS LIVESTOCK LOCAL SUPPLY	CALLAHAN	BRAZOS	FRESH	897	897	897	897	897	897
BRAZOS LIVESTOCK LOCAL SUPPLY	COMANCHE	BRAZOS	FRESH	3,774	3,774	3,774	3,774	3,774	3,774
BRAZOS LIVESTOCK LOCAL SUPPLY	CORYELL	BRAZOS	FRESH	1,471	1,471	1,471	1,471	1,471	1,471
BRAZOS LIVESTOCK LOCAL SUPPLY	EASTLAND	BRAZOS	FRESH	1,117	1,117	1,117	1,117	1,117	1,117
BRAZOS LIVESTOCK LOCAL SUPPLY	ERATH	BRAZOS	FRESH	6,702	6,702	6,702	6,702	6,702	6,702
BRAZOS LIVESTOCK LOCAL SUPPLY	FALLS	BRAZOS	FRESH	1,878	1,878	1,878	1,878	1,878	1,878
BRAZOS LIVESTOCK LOCAL SUPPLY	FISHER	BRAZOS	FRESH	634	634	634	634	634	634
BRAZOS LIVESTOCK LOCAL SUPPLY	GRIMES	BRAZOS	FRESH	2,123	2,123	2,123	2,123	2,123	2,123
BRAZOS LIVESTOCK LOCAL SUPPLY	HAMILTON	BRAZOS	FRESH	1,677	1,677	1,677	1,677	1,677	1,677
BRAZOS LIVESTOCK LOCAL SUPPLY	HASKELL	BRAZOS	FRESH	676	676	676	676	676	676
BRAZOS LIVESTOCK LOCAL SUPPLY	HILL	BRAZOS	FRESH	1,337	1,337	1,337	1,337	1,337	1,337
BRAZOS LIVESTOCK LOCAL SUPPLY	HOOD	BRAZOS	FRESH	520	520	520	520	520	520
BRAZOS LIVESTOCK LOCAL SUPPLY	JOHNSON	BRAZOS	FRESH	1,290	1,290	1,290	1,290	1,290	1,290
BRAZOS LIVESTOCK LOCAL SUPPLY	JONES	BRAZOS	FRESH	853	853	853	853	853	853
BRAZOS LIVESTOCK LOCAL SUPPLY	KENT	BRAZOS	FRESH	320	320	320	320	320	320
BRAZOS LIVESTOCK LOCAL SUPPLY	KNOX	BRAZOS	FRESH	790	790	790	790	790	790
BRAZOS LIVESTOCK LOCAL SUPPLY	LAMPASAS	BRAZOS	FRESH	783	783	783	783	783	783
BRAZOS LIVESTOCK LOCAL SUPPLY	LEE	BRAZOS	FRESH	1,623	1,623	1,623	1,623	1,623	1,623
BRAZOS LIVESTOCK LOCAL SUPPLY	LIMESTONE	BRAZOS	FRESH	1,522	1,522	1,522	1,522	1,522	1,522
BRAZOS LIVESTOCK LOCAL SUPPLY	MCLENNAN	BRAZOS	FRESH	1,953	1,953	1,953	1,953	1,953	1,953
BRAZOS LIVESTOCK LOCAL SUPPLY	MILAM	BRAZOS	FRESH	2,761	2,761	2,761	2,761	2,761	2,761
BRAZOS LIVESTOCK LOCAL SUPPLY	NOLAN	BRAZOS	FRESH	296	296	296	296	296	296
BRAZOS LIVESTOCK LOCAL SUPPLY	PALO PINTO	BRAZOS	FRESH	1,929	1,929	1,929	1,929	1,929	1,929
BRAZOS LIVESTOCK LOCAL SUPPLY	ROBERTSON	BRAZOS	FRESH	3,048	3,048	3,048	3,048	3,048	3,048

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Region G Source Availability

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
BRAZOS LIVESTOCK LOCAL SUPPLY	SHACKELFORD	BRAZOS	FRESH	840	840	840	840	840	840
BRAZOS LIVESTOCK LOCAL SUPPLY	SOMERVELL	BRAZOS	FRESH	165	165	165	165	165	165
BRAZOS LIVESTOCK LOCAL SUPPLY	STEPHENS	BRAZOS	FRESH	486	486	486	486	486	486
BRAZOS LIVESTOCK LOCAL SUPPLY	STONEWALL	BRAZOS	FRESH	458	458	458	458	458	458
BRAZOS LIVESTOCK LOCAL SUPPLY	TAYLOR	BRAZOS	FRESH	834	834	834	834	834	834
BRAZOS LIVESTOCK LOCAL SUPPLY	THROCKMORTON	BRAZOS	FRESH	672	672	672	672	672	672
BRAZOS LIVESTOCK LOCAL SUPPLY	WASHINGTON	BRAZOS	FRESH	1,654	1,654	1,654	1,654	1,654	1,654
BRAZOS LIVESTOCK LOCAL SUPPLY	WILLIAMSON	BRAZOS	FRESH	1,656	1,656	1,656	1,656	1,656	1,656
BRAZOS LIVESTOCK LOCAL SUPPLY	YOUNG	BRAZOS	FRESH	839	839	839	839	839	839
BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	RESERVOIR**	BRAZOS	FRESH	13,400	12,900	12,400	11,900	11,400	10,900
BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	RESERVOIR**	BRAZOS	FRESH	209,157	207,777	206,397	205,017	203,637	202,257
BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	RESERVOIR**	BRAZOS	FRESH	336,036	331,916	327,796	323,676	319,556	315,436
BRAZOS RUN-OF-RIVER	BELL	BRAZOS	FRESH	14,854	14,562	14,269	13,997	13,684	13,392
BRAZOS RUN-OF-RIVER	BOSQUE	BRAZOS	FRESH	132	132	132	132	132	132
BRAZOS RUN-OF-RIVER	BRAZOS	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	CORYELL	BRAZOS	FRESH	530	530	530	530	530	530
BRAZOS RUN-OF-RIVER	EASTLAND	BRAZOS	FRESH	375	375	375	375	375	375
BRAZOS RUN-OF-RIVER	ERATH	BRAZOS	FRESH	1,374	1,374	1,374	1,374	1,374	1,374
BRAZOS RUN-OF-RIVER	FALLS	BRAZOS	FRESH	174	174	174	174	174	174
BRAZOS RUN-OF-RIVER	FISHER	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	GRIMES	BRAZOS	FRESH	100	100	100	100	100	100
BRAZOS RUN-OF-RIVER	HAMILTON	BRAZOS	FRESH	18	15	13	10	8	5
BRAZOS RUN-OF-RIVER	HILL	BRAZOS	FRESH	1	1	1	1	1	1
BRAZOS RUN-OF-RIVER	JOHNSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	JONES	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	KNOX	BRAZOS	FRESH	34	34	34	34	34	34
BRAZOS RUN-OF-RIVER	LAMPASAS	BRAZOS	FRESH	151	151	151	151	151	151
BRAZOS RUN-OF-RIVER	LEE	BRAZOS	FRESH	1	1	1	1	1	1
BRAZOS RUN-OF-RIVER	LIMESTONE	BRAZOS	FRESH	14	14	14	14	14	14
BRAZOS RUN-OF-RIVER	MCLENNAN	BRAZOS	FRESH	11,974	11,851	11,728	11,604	11,481	11,358
BRAZOS RUN-OF-RIVER	MILAM	BRAZOS	FRESH	3,484	3,484	3,484	3,484	3,484	3,484
BRAZOS RUN-OF-RIVER	NOLAN	BRAZOS	FRESH	40	40	40	40	40	40
BRAZOS RUN-OF-RIVER	ROBERTSON	BRAZOS	FRESH	366	297	228	159	90	21
BRAZOS RUN-OF-RIVER	SHACKELFORD	BRAZOS	FRESH	57	57	57	57	57	57
BRAZOS RUN-OF-RIVER	SOMERVELL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	STONEWALL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	THROCKMORTON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	WILLIAMSON	BRAZOS	FRESH	52	52	52	52	52	52
CISCO LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	1,075	1,075	1,075	1,075	1,075	1,075
CITY OF HAMLIN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	50	40	30	20	10	0
CLIFTON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	400	350	300	250	200	150
CLYDE LAKE/RESERVOIR	RESERVOIR**	COLORADO	FRESH	500	500	500	500	500	500
COLORADO LIVESTOCK LOCAL SUPPLY	CALLAHAN	COLORADO	FRESH	0	0	0	0	0	0

* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Availability

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
COLORADO LIVESTOCK LOCAL SUPPLY	COMANCHE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	EASTLAND	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	LAMPASAS	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	LEE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	NOLAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	TAYLOR	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	WASHINGTON	COLORADO	FRESH	0	0	0	0	0	0
COOLIDGE LAKE/RESERVOIR	RESERVOIR**	TRINITY	FRESH	162	162	162	162	162	162
CRAWFORD LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
DANIEL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	175	170	165	160	155	150
DANSBY POWER PLANT/BRYAN UTILITIES LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	195	195	195	195	195	195
EASTLAND LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	500	500	500	500	500	500
FORT PHANTOM HILL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	4,800	4,700	4,600	4,500	4,400	3,600
GIBBONS CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	9,740	9,740	9,740	9,740	9,740	9,740
GORDON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
GRAHAM/EDDLEMAN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	1,275	1,155	1,035	915	795	675
HUBBARD CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	20,000	19,900	19,800	19,700	19,600	19,500
KIRBY LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	150	150	150	150	150	150
LAKE CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	9,900	9,900	9,900	9,900	9,900	9,900
LAKE DAVIS LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
LEON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	4,000	3,970	3,940	3,910	3,880	3,850
LYTLE LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	230	184	138	92	46	0
MCCARTY LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	75	60	45	30	15	0
MEXIA LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	1,100	1,000	900	800	700	600
MILLERS CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	75	60	45	30	15	0
MORAN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	50	40	30	20	10	0
NEW MARLIN CITY LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	2,250	2,200	2,150	2,100	2,050	2,000
PALO PINTO LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	7,800	7,660	7,520	7,380	7,240	7,100
PAT CLEBURNE LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	5,040	4,968	4,896	4,824	4,752	4,680
RED LIVESTOCK LOCAL SUPPLY	KNOX	RED	FRESH	197	197	197	197	197	197
SAN JACINTO LIVESTOCK LOCAL SUPPLY	GRIMES	SAN JACINTO	FRESH	370	370	370	370	370	370
SQUAW CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	8,050	7,982	7,914	7,846	7,778	7,710
STAMFORD LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	2,600	2,520	2,440	2,360	2,280	2,200
STRAWN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	160	160	160	160	160	160
SWEETWATER LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	500	500	500	500	500	500
THROCKMORTON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	50	40	30	20	10	0
TRADINGHOUSE CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	4,970	4,954	4,938	4,922	4,906	4,890
TRAMMEL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	225	180	135	90	45	0
TRINITY LIVESTOCK LOCAL SUPPLY	GRIMES	TRINITY	FRESH	260	260	260	260	260	260
TRINITY LIVESTOCK LOCAL SUPPLY	HILL	TRINITY	FRESH	240	240	240	240	240	240
TRINITY LIVESTOCK LOCAL SUPPLY	HOOD	TRINITY	FRESH	2	2	2	2	2	2
TRINITY LIVESTOCK LOCAL SUPPLY	JOHNSON	TRINITY	FRESH	323	323	323	323	323	323
TRINITY LIVESTOCK LOCAL SUPPLY	LIMESTONE	TRINITY	FRESH	182	182	182	182	182	182
TRINITY LIVESTOCK LOCAL SUPPLY	YOUNG	TRINITY	FRESH	137	137	137	137	137	137

* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Availability

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	**COUNTY**	**BASIN**	**SALINITY ***	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TWIN OAK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	2,900	2,872	2,844	2,816	2,788	2,760
WACO LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	75,800	75,700	75,600	75,500	75,400	75,300
WHEELER BRANCH OFF-CHANNEL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	1,960	1,960	1,960	1,960	1,960	1,960
WOODSON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
SURFACE WATER SOURCE AVAILABILITY TOTAI				**978,171**	**974,559**	**970,947**	**967,354**	**963,722**	**959,410**

REGION G SOURCE AVAILABILITY TOTAL	**1,829,640**	**1,827,952**	**1,838,910**	**1,854,547**	**1,861,708**	**1,859,650**
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* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
439 WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,624	1,624	1,624	1,624	1,624	1,624
ARMSTRONG WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	256	95	0	0	0	0
ARMSTRONG WSC	G	TRINITY AQUIFER | BELL COUNTY	699	860	955	955	955	955
BARTLETT	G	TRINITY AQUIFER | WILLIAMSON COUNTY	77	81	84	86	88	89
BELL COUNTY WCID 2	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	323	323	323	323	323	323
BELL COUNTY WCID 2	G	TRINITY AQUIFER | BELL COUNTY	88	88	88	88	88	88
BELL COUNTY WCID 3	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,207	1,601	2,176	2,552	2,840	3,125
BELL MILAM FALLS WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,009	1,011	1,019	1,027	1,023	1,022
BELL MILAM FALLS WSC	G	TRINITY AQUIFER | BELL COUNTY	153	153	155	156	155	155
BELTON	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	7,399	7,399	7,399	7,399	7,399	5,752
CENTRAL TEXAS COLLEGE DISTRICT	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	12	12	11	11	11	11
DOG RIDGE WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,638	1,638	1,638	1,638	1,638	1,638
EAST BELL WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	775	784	791	799	803	805
EAST BELL WSC	G	TRINITY AQUIFER | BELL COUNTY	379	383	386	391	392	394
ELM CREEK WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	320	324	329	333	334	335
FORT HOOD	G	BRAZOS RUN-OF-RIVER	6,563	6,609	6,623	6,624	6,623	6,624
GEORGETOWN*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	462	486	349	276	205	177
GEORGETOWN*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	3	4	11	15	13	12
HARKER HEIGHTS	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	8,203	8,184	8,164	8,145	8,125	8,106
HOLLAND	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	331	331	331	331	331	331
JARRELL-SCHWERTNER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,029	1,042	1,048	1,049	1,049	1,011
KEMPNER WSC*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	276	280	284	284	285	286
KILLEEN	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	16,068	18,673	21,476	24,389	27,379	30,359
KILLEEN	G	DIRECT REUSE	2,240	2,240	2,240	2,240	2,240	2,240
LITTLE ELM VALLEY WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	520	520	521	521	520	520
LITTLE ELM VALLEY WSC	G	TRINITY AQUIFER | BELL COUNTY	87	88	88	88	87	88
MOFFAT WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,106	1,101	1,095	1,090	1,085	1,079
MOFFAT WSC	G	TRINITY AQUIFER | BELL COUNTY	299	299	299	299	299	299
MORGANS POINT RESORT	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,935	1,935	1,935	1,935	1,935	1,935
PENDLETON WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	446	443	441	438	435	432
PENDLETON WSC	G	TRINITY AQUIFER | BELL COUNTY	146	146	146	146	146	146
ROGERS	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	486	486	486	486	486	486
SALADO WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	183	183	183	183	183	183
SALADO WSC	G	EDWARDS-BFZ AQUIFER | BELL COUNTY	2,053	2,053	2,053	2,053	2,053	2,053

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
TEMPLE	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	17,066	17,350	17,634	17,919	18,203	18,487
TEMPLE	G	BRAZOS RUN-OF-RIVER	2,497	2,213	1,929	1,644	1,360	1,076
THE GROVE WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	177	184	209	235	261	288
TROY	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	959	959	959	959	959	959
TROY	G	TRINITY AQUIFER | BELL COUNTY	92	92	92	92	92	92
WEST BELL COUNTY WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,660	1,660	1,660	1,660	1,660	1,660
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,127	1,127	1,127	1,127	1,127	1,127
COUNTY-OTHER	G	TRINITY AQUIFER | BELL COUNTY	351	351	351	351	351	351
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	497	497	497	497	497	497
MANUFACTURING	G	TRINITY AQUIFER | BELL COUNTY	2	2	2	2	2	2
MINING	G	TRINITY AQUIFER | BELL COUNTY	1,165	1,165	1,165	1,165	1,165	1,165
STEAM ELECTRIC POWER	G	DIRECT REUSE	10,080	10,080	10,080	10,080	10,080	10,080
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,172	1,172	1,172	1,172	1,172	1,172
IRRIGATION	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	256	254	253	251	249	248
IRRIGATION	G	BRAZOS RUN-OF-RIVER	357	349	340	332	324	316
IRRIGATION	G	EDWARDS-BFZ AQUIFER | BELL COUNTY	1,114	1,114	1,114	1,114	1,114	1,114
IRRIGATION	G	TRINITY AQUIFER | BELL COUNTY	446	446	446	446	446	446
		BRAZOS BASIN TOTAL	**97,413**	**100,494**	**103,781**	**107,020**	**110,214**	**111,763**
		BELL COUNTY TOTAL	**97,413**	**100,494**	**103,781**	**107,020**	**110,214**	**111,763**
CHILDRESS CREEK WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	512	512	512	512	512	512
CLIFTON	G	CLIFTON LAKE/RESERVOIR	288	238	195	162	130	97
CLIFTON	G	TRINITY AQUIFER | BOSQUE COUNTY	630	630	630	630	630	630
CROSS COUNTRY WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	20	21	21	21	21	21
CROSS COUNTRY WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	162	171	174	177	177	176
HIGHLAND PARK WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	60	60	60	60	60	60
HILCO UNITED SERVICES*	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	38	38	38	38	38	37
HILCO UNITED SERVICES*	G	TRINITY AQUIFER | HILL COUNTY	210	210	209	209	209	212
MERIDIAN	G	CLIFTON LAKE/RESERVOIR	112	112	105	88	70	53
MERIDIAN	G	TRINITY AQUIFER | BOSQUE COUNTY	375	375	375	375	375	375
MUSTANG VALLEY WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	483	483	482	482	482	482
SMITH BEND WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	215	215	215	215	215	215
VALLEY MILLS	G	TRINITY AQUIFER | BOSQUE COUNTY	323	321	319	317	316	315
COUNTY-OTHER	G	TRINITY AQUIFER | BOSQUE COUNTY	899	899	899	899	899	899
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	5	5	5	5	5	5
MANUFACTURING	G	TRINITY AQUIFER | BOSQUE COUNTY	241	241	241	241	241	241
MINING	G	TRINITY AQUIFER | BOSQUE COUNTY	1,166	1,166	1,166	1,166	1,166	1,166
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	6,500	6,500	6,500	6,500	6,500	6,500
STEAM ELECTRIC POWER	G	TRINITY AQUIFER | BOSQUE COUNTY	1	1	1	1	1	1
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	979	979	979	979	979	979
IRRIGATION	G	BRAZOS RUN-OF-RIVER	132	132	132	132	132	132
IRRIGATION	G	TRINITY AQUIFER | BOSQUE COUNTY	2,079	2,079	2,079	2,079	2,079	2,079

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
		BRAZOS BASIN TOTAL	**15,430**	**15,388**	**15,337**	**15,288**	**15,237**	**15,187**
		BOSQUE COUNTY TOTAL	**15,430**	**15,388**	**15,337**	**15,288**	**15,237**	**15,187**
BRYAN	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	15,159	15,460	15,645	15,770	15,882	15,970
COLLEGE STATION	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	16,261	16,261	16,261	16,261	16,261	16,261
COLLEGE STATION	G	SPARTA AQUIFER | BRAZOS COUNTY	603	727	742	742	742	742
TEXAS A&M UNIVERSITY	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	5,397	5,397	5,397	5,397	5,397	5,397
TEXAS A&M UNIVERSITY	G	SPARTA AQUIFER | BRAZOS COUNTY	826	995	1,015	1,015	1,015	1,015
WELLBORN SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	874	938	949	960	969	977
WELLBORN SUD	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	4,109	4,306	4,343	4,390	4,434	4,470
WELLBORN SUD	G	SPARTA AQUIFER | BRAZOS COUNTY	486	627	648	656	662	667
WELLBORN SUD	G	YEGUA-JACKSON AQUIFER | BRAZOS COUNTY	586	629	637	644	650	655
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	1,182	1,073	963	878	808	745
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	68	68	69	70	70	70
WICKSON CREEK SUD	G	SPARTA AQUIFER | BRAZOS COUNTY	832	1,013	1,042	1,051	1,063	1,063
WICKSON CREEK SUD	G	YEGUA-JACKSON AQUIFER | GRIMES COUNTY	194	194	195	197	198	199
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	30	30	30	30	30	30
COUNTY-OTHER	G	QUEEN CITY AQUIFER | BRAZOS COUNTY	400	400	400	400	400	400
MANUFACTURING	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	755	755	755	755	755	755
MANUFACTURING	G	SPARTA AQUIFER | BRAZOS COUNTY	1,712	2,061	2,103	2,103	2,103	2,103
MINING	G	YEGUA-JACKSON AQUIFER | BRAZOS COUNTY	1,640	1,640	1,640	1,640	1,640	1,640
STEAM ELECTRIC POWER	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	133	133	133	133	133	133
STEAM ELECTRIC POWER	G	DANSBY POWER PLANT/BRYAN UTILITIES LAKE/RESERVOIR	195	195	195	195	195	195
STEAM ELECTRIC POWER	G	SPARTA AQUIFER | BRAZOS COUNTY	92	111	113	113	113	113
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,243	1,243	1,243	1,243	1,243	1,243
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | BRAZOS COUNTY	42,298	42,298	42,298	42,298	42,298	42,298
IRRIGATION	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	350	350	350	350	350	350
IRRIGATION	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	1,673	1,673	1,673	1,673	1,673	1,673
IRRIGATION	G	SPARTA AQUIFER | BRAZOS COUNTY	343	413	421	421	421	421
IRRIGATION	G	YEGUA-JACKSON AQUIFER | BRAZOS COUNTY	837	837	837	837	837	837
		BRAZOS BASIN TOTAL	**98,278**	**99,827**	**100,097**	**100,222**	**100,342**	**100,422**
		BRAZOS COUNTY TOTAL	**98,278**	**99,827**	**100,097**	**100,222**	**100,342**	**100,422**
CALDWELL	G	CARRIZO-WILCOX AQUIFER | BURLESON COUNTY	2,276	2,276	2,276	2,276	2,276	2,276
DEANVILLE WSC	G	CARRIZO-WILCOX AQUIFER | BURLESON COUNTY	659	659	659	659	659	659
MILANO WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	255	217	231	230	239	243
SNOOK	G	SPARTA AQUIFER | BURLESON COUNTY	494	494	494	494	494	494
SOMERVILLE	G	SPARTA AQUIFER | BURLESON COUNTY	891	891	891	891	891	891
SOUTHWEST MILAM WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	140	113	101	108	114	108
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | BURLESON COUNTY	550	550	550	550	550	550
COUNTY-OTHER	G	QUEEN CITY AQUIFER | BURLESON COUNTY	250	250	250	250	250	250
MANUFACTURING	G	SPARTA AQUIFER | BURLESON COUNTY	111	111	111	111	111	111
MINING	G	YEGUA-JACKSON AQUIFER | BURLESON COUNTY	2,018	2,018	2,018	2,018	2,018	2,018
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,390	1,390	1,390	1,390	1,390	1,390
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | BURLESON COUNTY	25,189	25,189	25,189	25,189	25,189	25,189
IRRIGATION	G	CARRIZO-WILCOX AQUIFER | BURLESON COUNTY	294	294	294	294	294	294
IRRIGATION	G	YEGUA-JACKSON AQUIFER | BURLESON COUNTY	974	974	974	974	974	974

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
		BRAZOS BASIN TOTAL	**35,491**	**35,426**	**35,428**	**35,434**	**35,449**	**35,447**
		BURLESON COUNTY TOTAL	**35,491**	**35,426**	**35,428**	**35,434**	**35,449**	**35,447**
BAIRD	G	BAIRD LAKE/RESERVOIR	25	20	15	10	5	0
BAIRD	G	BRAZOS INDIRECT REUSE	77	77	77	77	77	77
CALLAHAN COUNTY WSC	G	CLYDE LAKE/RESERVOIR	159	161	160	160	161	162
CLYDE	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	0	0	240	240	240	239
CLYDE	G	CLYDE LAKE/RESERVOIR	74	72	73	74	72	71
EULA WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	24	24
EULA WSC	G	CLYDE LAKE/RESERVOIR	88	88	88	88	89	88
EULA WSC	G	HUBBARD CREEK LAKE/RESERVOIR	24	25	24	25	0	0
HAMBY WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	35	35
HAMBY WSC	G	HUBBARD CREEK LAKE/RESERVOIR	36	35	35	35	0	0
POTOSI WSC	G	HUBBARD CREEK LAKE/RESERVOIR	5	5	5	5	5	5
COUNTY-OTHER	G	TRINITY AQUIFER | CALLAHAN COUNTY	128	129	128	129	128	128
MINING	G	TRINITY AQUIFER | CALLAHAN COUNTY	41	41	42	41	41	41
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	359	359	359	359	359	359
IRRIGATION	G	TRINITY AQUIFER | CALLAHAN COUNTY	247	246	247	246	247	246
		BRAZOS BASIN TOTAL	**1,263**	**1,258**	**1,493**	**1,489**	**1,483**	**1,475**
CALLAHAN COUNTY WSC	G	CLYDE LAKE/RESERVOIR	20	21	20	20	21	21
CLYDE	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	0	0	67	67	67	68
CLYDE	G	CLYDE LAKE/RESERVOIR	21	20	21	20	20	20
COLEMAN COUNTY SUD*	F	BROWNWOOD LAKE/RESERVOIR	15	16	16	16	16	16
COLEMAN COUNTY SUD*	F	COLEMAN LAKE/RESERVOIR	0	0	0	0	0	0
COLEMAN COUNTY SUD*	F	HORDS CREEK LAKE/RESERVOIR	0	0	0	0	0	0
CROSS PLAINS	G	TRINITY AQUIFER | CALLAHAN COUNTY	310	310	310	310	310	310
EULA WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	37	37
EULA WSC	G	CLYDE LAKE/RESERVOIR	133	133	133	133	132	133
EULA WSC	G	HUBBARD CREEK LAKE/RESERVOIR	37	36	37	36	0	0
COUNTY-OTHER	G	TRINITY AQUIFER | CALLAHAN COUNTY	139	138	139	138	139	139
MINING	G	TRINITY AQUIFER | CALLAHAN COUNTY	39	39	38	39	39	39
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	538	538	538	538	538	538
IRRIGATION	G	TRINITY AQUIFER | CALLAHAN COUNTY	825	822	825	822	825	822
		COLORADO BASIN TOTAL	**2,077**	**2,073**	**2,144**	**2,139**	**2,144**	**2,143**
		CALLAHAN COUNTY TOTAL	**3,340**	**3,331**	**3,637**	**3,628**	**3,627**	**3,618**
COMANCHE	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	686	686	686	686	686	686
DE LEON	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	307	307	307	307	307	307
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	9	9	9	9	9	9
COUNTY-OTHER	G	TRINITY AQUIFER | COMANCHE COUNTY	342	342	341	342	342	342
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	20	20	20	20	20	20
MANUFACTURING	G	TRINITY AQUIFER | COMANCHE COUNTY	4	4	4	4	4	4
MINING	G	TRINITY AQUIFER | COMANCHE COUNTY	212	211	212	211	212	211
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	3,142	3,142	3,142	3,142	3,142	3,142
IRRIGATION	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	5,529	5,492	5,456	5,419	5,383	5,347

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
IRRIGATION	G	TRINITY AQUIFER | COMANCHE COUNTY	11,510	11,478	11,510	11,478	11,510	11,478
		BRAZOS BASIN TOTAL	**21,761**	**21,691**	**21,687**	**21,618**	**21,615**	**21,546**
COUNTY-OTHER	G	TRINITY AQUIFER | COMANCHE COUNTY	4	4	5	4	4	4
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	101	101	101	101	101	101
		COLORADO BASIN TOTAL	**105**	**105**	**106**	**105**	**105**	**105**
		COMANCHE COUNTY TOTAL	**21,866**	**21,796**	**21,793**	**21,723**	**21,720**	**21,651**
CENTRAL TEXAS COLLEGE DISTRICT	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	120	117	115	114	114	114
COPPERAS COVE	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	8,444	8,400	8,373	8,344	5,879	4,810
CORYELL CITY WATER SUPPLY DISTRICT	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,024	1,111	1,216	1,310	1,415	1,521
CORYELL CITY WATER SUPPLY DISTRICT	G	TRINITY AQUIFER | CORYELL COUNTY	72	71	71	71	71	71
ELM CREEK WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	56	54	54	52	52	51
FLAT WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	102	102	102	102	102	102
FORT GATES WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	120	120	120	120	120	120
FORT HOOD	G	BRAZOS RUN-OF-RIVER	5,432	5,386	5,372	5,371	5,372	5,371
GATESVILLE	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	3,260	3,109	2,922	2,743	2,555	2,362
KEMPNER WSC*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	512	513	516	518	520	522
MOUNTAIN WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	280	280	280	280	280	280
MOUNTAIN WSC	G	TRINITY AQUIFER | CORYELL COUNTY	74	74	74	74	74	74
MOUNTAIN WSC	G	TRINITY AQUIFER | JOHNSON COUNTY	73	73	73	73	73	73
MULTI COUNTY WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	198	202	206	209	212	214
MUSTANG VALLEY WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	6	6	7	7	7	7
OGLESBY	G	TRINITY AQUIFER | CORYELL COUNTY	211	211	211	211	211	211
THE GROVE WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	26	27	30	34	38	42
COUNTY-OTHER	G	TRINITY AQUIFER | CORYELL COUNTY	614	614	614	614	614	614
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	4	4	4	4	4	4
MINING	G	TRINITY AQUIFER | CORYELL COUNTY	195	195	195	195	195	195
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,133	1,133	1,133	1,133	1,133	1,133
IRRIGATION	G	BRAZOS RUN-OF-RIVER	530	530	530	530	530	530
IRRIGATION	G	TRINITY AQUIFER | CORYELL COUNTY	516	516	516	516	516	516
		BRAZOS BASIN TOTAL	**23,002**	**22,848**	**22,734**	**22,625**	**20,087**	**18,937**
		CORYELL COUNTY TOTAL	**23,002**	**22,848**	**22,734**	**22,625**	**20,087**	**18,937**
CISCO	G	CISCO LAKE/RESERVOIR	928	928	928	928	928	928
EASTLAND	G	LEON LAKE/RESERVOIR	2,152	2,114	2,084	2,054	2,024	1,994
FORT GRIFFIN SUD	G	HUBBARD CREEK LAKE/RESERVOIR	2	2	2	2	2	2
GORMAN	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	169	169	169	169	169	169
RANGER	G	EASTLAND LAKE/RESERVOIR	476	472	472	472	472	472
RANGER	G	LEON LAKE/RESERVOIR	1,317	1,321	1,321	1,321	1,321	1,321
RISING STAR	G	TRINITY AQUIFER | EASTLAND COUNTY	170	170	170	170	170	170
STAFF WSC	G	LEON LAKE/RESERVOIR	198	197	198	197	198	198

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
STEPHENS REGIONAL SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	24	24	24	24	23	23
COUNTY-OTHER	G	CISCO LAKE/RESERVOIR	140	140	140	140	140	140
COUNTY-OTHER	G	LEON LAKE/RESERVOIR	110	111	112	113	113	113
COUNTY-OTHER	G	TRINITY AQUIFER | EASTLAND COUNTY	192	190	191	189	191	190
MANUFACTURING	G	BRAZOS RUN-OF-RIVER	42	42	42	42	42	42
MANUFACTURING	G	EASTLAND LAKE/RESERVOIR	24	28	28	28	28	28
MANUFACTURING	G	LEON LAKE/RESERVOIR	24	28	28	28	28	28
MINING	G	TRINITY AQUIFER | EASTLAND COUNTY	234	235	234	235	235	235
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,078	1,078	1,078	1,078	1,078	1,078
IRRIGATION	G	BRAZOS RUN-OF-RIVER	83	83	83	83	83	83
IRRIGATION	G	TRINITY AQUIFER | EASTLAND COUNTY	4,624	4,611	4,624	4,611	4,624	4,611
		BRAZOS BASIN TOTAL	**11,987**	**11,943**	**11,928**	**11,884**	**11,869**	**11,825**
COUNTY-OTHER	G	CISCO LAKE/RESERVOIR	7	7	7	7	7	7
COUNTY-OTHER	G	LEON LAKE/RESERVOIR	10	9	8	7	7	7
COUNTY-OTHER	G	TRINITY AQUIFER | EASTLAND COUNTY	11	12	12	13	12	12
MINING	G	TRINITY AQUIFER | EASTLAND COUNTY	9	8	9	8	8	8
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	39	39	39	39	39	39
IRRIGATION	G	TRINITY AQUIFER | EASTLAND COUNTY	403	403	403	403	403	403
		COLORADO BASIN TOTAL	**479**	**478**	**478**	**477**	**476**	**476**
		EASTLAND COUNTY TOTAL	**12,466**	**12,421**	**12,406**	**12,361**	**12,345**	**12,301**
DUBLIN	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	521	519	518	517	516	514
GORDON		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
STEPHENVILLE	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,862	1,862	1,862	1,862	1,862	1,862
STEPHENVILLE	G	TRINITY AQUIFER | ERATH COUNTY	3,751	3,745	3,738	3,732	3,725	3,716
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	72	72	72	72	72	72
COUNTY-OTHER	G	STRAWN LAKE/RESERVOIR	49	49	49	49	48	48
COUNTY-OTHER	G	TRINITY AQUIFER | ERATH COUNTY	3,211	3,211	3,211	3,211	3,211	3,211
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	5	7	8	9	10	12
MANUFACTURING	G	STRAWN LAKE/RESERVOIR	1	1	1	1	2	2
MANUFACTURING	G	TRINITY AQUIFER | ERATH COUNTY	65	71	78	84	91	100
MINING	G	TRINITY AQUIFER | ERATH COUNTY	1,007	1,007	1,007	1,007	1,007	1,007
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	5,739	5,739	5,739	5,739	5,739	5,739
IRRIGATION	G	BRAZOS RUN-OF-RIVER	98	98	98	98	98	98
IRRIGATION	G	TRINITY AQUIFER | ERATH COUNTY	7,288	7,288	7,288	7,288	7,288	7,288
		BRAZOS BASIN TOTAL	**23,669**	**23,669**	**23,669**	**23,669**	**23,669**	**23,669**
		ERATH COUNTY TOTAL	**23,669**	**23,669**	**23,669**	**23,669**	**23,669**	**23,669**
BELL MILAM FALLS WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	515	503	478	444	432	421
BELL MILAM FALLS WSC	G	TRINITY AQUIFER | BELL COUNTY	78	76	72	67	65	64
BRUCEVILLE EDDY	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	173	171	211	209	208	207
BRUCEVILLE EDDY	G	TRINITY AQUIFER | MCLENNAN COUNTY	118	117	145	145	145	145
CEGO-DURANGO WSC	G	TRINITY AQUIFER | FALLS COUNTY	205	205	205	205	205	205
EAST BELL WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	72	63	56	48	44	42
EAST BELL WSC	G	TRINITY AQUIFER | BELL COUNTY	35	31	28	23	22	20

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
LITTLE ELM VALLEY WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	27	27	26	26	27	27
LITTLE ELM VALLEY WSC	G	TRINITY AQUIFER | BELL COUNTY	5	4	4	4	5	4
MARLIN	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	550	600	650	700	750	800
MARLIN	G	NEW MARLIN CITY LAKE/RESERVOIR	2,250	2,200	2,150	2,100	2,050	2,000
NORTH MILAM WSC	G	BRAZOS RUN-OF-RIVER	0	0	0	0	0	1
NORTH MILAM WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	5	4	4	4	4	5
ROSEBUD	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	525	525	525	525	525	525
ROSEBUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	100	100	100	100	100	100
WEST BRAZOS WSC	G	TRINITY AQUIFER | FALLS COUNTY	313	309	302	289	286	281
WEST BRAZOS WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	123	121	118	113	112	110
COUNTY-OTHER	G	BRAZOS RIVER ALLUVIUM AQUIFER | FALLS COUNTY	170	170	170	170	170	170
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	92	92	92	92	92	92
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | FALLS COUNTY	514	518	524	530	530	530
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | FALLS COUNTY	98	98	98	98	98	98
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,833	1,833	1,833	1,833	1,833	1,833
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | FALLS COUNTY	8,656	8,656	8,656	8,656	8,656	8,656
IRRIGATION	G	BRAZOS RUN-OF-RIVER	174	174	174	174	174	174
		BRAZOS BASIN TOTAL	**16,631**	**16,597**	**16,621**	**16,555**	**16,533**	**16,510**
		FALLS COUNTY TOTAL	**16,631**	**16,597**	**16,621**	**16,555**	**16,533**	**16,510**
ROBY	G	DOCKUM AQUIFER | NOLAN COUNTY	124	121	119	117	117	117
ROBY	G	SEYMOUR AQUIFER | FISHER COUNTY	34	34	34	34	34	34
ROTAN	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	41	49	43	38	34	31
ROTAN	F	DIRECT REUSE	5	7	6	6	5	5
ROTAN	F	EDWARDS-TRINITY-PLATEAU AND PECOS VALLEY AQUIFERS | WARD COUNTY	107	106	109	96	85	74
ROTAN	F	OGALLALA AND EDWARDS-TRINITY-HIGH PLAINS AQUIFERS | MARTIN COUNTY	3	4	3	3	3	3
THE BITTER CREEK WSC	G	DOCKUM AQUIFER | NOLAN COUNTY	45	43	42	41	41	40
COUNTY-OTHER	G	SEYMOUR AQUIFER | FISHER COUNTY	76	76	76	76	76	76
MANUFACTURING	G	DOCKUM AQUIFER | FISHER COUNTY	79	79	79	79	79	79
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU AND PECOS VALLEY AQUIFERS | WARD COUNTY	4	4	4	4	4	4
MANUFACTURING	G	HUBBARD CREEK LAKE/RESERVOIR	2	2	2	2	2	2
MANUFACTURING	G	SEYMOUR AQUIFER | FISHER COUNTY	154	154	154	154	154	154
MINING	G	BLAINE AQUIFER | FISHER COUNTY	216	216	216	216	216	216
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	620	620	620	620	620	620
IRRIGATION	G	BLAINE AQUIFER | FISHER COUNTY	3,642	3,642	3,642	3,642	3,642	3,642
IRRIGATION	G	SEYMOUR AQUIFER | FISHER COUNTY	1,820	1,820	1,820	1,820	1,820	1,820
		BRAZOS BASIN TOTAL	**6,972**	**6,977**	**6,969**	**6,948**	**6,932**	**6,917**
		FISHER COUNTY TOTAL	**6,972**	**6,977**	**6,969**	**6,948**	**6,932**	**6,917**
DOBBIN PLANTERSVILLE WSC*	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	44	49	53	58	62	66
G & W WSC*	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	385	501	591	688	769	841
NAVASOTA	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	2,039	2,039	2,039	2,039	2,015	1,970
TDCJ LUTHER UNITS	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	825	825	825	825	825	825
TDCJ W PACK UNIT	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	631	631	631	631	631	631
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	445	388	339	305	269	247

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	25	25	24	23	23	23
WICKSON CREEK SUD	G	SPARTA AQUIFER | BRAZOS COUNTY	314	366	367	359	348	348
WICKSON CREEK SUD	G	YEGUA-JACKSON AQUIFER | GRIMES COUNTY	70	70	69	67	66	65
COUNTY-OTHER	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	307	309	309	307	307	308
MANUFACTURING	G	BRAZOS RUN-OF-RIVER	100	100	100	100	100	100
MANUFACTURING	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	3	3	3	3	4	5
MANUFACTURING	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	366	366	366	366	390	435
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	104	104	104	104	104	103
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,284	1,284	1,284	1,284	1,284	1,284
STEAM ELECTRIC POWER	G	GIBBONS CREEK LAKE/RESERVOIR	9,740	9,740	9,740	9,740	9,740	9,740
STEAM ELECTRIC POWER	H	LIVINGSTON-WALLISVILLE LAKE/RESERVOIR SYSTEM	4,704	4,704	4,704	4,704	4,704	4,704
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,233	1,233	1,233	1,233	1,233	1,233
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	81	81	81	81	81	81
IRRIGATION	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	272	272	272	272	272	272
IRRIGATION	G	NAVASOTA RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	45	45	45	45	45	45
		BRAZOS BASIN TOTAL	**23,017**	**23,135**	**23,179**	**23,234**	**23,272**	**23,326**
DOBBIN PLANTERSVILLE WSC*	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	138	156	170	185	198	210
G & W WSC*	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	51	67	78	91	102	111
COUNTY-OTHER	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	594	592	592	592	592	592
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	46	46	46	46	46	46
MINING	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	31	31	31	31	31	31
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	2,316	2,316	2,316	2,316	2,316	2,316
STEAM ELECTRIC POWER	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	2	2	2	2	2	2
STEAM ELECTRIC POWER	H	LIVINGSTON-WALLISVILLE LAKE/RESERVOIR SYSTEM	2,016	2,016	2,016	2,016	2,016	2,016
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	523	523	523	523	523	523
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	24	24	24	24	24	24
IRRIGATION	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	82	82	82	82	82	82
IRRIGATION	G	NAVASOTA RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	13	13	13	13	13	13
		SAN JACINTO BASIN TOTAL	**5,836**	**5,868**	**5,893**	**5,921**	**5,945**	**5,966**
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	40	34	30	27	23	21
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	2	2	2	2	2	2
WICKSON CREEK SUD	G	SPARTA AQUIFER | BRAZOS COUNTY	28	33	32	31	30	30
WICKSON CREEK SUD	G	YEGUA-JACKSON AQUIFER | GRIMES COUNTY	6	6	6	6	6	6
COUNTY-OTHER	G	GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	350	350	350	352	352	351
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | GRIMES COUNTY	9	9	9	9	9	10
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	367	367	367	367	367	367
		TRINITY BASIN TOTAL	**802**	**801**	**796**	**794**	**789**	**787**
		GRIMES COUNTY TOTAL	**29,655**	**29,804**	**29,868**	**29,949**	**30,006**	**30,079**
HAMILTON	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	670	670	670	670	670	670
HICO	G	TRINITY AQUIFER | HAMILTON COUNTY	567	567	567	567	567	567
MULTI COUNTY WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	47	43	39	36	33	31
COUNTY-OTHER	G	TRINITY AQUIFER | HAMILTON COUNTY	450	450	450	450	450	450
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1	1	1	1	1	1

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MANUFACTURING	G	TRINITY AQUIFER | HAMILTON COUNTY	2	2	2	2	2	2
MINING	G	TRINITY AQUIFER | HAMILTON COUNTY	256	256	256	256	256	256
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,393	1,393	1,393	1,393	1,393	1,393
IRRIGATION	G	BRAZOS RUN-OF-RIVER	18	15	13	10	7	5
IRRIGATION	G	TRINITY AQUIFER | HAMILTON COUNTY	857	857	857	857	857	857
		BRAZOS BASIN TOTAL	**4,261**	**4,254**	**4,248**	**4,242**	**4,236**	**4,232**
		HAMILTON COUNTY TOTAL	**4,261**	**4,254**	**4,248**	**4,242**	**4,236**	**4,232**
HASKELL	G	MILLERS CREEK LAKE/RESERVOIR	27	21	16	10	5	0
STAMFORD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	9	8	9	9	11	11
STAMFORD	G	STAMFORD LAKE/RESERVOIR	4	3	2	1	1	0
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	160	160	160	160	160	160
COUNTY-OTHER	G	MILLERS CREEK LAKE/RESERVOIR	10	8	5	5	3	0
COUNTY-OTHER	G	SEYMOUR AQUIFER | HASKELL COUNTY	190	190	190	190	190	190
MINING		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	444	444	444	444	444	444
IRRIGATION	G	SEYMOUR AQUIFER | HASKELL COUNTY	41,560	41,446	41,560	41,446	41,560	41,446
		BRAZOS BASIN TOTAL	**42,404**	**42,280**	**42,386**	**42,265**	**42,374**	**42,251**
		HASKELL COUNTY TOTAL	**42,404**	**42,280**	**42,386**	**42,265**	**42,374**	**42,251**
BIROME WSC	C	NAVARRO MILLS LAKE/RESERVOIR	68	68	68	68	68	68
BIROME WSC	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	14	14	14	14	14	14
BIROME WSC	G	TRINITY AQUIFER | HILL COUNTY	135	135	135	136	137	135
BOLD SPRINGS WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	49	49	50	49	49	50
BOLD SPRINGS WSC	G	WACO LAKE/RESERVOIR	45	45	45	45	44	45
BRANDON IRENE WSC*	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	44	47	46	46	44	42
BRANDON IRENE WSC*	G	TRINITY AQUIFER | HILL COUNTY	44	43	43	42	41	41
CHATT WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	70	75	76	76	75	72
CHATT WSC	G	TRINITY AQUIFER | HILL COUNTY	34	30	26	21	17	12
DOUBLE DIAMOND UTILITIES	G	TRINITY AQUIFER | HILL COUNTY	429	425	428	425	427	407
FILES VALLEY WSC*	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	274	296	280	261	246	215
GHOLSON WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	212	213	213	212	213	213
HILCO UNITED SERVICES*	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	108	108	108	108	107	102
HILCO UNITED SERVICES*	G	TRINITY AQUIFER | HILL COUNTY	595	596	597	596	597	593
HILL COUNTY WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	211	230	230	230	230	220
HILL COUNTY WSC	G	TRINITY AQUIFER | HILL COUNTY	588	586	588	586	588	586
HILLSBORO	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	3,833	3,634	3,632	3,631	3,629	3,468
ITASCA	G	TRINITY AQUIFER | HILL COUNTY	203	203	203	203	202	202
JOHNSON COUNTY SUD*	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	8	9	9	9	9	9
JOHNSON COUNTY SUD*	G	TRINITY AQUIFER | JOHNSON COUNTY	5	5	5	5	5	5
JOHNSON COUNTY SUD*	C	TRWD LAKE/RESERVOIR SYSTEM	2	8	10	8	7	7
PARKER WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	24	21	18	16	14	13
PARKER WSC	G	TRINITY AQUIFER | JOHNSON COUNTY	20	17	15	13	11	10

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
POST OAK SUD*	C	NAVARRO MILLS LAKE/RESERVOIR	8	8	11	7	5	2
POST OAK SUD*	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	2	2	2	1	1	0
WHITNEY	G	TRINITY AQUIFER | HILL COUNTY	492	454	455	453	460	470
WOODROW OSCEOLA WSC	G	TRINITY AQUIFER | HILL COUNTY	620	654	657	655	653	638
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	26	28	28	29	30	31
COUNTY-OTHER	C	NAVARRO MILLS LAKE/RESERVOIR	76	81	80	70	58	49
COUNTY-OTHER	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	15	16	16	14	11	10
COUNTY-OTHER	G	TRINITY AQUIFER | HILL COUNTY	3	3	3	3	3	3
COUNTY-OTHER	G	WOODBINE AQUIFER | HILL COUNTY	16	16	16	16	16	16
MANUFACTURING	G	TRINITY AQUIFER | HILL COUNTY	45	50	55	60	65	70
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | HILL COUNTY	241	241	241	241	241	241
MINING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	800	800	800	799	800	801
MINING	G	TRINITY AQUIFER | HILL COUNTY	2	2	2	2	2	2
MINING	G	WOODBINE AQUIFER | HILL COUNTY	76	76	76	76	76	76
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,066	1,066	1,066	1,066	1,066	1,066
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | HILL COUNTY	0	7	20	19	20	19
IRRIGATION	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,000	1,000	1,000	1,000	1,000	1,000
IRRIGATION	G	BRAZOS RUN-OF-RIVER	1	1	1	1	1	1
IRRIGATION	G	WOODBINE AQUIFER | HILL COUNTY	136	139	139	139	139	139
		BRAZOS BASIN TOTAL	**11,640**	**11,501**	**11,507**	**11,451**	**11,421**	**11,163**
BIROME WSC	C	NAVARRO MILLS LAKE/RESERVOIR	1	1	1	1	1	1
BIROME WSC	G	TRINITY AQUIFER | HILL COUNTY	3	3	3	2	2	2
BRANDON IRENE WSC*	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	159	173	170	166	163	151
BRANDON IRENE WSC*	G	TRINITY AQUIFER | HILL COUNTY	161	158	157	153	151	148
CHATT WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	9	11	10	10	11	10
CHATT WSC	G	TRINITY AQUIFER | HILL COUNTY	5	4	3	3	2	2
FILES VALLEY WSC*	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	606	655	624	583	545	477
HUBBARD	C	NAVARRO MILLS LAKE/RESERVOIR	122	124	135	127	117	100
HUBBARD	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	25	25	27	25	23	20
HUBBARD	G	TRINITY AQUIFER | HILL COUNTY	258	257	258	257	258	257
ITASCA	G	TRINITY AQUIFER | HILL COUNTY	14	14	14	14	15	15
PARKER WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	5	5	4	3	3	3
PARKER WSC	G	TRINITY AQUIFER | JOHNSON COUNTY	4	4	3	3	3	3
POST OAK SUD*	C	NAVARRO MILLS LAKE/RESERVOIR	46	47	59	42	26	9
POST OAK SUD*	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	10	10	13	9	6	3
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	3	3	4	4	4	4
COUNTY-OTHER	C	NAVARRO MILLS LAKE/RESERVOIR	16	18	17	15	13	11
COUNTY-OTHER	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	3	4	3	3	3	2
COUNTY-OTHER	G	TRINITY AQUIFER | HILL COUNTY	1	1	1	1	1	1
COUNTY-OTHER	G	WOODBINE AQUIFER | HILL COUNTY	4	4	4	4	4	4

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | HILL COUNTY	60	60	60	60	60	60
MINING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	200	200	200	201	200	199
MINING	G	WOODBINE AQUIFER | HILL COUNTY	19	19	19	19	19	19
STEAM ELECTRIC POWER		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	271	271	271	271	271	271
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | HILL COUNTY	331	324	311	312	311	312
IRRIGATION	G	WOODBINE AQUIFER | HILL COUNTY	72	68	69	68	69	68
		TRINITY BASIN TOTAL	**2,408**	**2,463**	**2,440**	**2,356**	**2,281**	**2,152**
		HILL COUNTY TOTAL	**14,048**	**13,964**	**13,947**	**13,807**	**13,702**	**13,315**
ACTON MUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	2,829	2,810	2,768	2,724	2,124	1,551
ACTON MUD	G	TRINITY AQUIFER | HOOD COUNTY	1,505	1,505	1,505	1,505	1,505	1,505
GRANBURY	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,400	1,400	1,400	1,400	1,400	1,400
GRANBURY	G	TRINITY AQUIFER | HOOD COUNTY	1,011	1,011	1,011	1,011	1,011	1,011
LIPAN	G	TRINITY AQUIFER | HOOD COUNTY	173	173	173	173	173	173
SANTO SUD*	G	PALO PINTO LAKE/RESERVOIR	8	8	8	9	8	9
TOLAR	G	TRINITY AQUIFER | HOOD COUNTY	224	224	224	224	224	224
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	778	798	840	884	1,490	2,068
COUNTY-OTHER	G	TRINITY AQUIFER | HOOD COUNTY	16	16	16	16	16	16
MANUFACTURING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	10,000	10,000	10,000	10,000	10,000	10,000
MANUFACTURING	G	TRINITY AQUIFER | HOOD COUNTY	25	25	25	25	25	25
MINING	G	TRINITY AQUIFER | HOOD COUNTY	1,401	1,401	1,401	1,401	1,401	1,401
STEAM ELECTRIC POWER	G	BRA SYSTEM OPERATIONS PERMIT SUPPLY	13,082	13,618	14,153	14,689	15,225	15,760
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	4,477	3,941	3,406	2,870	2,334	1,799
STEAM ELECTRIC POWER	G	TRINITY AQUIFER | HOOD COUNTY	150	150	150	150	150	150
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	511	511	511	511	511	511
IRRIGATION	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	4,540	4,540	4,540	4,540	4,540	4,540
IRRIGATION	G	TRINITY AQUIFER | HOOD COUNTY	4,926	4,926	4,926	4,926	4,926	4,926
		BRAZOS BASIN TOTAL	**47,056**	**47,057**	**47,057**	**47,058**	**47,063**	**47,069**
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	4	3	4	4	6	9
MINING		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	2	2	2	2	2	2
		TRINITY BASIN TOTAL	**6**	**5**	**6**	**6**	**8**	**11**
		HOOD COUNTY TOTAL	**47,062**	**47,062**	**47,063**	**47,064**	**47,071**	**47,080**
ACTON MUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	37	37	36	36	28	20
ACTON MUD	G	TRINITY AQUIFER | HOOD COUNTY	20	20	20	20	20	20
BETHESDA WSC*	G	TRINITY AQUIFER | JOHNSON COUNTY	17	17	18	18	18	18
BETHESDA WSC*	C	TRINITY AQUIFER | TARRANT COUNTY	53	52	53	54	54	55
BETHESDA WSC*	C	TRWD LAKE/RESERVOIR SYSTEM	109	115	121	128	138	142
BURLESON*	C	TRWD LAKE/RESERVOIR SYSTEM	5	6	7	8	6	7
CLEBURNE	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	2,971	2,586	2,195	1,845	1,498	885
CLEBURNE	G	PAT CLEBURNE LAKE/RESERVOIR	5,040	4,968	4,896	4,824	4,752	4,680

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
CLEBURNE	G	TRINITY AQUIFER | JOHNSON COUNTY	789	789	789	789	789	789
DOUBLE DIAMOND UTILITIES	G	TRINITY AQUIFER | HILL COUNTY	28	28	27	28	28	46
GODLEY	G	TRINITY AQUIFER | JOHNSON COUNTY	99	99	99	99	99	99
JOHNSON COUNTY SUD*	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	964	963	964	964	964	964
JOHNSON COUNTY SUD*	G	TRINITY AQUIFER | JOHNSON COUNTY	501	500	501	500	501	500
JOHNSON COUNTY SUD*	C	TRWD LAKE/RESERVOIR SYSTEM	228	867	1,056	827	732	696
KEENE	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	155	156	156	155	155	156
KEENE	G	TRINITY AQUIFER | JOHNSON COUNTY	45	45	45	45	45	45
PARKER WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	236	239	242	244	246	247
PARKER WSC	G	TRINITY AQUIFER | JOHNSON COUNTY	192	195	197	199	202	201
RIO VISTA	G	TRINITY AQUIFER | JOHNSON COUNTY	334	334	334	334	334	334
COUNTY-OTHER	G	TRINITY AQUIFER | JOHNSON COUNTY	2	2	2	2	2	2
COUNTY-OTHER	C	TRWD LAKE/RESERVOIR SYSTEM	959	737	629	620	565	485
MANUFACTURING	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	2,328	2,712	3,104	3,454	3,800	4,181
MANUFACTURING	G	TRINITY AQUIFER | JOHNSON COUNTY	193	193	193	193	193	193
MINING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	10	10	10	10	10	10
MINING	G	TRINITY AQUIFER | JOHNSON COUNTY	706	704	706	703	706	704
MINING	G	WOODBINE AQUIFER | JOHNSON COUNTY	12	12	12	12	12	12
STEAM ELECTRIC POWER	G	DIRECT REUSE	1,344	1,344	1,344	1,344	1,344	1,344
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,161	1,161	1,161	1,161	1,161	1,161
IRRIGATION	G	TRINITY AQUIFER | JOHNSON COUNTY	152	152	152	152	152	152
		BRAZOS BASIN TOTAL	**18,690**	**19,043**	**19,069**	**18,768**	**18,554**	**18,148**
ALVARADO	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	2,241	2,241	2,241	2,241	2,241	2,241
ALVARADO	G	TRINITY AQUIFER | JOHNSON COUNTY	196	195	196	195	196	195
BETHANY WSC	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,120	1,120	1,120	1,120	1,120	1,120
BETHANY WSC	G	TRINITY AQUIFER | JOHNSON COUNTY	309	308	309	308	309	308
BETHESDA WSC*	G	TRINITY AQUIFER | JOHNSON COUNTY	349	352	355	359	364	368
BETHESDA WSC*	C	TRINITY AQUIFER | TARRANT COUNTY	1,056	1,065	1,074	1,087	1,100	1,114
BETHESDA WSC*	C	TRWD LAKE/RESERVOIR SYSTEM	2,227	2,344	2,454	2,594	2,785	2,881
BURLESON*	C	TRWD LAKE/RESERVOIR SYSTEM	5,186	5,360	5,470	5,354	5,385	5,557
CROWLEY*	C	TRINITY AQUIFER | TARRANT COUNTY	1	1	1	1	1	1
CROWLEY*	C	TRWD LAKE/RESERVOIR SYSTEM	8	11	13	14	14	14
FORT WORTH*	C	TRINITY INDIRECT REUSE	0	0	0	148	239	306
FORT WORTH*	C	TRWD LAKE/RESERVOIR SYSTEM	0	0	0	418	596	657
GRANDVIEW	G	WOODBINE AQUIFER | JOHNSON COUNTY	369	369	369	369	369	369
JOHNSON COUNTY SUD*	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,910	2,000	2,000	2,000	2,000	2,000
JOHNSON COUNTY SUD*	G	TRINITY AQUIFER | JOHNSON COUNTY	1,040	1,037	1,040	1,037	1,040	1,037
JOHNSON COUNTY SUD*	C	TRWD LAKE/RESERVOIR SYSTEM	473	1,801	2,192	1,716	1,519	1,444
KEENE	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	965	964	964	965	965	964
KEENE	G	TRINITY AQUIFER | JOHNSON COUNTY	282	281	282	281	282	281
MANSFIELD*	C	TRWD LAKE/RESERVOIR SYSTEM	658	714	803	864	950	1,030
MOUNTAIN PEAK SUD*	G	TRINITY AQUIFER | JOHNSON COUNTY	1,068	1,064	1,068	1,064	1,068	1,064

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
PARKER WSC	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	71	71	72	73	73	73
PARKER WSC	G	TRINITY AQUIFER | JOHNSON COUNTY	58	58	59	59	58	60
VENUS*	C	TRWD LAKE/RESERVOIR SYSTEM	434	308	302	359	390	415
VENUS*	G	WOODBINE AQUIFER | JOHNSON COUNTY	103	103	103	103	103	103
COUNTY-OTHER	G	TRINITY AQUIFER | JOHNSON COUNTY	5	5	5	5	5	5
COUNTY-OTHER	C	TRWD LAKE/RESERVOIR SYSTEM	2,022	1,553	1,328	1,309	1,208	1,022
MANUFACTURING	G	BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	7	9	10	11	12	13
MANUFACTURING	G	TRINITY AQUIFER | JOHNSON COUNTY	1	1	1	1	1	1
MANUFACTURING	C	TRWD LAKE/RESERVOIR SYSTEM	2	2	2	2	2	2
MINING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	10	10	10	10	10	10
MINING	G	TRINITY AQUIFER | JOHNSON COUNTY	697	695	697	696	697	695
MINING	G	WOODBINE AQUIFER | JOHNSON COUNTY	12	12	12	12	12	12
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	291	291	291	291	291	291
IRRIGATION	G	TRINITY AQUIFER | JOHNSON COUNTY	15	15	15	15	15	15
IRRIGATION	G	WOODBINE AQUIFER | JOHNSON COUNTY	130	130	130	130	130	130
		TRINITY BASIN TOTAL	**23,316**	**24,490**	**24,988**	**25,211**	**25,550**	**25,798**
		JOHNSON COUNTY TOTAL	**42,006**	**43,533**	**44,057**	**43,979**	**44,104**	**43,946**
ABILENE	G	BRAZOS INDIRECT REUSE	53	54	54	54	54	99
ABILENE	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	441	447	393	189	59	40
ABILENE	G	FORT PHANTOM HILL LAKE/RESERVOIR	98	95	90	86	82	15
ABILENE	G	HUBBARD CREEK LAKE/RESERVOIR	188	85	37	43	50	0
ABILENE	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	138	133	126	99	102	42
ANSON	G	HUBBARD CREEK LAKE/RESERVOIR	365	373	376	386	394	402
HAMBY WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	105	105
HAMBY WSC	G	HUBBARD CREEK LAKE/RESERVOIR	105	106	106	105	0	0
HAMLIN	G	HUBBARD CREEK LAKE/RESERVOIR	532	524	521	511	503	495
HAWLEY WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	1	272
HAWLEY WSC	G	HUBBARD CREEK LAKE/RESERVOIR	468	468	466	468	467	196
STAMFORD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	800	881	960	1,040	1,118	1,198
STAMFORD	G	STAMFORD LAKE/RESERVOIR	396	317	238	159	79	0
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	89	89	89	89	89	89
COUNTY-OTHER	G	SEYMOUR AQUIFER | JONES COUNTY	201	201	201	201	201	201
MINING	G	SEYMOUR AQUIFER | JONES COUNTY	79	79	79	79	79	79
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	581	581	581	581	581	581
IRRIGATION	G	SEYMOUR AQUIFER | JONES COUNTY	2,638	2,638	2,638	2,638	2,638	2,638
		BRAZOS BASIN TOTAL	**7,172**	**7,071**	**6,955**	**6,728**	**6,602**	**6,452**
		JONES COUNTY TOTAL	**7,172**	**7,071**	**6,955**	**6,728**	**6,602**	**6,452**
JAYTON		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
COUNTY-OTHER	G	SEYMOUR AQUIFER | KENT COUNTY	15	15	15	15	15	15
MINING	G	SEYMOUR AQUIFER | KENT COUNTY	721	721	721	721	721	721
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	260	260	260	260	260	260
IRRIGATION	G	DOCKUM AQUIFER | KENT COUNTY	1,559	1,559	1,559	1,559	1,559	1,559
IRRIGATION	G	SEYMOUR AQUIFER | KENT COUNTY	156	156	156	156	156	156
		BRAZOS BASIN TOTAL	**2,711**	**2,711**	**2,711**	**2,711**	**2,711**	**2,711**

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
		KENT COUNTY TOTAL	**2,711**	**2,711**	**2,711**	**2,711**	**2,711**	**2,711**
BAYLOR SUD*	B	SEYMOUR AQUIFER | BAYLOR COUNTY	2	2	2	2	2	2
KNOX CITY	G	MILLERS CREEK LAKE/RESERVOIR	11	9	7	4	2	0
MUNDAY	G	MILLERS CREEK LAKE/RESERVOIR	11	9	7	4	2	0
COUNTY-OTHER	G	BLAINE AQUIFER | KNOX COUNTY	98	98	98	98	98	98
COUNTY-OTHER	G	BRAZOS RUN-OF-RIVER	33	33	33	33	33	33
COUNTY-OTHER	G	MILLERS CREEK LAKE/RESERVOIR	5	4	3	2	1	0
MANUFACTURING	G	BLAINE AQUIFER | KNOX COUNTY	4	4	4	4	4	4
MINING	G	BLAINE AQUIFER | KNOX COUNTY	4	4	4	4	4	4
MINING	G	SEYMOUR AQUIFER | KNOX COUNTY	1	0	0	0	1	1
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	407	407	407	407	407	407
IRRIGATION	G	BLAINE AQUIFER | KNOX COUNTY	72	72	72	72	72	72
IRRIGATION	G	SEYMOUR AQUIFER | KNOX COUNTY	23,208	21,290	20,957	21,202	23,310	21,555
		BRAZOS BASIN TOTAL	**23,856**	**21,932**	**21,594**	**21,832**	**23,936**	**22,176**
RED RIVER AUTHORITY OF TEXAS*	G	SEYMOUR AQUIFER | KNOX COUNTY	27	30	30	30	30	30
COUNTY-OTHER	G	BLAINE AQUIFER | KNOX COUNTY	2	2	2	2	2	2
COUNTY-OTHER	G	BRAZOS RUN-OF-RIVER	1	1	1	1	1	1
MINING	G	BLAINE AQUIFER | KNOX COUNTY	1	1	1	1	1	1
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	102	102	102	102	102	102
IRRIGATION	G	BLAINE AQUIFER | KNOX COUNTY	18	18	18	18	18	18
IRRIGATION	G	SEYMOUR AQUIFER | KNOX COUNTY	5,800	5,320	5,237	5,298	5,825	5,387
		RED BASIN TOTAL	**5,951**	**5,474**	**5,391**	**5,452**	**5,979**	**5,541**
		KNOX COUNTY TOTAL	**29,807**	**27,406**	**26,985**	**27,284**	**29,915**	**27,717**
COPPERAS COVE	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	248	295	325	355	263	221
CORIX UTILITIES TEXAS INC*	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	116	113	114	116	116	117
CORIX UTILITIES TEXAS INC*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	30	29	29	29	29	30
KEMPNER WSC*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,361	1,328	1,293	1,263	1,233	1,205
LAMPASAS	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,144	1,130	1,116	1,103	1,086	1,068
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	161	173	185	199	209	221
COUNTY-OTHER	G	MARBLE FALLS AQUIFER | LAMPASAS COUNTY	6	6	6	6	6	6
COUNTY-OTHER	G	TRINITY AQUIFER | LAMPASAS COUNTY	4	4	4	4	4	4
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	137	151	165	178	195	213
MANUFACTURING	G	BRAZOS RUN-OF-RIVER	48	38	29	19	10	0
MINING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	25	25	25	25	25	25
MINING	G	ELLENBURGER-SAN SABA AQUIFER | LAMPASAS	59	59	59	59	59	59
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	397	397	397	397	397	397
IRRIGATION	G	BRAZOS RUN-OF-RIVER	3	0	0	0	0	0
IRRIGATION	G	ELLENBURGER-SAN SABA AQUIFER | LAMPASAS	0	0	0	0	0	0
IRRIGATION	G	TRINITY AQUIFER | LAMPASAS COUNTY	133	133	133	133	133	133
		BRAZOS BASIN TOTAL	**3,872**	**3,881**	**3,880**	**3,886**	**3,765**	**3,699**
CORIX UTILITIES TEXAS INC*	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	82	80	81	82	83	84
CORIX UTILITIES TEXAS INC*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	21	21	21	21	21	21
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	34	36	40	41	45	46

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	G	TRINITY AQUIFER | LAMPASAS COUNTY	1	1	1	1	1	1
MINING	G	ELLENBURGER-SAN SABA AQUIFER | LAMPASAS	20	20	20	20	20	20
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	228	228	228	228	228	228
IRRIGATION	G	BRAZOS RUN-OF-RIVER	100	100	97	94	91	88
IRRIGATION	G	ELLENBURGER-SAN SABA AQUIFER | LAMPASAS	50	50	50	50	50	50
IRRIGATION	G	MARBLE FALLS AQUIFER | LAMPASAS COUNTY	17	17	17	17	17	17
IRRIGATION	G	TRINITY AQUIFER | LAMPASAS COUNTY	8	8	8	8	8	8
		COLORADO BASIN TOTAL	**561**	**561**	**563**	**562**	**564**	**563**
		LAMPASAS COUNTY TOTAL	**4,433**	**4,442**	**4,443**	**4,448**	**4,329**	**4,262**
AQUA WSC*	K	CARRIZO-WILCOX AQUIFER | BASTROP COUNTY	465	510	535	543	550	554
GIDDINGS	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	840	839	838	837	838	836
LEE COUNTY WSC*	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	2,004	1,965	1,911	1,828	1,726	1,613
LEE COUNTY WSC*	G	QUEEN CITY AQUIFER | LEE COUNTY	67	67	64	63	60	56
LEE COUNTY WSC*	G	SPARTA AQUIFER | LEE COUNTY	138	136	131	126	120	111
LEXINGTON	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	667	667	667	667	667	667
SOUTHWEST MILAM WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	52	44	40	41	44	43
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	114	113	113	114	113	114
MINING	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	2,265	2,348	2,429	2,512	2,592	2,592
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,020	1,020	1,020	1,020	1,020	1,020
IRRIGATION	G	BRAZOS RUN-OF-RIVER	1	1	1	1	1	1
IRRIGATION	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	781	781	782	783	783	783
IRRIGATION	G	QUEEN CITY AQUIFER | LEE COUNTY	553	557	559	563	568	568
		BRAZOS BASIN TOTAL	**8,967**	**9,048**	**9,090**	**9,098**	**9,082**	**8,958**
GIDDINGS	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	890	890	890	890	888	889
LEE COUNTY WSC*	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	971	955	926	885	839	783
LEE COUNTY WSC*	G	QUEEN CITY AQUIFER | LEE COUNTY	33	32	32	30	29	27
LEE COUNTY WSC*	G	SPARTA AQUIFER | LEE COUNTY	67	66	64	61	58	54
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	42	43	43	42	43	42
MANUFACTURING	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	13	14	15	16	17	18
MINING	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	640	663	686	709	732	732
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	196	196	196	196	196	196
IRRIGATION	G	QUEEN CITY AQUIFER | LEE COUNTY	23	23	23	23	23	23
		COLORADO BASIN TOTAL	**2,875**	**2,882**	**2,875**	**2,852**	**2,825**	**2,764**
		LEE COUNTY TOTAL	**11,842**	**11,930**	**11,965**	**11,950**	**11,907**	**11,722**
BIROME WSC	C	NAVARRO MILLS LAKE/RESERVOIR	9	9	9	9	9	9
BIROME WSC	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	2	2	2	2	2	2
BIROME WSC	G	TRINITY AQUIFER | HILL COUNTY	19	18	19	18	18	19
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	19	32	103	177	197	201
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	G	MEXIA LAKE/RESERVOIR	214	148	81	14	0	0
COOLIDGE	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	0	0	0	0	48	108
COOLIDGE	G	MEXIA LAKE/RESERVOIR	124	124	124	124	77	16
COOLIDGE	C	NAVARRO MILLS LAKE/RESERVOIR	84	92	103	101	97	87
COOLIDGE	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	17	19	21	21	19	17
GROESBECK		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
MART	G	TRINITY AQUIFER | MCLENNAN COUNTY	1	1	1	1	1	1

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MEXIA	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	673	659	595	526	459	395
POINT ENTERPRISE WSC*	C	CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	64	64	64	64	64	63
POST OAK SUD*	C	NAVARRO MILLS LAKE/RESERVOIR	3	3	4	3	2	1
POST OAK SUD*	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	1	1	1	1	0	0
PRAIRIE HILL WSC	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	229	229	230	229	229	229
SLC WSC	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	123	123	123	123	123	123
TRI COUNTY SUD	G	CARRIZO-WILCOX AQUIFER | FALLS COUNTY	353	357	360	365	365	365
TRI COUNTY SUD	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	421	421	421	421	421	421
TRI COUNTY SUD	G	TRINITY AQUIFER | FALLS COUNTY	646	644	646	644	646	644
WHITE ROCK WSC	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	483	483	483	483	483	483
WHITE ROCK WSC	G	MEXIA LAKE/RESERVOIR	271	272	272	272	272	272
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	208	208	208	208	208	208
COUNTY-OTHER	G	MEXIA LAKE/RESERVOIR	220	220	220	220	220	220
MANUFACTURING	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	37	37	37	37	38	38
MANUFACTURING	G	MEXIA LAKE/RESERVOIR	16	16	16	16	16	16
MINING	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	3,157	3,157	3,157	3,157	3,157	3,157
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	21,837	21,837	21,837	21,837	21,837	21,837
STEAM ELECTRIC POWER	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	711	711	711	711	711	711
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,492	1,492	1,492	1,492	1,492	1,492
		BRAZOS BASIN TOTAL	**31,434**	**31,379**	**31,340**	**31,276**	**31,211**	**31,135**
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	9	16	51	88	98	100
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	G	MEXIA LAKE/RESERVOIR	107	73	40	7	0	0
COOLIDGE	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	0	0	0	0	31	71
COOLIDGE	G	MEXIA LAKE/RESERVOIR	82	82	82	82	50	11
COOLIDGE	C	NAVARRO MILLS LAKE/RESERVOIR	55	60	68	66	64	58
COOLIDGE	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	11	12	13	13	13	12
MEXIA	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	425	418	376	334	291	249
POINT ENTERPRISE WSC*	C	CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	30	30	30	30	30	30
POST OAK SUD*	C	NAVARRO MILLS LAKE/RESERVOIR	6	6	8	5	3	1
POST OAK SUD*	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	1	1	2	1	1	0
WHITE ROCK WSC	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	4	4	4	4	4	4
WHITE ROCK WSC	G	MEXIA LAKE/RESERVOIR	3	2	2	2	2	2
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	44	44	44	44	44	44
COUNTY-OTHER	G	MEXIA LAKE/RESERVOIR	46	46	46	46	46	46
MANUFACTURING	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	6	7	7	7	7	7
MANUFACTURING	G	MEXIA LAKE/RESERVOIR	3	3	3	3	3	3
MINING	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	1	1	1	1	1	1
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	178	178	178	178	178	178
IRRIGATION	G	BRAZOS RUN-OF-RIVER	14	14	14	14	14	14
IRRIGATION	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	7	7	7	7	7	7
IRRIGATION	G	MEXIA LAKE/RESERVOIR	14	14	14	14	14	14
		TRINITY BASIN TOTAL	**1,046**	**1,018**	**990**	**946**	**901**	**852**
		LIMESTONE COUNTY TOTAL	**32,480**	**32,397**	**32,330**	**32,222**	**32,112**	**31,987**
AXTELL WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	287	287	287	287	287	287

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
BELLMEAD	G	TRINITY AQUIFER | MCLENNAN COUNTY	2,000	2,000	2,000	2,000	2,000	2,000
BELLMEAD	G	WACO LAKE/RESERVOIR	1,344	1,344	1,344	1,344	1,344	1,344
BIROME WSC	C	NAVARRO MILLS LAKE/RESERVOIR	44	44	44	44	44	44
BIROME WSC	C	RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	9	9	9	9	9	9
BIROME WSC	G	TRINITY AQUIFER | HILL COUNTY	88	88	88	88	88	88
BOLD SPRINGS WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	564	564	563	564	564	563
BOLD SPRINGS WSC	G	WACO LAKE/RESERVOIR	515	515	515	515	516	515
BRUCEVILLE EDDY	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	735	731	685	681	676	671
BRUCEVILLE EDDY	G	TRINITY AQUIFER | MCLENNAN COUNTY	500	501	473	473	473	473
CENTRAL BOSQUE WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	128	135	140	147	156	164
CENTRAL BOSQUE WSC	G	WACO LAKE/RESERVOIR	359	359	359	359	359	359
CHALK BLUFF WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	715	715	715	715	715	715
CORYELL CITY WATER SUPPLY DISTRICT	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	158	181	201	221	241	262
CORYELL CITY WATER SUPPLY DISTRICT	G	TRINITY AQUIFER | CORYELL COUNTY	11	12	12	12	12	12
CRAWFORD	G	TRINITY AQUIFER | MCLENNAN COUNTY	167	167	167	167	167	167
CROSS COUNTRY WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	64	63	63	63	63	63
CROSS COUNTRY WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	534	525	522	519	519	520
EAST CRAWFORD WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	215	215	215	215	215	215
ELM CREEK WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	257	251	242	236	231	226
EOL WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	387	387	387	387	387	387
GHOLSON WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	554	553	553	554	553	553
H & H WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	302	299	296	291	286	281
HEWITT	G	TRINITY AQUIFER | MCLENNAN COUNTY	1,429	1,429	1,429	1,429	1,429	1,429
HEWITT	G	WACO LAKE/RESERVOIR	1,120	1,120	1,120	1,120	1,120	1,120
HIGHLAND PARK WSC	G	TRINITY AQUIFER | BOSQUE COUNTY	24	24	24	24	24	24
HILLTOP WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	329	329	329	329	329	329
HILLTOP WSC	G	WACO LAKE/RESERVOIR	101	101	101	101	101	101
LACY LAKEVIEW	G	WACO LAKE/RESERVOIR	1,120	1,120	1,120	1,120	1,120	1,120
LEROY TOURS GERALD WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	383	383	383	383	383	383
LEVI WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	498	498	498	498	498	498
LORENA	G	TRINITY AQUIFER | MCLENNAN COUNTY	322	322	322	322	322	322
LORENA	G	WACO LAKE/RESERVOIR	560	560	560	560	560	560
MART	G	TRINITY AQUIFER | MCLENNAN COUNTY	202	202	202	202	202	202
MCGREGOR	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	2,369	2,349	2,330	2,309	2,287	2,265
MCLENNAN COUNTY WCID 2	G	TRINITY AQUIFER | MCLENNAN COUNTY	705	705	705	705	705	705
MOODY	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	388	386	383	381	378	375
MOODY	G	TRINITY AQUIFER | MCLENNAN COUNTY	211	211	211	211	211	211
NORTH BOSQUE WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	605	605	605	605	605	605
PRAIRIE HILL WSC	G	CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	166	166	165	166	166	166
RIESEL	G	TRINITY AQUIFER | MCLENNAN COUNTY	306	306	306	306	306	306
ROBINSON	G	BRAZOS RUN-OF-RIVER	1,126	1,126	1,126	1,126	1,126	1,126
ROBINSON	G	TRINITY AQUIFER | MCLENNAN COUNTY	1,101	1,101	1,101	1,101	1,101	1,101
ROSS WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	445	445	445	445	445	445

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
ROSS WSC	G	WACO LAKE/RESERVOIR	280	280	280	280	280	280
SPRING VALLEY WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	291	290	288	286	284	282
SPRING VALLEY WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	176	176	176	176	176	176
TEXAS STATE TECHNICAL COLLEGE	G	WACO LAKE/RESERVOIR	888	954	1,013	1,073	1,132	1,193
VALLEY MILLS	G	TRINITY AQUIFER | BOSQUE COUNTY	5	7	9	11	12	13
WACO	G	BRAZOS RUN-OF-RIVER	5,600	5,600	5,600	5,600	5,600	5,600
WACO	G	TRINITY AQUIFER | MCLENNAN COUNTY	540	540	540	540	540	540
WACO	G	WACO LAKE/RESERVOIR	34,649	34,194	33,559	32,871	32,232	31,455
WEST	G	TRINITY AQUIFER | MCLENNAN COUNTY	268	268	268	268	268	268
WEST	G	WACO LAKE/RESERVOIR	1,120	1,120	1,120	1,120	1,120	1,120
WEST BRAZOS WSC	G	TRINITY AQUIFER | FALLS COUNTY	274	276	285	296	301	304
WEST BRAZOS WSC	G	TRINITY AQUIFER | MCLENNAN COUNTY	107	109	112	117	118	120
WINDSOR WATER	G	TRINITY AQUIFER | MCLENNAN COUNTY	245	245	245	245	245	245
WOODWAY	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,319	1,310	1,301	1,293	1,284	1,275
WOODWAY	G	TRINITY AQUIFER | MCLENNAN COUNTY	2,454	2,454	2,454	2,454	2,454	2,454
WOODWAY	G	WACO LAKE/RESERVOIR	0	4	219	478	728	989
COUNTY-OTHER	G	TRINITY AQUIFER | MCLENNAN COUNTY	1,046	1,049	1,052	1,057	1,062	1,067
MANUFACTURING	G	BRAZOS RIVER ALLUVIUM AQUIFER | MCLENNAN COUNTY	783	783	783	783	783	783
MANUFACTURING	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	4	4	4	4	4	4
MANUFACTURING	G	TRINITY AQUIFER | MCLENNAN COUNTY	959	959	959	959	959	959
MANUFACTURING	G	WACO LAKE/RESERVOIR	2,503	2,888	3,249	3,618	3,948	4,403
MINING	G	BRAZOS RIVER ALLUVIUM AQUIFER | MCLENNAN COUNTY	735	735	735	735	735	735
MINING	G	TRINITY AQUIFER | MCLENNAN COUNTY	3	3	3	3	3	3
STEAM ELECTRIC POWER	G	DIRECT REUSE	15,000	15,000	15,000	15,000	15,000	15,000
STEAM ELECTRIC POWER	G	LAKE CREEK LAKE/RESERVOIR	9,900	9,900	9,900	9,900	9,900	9,900
STEAM ELECTRIC POWER	G	TRADINGHOUSE CREEK LAKE/RESERVOIR	4,970	4,954	4,938	4,922	4,906	4,890
STEAM ELECTRIC POWER	G	TRINITY AQUIFER | MCLENNAN COUNTY	135	135	135	135	135	135
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,953	1,953	1,953	1,953	1,953	1,953
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | MCLENNAN COUNTY	4,259	4,259	4,259	4,259	4,259	4,259
IRRIGATION	G	BRAZOS RUN-OF-RIVER	937	1,017	1,097	1,177	1,257	1,337
IRRIGATION	G	TRINITY AQUIFER | MCLENNAN COUNTY	561	561	561	561	561	561
		BRAZOS BASIN TOTAL	**115,411**	**115,460**	**115,442**	**115,508**	**115,562**	**115,614**
		MCLENNAN COUNTY TOTAL	**115,411**	**115,460**	**115,442**	**115,508**	**115,562**	**115,614**
BELL MILAM FALLS WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	674	662	651	650	637	624
BELL MILAM FALLS WSC	G	TRINITY AQUIFER | BELL COUNTY	102	100	98	98	96	94
CAMERON	G	BRAZOS RUN-OF-RIVER	2,615	2,615	2,615	2,615	2,615	2,615
MILANO WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	265	223	235	235	247	253
NORTH MILAM WSC	G	BRAZOS RUN-OF-RIVER	38	38	38	38	38	37
NORTH MILAM WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	423	358	338	378	395	394
ROCKDALE	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	1,094	924	624	727	771	771
SALEM ELM RIDGE WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	297	297	297	297	297	297
SALEM ELM RIDGE WSC	G	BRAZOS RUN-OF-RIVER	125	125	125	125	125	125

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
SOUTHWEST MILAM WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	1,118	888	795	850	873	839
THORNDALE	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	202	202	202	201	201	201
COUNTY-OTHER	G	BRAZOS RIVER ALLUVIUM AQUIFER | MILAM COUNTY	160	160	160	160	160	160
MANUFACTURING	G	BRAZOS RUN-OF-RIVER	14	14	14	14	14	14
MINING	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	76	64	61	68	71	71
STEAM ELECTRIC POWER		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	2,761	2,761	2,761	2,761	2,761	2,761
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | MILAM COUNTY	4,422	4,422	4,422	4,422	4,422	4,422
IRRIGATION	G	BRAZOS RUN-OF-RIVER	42	42	42	42	42	42
IRRIGATION	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	2,224	1,878	1,777	1,986	2,075	2,075
IRRIGATION	G	QUEEN CITY AQUIFER | MILAM COUNTY	53	56	56	56	56	56
		BRAZOS BASIN TOTAL	**16,705**	**15,829**	**15,311**	**15,723**	**15,896**	**15,851**
		MILAM COUNTY TOTAL	**16,705**	**15,829**	**15,311**	**15,723**	**15,896**	**15,851**
ROSCOE	G	DOCKUM AQUIFER | NOLAN COUNTY	115	115	115	115	115	115
SWEETWATER	G	DOCKUM AQUIFER | NOLAN COUNTY	1,657	1,663	1,667	1,671	1,671	1,671
THE BITTER CREEK WSC	G	DOCKUM AQUIFER | NOLAN COUNTY	64	66	67	68	68	69
COUNTY-OTHER	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	31	31	30	31	31	30
MANUFACTURING	G	DOCKUM AQUIFER | NOLAN COUNTY	368	365	363	361	361	361
MANUFACTURING	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	132	132	132	132	132	132
MINING	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	66	66	66	66	66	65
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	177	177	177	177	177	177
IRRIGATION	G	BRAZOS RUN-OF-RIVER	25	25	25	25	25	25
IRRIGATION	G	DOCKUM AQUIFER | NOLAN COUNTY	1,978	1,978	1,978	1,978	1,978	1,978
IRRIGATION	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	60	60	60	60	60	60
		BRAZOS BASIN TOTAL	**4,673**	**4,678**	**4,680**	**4,684**	**4,684**	**4,683**
COUNTY-OTHER	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	108	108	109	108	108	109
MINING	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	81	81	81	81	81	82
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	119	119	119	119	119	119
IRRIGATION	G	BRAZOS RUN-OF-RIVER	15	15	15	15	15	15
IRRIGATION	G	DOCKUM AQUIFER | NOLAN COUNTY	1,212	1,212	1,212	1,212	1,212	1,212
IRRIGATION	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | NOLAN COUNTY	37	37	37	37	37	37
		COLORADO BASIN TOTAL	**1,572**	**1,572**	**1,573**	**1,572**	**1,572**	**1,574**
		NOLAN COUNTY TOTAL	**6,245**	**6,250**	**6,253**	**6,256**	**6,256**	**6,257**
GORDON		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
LAKE PALO PINTO AREA WSC	G	PALO PINTO LAKE/RESERVOIR	154	148	144	139	134	130
MINERAL WELLS*	G	PALO PINTO LAKE/RESERVOIR	2,406	2,333	2,226	2,118	2,006	1,892
NORTH RURAL WSC*	G	PALO PINTO LAKE/RESERVOIR	220	220	220	220	220	221
PALO PINTO WSC	G	PALO PINTO LAKE/RESERVOIR	179	179	179	179	179	179
PARKER COUNTY SUD*	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	3	3	3	3	3	3
PARKER COUNTY SUD*	G	PALO PINTO LAKE/RESERVOIR	4	3	3	3	3	3
PARKER COUNTY SUD*	C	TRINITY AQUIFER | PARKER COUNTY	0	0	0	0	0	0
POSSUM KINGDOM WSC	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	719	720	721	722	723	723

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
SANTO SUD*	G	PALO PINTO LAKE/RESERVOIR	308	309	309	309	309	308
SPORTSMANS WORLD MUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	89	89	89	89	89	89
STEPHENS REGIONAL SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	8	8	8	8	8	8
STRAWN	G	STRAWN LAKE/RESERVOIR	110	110	110	110	110	110
STURDIVANT PROGRESS WSC	G	PALO PINTO LAKE/RESERVOIR	307	307	307	307	307	307
COUNTY-OTHER	G	PALO PINTO LAKE/RESERVOIR	90	90	90	90	90	90
MANUFACTURING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,200	1,200	1,200	1,200	1,200	1,200
MANUFACTURING	G	PALO PINTO LAKE/RESERVOIR	10	10	10	10	10	10
MINING	G	PALO PINTO LAKE/RESERVOIR	1	1	1	1	1	1
MINING	G	TRINITY AQUIFER | PALO PINTO COUNTY	2	2	2	2	2	2
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	11,600	11,600	11,600	11,600	11,600	11,600
STEAM ELECTRIC POWER	G	PALO PINTO LAKE/RESERVOIR	502	502	502	502	502	502
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,929	1,929	1,929	1,929	1,929	1,929
IRRIGATION	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	675	675	675	675	675	675
IRRIGATION	G	TRINITY AQUIFER | PALO PINTO COUNTY	10	10	10	10	10	10
		BRAZOS BASIN TOTAL	**20,526**	**20,448**	**20,338**	**20,226**	**20,110**	**19,992**
		PALO PINTO COUNTY TOTAL	**20,526**	**20,448**	**20,338**	**20,226**	**20,110**	**19,992**
BETHANY HEARNE WSC	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	43	45	48	51	54	58
BREMOND	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	391	391	391	391	391	391
CALVERT	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	529	529	529	529	529	529
FRANKLIN	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	1,247	1,247	1,247	1,247	1,247	1,247
HEARNE	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	2,799	2,797	2,794	2,791	2,788	2,784
ROBERTSON COUNTY WSC	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	343	343	343	343	343	343
TWIN CREEK WSC	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	692	692	692	692	692	692
WELLBORN SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	246	182	171	160	151	143
WELLBORN SUD	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	1,156	834	780	733	689	653
WELLBORN SUD	G	SPARTA AQUIFER | BRAZOS COUNTY	137	121	117	109	103	98
WELLBORN SUD	G	YEGUA-JACKSON AQUIFER | BRAZOS COUNTY	165	122	114	107	101	96
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	45	41	36	33	30	28
WICKSON CREEK SUD	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	3	3	3	3	3	3
WICKSON CREEK SUD	G	SPARTA AQUIFER | BRAZOS COUNTY	31	38	39	39	39	39
WICKSON CREEK SUD	G	YEGUA-JACKSON AQUIFER | GRIMES COUNTY	7	7	7	7	7	7
COUNTY-OTHER	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	155	155	155	155	155	155
MANUFACTURING	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	4,617	4,617	4,617	4,617	4,617	4,617
MINING	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	15,687	15,687	15,687	15,687	15,687	15,687
STEAM ELECTRIC POWER	G	BRA SYSTEM OPERATIONS PERMIT SUPPLY	21,388	22,816	24,245	25,674	27,102	28,532
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	15,909	14,509	13,108	11,707	10,307	8,905
STEAM ELECTRIC POWER	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	5,669	5,669	5,669	5,669	5,669	5,669
STEAM ELECTRIC POWER	G	TWIN OAK LAKE/RESERVOIR	2,900	2,872	2,844	2,816	2,788	2,760
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	3,048	3,048	3,048	3,048	3,048	3,048
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | ROBERTSON COUNTY	61,161	57,959	57,633	57,544	57,503	57,480
IRRIGATION	G	BRAZOS RUN-OF-RIVER	366	297	228	159	90	21
IRRIGATION	G	CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	3,926	3,926	3,926	3,926	3,926	3,926

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
IRRIGATION	G	QUEEN CITY AQUIFER | ROBERTSON COUNTY	368	309	309	309	309	309
IRRIGATION	G	SPARTA AQUIFER | ROBERTSON COUNTY	510	510	510	510	510	510
		BRAZOS BASIN TOTAL	**143,538**	**139,766**	**139,290**	**139,056**	**138,878**	**138,730**
		ROBERTSON COUNTY TOTAL	**143,538**	**139,766**	**139,290**	**139,056**	**138,878**	**138,730**
ALBANY	G	HUBBARD CREEK LAKE/RESERVOIR	659	674	692	708	723	738
ALBANY	G	MCCARTY LAKE/RESERVOIR	75	60	45	30	15	0
CALLAHAN COUNTY WSC	G	CLYDE LAKE/RESERVOIR	5	5	5	5	5	5
FORT GRIFFIN SUD	G	HUBBARD CREEK LAKE/RESERVOIR	95	94	93	92	92	92
HAMBY WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	101	101
HAMBY WSC	G	HUBBARD CREEK LAKE/RESERVOIR	101	100	100	101	0	0
STEPHENS REGIONAL SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	3	3	3	3	3	3
COUNTY-OTHER	G	OTHER AQUIFER | SHACKELFORD COUNTY	25	25	25	25	25	25
MANUFACTURING	G	BRAZOS RUN-OF-RIVER	50	50	50	50	50	50
MINING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	2	2	2	2	2	2
MINING	G	BRAZOS RUN-OF-RIVER	5	5	6	6	6	6
MINING	G	CROSS TIMBERS AQUIFER | SHACKELFORD COUNTY	202	202	202	202	202	202
LIVESTOCK	G	BRAZOS RUN-OF-RIVER	1	1	1	1	1	1
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	579	579	579	579	579	579
IRRIGATION	G	CROSS TIMBERS AQUIFER | SHACKELFORD COUNTY	350	350	350	350	350	350
		BRAZOS BASIN TOTAL	**2,152**	**2,150**	**2,153**	**2,154**	**2,154**	**2,154**
		SHACKELFORD COUNTY TOTAL	**2,152**	**2,150**	**2,153**	**2,154**	**2,154**	**2,154**
GLEN ROSE	G	TRINITY AQUIFER | SOMERVELL COUNTY	613	613	613	613	613	613
SOMERVELL COUNTY WATER DISTRICT	G	TRINITY AQUIFER | SOMERVELL COUNTY	192	192	192	192	192	192
SOMERVELL COUNTY WATER DISTRICT	G	WHEELER BRANCH OFF-CHANNEL LAKE/RESERVOIR	1,400	1,400	1,400	1,400	1,400	1,400
COUNTY-OTHER	G	TRINITY AQUIFER | SOMERVELL COUNTY	644	644	644	644	644	644
MANUFACTURING	G	TRINITY AQUIFER | SOMERVELL COUNTY	8	8	8	8	8	8
MINING	G	TRINITY AQUIFER | SOMERVELL COUNTY	691	691	691	691	691	691
STEAM ELECTRIC POWER	G	BRA SYSTEM OPERATIONS PERMIT SUPPLY	8,647	10,803	12,959	15,114	17,270	19,425
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	18,253	16,069	13,885	11,702	9,518	7,335
STEAM ELECTRIC POWER	G	SQUAW CREEK LAKE/RESERVOIR	8,050	7,982	7,914	7,846	7,778	7,710
STEAM ELECTRIC POWER	G	TRINITY AQUIFER | SOMERVELL COUNTY	25	25	25	25	25	25
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	165	165	165	165	165	165
IRRIGATION	G	TRINITY AQUIFER | SOMERVELL COUNTY	582	582	582	582	582	582
		BRAZOS BASIN TOTAL	**39,270**	**39,174**	**39,078**	**38,982**	**38,886**	**38,790**
		SOMERVELL COUNTY TOTAL	**39,270**	**39,174**	**39,078**	**38,982**	**38,886**	**38,790**
BRECKENRIDGE	G	DANIEL LAKE/RESERVOIR	175	170	165	160	155	150
BRECKENRIDGE	G	HUBBARD CREEK LAKE/RESERVOIR	1,709	1,713	1,718	1,723	1,728	1,733
FORT BELKNAP WSC	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	6	5	6	4	5	5
FORT GRIFFIN SUD	G	HUBBARD CREEK LAKE/RESERVOIR	101	102	100	100	100	100
POSSUM KINGDOM WSC	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	31	30	29	28	27	27
STAFF WSC	G	LEON LAKE/RESERVOIR	64	65	64	65	64	64
STEPHENS REGIONAL SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	400	401	400	402	403	403
COUNTY-OTHER	G	OTHER AQUIFER | STEPHENS COUNTY	55	55	55	55	55	55

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MANUFACTURING	G	HUBBARD CREEK LAKE/RESERVOIR	7	8	8	8	8	8
MINING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,000	1,000	1,000	1,000	1,000	1,000
MINING	G	CROSS TIMBERS AQUIFER | STEPHENS COUNTY	589	589	589	589	589	589
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	460	460	460	460	460	460
IRRIGATION	G	CROSS TIMBERS AQUIFER | STEPHENS COUNTY	31	31	31	31	31	31
		BRAZOS BASIN TOTAL	**4,628**	**4,629**	**4,625**	**4,625**	**4,625**	**4,625**
		STEPHENS COUNTY TOTAL	**4,628**	**4,629**	**4,625**	**4,625**	**4,625**	**4,625**
ASPERMONT	G	MILLERS CREEK LAKE/RESERVOIR	5	4	3	2	1	0
ASPERMONT	G	SEYMOUR AQUIFER | STONEWALL COUNTY	205	202	197	189	188	188
COUNTY-OTHER	G	BLAINE AQUIFER | STONEWALL COUNTY	70	70	70	70	70	70
MANUFACTURING		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
MINING	G	BLAINE AQUIFER | STONEWALL COUNTY	194	194	194	194	194	194
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	336	336	336	336	336	336
IRRIGATION	G	BLAINE AQUIFER | STONEWALL COUNTY	83	83	83	83	83	83
IRRIGATION	G	SEYMOUR AQUIFER | STONEWALL COUNTY	28	28	27	26	26	26
		BRAZOS BASIN TOTAL	**921**	**917**	**910**	**900**	**898**	**897**
		STONEWALL COUNTY TOTAL	**921**	**917**	**910**	**900**	**898**	**897**
ABILENE	G	BRAZOS INDIRECT REUSE	1,197	1,196	1,196	1,196	1,196	2,161
ABILENE	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	9,959	9,953	8,749	4,180	1,298	867
ABILENE	G	FORT PHANTOM HILL LAKE/RESERVOIR	2,202	2,105	2,010	1,914	1,818	323
ABILENE	G	HUBBARD CREEK LAKE/RESERVOIR	4,243	1,893	829	944	1,110	0
ABILENE	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	3,105	2,960	2,803	2,202	2,248	920
HAMBY WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	67	67
HAMBY WSC	G	HUBBARD CREEK LAKE/RESERVOIR	66	67	67	67	0	0
HAWLEY WSC	G	BRAZOS INDIRECT REUSE	0	0	0	0	0	35
HAWLEY WSC	G	HUBBARD CREEK LAKE/RESERVOIR	60	60	62	60	60	25
MERKEL	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	0	0	0	0	0	50
MERKEL	G	HUBBARD CREEK LAKE/RESERVOIR	353	353	353	353	353	303
POTOSI WSC	G	HUBBARD CREEK LAKE/RESERVOIR	302	302	302	302	302	302
STEAMBOAT MOUNTAIN WSC	G	HUBBARD CREEK LAKE/RESERVOIR	182	182	182	182	182	182
TYE	G	HUBBARD CREEK LAKE/RESERVOIR	184	184	184	184	184	184
VIEW CAPS WSC	G	HUBBARD CREEK LAKE/RESERVOIR	199	199	199	199	199	199
COUNTY-OTHER	G	BRAZOS INDIRECT REUSE	538	538	537	538	538	233
COUNTY-OTHER	G	DOCKUM AQUIFER | NOLAN COUNTY	187	187	187	187	187	187
COUNTY-OTHER	G	HUBBARD CREEK LAKE/RESERVOIR	77	77	77	77	77	77
COUNTY-OTHER	G	LYTLE LAKE/RESERVOIR	224	179	134	90	45	0
MANUFACTURING	G	FORT PHANTOM HILL LAKE/RESERVOIR	0	0	0	0	0	671
MANUFACTURING	G	HUBBARD CREEK LAKE/RESERVOIR	585	671	671	671	671	0
MINING	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | TAYLOR COUNTY	100	100	100	100	101	100
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	590	590	590	590	590	590
IRRIGATION	G	TRINITY AQUIFER | TAYLOR COUNTY	3	1	1	1	1	1
		BRAZOS BASIN TOTAL	**24,356**	**21,797**	**19,233**	**14,037**	**11,227**	**7,477**
COLEMAN COUNTY SUD*	F	BROWNWOOD LAKE/RESERVOIR	10	9	9	9	9	9
COLEMAN COUNTY SUD*	F	COLEMAN LAKE/RESERVOIR	0	0	0	0	0	0
COLEMAN COUNTY SUD*	F	HORDS CREEK LAKE/RESERVOIR	0	0	0	0	0	0

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
LAWN	G	BRAZOS INDIRECT REUSE	0	0	0	0	0	62
LAWN	G	FORT PHANTOM HILL LAKE/RESERVOIR	0	0	0	0	0	91
LAWN	G	HUBBARD CREEK LAKE/RESERVOIR	153	153	153	153	153	0
NORTH RUNNELS WSC*	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	2	2	2	2	2	2
NORTH RUNNELS WSC*	F	WINTERS LAKE/RESERVOIR	0	0	0	0	0	0
STEAMBOAT MOUNTAIN WSC	G	HUBBARD CREEK LAKE/RESERVOIR	46	46	46	46	46	46
COUNTY-OTHER	G	BRAZOS INDIRECT REUSE	14	14	15	14	14	12
COUNTY-OTHER	G	HUBBARD CREEK LAKE/RESERVOIR	2	2	2	2	2	2
COUNTY-OTHER	G	LYTLE LAKE/RESERVOIR	6	5	4	2	1	0
MINING	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | TAYLOR COUNTY	34	34	34	34	33	34
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	244	244	244	244	244	244
IRRIGATION	G	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS | TAYLOR COUNTY	355	355	355	355	355	355
IRRIGATION	G	TRINITY AQUIFER | TAYLOR COUNTY	11	13	13	13	13	13
		COLORADO BASIN TOTAL	**877**	**877**	**877**	**874**	**872**	**870**
		TAYLOR COUNTY TOTAL	**25,233**	**22,674**	**20,110**	**14,911**	**12,099**	**8,347**
BAYLOR SUD*	B	SEYMOUR AQUIFER | BAYLOR COUNTY	3	3	3	3	3	3
FORT BELKNAP WSC	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	18	18	17	17	16	16
FORT GRIFFIN SUD	G	HUBBARD CREEK LAKE/RESERVOIR	19	19	19	19	19	19
STEPHENS REGIONAL SUD	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	26	25	26	24	24	24
THROCKMORTON	G	THROCKMORTON LAKE/RESERVOIR	50	40	30	20	10	0
COUNTY-OTHER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	99	99	99	99	99	99
MINING	G	CROSS TIMBERS AQUIFER | THROCKMORTON COUNTY	104	104	104	104	104	104
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	493	493	493	493	493	493
IRRIGATION		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
		BRAZOS BASIN TOTAL	**812**	**801**	**791**	**779**	**768**	**758**
		THROCKMORTON COUNTY TOTAL	**812**	**801**	**791**	**779**	**768**	**758**
BRENHAM	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	3,701	3,701	3,701	3,701	3,701	3,701
CENTRAL WASHINGTON COUNTY WSC	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	452	452	452	452	452	452
CHAPPELL HILL WSC	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	268	268	268	268	268	268
CORIX UTILITIES TEXAS INC*	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	327	332	330	327	326	324
WEST END WSC*	H	GULF COAST AQUIFER SYSTEM | AUSTIN COUNTY	53	58	62	68	74	82
COUNTY-OTHER	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	1,374	1,374	1,374	1,374	1,374	1,374
MANUFACTURING	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	208	208	208	208	208	208
MANUFACTURING	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	369	369	369	369	369	369
MINING	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	78	78	78	78	78	78
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,342	1,342	1,342	1,342	1,342	1,342
IRRIGATION	G	BRAZOS RIVER ALLUVIUM AQUIFER | WASHINGTON COUNTY	93	93	93	93	93	93
IRRIGATION	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	416	416	416	416	416	416
		BRAZOS BASIN TOTAL	**8,681**	**8,691**	**8,693**	**8,696**	**8,701**	**8,707**
COUNTY-OTHER	G	GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	7	7	7	7	7	7
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	6	6	6	6	6	6
		COLORADO BASIN TOTAL	**13**	**13**	**13**	**13**	**13**	**13**
		WASHINGTON COUNTY TOTAL	**8,694**	**8,704**	**8,706**	**8,709**	**8,714**	**8,720**

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
BARTLETT	G	TRINITY AQUIFER | WILLIAMSON COUNTY	98	94	91	89	87	86
BELL MILAM FALLS WSC	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	129	151	179	206	235	260
BELL MILAM FALLS WSC	G	TRINITY AQUIFER | BELL COUNTY	19	23	27	31	36	39
BLOCK HOUSE MUD	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,098	1,098	1,098	1,098	1,098	1,098
BRUSHY CREEK MUD	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	2,807	2,785	2,763	2,741	2,719	2,697
BRUSHY CREEK MUD	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	31	31	31	31	31	31
CEDAR PARK*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	13,970	13,979	13,731	13,665	13,666	13,666
FERN BLUFF MUD	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	1,187	1,175	1,168	1,163	1,161	1,161
FLORENCE	G	TRINITY AQUIFER | WILLIAMSON COUNTY	95	94	95	94	95	94
GEORGETOWN*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	15,914	15,068	14,173	13,109	11,869	10,601
GEORGETOWN*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	116	173	558	777	779	780
GRANGER	G	TRINITY AQUIFER | WILLIAMSON COUNTY	231	230	231	230	231	230
HUTTO	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	336	336	336	336	336	336
HUTTO	K	EDWARDS-BFZ AQUIFER | TRAVIS COUNTY	560	560	560	560	560	560
HUTTO	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	269	269	269	269	269	269
JARRELL-SCHWERTNER	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	2,170	2,152	2,140	2,134	2,128	2,050
JONAH WATER SUD	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	3,312	4,052	5,008	6,062	7,281	8,485
JONAH WATER SUD	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	290	290	290	290	290	290
LEANDER*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	5,198	4,716	4,662	5,131	5,321	5,459
LIBERTY HILL	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	25	72	134	203	283	365
LIBERTY HILL	G	TRINITY AQUIFER | WILLIAMSON COUNTY	105	105	105	105	105	105
MANVILLE WSC*	G	CARRIZO-WILCOX AQUIFER | BURLESON COUNTY	164	202	242	279	308	322
MANVILLE WSC*	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	1,766	1,740	1,758	1,784	2,326	3,036
MANVILLE WSC*	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	220	185	176	196	205	205
MANVILLE WSC*	K	EDWARDS-BFZ AQUIFER | TRAVIS COUNTY	99	100	104	107	111	116
MANVILLE WSC*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	322	322	322	322	322	322
MANVILLE WSC*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	199	196	198	201	208	218
MANVILLE WSC*	G	OTHER AQUIFER | WILLIAMSON COUNTY	117	116	117	119	123	128
MANVILLE WSC*	K	TRINITY AQUIFER | TRAVIS COUNTY	150	152	158	163	170	176
PALOMA LAKE MUD 1	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	305	409	403	400	399	399
PALOMA LAKE MUD 2	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	245	287	282	280	279	279
PFLUGERVILLE*	K	EDWARDS-BFZ AQUIFER | TRAVIS COUNTY	15	15	16	16	17	20
PFLUGERVILLE*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	52	67	86	107	130	155
ROUND ROCK*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	15,855	15,454	15,236	14,917	14,524	14,116
ROUND ROCK*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	511	479	479	479	479	479
ROUND ROCK*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	5,502	5,602	5,701	5,794	5,891	5,992
SONTERRA MUD	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	2,744	2,744	2,744	2,744	2,744	2,744
SONTERRA MUD	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	38	38	38	38	38	38
SOUTHWEST MILAM WSC	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	325	305	330	439	481	522
TAYLOR	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	2,844	3,010	3,245	3,527	3,873	4,237

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
THORNDALE	G	CARRIZO-WILCOX AQUIFER | MILAM COUNTY	0	0	0	1	1	1
WALSH RANCH MUD	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	199	196	195	195	194	194
WILLIAMSON COUNTY MUD 10	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	727	722	721	720	719	718
WILLIAMSON COUNTY MUD 11	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	820	816	816	817	818	820
WILLIAMSON COUNTY MUD 9	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	548	541	538	536	536	536
WILLIAMSON COUNTY WSID 3*	G	CARRIZO-WILCOX AQUIFER | LEE COUNTY	828	809	814	818	822	825
WILLIAMSON COUNTY WSID 3*	K	TRINITY AQUIFER | TRAVIS COUNTY	221	215	217	218	219	220
WILLIAMSON TRAVIS COUNTIES MUD 1*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	788	788	788	787	788	787
COUNTY-OTHER*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	665	698	747	830	942	1,057
COUNTY-OTHER*	G	EDWARDS-BFZ AQUIFER | BELL COUNTY	21	21	21	21	21	21
COUNTY-OTHER*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	130	130	130	130	130	130
COUNTY-OTHER*	G	OTHER AQUIFER | WILLIAMSON COUNTY	396	396	396	396	396	396
COUNTY-OTHER*	G	TRINITY AQUIFER | WILLIAMSON COUNTY	1,061	1,058	1,061	1,058	1,061	1,058
MANUFACTURING*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	502	595	595	595	595	595
MANUFACTURING*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	267	306	306	306	306	306
MANUFACTURING*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	292	347	347	347	347	347
MINING*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	6	6	6	6	6	6
MINING*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	435	435	435	435	435	435
LIVESTOCK	G	LOCAL SURFACE WATER SUPPLY	1,656	1,656	1,656	1,656	1,656	1,656
IRRIGATION	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	12	12	12	12	12	12
IRRIGATION	G	BRAZOS RUN-OF-RIVER	52	52	52	52	52	52
IRRIGATION	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	40	40	40	40	40	40
IRRIGATION	G	TRINITY AQUIFER | WILLIAMSON COUNTY	57	57	57	57	57	57
		BRAZOS BASIN TOTAL	**89,156**	**88,772**	**89,234**	**90,269**	**91,361**	**92,435**
COUNTY-OTHER*	G	BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	960	1,007	1,071	1,193	1,355	1,523
COUNTY-OTHER*	G	EDWARDS-BFZ AQUIFER | BELL COUNTY	34	34	34	34	34	34
COUNTY-OTHER*	G	EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	219	219	219	219	219	219
COUNTY-OTHER*	K	HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	13	13	13	13	13	13
COUNTY-OTHER*	G	TRINITY AQUIFER | WILLIAMSON COUNTY	1,784	1,779	1,784	1,779	1,784	1,779
		COLORADO BASIN TOTAL	**3,010**	**3,052**	**3,121**	**3,238**	**3,405**	**3,568**
		WILLIAMSON COUNTY TOTAL	**92,166**	**91,824**	**92,355**	**93,507**	**94,766**	**96,003**
BAYLOR SUD*	B	SEYMOUR AQUIFER | BAYLOR COUNTY	22	22	22	22	22	22
FORT BELKNAP WSC	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	382	383	384	386	385	386
GRAHAM	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	1,000	1,000	1,000	1,000	949	828
GRAHAM	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	426	309	190	70	0	0
COUNTY-OTHER*	B	CROSS TIMBERS AQUIFER | YOUNG COUNTY	29	34	39	42	46	51
COUNTY-OTHER*	G	CROSS TIMBERS AQUIFER | YOUNG COUNTY	101	93	88	87	78	71
COUNTY-OTHER*	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	94	89	86	84	83	83
MANUFACTURING	G	CROSS TIMBERS AQUIFER | YOUNG COUNTY	57	62	67	70	77	85
MANUFACTURING	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	2	2	2	2	2	2
MANUFACTURING	B	OLNEY-COOPER LAKE/RESERVOIR SYSTEM	25	25	25	25	25	25

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Region G Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MINING	G	CROSS TIMBERS AQUIFER | YOUNG COUNTY	10	10	10	10	10	10
MINING	G	SEYMOUR AQUIFER | YOUNG COUNTY	61	61	61	61	61	61
STEAM ELECTRIC POWER	G	BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	432	432	432	432	483	604
STEAM ELECTRIC POWER	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	248	248	248	248	197	76
LIVESTOCK*	G	LOCAL SURFACE WATER SUPPLY	508	508	508	508	508	508
IRRIGATION*	G	CROSS TIMBERS AQUIFER | YOUNG COUNTY	8	8	8	8	8	8
IRRIGATION*	G	SEYMOUR AQUIFER | YOUNG COUNTY	29	29	29	29	29	29
		BRAZOS BASIN TOTAL	**3,434**	**3,315**	**3,199**	**3,084**	**2,963**	**2,849**
BAYLOR SUD*	B	SEYMOUR AQUIFER | BAYLOR COUNTY	5	5	5	5	5	5
FORT BELKNAP WSC	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	13	13	12	12	13	12
COUNTY-OTHER*	B	CROSS TIMBERS AQUIFER | YOUNG COUNTY	5	7	7	8	9	10
COUNTY-OTHER*	G	CROSS TIMBERS AQUIFER | YOUNG COUNTY	19	18	17	14	15	13
COUNTY-OTHER*	G	GRAHAM/EDDLEMAN LAKE/RESERVOIR	18	16	16	16	16	16
MINING	G	CROSS TIMBERS AQUIFER | YOUNG COUNTY	1	1	1	1	1	1
MINING	G	SEYMOUR AQUIFER | YOUNG COUNTY	9	9	9	9	9	9
LIVESTOCK*	G	LOCAL SURFACE WATER SUPPLY	83	83	83	83	83	83
IRRIGATION*		NO WATER SUPPLY ASSOCIATED WITH WUG	0	0	0	0	0	0
		TRINITY BASIN TOTAL	**153**	**152**	**150**	**148**	**151**	**149**
		YOUNG COUNTY TOTAL	**3,587**	**3,467**	**3,349**	**3,232**	**3,114**	**2,998**
		REGION G EXISTING WATER SUPPLY TOTAL	**1,102,327**	**1,097,721**	**1,098,141**	**1,096,690**	**1,097,950**	**1,091,912**

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Region G Water User Group (WUG) Needs/Surplus

WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Needs/Surplus report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Surplus volumes are shown as positive values, and needs are shown as negative values in parentheses.

	(NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BELL COUNTY - BRAZOS BASIN						
439 WSC	217	(32)	(293)	(567)	(859)	(1,161)
ARMSTRONG WSC	491	469	448	425	397	369
BARTLETT	(81)	(100)	(121)	(144)	(168)	(193)
BELL COUNTY WCID 2	106	76	44	9	(27)	(63)
BELL COUNTY WCID 3	0	0	0	0	0	0
BELL MILAM FALLS WSC	825	810	803	794	768	745
BELTON	3,608	3,046	2,448	1,831	1,201	(1,072)
CENTRAL TEXAS COLLEGE DISTRICT	0	0	0	0	0	0
DOG RIDGE WSC	914	817	714	602	486	370
EAST BELL WSC	731	685	630	575	509	443
ELM CREEK WSC	79	47	12	(25)	(66)	(107)
FORT HOOD	2,689	2,759	2,808	2,815	2,819	2,820
GEORGETOWN*	(187)	(268)	(510)	(691)	(876)	(1,015)
HARKER HEIGHTS	2,104	1,141	122	(915)	(1,962)	(3,000)
HOLLAND	223	225	228	228	227	226
JARRELL-SCHWERTNER	721	670	598	514	416	277
KEMPNER WSC*	(56)	(91)	(121)	(153)	(185)	(215)
KILLEEN	0	0	0	0	0	0
LITTLE ELM VALLEY WSC	335	295	253	209	162	118
MOFFAT WSC	936	922	907	890	867	843
MORGANS POINT RESORT	1,353	1,254	1,148	1,038	926	814
PENDLETON WSC	322	314	301	285	270	254
ROGERS	309	302	294	285	274	263
SALADO WSC	337	155	(29)	(213)	(400)	(586)
TEMPLE	(532)	(3,668)	(6,969)	(10,340)	(13,738)	(17,103)
THE GROVE WSC	0	0	0	0	0	0
TROY	866	852	836	818	797	776
WEST BELL COUNTY WSC	902	865	876	878	879	880
COUNTY-OTHER	1,025	995	955	911	287	(307)
MANUFACTURING	(142)	(186)	(186)	(186)	(186)	(186)
MINING	(2,077)	(2,815)	(3,434)	(4,184)	(4,940)	(5,803)
STEAM ELECTRIC POWER	5,366	5,366	5,366	5,366	5,366	5,366
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(670)	(680)	(690)	(700)	(710)	(719)
BOSQUE COUNTY - BRAZOS BASIN						
CHILDRESS CREEK WSC	169	147	139	133	128	124
CLIFTON	214	120	59	13	(30)	(70)
CROSS COUNTRY WSC	55	57	57	57	55	53
HIGHLAND PARK WSC	(58)	(67)	(72)	(76)	(79)	(82)
HILCO UNITED SERVICES*	50	41	34	25	15	5
MERIDIAN	252	240	228	208	187	167
MUSTANG VALLEY WSC	19	(14)	(30)	(39)	(47)	(52)
SMITH BEND WSC	116	110	108	107	105	130

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Region G Water User Group (WUG) Needs/Surplus

VALLEY MILLS	56	36	27	20	15	11
COUNTY-OTHER	117	61	39	30	26	0
MANUFACTURING	237	235	235	235	235	235
MINING	(806)	(905)	(726)	(706)	(667)	(655)
STEAM ELECTRIC POWER	3,621	3,621	3,621	3,621	3,621	3,621
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(1,366)	(1,366)	(1,366)	(1,366)	(1,366)	(1,366)
BRAZOS COUNTY - BRAZOS BASIN						
BRYAN	215	(1,896)	(4,578)	(8,034)	(12,323)	(19,650)
COLLEGE STATION	413	(3,492)	(8,874)	(13,436)	(13,379)	(13,360)
TEXAS A&M UNIVERSITY	(99)	43	104	120	124	124
WELLBORN SUD	3,030	1,969	1,513	962	310	(379)
WICKSON CREEK SUD	1,138	1,071	845	586	326	42
COUNTY-OTHER	37	38	40	43	45	46
MANUFACTURING	697	1,036	1,078	1,078	1,078	1,078
MINING	552	30	207	496	717	826
STEAM ELECTRIC POWER	(1)	18	20	20	20	20
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	6,258	6,328	6,336	6,336	6,336	6,336
BURLESON COUNTY - BRAZOS BASIN						
CALDWELL	1,249	1,233	1,204	1,204	1,185	1,168
DEANVILLE WSC	248	243	226	229	223	218
MILANO WSC	54	8	18	11	14	12
SNOOK	206	189	180	167	157	149
SOMERVILLE	618	599	576	545	513	479
SOUTHWEST MILAM WSC	14	(19)	(34)	(32)	(30)	(40)
COUNTY-OTHER	167	116	95	41	17	2
MANUFACTURING	(6)	(6)	(6)	(6)	(6)	(6)
MINING	1,023	95	506	918	1,332	1,590
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(347)	(347)	(347)	(347)	(347)	(347)
CALLAHAN COUNTY - BRAZOS BASIN						
BAIRD	(155)	(152)	(150)	(154)	(159)	(164)
CALLAHAN COUNTY WSC	0	0	0	0	0	0
CLYDE	(167)	(172)	71	73	69	66
EULA WSC	45	41	38	37	36	35
HAMBY WSC	18	17	17	16	16	16
POTOSI WSC	(7)	(8)	(8)	(8)	(8)	(9)
COUNTY-OTHER	18	13	11	11	9	8
MINING	(78)	(77)	(70)	(64)	(58)	(53)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	75	74	75	74	75	74
CALLAHAN COUNTY - COLORADO BASIN						
CALLAHAN COUNTY WSC	0	0	0	0	0	0
CLYDE	(47)	(48)	20	20	19	19
COLEMAN COUNTY SUD*	(15)	(15)	(15)	(15)	(15)	(15)
CROSS PLAINS	117	110	107	105	102	101
EULA WSC	69	61	58	55	54	53
COUNTY-OTHER	20	14	13	12	11	9
MINING	(70)	(70)	(64)	(57)	(52)	(47)

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Region G Water User Group (WUG) Needs/Surplus

LIVESTOCK	0	0	0	0	0	0
IRRIGATION	216	213	216	213	216	213
COMANCHE COUNTY - BRAZOS BASIN						
COMANCHE	166	168	173	165	153	140
DE LEON	88	91	94	92	87	81
COUNTY-OTHER	(448)	(443)	(435)	(443)	(462)	(482)
MANUFACTURING	6	4	4	4	4	4
MINING	(232)	(314)	(151)	(65)	24	83
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(15,078)	(15,147)	(15,151)	(15,220)	(15,224)	(15,292)
COMANCHE COUNTY - COLORADO BASIN						
COUNTY-OTHER	(6)	(6)	(5)	(6)	(6)	(6)
LIVESTOCK	0	0	0	0	0	0
CORYELL COUNTY - BRAZOS BASIN						
CENTRAL TEXAS COLLEGE DISTRICT	0	0	0	0	0	0
COPPERAS COVE	4,263	3,838	3,343	2,870	(120)	(1,723)
CORYELL CITY WATER SUPPLY DISTRICT	288	284	282	280	279	277
ELM CREEK WSC	14	8	2	(4)	(10)	(16)
FLAT WSC	2	(10)	(23)	(35)	(48)	(62)
FORT GATES WSC	(260)	(303)	(353)	(399)	(449)	(500)
FORT HOOD	2,226	2,248	2,278	2,282	2,287	2,287
GATESVILLE	(1,041)	(1,692)	(2,455)	(3,154)	(3,917)	(4,688)
KEMPNER WSC*	(106)	(168)	(223)	(281)	(338)	(394)
MOUNTAIN WSC	170	143	110	80	47	13
MULTI COUNTY WSC	(38)	(55)	(77)	(99)	(125)	(153)
MUSTANG VALLEY WSC	0	0	0	0	0	0
OGLESBY	158	153	148	142	136	129
THE GROVE WSC	0	0	0	0	0	0
COUNTY-OTHER	324	52	(259)	(525)	(815)	(1,107)
MANUFACTURING	0	0	0	0	0	0
MINING	(1,315)	(877)	(296)	(168)	(203)	(242)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	736	736	736	736	736	736
EASTLAND COUNTY - BRAZOS BASIN						
CISCO	199	202	217	225	227	227
EASTLAND	1,530	1,497	1,481	1,459	1,430	1,400
FORT GRIFFIN SUD	0	0	0	0	0	0
GORMAN	75	78	82	82	83	83
RANGER	1,314	1,317	1,327	1,329	1,330	1,330
RISING STAR	71	73	76	77	78	78
STAFF WSC	70	73	79	79	81	81
STEPHENS REGIONAL SUD	9	9	9	10	9	9
COUNTY-OTHER	0	12	31	41	44	43
MANUFACTURING	42	42	42	42	42	42
MINING	(889)	(897)	(662)	(454)	(265)	(182)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	22	9	22	9	22	9
EASTLAND COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	1	1	1	1	1
MINING	(32)	(33)	(24)	(17)	(10)	(7)

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Region G Water User Group (WUG) Needs/Surplus

LIVESTOCK	0	0	0	0	0	0
IRRIGATION	57	57	57	57	57	57
ERATH COUNTY - BRAZOS BASIN						
DUBLIN	103	89	73	81	52	24
GORDON	(7)	(7)	(7)	(8)	(8)	(8)
STEPHENVILLE	2,954	2,740	2,553	2,353	2,139	1,933
COUNTY-OTHER	727	499	310	63	(148)	(347)
MANUFACTURING	(3)	(6)	2	9	18	29
MINING	502	471	631	703	775	830
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	360	360	360	360	360	360
FALLS COUNTY - BRAZOS BASIN						
BELL MILAM FALLS WSC	421	403	376	343	324	307
BRUCEVILLE EDDY	95	82	89	74	57	40
CEGO-DURANGO WSC	29	25	27	32	27	22
EAST BELL WSC	68	55	45	34	28	23
LITTLE ELM VALLEY WSC	18	15	12	10	9	6
MARLIN	951	892	899	950	896	839
NORTH MILAM WSC	2	1	1	1	1	2
ROSEBUD	450	449	454	458	454	449
WEST BRAZOS WSC	250	241	234	221	212	200
COUNTY-OTHER	3	4	69	114	102	87
MINING	(127)	(148)	(161)	(188)	(209)	(233)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	1,382	1,382	1,382	1,382	1,382	1,382
FISHER COUNTY - BRAZOS BASIN						
ROBY	34	34	34	34	34	34
ROTAN	(38)	(19)	(19)	(36)	(52)	(66)
THE BITTER CREEK WSC	(89)	(86)	(83)	(83)	(83)	(84)
COUNTY-OTHER	0	3	6	6	7	7
MANUFACTURING	82	54	54	54	54	54
MINING	(191)	(186)	(143)	(97)	(57)	(22)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	782	782	782	782	782	782
GRIMES COUNTY - BRAZOS BASIN						
DOBBIN PLANTERSVILLE WSC*	11	12	13	14	15	16
G & W WSC*	24	30	37	43	47	52
NAVASOTA	565	553	546	525	474	403
TDCJ LUTHER UNITS	536	514	496	477	460	445
TDCJ W PACK UNIT	234	202	178	151	127	107
WICKSON CREEK SUD	425	387	298	204	101	18
COUNTY-OTHER	1	7	15	15	21	31
MANUFACTURING	142	142	142	142	167	213
MINING	(106)	(288)	(202)	(117)	(32)	20
STEAM ELECTRIC POWER	5,046	5,046	5,046	5,046	5,046	5,046
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(115)	(115)	(115)	(115)	(115)	(115)
GRIMES COUNTY - SAN JACINTO BASIN						
DOBBIN PLANTERSVILLE WSC*	33	38	41	45	48	51
G & W WSC*	3	5	5	6	7	7

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Region G Water User Group (WUG) Needs/Surplus

COUNTY-OTHER	2	9	24	30	41	57
MINING	(17)	(98)	(60)	(22)	16	40
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(36)	(36)	(36)	(36)	(36)	(36)
GRIMES COUNTY - TRINITY BASIN						
WICKSON CREEK SUD	38	34	26	18	8	1
COUNTY-OTHER	0	5	14	18	25	34
MINING	(10)	(26)	(19)	(11)	(3)	2
LIVESTOCK	0	0	0	0	0	0
HAMILTON COUNTY - BRAZOS BASIN						
HAMILTON	158	162	173	180	181	181
HICO	387	391	396	399	400	400
MULTI COUNTY WSC	(8)	(12)	(14)	(16)	(19)	(21)
COUNTY-OTHER	0	13	28	29	30	30
MANUFACTURING	0	0	0	0	0	0
MINING	(137)	20	155	256	256	256
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	181	178	176	173	170	168
HASKELL COUNTY - BRAZOS BASIN						
HASKELL	(477)	(473)	(468)	(472)	(483)	(499)
STAMFORD	4	3	3	2	3	2
COUNTY-OTHER	9	18	19	17	11	1
MINING	(93)	(92)	(83)	(74)	(66)	(59)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(16,679)	(16,793)	(14,462)	(14,742)	(15,721)	(15,835)
HILL COUNTY - BRAZOS BASIN						
BIROME WSC	115	112	109	107	105	100
BOLD SPRINGS WSC	72	71	71	69	67	67
BRANDON IRENE WSC*	38	39	38	35	31	27
CHATT WSC	20	19	14	6	(1)	(11)
DOUBLE DIAMOND UTILITIES	0	(14)	(23)	(37)	(45)	(84)
FILES VALLEY WSC*	153	171	153	130	111	78
GHOLSON WSC	123	117	111	103	96	88
HILCO UNITED SERVICES*	138	115	98	71	43	14
HILL COUNTY WSC	333	329	317	298	286	262
HILLSBORO	1,846	1,564	1,510	1,442	1,378	1,185
ITASCA	61	60	60	57	53	50
JOHNSON COUNTY SUD*	(2)	4	4	0	(3)	(5)
PARKER WSC	19	12	6	2	(2)	(5)
POST OAK SUD*	0	0	0	(6)	(10)	(16)
WHITNEY	0	(38)	(49)	(67)	(74)	(77)
WOODROW OSCEOLA WSC	309	343	343	330	320	297
COUNTY-OTHER	(45)	(51)	(47)	(54)	(52)	(56)
MANUFACTURING	44	49	54	59	64	69
MINING	(188)	167	499	796	770	742
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(34)	(24)	(11)	(12)	(11)	(12)
HILL COUNTY - TRINITY BASIN						
BIROME WSC	2	2	2	1	1	1

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Region G Water User Group (WUG) Needs/Surplus

BRANDON IRENE WSC*	139	145	139	126	115	96
CHATT WSC	3	3	1	1	0	(1)
FILES VALLEY WSC*	338	378	341	291	246	173
HUBBARD	249	249	263	247	231	208
ITASCA	4	4	4	4	4	4
PARKER WSC	4	4	2	0	0	0
POST OAK SUD*	0	0	(1)	(29)	(57)	(86)
COUNTY-OTHER	(12)	(12)	(12)	(13)	(12)	(14)
MINING	(48)	41	124	199	192	184
STEAM ELECTRIC POWER	(4,120)	(4,120)	(4,120)	(4,120)	(4,120)	(4,120)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(176)	(187)	(199)	(199)	(199)	(199)
HOOD COUNTY - BRAZOS BASIN						
ACTON MUD	1,526	(50)	(1,111)	(1,686)	(2,895)	(4,148)
GRANBURY	673	365	144	(55)	(216)	(342)
LIPAN	58	43	33	23	15	9
SANTO SUD*	1	1	1	1	0	0
TOLAR	81	58	41	26	14	4
COUNTY-OTHER	(1,837)	(1,130)	(756)	(684)	77	920
MANUFACTURING	10,011	10,008	10,008	10,008	10,008	10,008
MINING	(660)	(1,015)	(803)	(715)	(625)	(639)
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	417	417	417	417	417	417
HOOD COUNTY - TRINITY BASIN						
COUNTY-OTHER	(8)	(5)	(3)	(3)	0	4
MINING	(17)	(20)	(18)	(17)	(17)	(17)
LIVESTOCK	0	0	0	0	0	0
JOHNSON COUNTY - BRAZOS BASIN						
ACTON MUD	20	0	(15)	(22)	(38)	(55)
BETHESDA WSC*	0	(18)	(35)	(55)	(77)	(106)
BURLESON*	0	0	0	0	(2)	(3)
CLEBURNE	1,831	763	(1,097)	(2,988)	(5,195)	(7,324)
DOUBLE DIAMOND UTILITIES	0	(1)	(2)	(2)	(3)	(9)
GODLEY	(3)	(12)	(22)	(35)	(49)	(65)
JOHNSON COUNTY SUD*	(67)	464	479	59	(238)	(483)
KEENE	131	121	109	95	81	66
PARKER WSC	182	137	88	30	(34)	(108)
RIO VISTA	180	151	120	85	46	4
COUNTY-OTHER	657	382	371	481	523	439
MANUFACTURING	949	1,039	1,431	1,781	2,127	2,508
MINING	(1,347)	(676)	(34)	216	144	54
STEAM ELECTRIC POWER	(571)	(571)	(571)	(571)	(571)	(571)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(132)	(132)	(132)	(132)	(132)	(132)
JOHNSON COUNTY - TRINITY BASIN						
ALVARADO	1,991	1,953	1,912	1,859	1,798	1,728
BETHANY WSC	1,066	1,036	1,003	960	909	852
BETHESDA WSC*	0	(341)	(716)	(1,133)	(1,568)	(2,149)
BURLESON*	0	(819)	(1,651)	(2,374)	(3,185)	(4,059)

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Region G Water User Group (WUG) Needs/Surplus

CROWLEY*	0	(2)	(5)	(9)	(15)	(21)
FORT WORTH*	0	0	0	(391)	(695)	(949)
GRANDVIEW	187	172	156	135	110	82
JOHNSON COUNTY SUD*	(230)	964	994	120	(496)	(1,003)
KEENE	819	750	676	594	507	411
MANSFIELD*	(48)	(289)	(507)	(783)	(1,063)	(1,375)
MOUNTAIN PEAK SUD*	(55)	(287)	(523)	(793)	(1,081)	(1,397)
PARKER WSC	56	41	27	10	(12)	(32)
VENUS*	(86)	(298)	(396)	(441)	(522)	(619)
COUNTY-OTHER	1,386	805	784	1,016	1,119	926
MANUFACTURING	5	6	7	8	9	10
MINING	(1,332)	(669)	(34)	214	142	53
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(137)	(137)	(137)	(137)	(137)	(137)
JONES COUNTY - BRAZOS BASIN						
ABILENE	(27)	(161)	(292)	(541)	(689)	(861)
ANSON	0	0	0	0	0	0
HAMBY WSC	51	51	51	50	50	49
HAMLIN	109	89	77	53	35	17
HAWLEY WSC	99	99	99	99	91	84
STAMFORD	356	326	306	282	258	240
COUNTY-OTHER	(68)	(82)	(92)	(102)	(112)	(121)
MINING	(160)	(155)	(139)	(120)	(104)	(90)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(191)	(191)	(191)	(191)	(191)	(191)
KENT COUNTY - BRAZOS BASIN						
JAYTON	(118)	(115)	(112)	(111)	(111)	(111)
COUNTY-OTHER	1	0	0	0	0	0
MINING	683	683	686	689	692	695
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	634	634	634	634	634	634
KNOX COUNTY - BRAZOS BASIN						
BAYLOR SUD*	0	0	1	1	1	1
KNOX CITY	(226)	(231)	(235)	(244)	(250)	(256)
MUNDAY	(242)	(246)	(249)	(258)	(264)	(270)
COUNTY-OTHER	10	12	11	8	5	2
MANUFACTURING	0	0	0	0	0	0
MINING	(7)	(8)	(7)	(7)	(6)	(6)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(11,909)	(13,827)	(10,873)	(9,191)	(8,951)	(10,706)
KNOX COUNTY - RED BASIN						
RED RIVER AUTHORITY OF TEXAS*	0	0	0	0	0	0
COUNTY-OTHER	0	0	1	0	0	0
MINING	(2)	(2)	(2)	(2)	(2)	(2)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(2,975)	(3,455)	(2,717)	(2,297)	(2,237)	(2,675)
LAMPASAS COUNTY - BRAZOS BASIN						
COPPERAS COVE	125	135	130	122	(5)	(79)
CORIX UTILITIES TEXAS INC*	(57)	(61)	(69)	(78)	(86)	(93)
KEMPNER WSC*	(308)	(481)	(626)	(777)	(922)	(1,055)

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Region G Water User Group (WUG) Needs/Surplus

LAMPASAS	(121)	(226)	(308)	(403)	(504)	(600)
COUNTY-OTHER	47	55	83	113	135	158
MANUFACTURING	(13)	(27)	(22)	(19)	(11)	(3)
MINING	(64)	(81)	(96)	(111)	(130)	(150)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(4)	(7)	(7)	(7)	(7)	(7)
LAMPASAS COUNTY - COLORADO BASIN						
CORIX UTILITIES TEXAS INC*	(42)	(43)	(48)	(55)	(60)	(66)
COUNTY-OTHER	9	10	17	22	28	32
MINING	(30)	(36)	(41)	(46)	(52)	(59)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(223)	(223)	(226)	(229)	(232)	(235)
LEE COUNTY - BRAZOS BASIN						
AQUA WSC*	0	0	0	0	0	0
GIDDINGS	280	224	194	184	176	170
LEE COUNTY WSC*	1,563	1,464	1,370	1,272	1,153	1,021
LEXINGTON	423	399	387	383	379	377
SOUTHWEST MILAM WSC	5	(7)	(13)	(13)	(11)	(12)
COUNTY-OTHER	17	10	5	3	1	1
MINING	(215)	(132)	2,429	2,512	2,592	2,592
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	190	194	197	202	207	207
LEE COUNTY - COLORADO BASIN						
GIDDINGS	296	237	206	196	186	181
LEE COUNTY WSC*	758	711	665	615	560	496
COUNTY-OTHER	6	4	2	1	1	0
MANUFACTURING	6	6	7	8	9	10
MINING	(60)	(37)	686	709	732	732
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LIMESTONE COUNTY - BRAZOS BASIN						
BIROME WSC	16	15	15	14	14	14
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	78	19	19	19	19	19
COOLIDGE	119	120	126	115	102	84
GROESBECK	(688)	(677)	(667)	(665)	(668)	(665)
MART	0	0	0	(1)	(1)	(1)
MEXIA	325	271	174	70	(26)	(111)
POINT ENTERPRISE WSC*	6	5	5	3	2	0
POST OAK SUD*	0	0	0	(2)	(4)	(5)
PRAIRIE HILL WSC	89	84	80	73	66	61
SLC WSC	16	15	15	12	8	6
TRI COUNTY SUD	1,159	1,158	1,168	1,181	1,176	1,169
WHITE ROCK WSC	537	535	532	526	518	513
COUNTY-OTHER	171	191	201	202	208	195
MANUFACTURING	(220)	(268)	(268)	(268)	(267)	(267)
MINING	(6,335)	(5,974)	(5,919)	(6,355)	(6,784)	(7,354)
STEAM ELECTRIC POWER	(388)	(388)	(388)	(388)	(388)	(388)
LIVESTOCK	0	0	0	0	0	0
LIMESTONE COUNTY - TRINITY BASIN						
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	38	9	9	9	9	9

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Region G Water User Group (WUG) Needs/Surplus

COOLIDGE	78	78	83	75	67	57
MEXIA	205	172	110	45	(17)	(71)
POINT ENTERPRISE WSC*	3	2	2	2	1	0
POST OAK SUD*	0	0	0	(4)	(7)	(11)
WHITE ROCK WSC	5	4	4	4	4	4
COUNTY-OTHER	36	40	42	43	44	41
MANUFACTURING	(39)	(46)	(46)	(46)	(46)	(46)
MINING	(824)	(793)	(788)	(826)	(863)	(913)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	28	28	28	28	28	28
MCLENNAN COUNTY - BRAZOS BASIN						
AXTELL WSC	121	115	108	100	89	79
BELLMEAD	2,111	2,083	2,056	2,013	1,956	1,896
BIROME WSC	75	73	71	69	67	65
BOLD SPRINGS WSC	827	816	805	792	778	761
BRUCEVILLE EDDY	401	354	290	241	186	130
CENTRAL BOSQUE WSC	359	359	359	359	359	359
CHALK BLUFF WSC	447	457	466	471	472	472
CORYELL CITY WATER SUPPLY DISTRICT	44	47	47	47	47	47
CRAWFORD	19	20	21	20	19	17
CROSS COUNTRY WSC	179	172	171	167	163	159
EAST CRAWFORD WSC	(113)	(135)	(154)	(175)	(197)	(219)
ELM CREEK WSC	64	37	9	(18)	(45)	(73)
EOL WSC	156	147	138	126	111	97
GHOLSON WSC	322	303	288	270	249	228
H & H WSC	114	104	94	79	63	46
HEWITT	(480)	(844)	(1,172)	(1,522)	(1,893)	(2,262)
HIGHLAND PARK WSC	(24)	(28)	(30)	(32)	(33)	(34)
HILLTOP WSC	332	328	324	319	313	307
LACY LAKEVIEW	375	332	292	243	188	131
LEROY TOURS GERALD WSC	244	239	235	228	220	211
LEVI WSC	391	387	383	377	370	364
LORENA	563	531	503	472	439	406
MART	(149)	(165)	(180)	(199)	(220)	(243)
MCGREGOR	1,568	1,536	1,505	1,463	1,413	1,360
MCLENNAN COUNTY WCID 2	432	419	406	391	374	356
MOODY	399	389	379	368	353	337
NORTH BOSQUE WSC	39	(82)	(190)	(300)	(412)	(522)
PRAIRIE HILL WSC	65	61	57	53	48	44
RIESEL	143	144	144	142	139	134
ROBINSON	(245)	(669)	(1,048)	(1,444)	(1,851)	(2,255)
ROSS WSC	396	381	366	348	328	307
SPRING VALLEY WSC	202	188	175	159	140	121
TEXAS STATE TECHNICAL COLLEGE	0	0	0	0	0	0
VALLEY MILLS	1	1	1	1	1	0
WACO	9,510	7,271	5,023	2,517	(123)	(2,908)
WEST	931	927	922	914	901	887
WEST BRAZOS WSC	218	216	221	227	223	217
WINDSOR WATER	141	135	131	125	118	111
WOODWAY	308	78	82	111	119	139

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Region G Water User Group (WUG) Needs/Surplus

COUNTY-OTHER	(222)	14	172	349	511	667
MANUFACTURING	(543)	(2,824)	(2,463)	(2,094)	(1,764)	(1,309)
MINING	(1,800)	(2,262)	(2,322)	(2,770)	(3,094)	(3,478)
STEAM ELECTRIC POWER	16,485	16,469	16,453	16,437	16,421	16,405
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	795	875	955	1,035	1,115	1,195
MILAM COUNTY - BRAZOS BASIN						
BELL MILAM FALLS WSC	551	530	512	502	478	454
CAMERON	1,252	1,202	1,169	1,111	1,054	998
MILANO WSC	56	9	19	11	15	13
NORTH MILAM WSC	212	139	113	143	150	138
ROCKDALE	(79)	(289)	(613)	(558)	(562)	(609)
SALEM ELM RIDGE WSC	291	287	285	280	274	269
SOUTHWEST MILAM WSC	116	(148)	(263)	(250)	(268)	(342)
THORNDALE	19	14	12	5	(2)	(10)
COUNTY-OTHER	31	26	21	14	9	4
MANUFACTURING	2	1	1	1	1	1
MINING	62	50	47	54	57	57
STEAM ELECTRIC POWER	(32,254)	(32,254)	(32,254)	(32,254)	(32,254)	(32,254)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	239	(104)	(205)	4	93	93
NOLAN COUNTY - BRAZOS BASIN						
ROSCOE	(84)	(88)	(90)	(96)	(101)	(107)
SWEETWATER	(296)	(333)	(350)	(413)	(469)	(521)
THE BITTER CREEK WSC	(129)	(130)	(130)	(136)	(141)	(145)
COUNTY-OTHER	3	3	2	2	1	0
MANUFACTURING	52	(31)	(33)	(35)	(35)	(35)
MINING	(35)	(34)	(24)	(14)	(5)	2
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(5,108)	(5,108)	(5,108)	(5,108)	(5,108)	(5,108)
NOLAN COUNTY - COLORADO BASIN						
COUNTY-OTHER	10	9	9	7	4	2
MINING	(43)	(41)	(29)	(17)	(6)	4
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(3,129)	(3,129)	(3,129)	(3,129)	(3,129)	(3,129)
PALO PINTO COUNTY - BRAZOS BASIN						
GORDON	(140)	(148)	(153)	(158)	(163)	(167)
LAKE PALO PINTO AREA WSC	48	39	33	25	17	11
MINERAL WELLS*	(173)	(359)	(533)	(722)	(913)	(1,093)
NORTH RURAL WSC*	62	57	55	52	47	44
PALO PINTO WSC	64	59	56	53	50	47
PARKER COUNTY SUD*	1	(2)	(4)	(7)	(10)	(13)
POSSUM KINGDOM WSC	(115)	(166)	(200)	(232)	(259)	(281)
SANTO SUD*	54	42	34	21	5	(14)
SPORTSMANS WORLD MUD	(33)	(42)	(47)	(53)	(57)	(61)
STEPHENS REGIONAL SUD	3	3	3	3	3	3
STRAWN	(35)	(42)	(46)	(50)	(55)	(59)
STURDIVANT PROGRESS WSC	67	60	57	50	42	33
COUNTY-OTHER	(191)	(190)	(187)	(187)	(184)	(177)
MANUFACTURING	1,199	1,197	1,197	1,197	1,197	1,197

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Region G Water User Group (WUG) Needs/Surplus

MINING	(653)	(844)	(622)	(477)	(333)	(232)
STEAM ELECTRIC POWER	11,601	11,601	11,601	11,601	11,601	11,601
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(2,326)	(2,326)	(2,326)	(2,326)	(2,326)	(2,326)
ROBERTSON COUNTY - BRAZOS BASIN						
BETHANY HEARNE WSC	0	0	0	0	0	0
BREMOND	210	198	186	171	156	141
CALVERT	339	346	349	349	350	350
FRANKLIN	973	956	917	868	808	738
HEARNE	2,040	1,899	1,729	1,729	1,728	1,724
ROBERTSON COUNTY WSC	(81)	(157)	(235)	(332)	(433)	(526)
TWIN CREEK WSC	427	408	390	368	347	325
WELLBORN SUD	853	382	272	159	48	(55)
WICKSON CREEK SUD	43	41	32	23	13	3
COUNTY-OTHER	3	9	10	11	11	11
MANUFACTURING	4,566	4,566	4,566	4,566	4,566	4,566
MINING	5,774	3,934	3,687	3,687	3,687	3,687
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(12,851)	(16,181)	(17,100)	(17,718)	(17,829)	(17,921)
SHACKELFORD COUNTY - BRAZOS BASIN						
ALBANY	130	99	113	113	114	114
CALLAHAN COUNTY WSC	0	0	0	0	0	0
FORT GRIFFIN SUD	(1)	(1)	(1)	(1)	(1)	(1)
HAMBY WSC	49	48	48	48	48	47
STEPHENS REGIONAL SUD	1	1	1	1	1	1
COUNTY-OTHER	0	10	12	14	15	15
MANUFACTURING	37	37	37	37	37	37
MINING	(353)	(538)	(348)	(232)	(118)	(33)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	100	100	100	100	100	100
SOMERVELL COUNTY - BRAZOS BASIN						
GLEN ROSE	8	(50)	(90)	(123)	(154)	(179)
SOMERVELL COUNTY WATER DISTRICT	1,424	1,411	1,402	1,394	1,386	1,379
COUNTY-OTHER	0	(54)	(92)	(125)	(156)	(183)
MANUFACTURING	5	4	4	4	4	4
MINING	(421)	(588)	(455)	(369)	(307)	(280)
STEAM ELECTRIC POWER	(35,387)	(35,483)	(35,579)	(35,675)	(35,771)	(35,867)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	172	172	172	172	172	172
STEPHENS COUNTY - BRAZOS BASIN						
BRECKENRIDGE	882	871	877	879	878	868
FORT BELKNAP WSC	0	(1)	0	(1)	(1)	(1)
FORT GRIFFIN SUD	(1)	(1)	(1)	(1)	(1)	(1)
POSSUM KINGDOM WSC	(3)	(5)	(6)	(8)	(9)	(9)
STAFF WSC	22	24	25	26	26	26
STEPHENS REGIONAL SUD	143	147	150	155	155	154
COUNTY-OTHER	6	7	7	7	4	6
MANUFACTURING	0	0	0	0	0	0
MINING	(3,475)	(3,552)	(2,869)	(2,236)	(1,668)	(1,184)

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Region G Water User Group (WUG) Needs/Surplus

LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(121)	(121)	(121)	(121)	(121)	(121)
STONEWALL COUNTY - BRAZOS BASIN						
ASPERMONT	(39)	(39)	(41)	(50)	(51)	(52)
COUNTY-OTHER	2	5	6	6	6	6
MANUFACTURING	(58)	(58)	(58)	(58)	(58)	(58)
MINING	(390)	(382)	(318)	(252)	(194)	(144)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	5	5	4	3	3	3
TAYLORCOUNTY - BRAZOS BASIN						
ABILENE	(610)	(3,616)	(6,471)	(11,992)	(15,168)	(18,910)
HAMBY WSC	32	32	32	32	32	31
HAWLEY WSC	12	12	14	12	11	10
MERKEL	(20)	(23)	(25)	(29)	(35)	(41)
POTOSI WSC	(499)	(517)	(534)	(549)	(564)	(577)
STEAMBOAT MOUNTAIN WSC	(118)	(120)	(123)	(127)	(131)	(136)
TYE	0	(2)	(4)	(7)	(11)	(13)
VIEW CAPS WSC	4	2	0	(3)	(6)	(9)
COUNTY-OTHER	377	332	284	224	167	(192)
MANUFACTURING	0	0	0	0	0	0
MINING	(193)	(193)	(174)	(159)	(146)	(136)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	(2)	(2)	(2)	(2)	(2)
TAYLORCOUNTY - COLORADO BASIN						
COLEMAN COUNTY SUD*	(9)	(10)	(10)	(10)	(11)	(11)
LAWN	25	22	20	17	15	13
NORTH RUNNELS WSC*	(32)	(32)	(31)	(31)	(31)	(31)
STEAMBOAT MOUNTAIN WSC	(30)	(31)	(32)	(32)	(34)	(35)
COUNTY-OTHER	5	4	3	0	(1)	(5)
MINING	(64)	(64)	(58)	(53)	(49)	(45)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(1,266)	(1,264)	(1,264)	(1,264)	(1,264)	(1,264)
THROCKMORTON COUNTY - BRAZOS BASIN						
BAYLOR SUD*	0	0	0	0	0	0
FORT BELKNAP WSC	(2)	(2)	(2)	(2)	(3)	(3)
FORT GRIFFIN SUD	0	0	0	0	0	0
STEPHENS REGIONAL SUD	9	9	10	9	9	9
THROCKMORTON	(135)	(141)	(147)	(157)	(167)	(177)
COUNTY-OTHER	69	71	71	71	71	72
MINING	(90)	(87)	(67)	(46)	(28)	(12)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(157)	(157)	(157)	(157)	(157)	(157)
WASHINGTON COUNTY - BRAZOS BASIN						
BRENHAM	(628)	(926)	(1,120)	(1,337)	(1,524)	(1,681)
CENTRAL WASHINGTON COUNTY WSC	198	190	184	177	169	163
CHAPPELL HILL WSC	127	121	118	113	109	105
CORIX UTILITIES TEXAS INC*	(250)	(266)	(282)	(304)	(322)	(339)
WEST END WSC*	0	0	0	0	0	0
COUNTY-OTHER	6	28	50	56	51	47
MANUFACTURING	0	(6)	(6)	(6)	(6)	(6)

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MINING	(491)	(788)	(625)	(460)	(295)	(186)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	200	200	200	200	200	200
WASHINGTON COUNTY - COLORADO BASIN						
COUNTY-OTHER	1	1	1	1	1	1
LIVESTOCK	0	0	0	0	0	0
WILLIAMSON COUNTY - BRAZOS BASIN						
BARTLETT	(102)	(114)	(130)	(147)	(168)	(189)
BELL MILAM FALLS WSC	105	121	141	159	177	189
BLOCK HOUSE MUD	252	270	280	284	286	287
BRUSHY CREEK MUD	(246)	(206)	(191)	(193)	(210)	(231)
CEDAR PARK*	(2,887)	(4,603)	(4,759)	(4,792)	(4,775)	(4,768)
FERN BLUFF MUD	0	0	0	0	0	0
FLORENCE	(35)	(38)	(42)	(50)	(59)	(72)
GEORGETOWN*	(10,085)	(18,880)	(27,790)	(38,663)	(51,172)	(65,617)
GRANGER	22	13	2	(14)	(33)	(56)
HUTTO	(907)	(3,046)	(3,304)	(5,437)	(8,596)	(10,703)
JARRELL-SCHWERTNER	1,520	1,384	1,221	1,046	845	562
JONAH WATER SUD	290	290	290	290	290	290
LEANDER*	(1,364)	(5,130)	(8,258)	(10,881)	(14,576)	(19,041)
LIBERTY HILL	(90)	(90)	(90)	(90)	(90)	(90)
MANVILLE WSC*	1,151	794	439	24	2	0
PALOMA LAKE MUD 1	0	0	0	0	0	0
PALOMA LAKE MUD 2	0	0	0	0	0	0
PFLUGERVILLE*	5	5	6	6	7	10
ROUND ROCK*	2,064	(2,762)	(8,830)	(16,038)	(16,280)	(16,566)
SONTERRA MUD	2,337	2,333	2,323	2,308	2,289	2,269
SOUTHWEST MILAM WSC	34	(51)	(109)	(91)	(156)	(225)
TAYLOR	0	0	0	0	0	0
THORNDALE	0	0	0	0	0	0
WALSH RANCH MUD	0	0	0	0	0	0
WILLIAMSON COUNTY MUD 10	0	0	0	0	0	0
WILLIAMSON COUNTY MUD 11	0	0	0	0	0	0
WILLIAMSON COUNTY MUD 9	0	0	0	0	0	0
WILLIAMSON COUNTY WSID 3*	151	108	90	64	33	0
WILLIAMSON TRAVIS COUNTIES MUD 1*	190	204	212	215	217	217
COUNTY-OTHER*	2	851	(1,041)	(2,753)	(8,580)	(13,762)
MANUFACTURING*	249	285	285	285	285	285
MINING*	(4,722)	(5,806)	(6,923)	(8,114)	(9,341)	(10,745)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(172)	(172)	(172)	(172)	(172)	(172)
WILLIAMSON COUNTY - COLORADO BASIN						
COUNTY-OTHER*	(808)	610	(2,590)	(5,486)	(15,314)	(24,052)
YOUNG COUNTY - BRAZOS BASIN						
BAYLOR SUD*	0	0	0	0	0	0
FORT BELKNAP WSC	(34)	(43)	(47)	(57)	(71)	(86)
GRAHAM	(1,362)	(1,582)	(1,769)	(1,982)	(2,208)	(2,434)
COUNTY-OTHER*	48	39	32	26	14	5
MANUFACTURING	48	45	50	53	60	68
MINING	(92)	(170)	(100)	(61)	(21)	7

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STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK*	0	0	0	0	0	0
IRRIGATION*	(454)	(454)	(454)	(454)	(454)	(454)
YOUNG COUNTY - TRINITY BASIN						
BAYLOR SUD*	0	0	0	0	0	0
FORT BELKNAP WSC	(1)	(1)	(2)	(2)	(2)	(3)
COUNTY-OTHER*	9	7	6	3	3	1
MINING	(14)	(25)	(15)	(9)	(3)	1
LIVESTOCK*	0	0	0	0	0	0
IRRIGATION*	(2)	(2)	(2)	(2)	(2)	(2)

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

Second-tier needs are WUG split needs adjusted to include the implementation of recommended demand reduction and direct reuse water management strategies.

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BELL COUNTY - BRAZOS BASIN						
439 WSC	0	0	108	382	859	1,141
ARMSTRONG WSC	0	0	0	0	0	0
BARTLETT	81	87	92	104	118	139
BELL COUNTY WCID 2	0	0	0	0	27	63
BELL COUNTY WCID 3	0	0	0	0	0	0
BELL MILAM FALLS WSC	0	0	0	0	0	0
BELTON	0	0	0	0	0	688
CENTRAL TEXAS COLLEGE DISTRICT	0	0	0	0	0	0
DOG RIDGE WSC	0	0	0	0	0	0
EAST BELL WSC	0	0	0	0	0	0
ELM CREEK WSC	0	0	0	25	66	107
FORT HOOD	0	0	0	0	0	0
GEORGETOWN*	187	163	317	392	187	488
HARKER HEIGHTS	0	0	0	0	121	996
HOLLAND	0	0	0	0	0	0
JARRELL-SCHWERTNER	0	0	0	0	0	0
KEMPNER WSC*	56	62	91	124	155	183
KILLEEN	0	0	0	0	0	0
LITTLE ELM VALLEY WSC	0	0	0	0	0	0
MOFFAT WSC	0	0	0	0	0	0
MORGANS POINT RESORT	0	0	0	0	0	0
PENDLETON WSC	0	0	0	0	0	0
ROGERS	0	0	0	0	0	0
SALADO WSC	0	0	0	0	0	0
TEMPLE	532	1,800	2,737	3,283	3,475	4,634
THE GROVE WSC	0	0	0	0	0	0
TROY	0	0	0	0	0	0
WEST BELL COUNTY WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	264
MANUFACTURING	123	0	0	0	0	0
MINING	1,980	2,616	3,112	3,810	4,513	5,315
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	585	538	491	501	511	520
BOSQUE COUNTY - BRAZOS BASIN						
CHILDRESS CREEK WSC	0	0	0	0	0	0
CLIFTON	0	0	0	0	0	0
CROSS COUNTRY WSC	0	0	0	0	0	0
HIGHLAND PARK WSC	58	56	50	43	36	29
HILCO UNITED SERVICES*	0	0	0	0	0	0
MERIDIAN	0	0	0	0	0	0
MUSTANG VALLEY WSC	0	0	0	0	0	0
SMITH BEND WSC	0	0	0	0	0	0
VALLEY MILLS	0	0	0	0	0	0

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BOSQUE COUNTY - BRAZOS BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	747	801	594	575	539	528
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	1,259	1,187	1,116	1,116	1,116	1,116
BRAZOS COUNTY - BRAZOS BASIN						
BRYAN	0	585	2,972	6,315	10,335	17,161
COLLEGE STATION	0	0	642	5,204	5,147	5,128
TEXAS A&M UNIVERSITY	99	0	0	0	0	0
WELLBORN SUD	0	0	0	0	0	0
WICKSON CREEK SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
BURLESON COUNTY - BRAZOS BASIN						
CALDWELL	0	0	0	0	0	0
DEANVILLE WSC	0	0	0	0	0	0
MILANO WSC	0	0	0	0	0	0
SNOOK	0	0	0	0	0	0
SOMERVILLE	0	0	0	0	0	0
SOUTHWEST MILAM WSC	0	19	34	32	30	40
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	2	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
CALLAHAN COUNTY - BRAZOS BASIN						
BAIRD	155	152	150	154	159	164
CALLAHAN COUNTY WSC	0	0	0	0	0	0
CLYDE	167	172	0	0	0	0
EULA WSC	0	0	0	0	0	0
HAMBY WSC	0	0	0	0	0	0
POTOSI WSC	7	8	8	8	8	9
COUNTY-OTHER	0	0	0	0	0	0
MINING	74	71	62	57	51	46
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
CALLAHAN COUNTY - COLORADO BASIN						
CALLAHAN COUNTY WSC	0	0	0	0	0	0
CLYDE	47	48	0	0	0	0
COLEMAN COUNTY SUD*	14	14	14	14	14	14
CROSS PLAINS	0	0	0	0	0	0
EULA WSC	0	0	0	0	0	0

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
CALLAHAN COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	67	65	57	50	46	41
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
COMANCHE COUNTY - BRAZOS BASIN						
COMANCHE	0	0	0	0	0	0
DE LEON	0	0	0	0	0	0
COUNTY-OTHER	448	443	435	443	462	482
MANUFACTURING	0	0	0	0	0	0
MINING	219	288	125	46	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	14,114	13,541	12,903	12,972	12,976	13,044
COMANCHE COUNTY - COLORADO BASIN						
COUNTY-OTHER	6	6	5	6	6	6
LIVESTOCK	0	0	0	0	0	0
CORYELL COUNTY - BRAZOS BASIN						
CENTRAL TEXAS COLLEGE DISTRICT	0	0	0	0	0	0
COPPERAS COVE	0	0	0	0	120	1,723
CORYELL CITY WATER SUPPLY DISTRICT	0	0	0	0	0	0
ELM CREEK WSC	0	0	0	4	10	16
FLAT WSC	0	1	3	3	12	22
FORT GATES WSC	260	270	280	306	348	390
FORT HOOD	0	0	0	0	0	0
GATESVILLE	1,041	1,308	1,603	1,768	1,929	2,296
KEMPNER WSC*	106	115	170	228	283	335
MOUNTAIN WSC	0	0	0	0	0	0
MULTI COUNTY WSC	38	55	77	99	125	153
MUSTANG VALLEY WSC	0	0	0	0	0	0
OGLESBY	0	0	0	0	0	0
THE GROVE WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	259	525	815	1,107
MANUFACTURING	0	0	0	0	0	0
MINING	1,270	823	262	143	175	211
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
EASTLAND COUNTY - BRAZOS BASIN						
CISCO	0	0	0	0	0	0
EASTLAND	0	0	0	0	0	0
FORT GRIFFIN SUD	0	0	0	0	0	0
GORMAN	0	0	0	0	0	0
RANGER	0	0	0	0	0	0
RISING STAR	0	0	0	0	0	0
STAFF WSC	0	0	0	0	0	0
STEPHENS REGIONAL SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	855	840	599	406	230	153

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
EASTLAND COUNTY - BRAZOS BASIN						
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
EASTLAND COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	31	31	22	15	9	6
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
ERATH COUNTY - BRAZOS BASIN						
DUBLIN	0	0	0	0	0	0
GORDON	7	7	7	8	8	8
STEPHENVILLE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	148	347
MANUFACTURING	1	2	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
FALLS COUNTY - BRAZOS BASIN						
BELL MILAM FALLS WSC	0	0	0	0	0	0
BRUCEVILLE EDDY	0	0	0	0	0	0
CEGO-DURANGO WSC	0	0	0	0	0	0
EAST BELL WSC	0	0	0	0	0	0
LITTLE ELM VALLEY WSC	0	0	0	0	0	0
MARLIN	0	0	0	0	0	0
NORTH MILAM WSC	0	0	0	0	0	0
ROSEBUD	0	0	0	0	0	0
WEST BRAZOS WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	120	136	143	168	188	210
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
FISHER COUNTY - BRAZOS BASIN						
ROBY	0	0	0	0	0	0
ROTAN	38	19	19	36	52	66
THE BITTER CREEK WSC	89	86	83	83	83	84
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	179	166	118	75	38	5
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GRIMES COUNTY - BRAZOS BASIN						
DOBBIN PLANTERSVILLE WSC*	0	0	0	0	0	0
G & W WSC*	0	0	0	0	0	0
NAVASOTA	0	0	0	0	0	0
TDCJ LUTHER UNITS	0	0	0	0	0	0
TDCJ W PACK UNIT	0	0	0	0	0	0
WICKSON CREEK SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
GRIMES COUNTY - BRAZOS BASIN						
MANUFACTURING	0	0	0	0	0	0
MINING	100	269	181	101	22	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	100	90	79	79	79	79
GRIMES COUNTY - SAN JACINTO BASIN						
DOBBIN PLANTERSVILLE WSC*	0	0	0	0	0	0
G & W WSC*	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	14	89	50	15	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	31	28	25	25	25	25
GRIMES COUNTY - TRINITY BASIN						
WICKSON CREEK SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	9	24	17	10	2	0
LIVESTOCK	0	0	0	0	0	0
HAMILTON COUNTY - BRAZOS BASIN						
HAMILTON	0	0	0	0	0	0
HICO	0	0	0	0	0	0
MULTI COUNTY WSC	8	12	14	16	19	21
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	125	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
HASKELL COUNTY - BRAZOS BASIN						
HASKELL	477	473	468	472	483	499
STAMFORD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	90	87	77	69	61	55
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	14,932	13,881	10,540	10,809	11,711	11,825
HILL COUNTY - BRAZOS BASIN						
BIROME WSC	0	0	0	0	0	0
BOLD SPRINGS WSC	0	0	0	0	0	0
BRANDON IRENE WSC*	0	0	0	0	0	0
CHATT WSC	0	0	0	0	1	11
DOUBLE DIAMOND UTILITIES	0	0	0	0	0	0
FILES VALLEY WSC*	0	0	0	0	0	0
GHOLSON WSC	0	0	0	0	0	0
HILCO UNITED SERVICES*	0	0	0	0	0	0
HILL COUNTY WSC	0	0	0	0	0	0
HILLSBORO	0	0	0	0	0	0
ITASCA	0	0	0	0	0	0
JOHNSON COUNTY SUD*	2	0	0	0	3	5

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
HILL COUNTY - BRAZOS BASIN						
PARKER WSC	0	0	0	0	2	5
POST OAK SUD*	0	0	0	6	10	16
WHITNEY	0	0	0	0	0	0
WOODROW OSCEOLA WSC	0	0	0	0	0	0
COUNTY-OTHER	45	51	47	54	52	56
MANUFACTURING	0	0	0	0	0	0
MINING	149	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
HILL COUNTY - TRINITY BASIN						
BIROME WSC	0	0	0	0	0	0
BRANDON IRENE WSC*	0	0	0	0	0	0
CHATT WSC	0	0	0	0	0	1
FILES VALLEY WSC*	0	0	0	0	0	0
HUBBARD	0	0	0	0	0	0
ITASCA	0	0	0	0	0	0
PARKER WSC	0	0	0	0	0	0
POST OAK SUD*	0	0	1	29	57	86
COUNTY-OTHER	12	12	12	13	12	14
MINING	38	0	0	0	0	0
STEAM ELECTRIC POWER	4,120	4,120	4,120	4,120	4,120	4,120
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	158	158	158	158	158	158
HOOD COUNTY - BRAZOS BASIN						
ACTON MUD	0	50	1,111	1,686	2,895	4,148
GRANBURY	0	0	0	55	216	342
LIPAN	0	0	0	0	0	0
SANTO SUD*	0	0	0	0	0	0
TOLAR	0	0	0	0	0	0
COUNTY-OTHER	1,837	1,130	756	684	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	599	894	648	567	483	496
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
HOOD COUNTY - TRINITY BASIN						
COUNTY-OTHER	8	5	3	3	0	0
MINING	16	19	17	16	16	16
LIVESTOCK	0	0	0	0	0	0
JOHNSON COUNTY - BRAZOS BASIN						
ACTON MUD	0	0	15	22	38	55
BETHESDA WSC*	0	3	0	0	14	36
BURLESON*	0	0	0	0	2	3
CLEBURNE	0	0	0	0	0	0
DOUBLE DIAMOND UTILITIES	0	0	0	0	0	0
GODLEY	3	12	22	35	49	65
JOHNSON COUNTY SUD*	67	0	0	0	238	483

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
JOHNSON COUNTY - BRAZOS BASIN						
KEENE	0	0	0	0	0	0
PARKER WSC	0	0	0	0	34	108
RIO VISTA	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	123	118	112	112	112	112
JOHNSON COUNTY - TRINITY BASIN						
ALVARADO	0	0	0	0	0	0
BETHANY WSC	0	0	0	0	0	0
BETHESDA WSC*	0	29	16	0	300	732
BURLESON*	0	819	1,651	2,374	3,185	4,059
CROWLEY*	0	1	3	6	14	18
FORT WORTH*	0	0	0	293	551	789
GRANDVIEW	0	0	0	0	0	0
JOHNSON COUNTY SUD*	230	0	0	0	496	1,003
KEENE	0	0	0	0	0	0
MANSFIELD*	20	168	246	329	365	385
MOUNTAIN PEAK SUD*	0	146	368	602	859	1,145
PARKER WSC	0	0	0	0	12	32
VENUS*	86	239	281	315	382	462
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	129	123	117	117	117	117
JONES COUNTY - BRAZOS BASIN						
ABILENE	27	91	197	455	602	773
ANSON	0	0	0	0	0	0
HAMBY WSC	0	0	0	0	0	0
HAMLIN	0	0	0	0	0	0
HAWLEY WSC	0	0	0	0	0	0
STAMFORD	0	0	0	0	0	0
COUNTY-OTHER	68	82	92	102	112	121
MINING	153	143	124	106	91	78
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	106	50	0	0	0	0
KENT COUNTY - BRAZOS BASIN						
JAYTON	118	107	107	107	107	107
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
KNOX COUNTY - BRAZOS BASIN						
BAYLOR SUD*	0	0	0	0	0	0

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
KNOX COUNTY - BRAZOS BASIN						
KNOX CITY	226	214	199	192	197	202
MUNDAY	242	229	214	222	229	234
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	7	7	6	6	5	5
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	10,854	12,068	8,640	7,059	6,688	8,443
KNOX COUNTY - RED BASIN						
RED RIVER AUTHORITY OF TEXAS*	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	2	2	2	2	2	2
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	2,711	3,015	2,159	1,764	1,671	2,109
LAMPASAS COUNTY - BRAZOS BASIN						
COPPERAS COVE	0	0	0	0	5	79
CORIX UTILITIES TEXAS INC*	57	61	69	78	86	93
KEMPNER WSC*	308	329	476	630	770	897
LAMPASAS	121	226	308	403	504	600
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	7	16	7	4	0	0
MINING	60	73	83	97	115	133
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LAMPASAS COUNTY - COLORADO BASIN						
CORIX UTILITIES TEXAS INC*	42	43	48	55	60	66
COUNTY-OTHER	0	0	0	0	0	0
MINING	28	33	37	42	47	54
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	211	203	195	198	201	204
LEE COUNTY - BRAZOS BASIN						
AQUA WSC*	0	0	0	0	0	0
GIDDINGS	0	0	0	0	0	0
LEE COUNTY WSC*	0	0	0	0	0	0
LEXINGTON	0	0	0	0	0	0
SOUTHWEST MILAM WSC	0	7	13	13	11	12
COUNTY-OTHER	0	0	0	0	0	0
MINING	141	8	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LEE COUNTY - COLORADO BASIN						
GIDDINGS	0	0	0	0	0	0
LEE COUNTY WSC*	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	39	2	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
LIMESTONE COUNTY - BRAZOS BASIN						
BIROME WSC	0	0	0	0	0	0
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	0	0	0	0	0	0
COOLIDGE	0	0	0	0	0	0
GROESBECK	688	677	667	665	668	665
MART	0	0	0	1	1	1
MEXIA	0	0	0	0	26	111
POINT ENTERPRISE WSC*	0	0	0	0	0	0
POST OAK SUD*	0	0	0	2	4	5
PRAIRIE HILL WSC	0	0	0	0	0	0
SLC WSC	0	0	0	0	0	0
TRI COUNTY SUD	0	0	0	0	0	0
WHITE ROCK WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	211	252	246	246	245	245
MINING	6,050	5,518	5,283	5,689	6,088	6,618
STEAM ELECTRIC POWER	388	388	388	388	388	388
LIVESTOCK	0	0	0	0	0	0
LIMESTONE COUNTY - TRINITY BASIN						
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	0	0	0	0	0	0
COOLIDGE	0	0	0	0	0	0
MEXIA	0	0	0	0	17	71
POINT ENTERPRISE WSC*	0	0	0	0	0	0
POST OAK SUD*	0	0	0	4	7	11
WHITE ROCK WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	38	43	42	42	42	42
MINING	799	753	733	768	803	849
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
MCLENNAN COUNTY - BRAZOS BASIN						
AXTELL WSC	0	0	0	0	0	0
BELLMEAD	0	0	0	0	0	0
BIROME WSC	0	0	0	0	0	0
BOLD SPRINGS WSC	0	0	0	0	0	0
BRUCEVILLE EDDY	0	0	0	0	0	0
CENTRAL BOSQUE WSC	0	0	0	0	0	0
CHALK BLUFF WSC	0	0	0	0	0	0
CORYELL CITY WATER SUPPLY DISTRICT	0	0	0	0	0	0
CRAWFORD	0	0	0	0	0	0
CROSS COUNTRY WSC	0	0	0	0	0	0
EAST CRAWFORD WSC	113	105	93	81	68	55
ELM CREEK WSC	0	0	0	18	45	73
EOL WSC	0	0	0	0	0	0
GHOLSON WSC	0	0	0	0	0	0
H & H WSC	0	0	0	0	0	0
HEWITT	480	0	0	62	420	771
HIGHLAND PARK WSC	24	23	21	18	15	12

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MCLENNAN COUNTY - BRAZOS BASIN						
HILLTOP WSC	0	0	0	0	0	0
LACY LAKEVIEW	0	0	0	0	0	0
LEROY TOURS GERALD WSC	0	0	0	0	0	0
LEVI WSC	0	0	0	0	0	0
LORENA	0	0	0	0	0	0
MART	149	165	180	199	220	243
MCGREGOR	0	0	0	0	0	0
MCLENNAN COUNTY WCID 2	0	0	0	0	0	0
MOODY	0	0	0	0	0	0
NORTH BOSQUE WSC	0	25	59	81	93	109
PRAIRIE HILL WSC	0	0	0	0	0	0
RIESEL	0	0	0	0	0	0
ROBINSON	245	449	544	887	1,239	1,583
ROSS WSC	0	0	0	0	0	0
SPRING VALLEY WSC	0	0	0	0	0	0
TEXAS STATE TECHNICAL COLLEGE	0	0	0	0	0	0
VALLEY MILLS	0	0	0	0	0	0
WACO	0	0	0	0	0	0
WEST	0	0	0	0	0	0
WEST BRAZOS WSC	0	0	0	0	0	0
WINDSOR WATER	0	0	0	0	0	0
WOODWAY	0	0	0	0	0	0
COUNTY-OTHER	222	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
MILAM COUNTY - BRAZOS BASIN						
BELL MILAM FALLS WSC	0	0	0	0	0	0
CAMERON	0	0	0	0	0	0
MILANO WSC	0	0	0	0	0	0
NORTH MILAM WSC	0	0	0	0	0	0
ROCKDALE	79	200	433	360	360	400
SALEM ELM RIDGE WSC	0	0	0	0	0	0
SOUTHWEST MILAM WSC	0	148	263	250	268	342
THORNDALE	0	0	0	0	2	10
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	32,254	32,254	32,254	32,254	32,254	32,254
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
NOLAN COUNTY - BRAZOS BASIN						
ROSCOE	84	88	90	96	101	107
SWEETWATER	296	333	350	413	469	521
THE BITTER CREEK WSC	129	130	130	136	141	145

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
NOLAN COUNTY - BRAZOS BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	5	0	0	0	0
MINING	32	29	18	9	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	4,893	4,750	4,606	4,606	4,606	4,606
NOLAN COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	39	35	21	10	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	2,997	2,909	2,822	2,822	2,822	2,822
PALO PINTO COUNTY - BRAZOS BASIN						
GORDON	140	136	129	122	121	124
LAKE PALO PINTO AREA WSC	0	0	0	0	0	0
MINERAL WELLS*	173	325	533	722	913	1,093
NORTH RURAL WSC*	0	0	0	0	0	0
PALO PINTO WSC	0	0	0	0	0	0
PARKER COUNTY SUD*	0	2	4	7	10	12
POSSUM KINGDOM WSC	115	89	45	0	0	0
SANTO SUD*	0	0	0	0	0	14
SPORTSMANS WORLD MUD	33	29	23	17	9	2
STEPHENS REGIONAL SUD	0	0	0	0	0	0
STRAWN	35	31	23	28	32	35
STURDIVANT PROGRESS WSC	0	0	0	0	0	0
COUNTY-OTHER	191	190	187	187	184	177
MANUFACTURING	0	0	0	0	0	0
MINING	633	802	578	443	309	216
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	2,236	2,175	2,115	2,115	2,115	2,115
ROBERTSON COUNTY - BRAZOS BASIN						
BETHANY HEARNE WSC	0	0	0	0	0	0
BREMOND	0	0	0	0	0	0
CALVERT	0	0	0	0	0	0
FRANKLIN	0	0	0	0	0	0
HEARNE	0	0	0	0	0	0
ROBERTSON COUNTY WSC	81	157	235	332	433	526
TWIN CREEK WSC	0	0	0	0	0	0
WELLBORN SUD	0	0	0	0	0	0
WICKSON CREEK SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	10,476	12,222	11,521	12,106	12,217	12,309
SHACKELFORD COUNTY - BRAZOS BASIN						
ALBANY	0	0	0	0	0	0

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
SHACKELFORD COUNTY - BRAZOS BASIN						
CALLAHAN COUNTY WSC	0	0	0	0	0	0
FORT GRIFFIN SUD	1	1	1	1	1	1
HAMBY WSC	0	0	0	0	0	0
STEPHENS REGIONAL SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	336	501	309	201	95	16
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
SOMERVELL COUNTY - BRAZOS BASIN						
GLEN ROSE	0	0	0	0	0	0
SOMERVELL COUNTY WATER DISTRICT	0	0	0	0	0	0
COUNTY-OTHER	0	54	92	125	156	183
MANUFACTURING	0	0	0	0	0	0
MINING	388	524	375	295	237	212
STEAM ELECTRIC POWER	35,387	35,483	35,579	35,675	35,771	35,867
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
STEPHENS COUNTY - BRAZOS BASIN						
BRECKENRIDGE	0	0	0	0	0	0
FORT BELKNAP WSC	0	1	0	1	1	1
FORT GRIFFIN SUD	1	1	1	1	1	1
POSSUM KINGDOM WSC	3	2	0	0	0	0
STAFF WSC	0	0	0	0	0	0
STEPHENS REGIONAL SUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	3,323	3,295	2,557	1,968	1,440	990
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	116	113	110	110	110	110
STONEWALL COUNTY - BRAZOS BASIN						
ASPERMONT	39	20	4	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	56	55	54	54	54	54
MINING	372	353	282	221	167	120
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
TAYLOR COUNTY - BRAZOS BASIN						
ABILENE	610	2,062	4,369	10,077	13,260	16,975
HAMBY WSC	0	0	0	0	0	0
HAWLEY WSC	0	0	0	0	0	0
MERKEL	20	23	25	29	35	41
POTOSI WSC	499	517	534	549	564	577
STEAMBOAT MOUNTAIN WSC	118	120	123	127	131	136
TYE	0	2	4	7	11	13
VIEW CAPS WSC	0	0	0	3	6	9
COUNTY-OTHER	0	0	0	0	0	192

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TAYLOR COUNTY - BRAZOS BASIN						
MANUFACTURING	0	0	0	0	0	0
MINING	184	178	155	141	129	120
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	2	2	2	2	2
TAYLOR COUNTY - COLORADO BASIN						
COLEMAN COUNTY SUD*	9	10	10	10	11	11
LAWN	0	0	0	0	0	0
NORTH RUNNELS WSC*	31	31	30	30	30	30
STEAMBOAT MOUNTAIN WSC	30	31	32	32	34	35
COUNTY-OTHER	0	0	0	0	1	5
MINING	61	59	51	47	43	39
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	1,217	1,182	1,150	1,150	1,150	1,150
THROCKMORTON COUNTY - BRAZOS BASIN						
BAYLOR SUD*	0	0	0	0	0	0
FORT BELKNAP WSC	2	2	2	2	3	3
FORT GRIFFIN SUD	0	0	0	0	0	0
STEPHENS REGIONAL SUD	0	0	0	0	0	0
THROCKMORTON	135	127	121	117	123	133
COUNTY-OTHER	0	0	0	0	0	0
MINING	84	77	55	35	19	4
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	152	149	146	146	146	146
WASHINGTON COUNTY - BRAZOS BASIN						
BRENHAM	628	559	365	167	0	33
CENTRAL WASHINGTON COUNTY WSC	0	0	0	0	0	0
CHAPPELL HILL WSC	0	0	0	0	0	0
CORIX UTILITIES TEXAS INC*	250	266	282	304	322	339
WEST END WSC*	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	474	745	576	422	269	168
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
WASHINGTON COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
WILLIAMSON COUNTY - BRAZOS BASIN						
BARTLETT	102	99	98	105	119	136
BELL MILAM FALLS WSC	0	0	0	0	0	0
BLOCK HOUSE MUD	0	0	0	0	0	0
BRUSHY CREEK MUD	246	0	0	0	0	0
CEDAR PARK*	1	1	1	0	0	0
FERN BLUFF MUD	0	0	0	0	0	0
FLORENCE	35	38	42	50	59	72
GEORGETOWN*	10,085	14,572	19,256	24,380	29,895	35,460
GRANGER	0	0	0	14	33	56

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Region G Water User Group (WUG) Second-Tier Identified Water Needs

	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
WILLIAMSON COUNTY - BRAZOS BASIN						
HUTTO	907	3,046	3,304	5,437	8,596	10,703
JARRELL-SCHWERTNER	0	0	0	0	0	0
JONAH WATER SUD	0	0	0	0	0	0
LEANDER*	1,364	5,130	8,258	10,881	14,576	19,041
LIBERTY HILL	90	90	90	90	90	90
MANVILLE WSC*	0	0	0	0	0	0
PALOMA LAKE MUD 1	0	0	0	0	0	0
PALOMA LAKE MUD 2	0	0	0	0	0	0
PFLUGERVILLE*	0	0	0	0	0	0
ROUND ROCK*	0	827	4,638	11,012	11,308	11,615
SONTERRA MUD	0	0	0	0	0	0
SOUTHWEST MILAM WSC	0	26	55	30	83	140
TAYLOR	0	0	0	0	0	0
THORNDALE	0	0	0	0	0	0
WALSH RANCH MUD	0	0	0	0	0	0
WILLIAMSON COUNTY MUD 10	0	0	0	0	0	0
WILLIAMSON COUNTY MUD 11	0	0	0	0	0	0
WILLIAMSON COUNTY MUD 9	0	0	0	0	0	0
WILLIAMSON COUNTY WSID 3*	0	0	0	0	0	0
WILLIAMSON TRAVIS COUNTIES MUD 1*	0	0	0	0	0	0
COUNTY-OTHER*	0	0	682	2,229	7,485	12,161
MANUFACTURING*	0	0	0	0	0	0
MINING*	4,567	5,493	6,407	7,515	8,656	9,962
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	162	155	149	149	149	149
WILLIAMSON COUNTY - COLORADO BASIN						
COUNTY-OTHER*	808	0	2,001	4,620	13,486	21,372
YOUNG COUNTY - BRAZOS BASIN						
BAYLOR SUD*	0	0	0	0	0	0
FORT BELKNAP WSC	34	43	47	57	71	86
GRAHAM	1,362	1,351	1,306	1,274	1,246	1,224
COUNTY-OTHER*	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	87	158	88	51	15	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK*	0	0	0	0	0	0
IRRIGATION*	439	429	419	419	419	419
YOUNG COUNTY - TRINITY BASIN						
BAYLOR SUD*	0	0	0	0	0	0
FORT BELKNAP WSC	1	1	2	2	2	3
COUNTY-OTHER*	0	0	0	0	0	0
MINING	13	23	13	8	2	0
LIVESTOCK*	0	0	0	0	0	0
IRRIGATION*	2	2	2	2	2	2

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Region G Water User Group (WUG) Second-Tier Identified Water Needs Summary

Second-tier needs are WUG split needs adjusted to include the implementation of recommended demand reduction and direct reuse water management strategies.

WUG CATEGORY	NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MUNICIPAL	24,483	40,397	62,106	96,300	122,796	157,654
COUNTY-OTHER	3,645	1,973	4,571	8,991	22,919	36,487
MANUFACTURING	438	373	349	346	341	341
MINING	24,554	26,030	23,837	24,199	24,905	26,668
STEAM ELECTRIC POWER	72,149	72,245	72,341	72,437	72,533	72,629
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	68,003	69,088	59,577	58,537	59,103	61,582

Region G Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
BLAINE AQUIFER	FISHER	BRAZOS	FRESH	8,997	8,962	8,997	8,962	8,997	8,962
BLAINE AQUIFER	KNOX	BRAZOS	FRESH	501	501	501	501	501	501
BLAINE AQUIFER	NOLAN	BRAZOS	FRESH	100	100	100	100	100	100
BLAINE AQUIFER	STONEWALL	BRAZOS	FRESH	8,353	8,353	8,353	8,353	8,353	8,353
BRAZOS RIVER ALLUVIUM AQUIFER	BOSQUE	BRAZOS	FRESH	830	830	830	830	830	830
BRAZOS RIVER ALLUVIUM AQUIFER	BRAZOS	BRAZOS	FRESH	39,283	38,013	37,783	37,678	37,615	37,574
BRAZOS RIVER ALLUVIUM AQUIFER	BURLESON	BRAZOS	FRESH	3,283	3,229	3,225	3,225	3,225	3,224
BRAZOS RIVER ALLUVIUM AQUIFER	FALLS	BRAZOS	FRESH	7,760	7,760	7,760	7,760	7,760	7,760
BRAZOS RIVER ALLUVIUM AQUIFER	GRIMES	BRAZOS	FRESH	4,848	4,848	4,848	4,848	4,848	4,848
BRAZOS RIVER ALLUVIUM AQUIFER	HILL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RIVER ALLUVIUM AQUIFER	MCLENNAN	BRAZOS	FRESH	9,246	9,246	9,246	9,246	9,246	9,246
BRAZOS RIVER ALLUVIUM AQUIFER	MILAM	BRAZOS	FRESH	43,236	43,203	43,197	43,193	43,191	43,189
BRAZOS RIVER ALLUVIUM AQUIFER	ROBERTSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RIVER ALLUVIUM AQUIFER	WASHINGTON	BRAZOS	FRESH	5,677	5,677	5,677	5,677	5,677	5,677
CARRIZO-WILCOX AQUIFER	BRAZOS	BRAZOS	FRESH	6,962	9,589	12,914	17,295	19,354	19,354
CARRIZO-WILCOX AQUIFER	BURLESON	BRAZOS	FRESH	188	643	668	795	570	507
CARRIZO-WILCOX AQUIFER	FALLS	BRAZOS	FRESH	0	0	0	0	0	0
CARRIZO-WILCOX AQUIFER	GRIMES	BRAZOS	BRACKISH	3	3	3	3	8	3
CARRIZO-WILCOX AQUIFER	GRIMES	TRINITY	BRACKISH	0	0	0	0	3	0
CARRIZO-WILCOX AQUIFER	LEE	BRAZOS	FRESH	6,773	6,041	5,978	6,779	4,279	4,279
CARRIZO-WILCOX AQUIFER	LEE	COLORADO	FRESH	0	0	0	0	0	0
CARRIZO-WILCOX AQUIFER	LIMESTONE	BRAZOS	FRESH	4,894	5,024	5,205	5,507	5,507	5,507
CARRIZO-WILCOX AQUIFER	MILAM	BRAZOS	FRESH	17,529	14,806	14,205	15,902	16,606	16,596
CARRIZO-WILCOX AQUIFER	ROBERTSON	BRAZOS	FRESH	9,973	10,783	11,264	11,664	11,665	11,665
CARRIZO-WILCOX AQUIFER	WILLIAMSON	BRAZOS	FRESH	9	9	9	10	9	9
CARRIZO-WILCOX AQUIFER	WILLIAMSON	COLORADO	FRESH	0	0	0	0	0	0
CROSS TIMBERS AQUIFER	SHACKELFORD	BRAZOS	FRESH	160	160	160	160	160	160
CROSS TIMBERS AQUIFER	STEPHENS	BRAZOS	FRESH	0	0	0	0	0	0
CROSS TIMBERS AQUIFER	THROCKMORTON	BRAZOS	FRESH	260	260	260	260	260	260
CROSS TIMBERS AQUIFER	YOUNG	BRAZOS	FRESH	684	684	684	684	684	684
CROSS TIMBERS AQUIFER	YOUNG	TRINITY	FRESH	115	115	115	115	115	115
DOCKUM AQUIFER	FISHER	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	KENT	BRAZOS	FRESH	4,691	4,691	4,691	4,691	4,691	4,691
DOCKUM AQUIFER	NOLAN	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	NOLAN	COLORADO	FRESH	0	0	0	0	0	0
EDWARDS-BFZ AQUIFER	BELL	BRAZOS	FRESH	3,247	3,247	3,247	3,247	3,247	3,247
EDWARDS-BFZ AQUIFER	WILLIAMSON	BRAZOS	FRESH	680	615	223	0	0	0
EDWARDS-BFZ AQUIFER	WILLIAMSON	COLORADO	FRESH	101	101	101	101	101	101
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	NOLAN	BRAZOS	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	NOLAN	COLORADO	FRESH	178	178	178	178	178	178
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	TAYLOR	BRAZOS	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFERS	TAYLOR	COLORADO	FRESH	0	0	0	0	0	0

* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
ELLENBURGER-SAN SABA AQUIFER	LAMPASAS	BRAZOS	FRESH	1,606	1,601	1,606	1,601	1,606	1,601
ELLENBURGER-SAN SABA AQUIFER	LAMPASAS	COLORADO	FRESH	866	863	866	863	866	863
GULF COAST AQUIFER SYSTEM	BRAZOS	BRAZOS	FRESH	1,189	1,189	1,189	1,189	1,189	1,189
GULF COAST AQUIFER SYSTEM	GRIMES	BRAZOS	FRESH	5,285	5,285	5,285	5,285	5,285	5,285
GULF COAST AQUIFER SYSTEM	GRIMES	SAN JACINTO	FRESH	1,198	1,198	1,198	1,198	1,198	1,198
GULF COAST AQUIFER SYSTEM	GRIMES	TRINITY	FRESH	786	786	786	786	786	786
GULF COAST AQUIFER SYSTEM	WASHINGTON	BRAZOS	FRESH	9,471	9,471	9,471	9,471	9,471	9,471
GULF COAST AQUIFER SYSTEM	WASHINGTON	COLORADO	FRESH	71	71	71	71	71	71
HICKORY AQUIFER	LAMPASAS	BRAZOS	FRESH	80	79	80	79	80	79
HICKORY AQUIFER	LAMPASAS	COLORADO	FRESH	34	34	34	34	34	34
HICKORY AQUIFER	WILLIAMSON	COLORADO	FRESH	0	0	0	0	0	0
MARBLE FALLS AQUIFER	LAMPASAS	BRAZOS	FRESH	1,952	1,946	1,952	1,946	1,952	1,946
MARBLE FALLS AQUIFER	LAMPASAS	COLORADO	FRESH	870	868	870	868	870	868
NAVASOTA RIVER ALLUVIUM AQUIFER	GRIMES	BRAZOS	FRESH	2,158	2,158	2,158	2,158	2,158	2,158
OTHER AQUIFER	SHACKELFORD	BRAZOS	FRESH	72	72	72	72	72	72
OTHER AQUIFER	STEPHENS	BRAZOS	FRESH	30	30	30	30	30	30
OTHER AQUIFER	WILLIAMSON	BRAZOS	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	BRAZOS	BRAZOS	FRESH	436	483	487	491	491	491
QUEEN CITY AQUIFER	BURLESON	BRAZOS	FRESH	166	197	197	197	197	197
QUEEN CITY AQUIFER	GRIMES	BRAZOS	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	GRIMES	TRINITY	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	LEE	BRAZOS	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	LEE	COLORADO	FRESH	48	61	75	89	102	102
QUEEN CITY AQUIFER	MILAM	BRAZOS	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	ROBERTSON	BRAZOS	FRESH	0	0	0	0	0	0
SEYMOUR AQUIFER	FISHER	BRAZOS	FRESH	4,634	4,048	4,065	4,388	4,406	4,047
SEYMOUR AQUIFER	HASKELL	BRAZOS	FRESH	0	0	0	0	0	0
SEYMOUR AQUIFER	JONES	BRAZOS	FRESH	0	0	0	0	0	0
SEYMOUR AQUIFER	KENT	BRAZOS	FRESH	40	39	39	38	38	38
SEYMOUR AQUIFER	KNOX	BRAZOS	FRESH	0	0	0	0	0	0
SEYMOUR AQUIFER	KNOX	RED	FRESH	0	0	0	0	0	0
SEYMOUR AQUIFER	STONEWALL	BRAZOS	FRESH	0	0	0	0	0	0
SEYMOUR AQUIFER	THROCKMORTON	BRAZOS	FRESH	115	115	115	115	115	115
SEYMOUR AQUIFER	YOUNG	BRAZOS	FRESH	210	159	159	159	159	159
SPARTA AQUIFER	BRAZOS	BRAZOS	FRESH	0	0	868	1,870	1,870	1,870
SPARTA AQUIFER	BURLESON	BRAZOS	FRESH	750	2,546	4,117	5,239	5,239	5,239
SPARTA AQUIFER	GRIMES	BRAZOS	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	GRIMES	SAN JACINTO	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	GRIMES	TRINITY	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	LEE	BRAZOS	FRESH	1,007	1,002	997	991	984	984
SPARTA AQUIFER	LEE	COLORADO	FRESH	204	213	221	230	238	238
SPARTA AQUIFER	ROBERTSON	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	BELL	BRAZOS	FRESH	5,080	4,892	4,789	4,763	4,789	4,763
TRINITY AQUIFER	BOSQUE	BRAZOS	FRESH	1,685	1,659	1,685	1,659	1,685	1,659

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** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
TRINITY AQUIFER	CALLAHAN	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	CALLAHAN	COLORADO	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	COMANCHE	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	COMANCHE	COLORADO	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	CORYELL	BRAZOS	FRESH	2,810	2,798	2,810	2,798	2,810	2,798
TRINITY AQUIFER	EASTLAND	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	EASTLAND	COLORADO	FRESH	104	103	104	103	104	103
TRINITY AQUIFER	ERATH	BRAZOS	FRESH	5,336	5,277	5,336	5,277	5,336	5,277
TRINITY AQUIFER	FALLS	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	HAMILTON	BRAZOS	FRESH	299	293	299	293	299	293
TRINITY AQUIFER	HILL	BRAZOS	FRESH	0	0	1	0	0	0
TRINITY AQUIFER	HILL	TRINITY	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	HOOD	BRAZOS	FRESH	3,007	2,973	3,007	2,973	3,007	2,973
TRINITY AQUIFER	HOOD	TRINITY	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	JOHNSON	BRAZOS	FRESH	2,056	2,046	2,056	2,046	2,056	2,046
TRINITY AQUIFER	JOHNSON	TRINITY	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LAMPASAS	BRAZOS	FRESH	1,458	1,453	1,458	1,453	1,458	1,453
TRINITY AQUIFER	LAMPASAS	COLORADO	FRESH	68	67	68	67	68	67
TRINITY AQUIFER	LEE	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LEE	COLORADO	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LIMESTONE	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	LIMESTONE	TRINITY	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	MCLENNAN	BRAZOS	FRESH	771	715	771	715	771	715
TRINITY AQUIFER	MILAM	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	PALO PINTO	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	SOMERVELL	BRAZOS	FRESH	433	426	433	426	433	426
TRINITY AQUIFER	TAYLOR	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	TAYLOR	COLORADO	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	WILLIAMSON	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	WILLIAMSON	COLORADO	FRESH	5	5	5	5	5	5
WOODBINE AQUIFER	HILL	BRAZOS	FRESH	265	264	265	264	265	264
WOODBINE AQUIFER	HILL	TRINITY	FRESH	0	0	0	0	0	0
WOODBINE AQUIFER	JOHNSON	BRAZOS	FRESH	0	0	0	0	0	0
WOODBINE AQUIFER	JOHNSON	TRINITY	FRESH	1,359	1,354	1,359	1,354	1,359	1,354
WOODBINE AQUIFER	MCLENNAN	BRAZOS	FRESH	0	0	0	0	0	0
YEGUA-JACKSON AQUIFER	BRAZOS	BRAZOS	FRESH	3,628	3,626	3,626	3,626	3,626	3,626
YEGUA-JACKSON AQUIFER	BURLESON	BRAZOS	FRESH	11,552	9,584	9,572	9,486	9,334	9,334
YEGUA-JACKSON AQUIFER	GRIMES	BRAZOS	FRESH	202	202	202	202	202	202
YEGUA-JACKSON AQUIFER	GRIMES	SAN JACINTO	FRESH	0	0	0	0	0	0
YEGUA-JACKSON AQUIFER	GRIMES	TRINITY	FRESH	308	308	308	308	308	308
YEGUA-JACKSON AQUIFER	LEE	BRAZOS	FRESH	157	157	157	157	157	157
YEGUA-JACKSON AQUIFER	LEE	COLORADO	FRESH	216	216	216	216	216	216
YEGUA-JACKSON AQUIFER	WASHINGTON	BRAZOS	FRESH	0	0	0	0	0	0
YEGUA-JACKSON AQUIFER	WASHINGTON	COLORADO	FRESH	157	157	157	157	157	157
GROUNDWATER SOURCE WATER BALANCE TOTAI				**262,795**	**260,760**	**266,114**	**275,570**	**275,732**	**274,947**

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Region G Source Water Balance (Availability - WUG Supply)

REUSE SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
DIRECT REUSE	BELL	BRAZOS	FRESH	4,012	4,012	4,012	4,012	4,012	4,012
DIRECT REUSE	BRAZOS	BRAZOS	FRESH	6,645	8,340	10,035	11,730	13,425	15,120
DIRECT REUSE	JOHNSON	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	MCLENNAN	BRAZOS	FRESH	12,035	13,902	15,769	17,636	19,503	21,730
DIRECT REUSE	TAYLOR	BRAZOS	FRESH	1,016	1,016	1,016	1,016	1,016	1,016
DIRECT REUSE	WILLIAMSON	BRAZOS	FRESH	0	0	0	0	0	0
INDIRECT REUSE	TAYLOR	BRAZOS	FRESH	0	0	0	0	0	0
			REUSE SOURCE WATER BALANCE TOTAI	23,708	27,270	30,832	34,394	37,956	41,878

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
ABILENE LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	450	425	400	375	350	325
ALCOA LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	14,000	14,000	14,000	14,000	14,000	14,000
ALVARADO LAKE/RESERVOIR	RESERVOIR**	TRINITY	FRESH	800	800	800	800	800	800
ANSON NORTH LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	25	20	15	10	5	0
BAIRD LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
BRA SYSTEM OPERATIONS PERMIT SUPPLY	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	BELL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	BOSQUE	BRAZOS	FRESH	10	10	10	10	10	10
BRAZOS LIVESTOCK LOCAL SUPPLY	BRAZOS	BRAZOS	FRESH	79	79	79	79	79	79
BRAZOS LIVESTOCK LOCAL SUPPLY	BURLESON	BRAZOS	FRESH	118	118	118	118	118	118
BRAZOS LIVESTOCK LOCAL SUPPLY	CALLAHAN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	COMANCHE	BRAZOS	FRESH	531	531	531	531	531	531
BRAZOS LIVESTOCK LOCAL SUPPLY	CORYELL	BRAZOS	FRESH	338	338	338	338	338	338
BRAZOS LIVESTOCK LOCAL SUPPLY	EASTLAND	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	ERATH	BRAZOS	FRESH	963	963	963	963	963	963
BRAZOS LIVESTOCK LOCAL SUPPLY	FALLS	BRAZOS	FRESH	45	45	45	45	45	45
BRAZOS LIVESTOCK LOCAL SUPPLY	FISHER	BRAZOS	FRESH	14	14	14	14	14	14
BRAZOS LIVESTOCK LOCAL SUPPLY	GRIMES	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	HAMILTON	BRAZOS	FRESH	284	284	284	284	284	284
BRAZOS LIVESTOCK LOCAL SUPPLY	HASKELL	BRAZOS	FRESH	232	232	232	232	232	232
BRAZOS LIVESTOCK LOCAL SUPPLY	HILL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	HOOD	BRAZOS	FRESH	9	9	9	9	9	9
BRAZOS LIVESTOCK LOCAL SUPPLY	JOHNSON	BRAZOS	FRESH	129	129	129	129	129	129
BRAZOS LIVESTOCK LOCAL SUPPLY	JONES	BRAZOS	FRESH	272	272	272	272	272	272
BRAZOS LIVESTOCK LOCAL SUPPLY	KENT	BRAZOS	FRESH	60	60	60	60	60	60
BRAZOS LIVESTOCK LOCAL SUPPLY	KNOX	BRAZOS	FRESH	383	383	383	383	383	383
BRAZOS LIVESTOCK LOCAL SUPPLY	LAMPASAS	BRAZOS	FRESH	158	158	158	158	158	158
BRAZOS LIVESTOCK LOCAL SUPPLY	LEE	BRAZOS	FRESH	407	407	407	407	407	407
BRAZOS LIVESTOCK LOCAL SUPPLY	LIMESTONE	BRAZOS	FRESH	30	30	30	30	30	30
BRAZOS LIVESTOCK LOCAL SUPPLY	MCLENNAN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	MILAM	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	NOLAN	BRAZOS	FRESH	0	0	0	0	0	0

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** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Water Balance (Availability - WUG Supply)

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
BRAZOS LIVESTOCK LOCAL SUPPLY	PALO PINTO	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	ROBERTSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	SHACKELFORD	BRAZOS	FRESH	261	261	261	261	261	261
BRAZOS LIVESTOCK LOCAL SUPPLY	SOMERVELL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	STEPHENS	BRAZOS	FRESH	26	26	26	26	26	26
BRAZOS LIVESTOCK LOCAL SUPPLY	STONEWALL	BRAZOS	FRESH	122	122	122	122	122	122
BRAZOS LIVESTOCK LOCAL SUPPLY	TAYLOR	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	THROCKMORTON	BRAZOS	FRESH	179	179	179	179	179	179
BRAZOS LIVESTOCK LOCAL SUPPLY	WASHINGTON	BRAZOS	FRESH	306	306	306	306	306	306
BRAZOS LIVESTOCK LOCAL SUPPLY	WILLIAMSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	YOUNG	BRAZOS	FRESH	331	331	331	331	331	331
BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	BELL	BRAZOS	FRESH	0	0	0	21	0	0
BRAZOS RUN-OF-RIVER	BOSQUE	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	BRAZOS	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	CORYELL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	EASTLAND	BRAZOS	FRESH	250	250	250	250	250	250
BRAZOS RUN-OF-RIVER	ERATH	BRAZOS	FRESH	1,276	1,276	1,276	1,276	1,276	1,276
BRAZOS RUN-OF-RIVER	FALLS	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	FISHER	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	GRIMES	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	HAMILTON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	HILL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	JOHNSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	JONES	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	KNOX	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	LAMPASAS	BRAZOS	FRESH	0	13	25	38	50	63
BRAZOS RUN-OF-RIVER	LEE	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	LIMESTONE	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	MCLENNAN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	MILAM	BRAZOS	FRESH	650	650	650	650	650	650
BRAZOS RUN-OF-RIVER	NOLAN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	ROBERTSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	SHACKELFORD	BRAZOS	FRESH	1	1	0	0	0	0
BRAZOS RUN-OF-RIVER	SOMERVELL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	STONEWALL	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	THROCKMORTON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER	WILLIAMSON	BRAZOS	FRESH	0	0	0	0	0	0
CISCO LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
CITY OF HAMLIN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	50	40	30	20	10	0
CLIFTON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0

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Region G Source Water Balance (Availability - WUG Supply)

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
CLYDE LAKE/RESERVOIR	RESERVOIR**	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	CALLAHAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	COMANCHE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	EASTLAND	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	LAMPASAS	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	LEE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	NOLAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	TAYLOR	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	WASHINGTON	COLORADO	FRESH	0	0	0	0	0	0
COOLIDGE LAKE/RESERVOIR	RESERVOIR**	TRINITY	FRESH	162	162	162	162	162	162
CRAWFORD LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
DANIEL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
DANSBY POWER PLANT/BRYAN UTILITIES LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
EASTLAND LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
FORT PHANTOM HILL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	2,500	2,500	2,500	2,500	2,500	2,500
GIBBONS CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
GORDON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
GRAHAM/EDDLEMAN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
HUBBARD CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
KIRBY LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	150	150	150	150	150	150
LAKE CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
LAKE DAVIS LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
LEON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
LYTLE LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
MCCARTY LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
MEXIA LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
MILLERS CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
MORAN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
NEW MARLIN CITY LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
PALO PINTO LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
PAT CLEBURNE LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	KNOX	RED	FRESH	95	95	95	95	95	95
SAN JACINTO LIVESTOCK LOCAL SUPPLY	GRIMES	SAN JACINTO	FRESH	370	370	370	370	370	370
SQUAW CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
STAMFORD LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	2,200	2,200	2,200	2,200	2,200	2,200
STRAWN LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
SWEETWATER LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	500	500	500	500	500	500
THROCKMORTON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
TRADINGHOUSE CREEK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
TRAMMEL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	225	180	135	90	45	0
TRINITY LIVESTOCK LOCAL SUPPLY	GRIMES	TRINITY	FRESH	260	260	260	260	260	260
TRINITY LIVESTOCK LOCAL SUPPLY	HILL	TRINITY	FRESH	240	240	240	240	240	240

* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Water Balance (Availability - WUG Supply)

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
TRINITY LIVESTOCK LOCAL SUPPLY	HOOD	TRINITY	FRESH	0	0	0	0	0	0
TRINITY LIVESTOCK LOCAL SUPPLY	JOHNSON	TRINITY	FRESH	32	32	32	32	32	32
TRINITY LIVESTOCK LOCAL SUPPLY	LIMESTONE	TRINITY	FRESH	4	4	4	4	4	4
TRINITY LIVESTOCK LOCAL SUPPLY	YOUNG	TRINITY	FRESH	54	54	54	54	54	54
TWIN OAK LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
WACO LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
WHEELER BRANCH OFF-CHANNEL LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	560	560	560	560	560	560
WOODSON LAKE/RESERVOIR	RESERVOIR**	BRAZOS	FRESH	0	0	0	0	0	0
SURFACE WATER SOURCE WATER BALANCE TOTAI				**30,141**	**30,069**	**29,995**	**29,944**	**29,850**	**29,778**

REGION G SOURCE WATER BALANCE TOTAI	**316,644**	**318,099**	**326,941**	**339,908**	**343,538**	**346,603**

* Salinity field indicates whether the source availability is considered 'fresh' (less than 1,000 mg/L), 'brackish' (1,000 to 10,000 mg/L), 'saline' (10,001 mg/L to 34,999 mg/L), or 'seawater' (35,000 mg/L or greater). Sources can also be labeled as 'fresh/brackish' or 'brackish/saline', if a combination of the salinity types is appropriate.

** Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
BELL COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,954	1,478	-24.4%	1,880	1,478	-21.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	870	453	-47.9%	5,668	1,785	-68.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	3,788	307	-91.9%
BELL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,048	2,173	107.3%	1,020	2,124	108.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,205	2,843	28.9%	2,058	2,843	38.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,157	670	-42.1%	1,038	719	-30.7%
BELL COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,009	1,172	16.2%	1,009	1,172	16.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,009	1,172	16.2%	1,009	1,172	16.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
BELL COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	497	499	0.4%	497	499	0.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,370	641	-53.2%	1,994	685	-65.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	873	142	-83.7%	1,497	186	-87.6%
BELL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	1,165	100.0%	0	1,165	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,242	3,242	0.0%	6,968	6,968	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	3,242	2,077	-35.9%	6,968	5,803	-16.7%
BELL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	101,784	80,846	-20.6%	96,343	95,245	-1.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	63,159	63,634	0.8%	107,021	110,562	3.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	534	856	60.3%	20,778	24,515	18.0%
BELL COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	10,080	100.0%	0	10,080	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,220	4,714	11.7%	9,693	4,714	-51.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	4,220	0	-100.0%	9,693	0	-100.0%
BOSQUE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,519	899	-40.8%	1,519	899	-40.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,271	782	-38.5%	1,453	899	-38.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
BOSQUE COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,592	2,211	38.9%	1,591	2,211	39.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,128	3,577	68.1%	1,968	3,577	81.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	536	1,366	154.9%	377	1,366	262.3%
BOSQUE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	989	979	-1.0%	989	979	-1.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	989	979	-1.0%	989	979	-1.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
BOSQUE COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	871	246	-71.8%	871	246	-71.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,739	9	-99.7%	4,302	11	-99.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,868	0	-100.0%	3,431	0	-100.0%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
BOSQUE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	129	1,166	803.9%	129	1,166	803.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,972	1,972	0.0%	1,821	1,821	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,843	806	-56.3%	1,692	655	-61.3%
BOSQUE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,625	3,428	30.6%	2,425	3,185	31.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,812	2,555	41.0%	2,045	2,899	41.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	58	100.0%	156	204	30.8%
BOSQUE COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6,500	6,501	0.0%	5,870	6,501	10.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	6,188	2,880	-53.5%	14,214	2,880	-79.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	8,344	0	-100.0%
BRAZOS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	943	430	-54.4%	975	430	-55.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	904	393	-56.5%	947	384	-59.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
BRAZOS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	15,116	45,501	201.0%	15,117	45,579	201.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	26,050	39,243	50.6%	20,438	39,243	92.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	10,934	0	-100.0%	5,321	0	-100.0%
BRAZOS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,322	1,243	-6.0%	1,322	1,243	-6.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,322	1,243	-6.0%	1,322	1,243	-6.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
BRAZOS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	656	2,467	276.1%	1,892	2,858	51.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,456	1,770	-27.9%	4,008	1,780	-55.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,800	0	-100.0%	2,116	0	-100.0%
BRAZOS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	1,640	100.0%	0	1,640	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,088	1,088	0.0%	814	814	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,088	0	-100.0%	814	0	-100.0%
BRAZOS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	42,881	46,577	8.6%	51,676	48,231	-6.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	44,024	41,880	-4.9%	81,124	81,454	0.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	8,308	99	-98.8%	37,093	33,389	-10.0%
BRAZOS COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	232	420	81.0%	263	441	67.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	503	421	-16.3%	384	421	9.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	271	1	-99.6%	121	0	-100.0%
BURLESON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	873	800	-8.4%	873	800	-8.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	615	633	2.9%	841	798	-5.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
BURLESON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	22,962	26,457	15.2%	22,962	26,457	15.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	22,855	26,804	17.3%	18,469	26,804	45.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	347	100.0%	0	347	100.0%
BURLESON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,508	1,390	-7.8%	1,508	1,390	-7.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,508	1,390	-7.8%	1,508	1,390	-7.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
BURLESON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	139	111	-20.1%	139	111	-20.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	139	117	-15.8%	241	117	-51.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	6	100.0%	102	6	-94.1%
BURLESON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	2,018	100.0%	0	2,018	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	995	995	0.0%	428	428	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	995	0	-100.0%	428	0	-100.0%
BURLESON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	4,874	4,715	-3.3%	4,822	4,671	-3.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,283	2,326	1.9%	2,535	2,685	5.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	40	100.0%
CALLAHAN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	648	267	-58.8%	648	267	-58.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	613	229	-62.6%	639	250	-60.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CALLAHAN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	742	1,072	44.5%	742	1,068	43.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	573	781	36.3%	529	781	47.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CALLAHAN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	920	897	-2.5%	920	897	-2.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	920	897	-2.5%	920	897	-2.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CALLAHAN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	80	100.0%	0	80	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	228	228	0.0%	180	180	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	228	148	-35.1%	180	100	-44.4%
CALLAHAN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,319	1,024	-22.4%	1,320	1,306	-1.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	776	1,166	50.3%	784	1,204	53.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	17	391	2200.0%	19	188	889.5%
COMANCHE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	656	355	-45.9%	656	355	-45.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	805	809	0.5%	839	843	0.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	149	454	204.7%	183	488	166.7%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
COMANCHE COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	26,565	17,039	-35.9%	25,108	16,825	-33.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	27,458	32,117	17.0%	26,076	32,117	23.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	893	15,078	1588.5%	968	15,292	1479.8%
COMANCHE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,895	3,243	-16.7%	3,895	3,243	-16.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,895	3,243	-16.7%	3,895	3,243	-16.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
COMANCHE COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	36	24	-33.3%	49	24	-51.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	36	18	-50.0%	49	20	-59.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
COMANCHE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	26	212	715.4%	26	211	711.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	444	444	0.0%	128	128	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	418	232	-44.5%	102	0	-100.0%
COMANCHE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	987	993	0.6%	858	993	15.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	744	739	-0.7%	778	772	-0.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CORYELL COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,434	614	-57.2%	1,657	614	-62.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	564	290	-48.6%	2,172	1,721	-20.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	515	1,107	115.0%
CORYELL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	770	1,046	35.8%	770	1,046	35.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	214	310	44.9%	214	310	44.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CORYELL COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,471	1,133	-23.0%	1,471	1,133	-23.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,471	1,133	-23.0%	1,471	1,133	-23.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CORYELL COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	10	4	-60.0%	15	4	-73.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	10	4	-60.0%	15	4	-73.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
CORYELL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	195	100.0%	0	195	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,510	1,510	0.0%	437	437	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,510	1,315	-12.9%	437	242	-44.6%
CORYELL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	20,287	20,010	-1.4%	17,798	15,945	-10.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	14,034	14,334	2.1%	20,234	20,775	2.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	193	1,445	648.7%	4,662	7,536	61.6%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EASTLAND COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	603	470	-22.1%	603	469	-22.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	583	470	-19.4%	527	425	-19.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
EASTLAND COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	4,581	5,110	11.5%	4,579	5,097	11.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	6,819	5,031	-26.2%	6,850	5,031	-26.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,238	0	-100.0%	2,271	0	-100.0%
EASTLAND COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,127	1,117	-0.9%	1,127	1,117	-0.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,127	1,117	-0.9%	1,127	1,117	-0.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
EASTLAND COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	110	90	-18.2%	134	98	-26.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	72	48	-33.3%	97	56	-42.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
EASTLAND COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	243	100.0%	0	243	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,164	1,164	0.0%	432	432	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,164	921	-20.9%	432	189	-56.3%
EASTLAND COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6,452	5,436	-15.7%	6,417	5,277	-17.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,043	2,168	6.1%	1,953	2,069	5.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
ERATH COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,357	3,332	-0.7%	3,356	3,331	-0.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,665	2,605	-2.3%	3,671	3,678	0.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	315	347	10.2%
ERATH COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	7,024	7,386	5.2%	7,021	7,386	5.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	6,383	7,026	10.1%	5,933	7,026	18.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
ERATH COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6,702	5,739	-14.4%	6,702	5,739	-14.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	6,702	5,739	-14.4%	6,702	5,739	-14.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
ERATH COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	80	71	-11.3%	123	114	-7.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	80	74	-7.5%	122	85	-30.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	3	100.0%	0	0	0.0%
ERATH COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	511	1,007	97.1%	511	1,007	97.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	505	505	0.0%	177	177	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
ERATH COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6,702	6,134	-8.5%	6,444	6,092	-5.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,041	3,084	1.4%	4,144	4,143	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	7	100.0%	0	8	100.0%
FALLS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	615	776	26.2%	601	792	31.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	526	773	47.0%	533	705	32.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
FALLS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6,505	8,830	35.7%	6,505	8,830	35.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,301	7,448	73.2%	3,658	7,448	103.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
FALLS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,878	1,833	-2.4%	1,878	1,833	-2.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,878	1,833	-2.4%	1,878	1,833	-2.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
FALLS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1	0	-100.0%	1	0	-100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1	0	-100.0%	1	0	-100.0%
FALLS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	98	100.0%	0	98	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	225	225	0.0%	331	331	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	225	127	-43.6%	331	233	-29.6%
FALLS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	4,789	5,094	6.4%	4,596	4,957	7.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,862	2,810	-1.8%	2,988	3,069	2.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	130	0	-100.0%	176	0	-100.0%
FISHER COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	156	76	-51.3%	156	76	-51.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	115	76	-33.9%	105	69	-34.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
FISHER COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	5,290	5,462	3.3%	5,290	5,462	3.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,488	4,680	4.3%	3,862	4,680	21.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
FISHER COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	634	620	-2.2%	634	620	-2.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	634	620	-2.2%	634	620	-2.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
FISHER COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	205	239	16.6%	205	239	16.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	225	157	-30.2%	364	185	-49.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	20	0	-100.0%	159	0	-100.0%

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	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
FISHER COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	216	100.0%	0	216	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	407	407	0.0%	238	238	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	407	191	-53.1%	238	22	-90.8%
FISHER COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	749	359	-52.1%	711	304	-57.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	411	452	10.0%	381	420	10.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	89	127	42.7%	84	150	78.6%
GRIMES COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,021	1,251	-38.1%	2,021	1,251	-38.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,789	1,248	-30.2%	1,955	1,129	-42.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
GRIMES COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	517	100.0%	0	517	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	0	668	100.0%	0	668	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	151	100.0%	0	151	100.0%
GRIMES COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,503	2,123	41.3%	1,503	2,123	41.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,503	2,123	41.3%	1,503	2,123	41.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
GRIMES COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	515	469	-8.9%	585	540	-7.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	361	327	-9.4%	585	327	-44.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
GRIMES COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	33	190	475.8%	33	190	475.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	323	323	0.0%	128	128	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	290	133	-54.1%	95	0	-100.0%
GRIMES COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,581	5,043	40.8%	3,728	5,396	44.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,389	3,174	32.9%	3,165	4,296	35.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
GRIMES COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	20,095	20,062	-0.2%	19,663	20,062	2.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	31,760	15,016	-52.7%	42,905	15,016	-65.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	11,665	0	-100.0%	23,242	0	-100.0%
HAMILTON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	572	450	-21.3%	572	450	-21.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	423	450	6.4%	394	420	6.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HAMILTON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	437	875	100.2%	430	862	100.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	507	694	36.9%	436	694	59.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	70	0	-100.0%	6	0	-100.0%

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	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
HAMILTON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,677	1,393	-16.9%	1,677	1,393	-16.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,677	1,393	-16.9%	1,677	1,393	-16.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HAMILTON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6	3	-50.0%	11	3	-72.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	5	3	-40.0%	10	3	-70.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HAMILTON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	13	256	1869.2%	13	256	1869.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	393	393	0.0%	0	0	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	380	137	-63.9%	0	0	0.0%
HAMILTON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,103	1,284	16.4%	976	1,268	29.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	780	747	-4.2%	739	708	-4.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	19	8	-57.9%	31	21	-32.3%
HASKELL COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	535	360	-32.7%	321	350	9.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	255	351	37.6%	253	349	37.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HASKELL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	45,619	41,560	-8.9%	43,087	41,446	-3.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	47,844	58,239	21.7%	41,207	57,281	39.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,225	16,679	649.6%	0	15,835	100.0%
HASKELL COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	676	444	-34.3%	676	444	-34.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	676	444	-34.3%	676	444	-34.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HASKELL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	93	93	0.0%	59	59	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	93	93	0.0%	59	59	0.0%
HASKELL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	635	40	-93.7%	208	11	-94.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	617	513	-16.9%	610	508	-16.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	58	477	722.4%	442	499	12.9%
HASKELL COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,200	0	-100.0%	2,200	0	-100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	336	0	-100.0%	720	0	-100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HILL COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,460	163	-88.8%	1,194	131	-89.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	968	220	-77.3%	1,131	201	-82.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	57	100.0%	0	70	100.0%

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	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
HILL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,414	1,540	8.9%	1,414	1,539	8.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	582	1,750	200.7%	563	1,750	210.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	210	100.0%	0	211	100.0%
HILL COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,184	1,337	12.9%	1,184	1,337	12.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,184	1,337	12.9%	1,184	1,337	12.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HILL COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	45	45	0.0%	70	70	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	45	1	-97.8%	70	1	-98.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HILL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,031	1,398	35.6%	949	1,398	47.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,634	1,634	0.0%	472	472	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	603	236	-60.9%	0	0	0.0%
HILL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	8,264	9,565	15.7%	7,793	8,840	13.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,648	5,601	20.5%	5,343	6,475	21.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	2	100.0%	78	285	265.4%
HILL COUNTY | STEAM ELECTRIC POWER WUG TYPE						
PROJECTED DEMAND TOTAL (acre-feet per year)	0	4,120	100.0%	0	4,120	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	4,120	100.0%	0	4,120	100.0%
HOOD COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,855	798	-57.0%	1,781	2,093	17.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,823	2,643	-6.4%	1,588	1,169	-26.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	968	1,845	90.6%	0	0	0.0%
HOOD COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	7,530	9,466	25.7%	7,530	9,466	25.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	7,205	9,049	25.6%	6,560	9,049	37.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HOOD COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	522	513	-1.7%	522	513	-1.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	522	513	-1.7%	522	513	-1.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HOOD COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	10,025	10,025	0.0%	10,025	10,025	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	25	14	-44.0%	37	17	-54.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
HOOD COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,224	1,401	14.5%	1,224	1,401	14.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,078	2,078	0.0%	2,057	2,057	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	854	677	-20.7%	833	656	-21.2%
HOOD COUNTY | MUNICIPAL WUG TYPE						

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	10,090	7,150	-29.1%	10,043	5,873	-41.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,611	4,811	4.3%	9,883	10,350	4.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	221	4,490	1931.7%
HOOD COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	43,597	17,709	-59.4%	40,487	17,709	-56.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	5,814	17,709	204.6%	13,354	17,709	32.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
JOHNSON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,700	2,988	75.8%	1,700	1,514	-10.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,613	945	-41.4%	1,391	149	-89.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
JOHNSON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	299	297	-0.7%	284	297	4.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	141	566	301.4%	141	566	301.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	269	100.0%	0	269	100.0%
JOHNSON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,613	1,452	-10.0%	1,613	1,452	-10.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,613	1,452	-10.0%	1,613	1,452	-10.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
JOHNSON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,608	2,531	-3.0%	4,467	4,390	-1.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,517	1,577	-37.3%	4,375	1,872	-57.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
JOHNSON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,862	1,447	-49.4%	2,862	1,443	-49.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,126	4,126	0.0%	1,336	1,336	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,264	2,679	111.9%	0	0	0.0%
JOHNSON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	37,339	31,947	-14.4%	32,995	33,506	1.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	24,398	25,973	6.5%	46,307	50,120	8.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,689	489	-81.8%	16,785	19,757	17.7%
JOHNSON COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,344	1,344	0.0%	1,344	1,344	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	7,000	1,915	-72.6%	7,000	1,915	-72.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	5,656	571	-89.9%	5,656	571	-89.9%
JONES COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	353	290	-17.8%	353	290	-17.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	279	358	28.3%	316	411	30.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	68	100.0%	0	121	100.0%
JONES COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,610	2,638	1.1%	2,610	2,638	1.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,870	2,829	-1.4%	2,471	2,829	14.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	260	191	-26.5%	0	191	100.0%
JONES COUNTY | LIVESTOCK WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	853	581	-31.9%	853	581	-31.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	853	581	-31.9%	853	581	-31.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
JONES COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	79	100.0%	0	79	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	239	239	0.0%	169	169	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	239	160	-33.1%	169	90	-46.7%
JONES COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	4,467	3,584	-19.8%	4,186	2,864	-31.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,075	2,996	-2.6%	3,423	3,335	-2.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	31	27	-12.9%	427	861	101.6%
JONES COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	8,247	0	-100.0%	11,837	0	-100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	333	0	-100.0%	518	0	-100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KENT COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	45	15	-66.7%	45	15	-66.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	33	14	-57.6%	32	15	-53.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KENT COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,444	1,715	18.8%	1,444	1,715	18.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,235	1,081	-12.5%	1,073	1,081	0.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KENT COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	320	260	-18.8%	320	260	-18.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	320	260	-18.8%	320	260	-18.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KENT COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	459	721	57.1%	459	721	57.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	38	38	0.0%	26	26	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KENT COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	92	118	28.3%	88	111	26.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	92	118	28.3%	88	111	26.1%
KNOX COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	237	139	-41.4%	157	134	-14.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	138	129	-6.5%	141	132	-6.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KNOX COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	37,912	29,098	-23.2%	31,173	27,032	-13.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	41,033	43,982	7.2%	36,278	40,413	11.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	3,121	14,884	376.9%	5,105	13,381	162.1%
KNOX COUNTY | LIVESTOCK WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	987	509	-48.4%	987	509	-48.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	987	509	-48.4%	987	509	-48.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KNOX COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	4	100.0%	0	4	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	0	4	100.0%	0	4	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
KNOX COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	6	100.0%	0	6	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	15	15	0.0%	14	14	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	15	9	-40.0%	14	8	-42.9%
KNOX COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	395	51	-87.1%	72	32	-55.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	498	519	4.2%	535	557	4.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	103	468	354.4%	463	526	13.6%
LAMPASAS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	377	206	-45.4%	377	278	-26.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	317	150	-52.7%	227	88	-61.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LAMPASAS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	267	311	16.5%	267	296	10.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	387	538	39.0%	366	538	47.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	218	227	4.1%	199	242	21.6%
LAMPASAS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,232	625	-49.3%	1,232	625	-49.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,232	625	-49.3%	1,232	625	-49.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LAMPASAS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	185	185	0.0%	261	213	-18.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	185	198	7.0%	261	216	-17.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	13	100.0%	0	3	100.0%
LAMPASAS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	25	104	316.0%	25	104	316.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	198	198	0.0%	313	313	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	173	94	-45.7%	288	209	-27.4%
LAMPASAS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,967	3,002	1.2%	2,922	2,746	-6.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,239	3,405	5.1%	4,508	4,639	2.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	411	528	28.5%	1,653	1,893	14.5%
LEE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	226	156	-31.0%	226	156	-31.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	195	133	-31.8%	226	155	-31.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LEE COUNTY | IRRIGATION WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	496	1,358	173.8%	496	1,375	177.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	459	1,168	154.5%	398	1,168	193.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LEE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,935	1,216	-37.2%	1,935	1,216	-37.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,935	1,216	-37.2%	1,935	1,216	-37.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LEE COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	13	13	0.0%	18	18	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	13	7	-46.2%	18	8	-55.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LEE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	2,905	100.0%	0	3,324	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,180	3,180	0.0%	9,631	0	-100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	3,180	275	-91.4%	9,631	0	-100.0%
LEE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	6,043	6,194	2.5%	5,472	5,633	2.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,784	2,869	3.1%	3,299	3,400	3.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	12	100.0%
LIMESTONE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,288	518	-59.8%	1,232	518	-58.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	892	311	-65.1%	902	282	-68.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LIMESTONE COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	35	100.0%	0	35	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	0	7	100.0%	0	7	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LIMESTONE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,704	1,670	-2.0%	1,704	1,670	-2.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,704	1,670	-2.0%	1,704	1,670	-2.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
LIMESTONE COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	93	62	-33.3%	137	64	-53.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	93	321	245.2%	137	377	175.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	259	100.0%	0	313	100.0%
LIMESTONE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	810	3,158	289.9%	810	3,158	289.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	10,317	10,317	0.0%	11,425	11,425	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	9,507	7,159	-24.7%	10,615	8,267	-22.1%
LIMESTONE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,629	4,489	70.7%	2,017	3,994	98.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,656	2,503	51.1%	1,976	2,922	47.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	706	688	-2.5%	842	864	2.6%
LIMESTONE COUNTY | STEAM ELECTRIC POWER WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	22,676	22,548	-0.6%	21,141	22,548	6.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	22,598	22,936	1.5%	52,033	22,936	-55.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	388	100.0%	30,892	388	-98.7%
MCLENNAN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,617	1,046	-71.1%	3,573	1,067	-70.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,533	1,268	-64.1%	3,233	400	-87.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	222	100.0%	0	0	0.0%
MCLENNAN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,582	5,757	123.0%	2,495	6,157	146.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,880	4,962	1.7%	4,858	4,962	2.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,298	0	-100.0%	2,363	0	-100.0%
MCLENNAN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,584	1,953	23.3%	1,584	1,953	23.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,584	1,953	23.3%	1,584	1,953	23.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MCLENNAN COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,423	4,249	24.1%	5,323	6,149	15.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	5,087	4,792	-5.8%	8,157	7,458	-8.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,664	543	-67.4%	2,834	1,309	-53.8%
MCLENNAN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	274	738	169.3%	274	738	169.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,538	2,538	0.0%	4,216	4,216	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,264	1,800	-20.5%	3,942	3,478	-11.8%
MCLENNAN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	66,650	71,663	7.5%	64,406	69,625	8.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	47,480	51,177	7.8%	63,588	68,353	7.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	343	1,011	194.8%	4,691	8,516	81.5%
MCLENNAN COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	29,921	30,005	0.3%	29,885	29,925	0.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	6,990	13,520	93.4%	12,756	13,520	6.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MILAM COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	956	160	-83.3%	956	160	-83.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	300	129	-57.0%	364	156	-57.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MILAM COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	5,398	6,741	24.9%	5,315	6,595	24.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	5,081	6,502	28.0%	4,875	6,502	33.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MILAM COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,822	2,761	51.5%	1,822	2,761	51.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,822	2,761	51.5%	1,822	2,761	51.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MILAM COUNTY | MANUFACTURING WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	14	14	0.0%	14	14	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	12	12	0.0%	14	13	-7.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MILAM COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	14	76	442.9%	14	71	407.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	14	14	0.0%	14	14	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
MILAM COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	7,756	6,953	-10.4%	7,008	6,250	-10.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,266	4,535	6.3%	5,023	5,339	6.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	79	100.0%	0	961	100.0%
MILAM COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	33,119	0	-100.0%	34,232	0	-100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	32,023	32,254	0.7%	40,989	32,254	-21.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	32,254	100.0%	6,757	32,254	377.3%
NOLAN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	124	139	12.1%	124	139	12.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	228	126	-44.7%	249	137	-45.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	104	0	-100.0%	125	0	-100.0%
NOLAN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	4,930	3,327	-32.5%	4,930	3,327	-32.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	7,413	11,564	56.0%	6,497	11,564	78.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,483	8,237	231.7%	1,567	8,237	425.7%
NOLAN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	387	296	-23.5%	387	296	-23.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	387	296	-23.5%	387	296	-23.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
NOLAN COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	539	500	-7.2%	539	493	-8.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,420	448	-68.5%	2,309	528	-77.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	881	0	-100.0%	1,770	35	-98.0%
NOLAN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	147	100.0%	0	147	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	225	225	0.0%	141	141	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	225	78	-65.3%	141	0	-100.0%
NOLAN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,186	1,836	54.8%	1,214	1,855	52.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,214	2,345	5.9%	2,480	2,628	6.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,349	509	-62.3%	1,576	773	-51.0%
NOLAN COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	13,526	0	-100.0%	23,916	0	-100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	13,526	0	-100.0%	23,916	0	-100.0%
PALO PINTO COUNTY | COUNTY-OTHER WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,369	90	-96.2%	2,369	90	-96.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,063	281	-73.6%	1,165	267	-77.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	191	100.0%	0	177	100.0%
PALO PINTO COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	550	685	24.5%	550	685	24.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,138	3,011	-4.0%	2,944	3,011	2.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2,588	2,326	-10.1%	2,394	2,326	-2.8%
PALO PINTO COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	915	1,929	110.8%	915	1,929	110.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	915	1,929	110.8%	915	1,929	110.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
PALO PINTO COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,211	1,210	-0.1%	1,211	1,210	-0.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	49	11	-77.6%	74	13	-82.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
PALO PINTO COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,247	3	-99.8%	1,165	3	-99.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	656	656	0.0%	235	235	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	653	100.0%	0	232	100.0%
PALO PINTO COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,572	4,507	26.2%	3,985	3,973	-0.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,573	4,704	31.7%	4,169	5,523	32.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	58	496	755.2%	213	1,688	692.5%
PALO PINTO COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	13,842	12,102	-12.6%	11,839	12,102	2.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,000	501	-87.5%	4,000	501	-87.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
ROBERTSON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	757	155	-79.5%	757	155	-79.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	439	152	-65.4%	796	144	-81.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	39	0	-100.0%
ROBERTSON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	10,431	66,331	535.9%	10,679	62,246	482.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	63,420	79,182	24.9%	55,124	80,167	45.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	52,989	12,851	-75.7%	44,445	17,921	-59.7%
ROBERTSON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,612	3,048	89.1%	1,612	3,048	89.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,612	3,048	89.1%	1,612	3,048	89.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
ROBERTSON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	251	4,617	1739.4%	251	4,617	1739.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	133	51	-61.7%	232	51	-78.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
ROBERTSON COUNTY | MINING WUG TYPE						

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	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	10,205	15,687	53.7%	10,205	15,687	53.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	9,913	9,913	0.0%	22,940	12,000	-47.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	12,735	0	-100.0%
ROBERTSON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	5,502	7,834	42.4%	5,309	7,111	33.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,137	3,030	41.8%	2,661	4,411	65.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	15	81	440.0%	441	581	31.7%
ROBERTSON COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	33,899	45,866	35.3%	32,903	45,866	39.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	17,461	45,866	162.7%	51,381	45,866	-10.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	18,478	0	-100.0%
SHACKELFORD COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	125	25	-80.0%	107	25	-76.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	125	25	-80.0%	107	10	-90.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SHACKELFORD COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	350	100.0%	0	350	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	0	250	100.0%	0	250	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SHACKELFORD COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	840	580	-31.0%	840	580	-31.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	840	580	-31.0%	840	580	-31.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SHACKELFORD COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	50	100.0%	0	50	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	0	13	100.0%	0	13	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SHACKELFORD COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	7	209	2885.7%	7	210	2900.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	562	562	0.0%	243	243	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	555	353	-36.4%	236	33	-86.0%
SHACKELFORD COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	831	938	12.9%	849	939	10.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	642	759	18.2%	663	778	17.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	1	100.0%	0	1	100.0%
SOMERVELL COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,400	644	-54.0%	1,400	644	-54.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	822	644	-21.7%	1,056	827	-21.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	183	100.0%
SOMERVELL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	104	582	459.6%	104	582	459.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	83	410	394.0%	79	410	419.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SOMERVELL COUNTY | LIVESTOCK WUG TYPE						

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	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	158	165	4.4%	158	165	4.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	158	165	4.4%	158	165	4.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SOMERVELL COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	20	8	-60.0%	20	8	-60.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	8	3	-62.5%	13	4	-69.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
SOMERVELL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	705	691	-2.0%	705	691	-2.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,112	1,112	0.0%	971	971	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	407	421	3.4%	266	280	5.3%
SOMERVELL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	724	2,205	204.6%	724	2,205	204.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	583	773	32.6%	763	1,005	31.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	39	179	359.0%
SOMERVELL COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	49,321	34,975	-29.1%	49,258	34,495	-30.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	84,817	70,362	-17.0%	84,817	70,362	-17.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	35,496	35,387	-0.3%	35,559	35,867	0.9%
STEPHENS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	207	55	-73.4%	207	55	-73.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	156	49	-68.6%	152	49	-67.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
STEPHENS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	86	31	-64.0%	86	31	-64.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	116	152	31.0%	110	152	38.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	30	121	303.3%	24	121	404.2%
STEPHENS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	486	460	-5.3%	486	460	-5.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	486	460	-5.3%	486	460	-5.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
STEPHENS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	9	7	-22.2%	14	8	-42.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	9	7	-22.2%	14	8	-42.9%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
STEPHENS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,000	1,589	58.9%	1,000	1,589	58.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	5,064	5,064	0.0%	2,773	2,773	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	4,064	3,475	-14.5%	1,773	1,184	-33.2%
STEPHENS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,332	2,486	6.6%	2,330	2,482	6.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,313	1,443	9.9%	1,318	1,445	9.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	2	4	100.0%	9	11	22.2%
STONEWALL COUNTY | COUNTY-OTHER WUG TYPE						

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	93	70	-24.7%	93	70	-24.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	68	68	0.0%	64	64	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
STONEWALL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	227	111	-51.1%	227	109	-52.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	165	106	-35.8%	142	106	-25.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
STONEWALL COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	458	336	-26.6%	458	336	-26.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	458	336	-26.6%	458	336	-26.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
STONEWALL COUNTY | MANUFACTURING WUG TYPE						
PROJECTED DEMAND TOTAL (acre-feet per year)	0	58	100.0%	0	58	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	58	100.0%	0	58	100.0%
STONEWALL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	175	194	10.9%	175	194	10.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	584	584	0.0%	338	338	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	409	390	-4.6%	163	144	-11.7%
STONEWALL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	388	210	-45.9%	299	188	-37.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	250	249	-0.4%	241	240	-0.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	39	100.0%	0	52	100.0%
TAYLORCOUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,078	1,048	-2.8%	1,078	511	-52.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	660	666	0.9%	700	708	1.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	197	100.0%
TAYLORCOUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	501	369	-26.3%	501	369	-26.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,557	1,635	5.0%	1,373	1,635	19.1%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,056	1,266	19.9%	872	1,266	45.2%
TAYLORCOUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	963	834	-13.4%	963	834	-13.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	963	834	-13.4%	963	834	-13.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
TAYLORCOUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,653	585	-64.6%	2,424	671	-72.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,653	585	-64.6%	2,424	671	-72.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
TAYLORCOUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	134	100.0%	0	134	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	391	391	0.0%	315	315	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	391	257	-34.3%	315	181	-42.5%
TAYLORCOUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	22,272	22,263	0.0%	15,741	5,828	-63.0%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
PROJECTED DEMAND TOTAL (acre-feet per year)	23,582	23,508	-0.3%	25,621	25,537	-0.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1,328	1,318	-0.8%	9,885	19,763	99.9%
THROCKMORTON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	99	99	0.0%	99	99	0.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	48	30	-37.5%	45	27	-40.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
THROCKMORTON COUNTY | IRRIGATION WUG TYPE						
PROJECTED DEMAND TOTAL (acre-feet per year)	0	157	100.0%	0	157	100.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	157	100.0%	0	157	100.0%
THROCKMORTON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	672	493	-26.6%	672	493	-26.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	672	493	-26.6%	672	493	-26.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
THROCKMORTON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	104	100.0%	0	104	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	194	194	0.0%	116	116	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	194	90	-53.6%	116	12	-89.7%
THROCKMORTON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	369	116	-68.6%	363	62	-82.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	218	244	11.9%	207	233	12.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	1	137	13600.0%	3	180	5900.0%
WASHINGTON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,550	1,381	-45.8%	2,550	1,381	-45.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,424	1,374	-43.3%	2,545	1,333	-47.6%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
WASHINGTON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	450	509	13.1%	450	509	13.1%
PROJECTED DEMAND TOTAL (acre-feet per year)	299	309	3.3%	299	309	3.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
WASHINGTON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,661	1,348	-18.8%	1,661	1,348	-18.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,661	1,348	-18.8%	1,661	1,348	-18.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
WASHINGTON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	631	577	-8.6%	631	577	-8.6%
PROJECTED DEMAND TOTAL (acre-feet per year)	692	577	-16.6%	1,029	583	-43.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	61	0	-100.0%	398	6	-98.5%
WASHINGTON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	78	100.0%	0	78	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	569	569	0.0%	264	264	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	569	491	-13.7%	264	186	-29.5%
WASHINGTON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	4,143	4,801	15.9%	4,143	4,827	16.5%
PROJECTED DEMAND TOTAL (acre-feet per year)	4,079	5,354	31.3%	5,070	6,579	29.8%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	878	100.0%	927	2,020	117.9%
WILLIAMSON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,070	5,283	72.1%	4,436	6,230	40.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	11,047	6,089	-44.9%	26,688	44,044	65.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	7,977	808	-89.9%	22,252	37,814	69.9%
WILLIAMSON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	80	161	101.3%	79	161	103.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	151	333	120.5%	151	333	120.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	71	172	142.3%	72	172	138.9%
WILLIAMSON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,455	1,656	13.8%	1,455	1,656	13.8%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,455	1,656	13.8%	1,455	1,656	13.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
WILLIAMSON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	2,343	1,061	-54.7%	3,927	1,248	-68.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	2,354	812	-65.5%	3,938	963	-75.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	11	0	-100.0%	11	0	-100.0%
WILLIAMSON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	415	441	6.3%	415	441	6.3%
PROJECTED DEMAND TOTAL (acre-feet per year)	5,163	5,163	0.0%	11,186	11,186	0.0%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	4,748	4,722	-0.5%	10,771	10,745	-0.2%
WILLIAMSON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	84,763	83,564	-1.4%	82,403	86,267	4.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	85,252	91,159	6.9%	211,146	200,001	-5.3%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	6,614	15,716	137.6%	130,326	117,558	-9.8%
YOUNG COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	297	266	-10.4%	262	244	-6.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	214	209	-2.3%	242	238	-1.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
YOUNG COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	37	100.0%	0	37	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	51	493	866.7%	44	493	1020.5%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	51	456	794.1%	44	456	936.4%
YOUNG COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	976	591	-39.4%	976	591	-39.4%
PROJECTED DEMAND TOTAL (acre-feet per year)	976	591	-39.4%	976	591	-39.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
YOUNG COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	59	84	42.4%	87	112	28.7%
PROJECTED DEMAND TOTAL (acre-feet per year)	59	36	-39.0%	87	44	-49.4%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
YOUNG COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	0	81	100.0%	0	81	100.0%
PROJECTED DEMAND TOTAL (acre-feet per year)	187	187	0.0%	73	73	0.0%

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Region G Water User Group (WUG) Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	187	106	-43.3%	73	0	-100.0%
YOUNG COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	3,659	1,848	-49.5%	3,670	1,253	-65.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	3,146	3,245	3.1%	3,659	3,776	3.2%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	26	1,397	5273.1%	77	2,523	3176.6%
YOUNG COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	14,248	680	-95.2%	14,248	680	-95.2%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,730	680	-60.7%	3,706	680	-81.7%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	0	0	0.0%	0	0	0.0%
REGION G						
EXISTING WUG SUPPLY TOTAL (acre-feet per year)	1,107,143	1,102,327	-0.4%	1,081,797	1,091,912	0.9%
PROJECTED DEMAND TOTAL (acre-feet per year)	1,067,568	1,121,088	5.0%	1,478,295	1,421,583	-3.8%
WATER SUPPLY NEEDS TOTAL (acre-feet per year)*	235,276	210,807	-10.4%	565,566	477,750	-15.5%

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Region G Source Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
BELL COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	13,537	15,736	16.2%	13,537	15,710	16.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	15,070	16,026	6.3%	13,932	14,564	4.5%
BOSQUE COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	6,679	9,618	44.0%	6,679	9,592	43.6%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,121	1,121	0.0%	1,120	1,121	0.1%
BRAZOS COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	66,140	149,216	125.6%	85,765	163,057	90.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,322	1,322	0.0%	1,322	1,322	0.0%
BURLESON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	60,888	68,920	13.2%	80,860	86,615	7.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,508	1,508	0.0%	1,508	1,508	0.0%
CALLAHAN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	3,777	1,729	-54.2%	3,777	1,725	-54.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	920	897	-2.5%	920	897	-2.5%
COMANCHE COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	32,235	12,072	-62.6%	32,235	12,039	-62.7%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	3,895	3,774	-3.1%	3,895	3,774	-3.1%
CORYELL COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	3,716	4,503	21.2%	3,716	4,491	20.9%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	2,001	2,001	0.0%	2,001	2,001	0.0%
EASTLAND COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	4,720	5,747	21.8%	4,720	5,732	21.4%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,587	1,492	-6.0%	1,577	1,492	-5.4%
ERATH COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	32,926	20,658	-37.3%	32,926	20,599	-37.4%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	6,803	8,076	18.7%	6,800	8,076	18.8%
FALLS COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	17,720	18,989	7.2%	17,748	19,013	7.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	3,602	2,052	-43.0%	3,602	2,052	-43.0%
FISHER COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	10,877	19,652	80.7%	10,675	19,030	78.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	651	634	-2.6%	651	634	-2.6%
GRIMES COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	39,455	22,115	-43.9%	38,691	22,115	-42.8%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,603	2,853	78.0%	1,603	2,853	78.0%
HAMILTON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	2,144	2,431	13.4%	2,144	2,425	13.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,731	1,695	-2.1%	1,724	1,682	-2.4%
HASKELL COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	46,180	41,750	-9.6%	43,617	41,636	-4.5%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	676	676	0.0%	676	676	0.0%
HILL COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	6,040	5,249	-13.1%	6,040	5,235	-13.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,193	1,578	32.3%	1,193	1,578	32.3%
HOOD COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	11,145	12,458	11.8%	11,145	12,424	11.5%

* Since reservoir sources can exist across multiple counties, the county field value, 'reservoir' is applied to all reservoir sources.

Region G Source Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	522	522	0.0%	522	522	0.0%
JOHNSON COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	17,603	11,407	-35.2%	17,603	11,376	-35.4%
REUSE AVAILABILITY TOTAL (acre-feet per year)	1,344	1,344	0.0%	1,344	1,344	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	1,613	1,613	0.0%	1,613	1,613	0.0%
JONES COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	2,918	2,918	0.0%	2,918	2,918	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	853	853	0.0%	853	853	0.0%
KENT COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	7,431	7,431	0.0%	7,429	7,429	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	320	320	0.0%	320	320	0.0%
KNOX COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	39,919	29,736	-25.5%	32,740	27,673	-15.5%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	1,021	1,021	0.0%	1,021	1,021	0.0%
LAMPASAS COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	8,660	7,232	-16.5%	8,660	7,209	-16.8%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	1,383	934	-32.5%	1,383	934	-32.5%
LEE COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	25,101	23,755	-5.4%	28,420	21,765	-23.4%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	1,955	1,624	-16.9%	1,955	1,624	-16.9%
LIMESTONE COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	12,397	11,353	-8.4%	13,009	11,966	-8.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	1,718	1,718	0.0%	1,718	1,718	0.0%
MCLENNAN COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	35,718	35,714	0.0%	35,718	35,658	-0.2%
REUSE AVAILABILITY TOTAL (acre-feet per year)	27,035	27,035	0.0%	36,730	36,730	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	9,029	13,927	54.2%	8,942	13,311	48.9%
MILAM COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	27,346	71,799	162.6%	25,745	70,154	172.5%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	5,306	6,245	17.7%	5,306	6,245	17.7%
NOLAN COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	6,543	6,543	0.0%	6,543	6,543	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	427	336	-21.3%	427	336	-21.3%
PALO PINTO COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	12	12	0.0%	12	12	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	915	1,929	110.8%	915	1,929	110.8%
RESERVOIR* COUNTY						
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	861,733	890,160	3.3%	817,523	873,835	6.9%
ROBERTSON COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	52,035	108,629	108.8%	53,499	106,581	99.2%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	2,147	3,414	59.0%	2,147	3,069	42.9%
SHACKELFORD COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	809	809	0.0%	809	809	0.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	897	897	0.0%	897	897	0.0%
SOMERVELL COUNTY						
GROUNDWATERAVAILABILITY TOTAL (acre-feet per year)	2,485	3,188	28.3%	2,485	3,181	28.0%
SURFACE WATERAVAILABILITY TOTAL (acre-feet per year)	2,158	165	-92.4%	2,158	165	-92.4%

* Since reservoir sources can exist across multiple counties, the county field value, ‘reservoir’ is applied to all reservoir sources.

Region G Source Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
STEPHENS COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	705	705	0.0%	705	705	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	486	486	0.0%	486	486	0.0%
STONEWALL COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	8,933	8,933	0.0%	8,914	8,914	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	466	458	-1.7%	466	458	-1.7%
TAYLOR COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	920	503	-45.3%	920	503	-45.3%
REUSE AVAILABILITY TOTAL (acre-feet per year)	1,016	8,856	771.7%	1,016	8,856	771.7%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	963	834	-13.4%	963	834	-13.4%
THROCKMORTON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	479	479	0.0%	479	479	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	680	672	-1.2%	680	672	-1.2%
WASHINGTON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	18,950	18,958	0.0%	18,582	18,958	2.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,661	1,654	-0.4%	1,661	1,654	-0.4%
WILLIAMSON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	5,721	7,639	33.5%	5,721	7,629	33.4%
REUSE AVAILABILITY TOTAL (acre-feet per year)	4,320	4,320	0.0%	4,320	4,320	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,607	1,708	6.3%	1,607	1,708	6.3%
YOUNG COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	1,490	1,327	-10.9%	1,439	1,276	-11.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	976	976	0.0%	976	976	0.0%
REGION G						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	634,354	769,913	21.4%	666,625	793,176	19.0%
REUSE AVAILABILITY TOTAL (acre-feet per year)	33,715	41,555	23.3%	43,410	51,250	18.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	942,519	978,171	3.8%	897,063	959,410	7.0%

* Since reservoir sources can exist across multiple counties, the county field value, ‘reservoir’ is applied to all reservoir sources.

Region G Water User Group (WUG) Unmet Needs

WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The unmet needs shown in the WUG Unmet Needs report are calculated by first deducting the WUG split's projected demand from the sum of its total existing water supply volume and all associated recommended water management strategy water volumes. If the WUG split has a greater future supply volume than projected demand in any given decade, this amount is considered a surplus volume. In order to display only unmet needs associated with the WUG split, these surplus volumes are updated to a zero and the unmet needs water volumes are shown as absolute values.

	WUG UNMET NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BELL COUNTY - BRAZOS BASIN						
GEORGETOWN*	188	0	0	0	0	0
MANUFACTURING	123	0	0	0	0	0
BOSQUE COUNTY - BRAZOS BASIN						
MINING	360	414	207	188	152	141
BRAZOS COUNTY - BRAZOS BASIN						
TEXAS A&M UNIVERSITY	99	0	0	0	0	0
COMANCHE COUNTY - BRAZOS BASIN						
IRRIGATION	14,114	12,382	11,707	11,739	11,707	11,738
CORYELL COUNTY - BRAZOS BASIN						
FORT GATES WSC	260	0	0	0	0	0
GATESVILLE	1,041	0	0	0	0	0
HASKELL COUNTY - BRAZOS BASIN						
HASKELL	477	0	0	0	0	0
MINING	90	87	77	69	61	55
IRRIGATION	14,932	13,881	10,540	10,809	11,711	11,825
HILL COUNTY - BRAZOS BASIN						
MINING	149	0	0	0	0	0
HILL COUNTY - TRINITY BASIN						
MINING	38	0	0	0	0	0
STEAM ELECTRIC POWER	4,120	4,120	4,120	4,120	4,120	4,120
KNOX COUNTY - BRAZOS BASIN						
KNOX CITY	226	0	0	0	0	0
MUNDAY	242	0	0	0	0	0
IRRIGATION	10,530	11,744	8,316	6,735	6,364	8,119
KNOX COUNTY - RED BASIN						
IRRIGATION	2,630	2,934	2,078	1,683	1,590	2,028
LAMPASAS COUNTY - BRAZOS BASIN						
LAMPASAS	128	0	0	0	0	0
LEE COUNTY - BRAZOS BASIN						
MINING	1	0	0	0	0	0
LIMESTONE COUNTY - BRAZOS BASIN						
GROESBECK	688	0	0	0	0	0
MINING	6,050	5,518	5,283	5,689	6,088	6,618
LIMESTONE COUNTY - TRINITY BASIN						
MINING	799	753	733	768	803	849
MCLENNAN COUNTY - BRAZOS BASIN						
HEWITT	480	0	0	0	0	0
COUNTY-OTHER	222	0	0	0	0	0
MILAM COUNTY - BRAZOS BASIN						
STEAM ELECTRIC POWER	32,254	32,254	32,254	32,254	32,254	32,254
NOLAN COUNTY - BRAZOS BASIN						
IRRIGATION	4,893	4,750	4,606	4,606	4,606	4,606

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Water User Group (WUG) Unmet Needs

	WUG UNMET NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
NOLAN COUNTY - COLORADO BASIN						
IRRIGATION	2,997	2,909	2,822	2,822	2,822	2,822
PALO PINTO COUNTY - BRAZOS BASIN						
MINERAL WELLS*	342	0	0	0	0	0
ROBERTSON COUNTY - BRAZOS BASIN						
IRRIGATION	10,476	12,222	11,521	12,106	12,217	12,309
SHACKELFORD COUNTY - BRAZOS BASIN						
MINING	336	501	309	201	95	16
SOMERVELL COUNTY - BRAZOS BASIN						
MINING	0	44	0	0	0	0
STEAM ELECTRIC POWER	35,387	34,783	34,879	34,975	35,071	35,167
STEPHENS COUNTY - BRAZOS BASIN						
MINING	3,323	3,295	2,557	1,968	1,440	990
IRRIGATION	86	83	80	80	80	80
STONEWALL COUNTY - BRAZOS BASIN						
ASPERMONT	39	0	0	0	0	0
TAYLOR COUNTY - BRAZOS BASIN						
MINING	184	0	0	0	0	0
TAYLOR COUNTY - COLORADO BASIN						
MINING	61	0	0	0	0	0
THROCKMORTON COUNTY - BRAZOS BASIN						
THROCKMORTON	135	0	0	0	0	0
WILLIAMSON COUNTY - BRAZOS BASIN						
GEORGETOWN*	10,119	0	0	0	0	0
HUTTO	907	0	0	0	0	0
MINING*	4,567	5,493	6,407	7,515	8,656	9,962
IRRIGATION	0	0	0	146	146	146
WILLIAMSON COUNTY - COLORADO BASIN						
COUNTY-OTHER*	32	0	0	0	0	0
YOUNG COUNTY - BRAZOS BASIN						
GRAHAM	1,457	0	0	0	0	0

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Region G Water User Group (WUG) Unmet Needs Summary

WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The unmet needs shown in the WUG Unmet Needs Summary report are calculated by first deducting the WUG split's projected demand from the sum of its total existing water supply volume and all associated recommended water management strategy water volumes. If the WUG split has a greater future supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG category level, calculated surpluses are updated to zero so that only the WUGs with unmet needs in the decade are included with the Needs totals. Unmet needs water volumes are shown as absolute values.

WUG CATEGORY	NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MUNICIPAL	16,828	0	0	0	0	0
COUNTY-OTHER	254	0	0	0	0	0
MANUFACTURING	123	0	0	0	0	0
MINING	15,958	16,105	15,573	16,398	17,295	18,631
STEAM ELECTRIC POWER	71,761	71,157	71,253	71,349	71,445	71,541
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	60,658	60,905	51,670	50,726	51,243	53,673

Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
439 WSC	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	246	253	261	269	277
439 WSC	G	PURCHASE FROM BELL COUNTY WCID 1	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$1000	0	1,161	1,161	1,161	1,161	240
439 WSC	G	PURCHASE RAW WATER FROM FORT HOOD	G | BRAZOS RUN-OF-RIVER	N/A	$100	0	0	0	32	324	626
439 WSC	G	REUSE-BELL COUNTY WCID 1 SOUTH	G | DIRECT NON-POTABLE REUSE	N/A	$274	0	32	185	185	0	20
ABILENE	F	SUBORDINATION - OH IVIE NON SYSTEM PORTION	F | OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	$0	$0	329	1,077	1,173	1,263	1,359	1,449
ABILENE	F	WEST TEXAS WATER PARTNERSHIP	F | OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	N/A	$403	0	7,768	7,768	7,768	7,768	7,768
ABILENE	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$347	$309	5,673	7,102	7,102	5,442	5,442	5,442
ABILENE	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$497	0	18,815	18,889	16,300	13,200	10,100
ABILENE	G	MUNICIPAL WATER CONSERVATION - ABILENE	DEMAND REDUCTION	N/A	$560	0	1,624	2,197	2,001	1,995	2,023
ACTON MUD	G	INCREASE SWATS WTP CAPACITY - ACTON MUD, JOHNSON COUNTY SUD	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	N/A	$291	0	0	3,752	3,752	3,752	3,752
ACTON MUD	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | HOOD COUNTY	N/A	$412	0	51	51	51	51	215
ACTON MUD	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | JOHNSON COUNTY	N/A	$1745	0	0	0	0	0	236
ALBANY	G	MUNICIPAL WATER CONSERVATION - ALBANY	DEMAND REDUCTION	N/A	$560	0	50	98	146	191	233
AQUA WSC*	G	MUNICIPAL WATER CONSERVATION - AQUA WSC	DEMAND REDUCTION	N/A	N/A	0	11	4	0	0	0
AQUA WSC*	L	MUNICIPAL WATER CONSERVATION	DEMAND REDUCTION	N/A	$770	0	1	1	1	1	1
ARMSTRONG WSC	G	MUNICIPAL WATER CONSERVATION - ARMSTRONG WSC	DEMAND REDUCTION	N/A	$560	0	35	37	33	35	36
ASPERMONT	G	MUNICIPAL WATER CONSERVATION - ASPERMONT	DEMAND REDUCTION	N/A	$560	0	19	37	56	73	89
ASPERMONT	G	NCTMWA LAKE CREEK RESERVOIR	G | NCTMWA LAKE CREEK LAKE/RESERVOIR	N/A	N/A	0	20	4	0	0	0
ASPERMONT	G	UPPER BASIN CHLORIDE CONTROL PROJECT	G | OTHER AQUIFER SALINE | STONEWALL COUNTY	N/A	$1490	0	249	249	249	249	249
AXTELL WSC	G	PURCHASE WATER FROM CITY OF WACO	G | BRAZOS RUN-OF-RIVER	$3273	$3273	83	86	90	94	99	104
BAIRD	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	155	152	150	154	159	164
BARTLETT	G	MUNICIPAL WATER CONSERVATION - BARTLETT	DEMAND REDUCTION	N/A	$560	0	28	61	82	99	107
BARTLETT	G	PURCHASE SUPPLY FROM JARRELL-SCHWERTNER WSC	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$2445	$2445	275	275	275	275	275	275

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
BAYLOR SUD*	G	MUNICIPAL WATER CONSERVATION - BAYLOR SUD	DEMAND REDUCTION	N/A	$560	0	4	5	8	7	9
BELL COUNTY WCID 2	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | BELL COUNTY	N/A	$1460	0	0	0	0	63	63
BELL COUNTY WCID 3	G	MUNICIPAL WATER CONSERVATION - BELL COUNTY WCID 3	DEMAND REDUCTION	N/A	N/A	0	22	0	0	0	0
BELL MILAM FALLS WSC	G	MUNICIPAL WATER CONSERVATION - BELL MILAM FALLS WSC	DEMAND REDUCTION	N/A	$560	0	4	4	4	4	5
BELLMEAD	G	REUSE- WMARSS BELLMEAD/ LACY-LAKEVIEW	G | DIRECT NON-POTABLE REUSE	$424	$123	1,121	1,121	1,121	1,121	1,121	1,121
BELTON	G	BELTON WTP EXPANSION	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$1096	0	0	0	0	0	676
BELTON	G	LAKE GRANGER ASR	G | TRINITY AQUIFER ASR | WILLIAMSON COUNTY	N/A	$77	0	0	0	390	466	491
BELTON	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	N/A	0	436	450	73	11	0
BELTON	G	MUNICIPAL WATER CONSERVATION - BELTON	DEMAND REDUCTION	N/A	$560	0	323	323	325	352	384
BETHESDA WSC*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	207	357	331	479	566
BETHESDA WSC*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$707	0	0	0	453	614	736
BETHESDA WSC*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	5	15	14	18	22
BETHESDA WSC*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	8	7	10	11
BETHESDA WSC*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	60	51	69	83
BETHESDA WSC*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	33	29	38	47
BETHESDA WSC*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	41	96	108	184	264
BETHESDA WSC*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	67	57	78	92
BETHESDA WSC*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	7	10	10	19	39
BETHESDA WSC*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	249
BETHESDA WSC*	G	MUNICIPAL WATER CONSERVATION - BETHESDA WSC	DEMAND REDUCTION	N/A	$560	0	327	735	1,190	1,331	1,487
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	G	MUNICIPAL WATER CONSERVATION - BISTONE MUNICIPAL WATER SUPPLY DISTRICT	DEMAND REDUCTION	N/A	$560	0	20	40	62	83	104
BRECKENRIDGE	G	MUNICIPAL WATER CONSERVATION - BRECKENRIDGE	DEMAND REDUCTION	N/A	$560	0	51	29	16	15	14

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
BREMOND	G	MUNICIPAL WATER CONSERVATION - BREMOND	DEMAND REDUCTION	N/A	$560	0	13	21	21	23	24
BRENHAM	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	774	774	774	774	774	774
BRENHAM	G	GULF COAST AQUIFER DEVELOPMENT	G | GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	$527	$196	628	559	365	167	0	33
BRENHAM	G	MUNICIPAL WATER CONSERVATION - BRENHAM	DEMAND REDUCTION	N/A	$560	0	367	755	1,170	1,592	1,648
BRUCEVILLE EDDY	G	MUNICIPAL WATER CONSERVATION - BRUCEVILLE EDDY	DEMAND REDUCTION	N/A	$560	0	79	129	126	130	137
BRUSHY CREEK MUD	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	697	719	741	763	785
BRUSHY CREEK MUD	G	MUNICIPAL WATER CONSERVATION - BRUSHY CREEK MUD	DEMAND REDUCTION	N/A	$560	0	233	263	243	238	237
BRUSHY CREEK MUD	G	PURCHASE SUPPLY FROM ROUND ROCK	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$912	N/A	250	0	0	0	0	0
BRYAN	G	BRYAN ASR (CARRIZO-WILCOX)	G | SIMSBORO AQUIFER ASR | BRAZOS COUNTY	N/A	$97	0	6,000	6,000	6,000	8,500	10,500
BRYAN	G	CARRIZO GW DEVELOPMENT FOR BRYAN IN BRAZOS COUNTY	G | CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	N/A	$146	0	7,501	7,501	7,501	7,501	7,501
BRYAN	G	MUNICIPAL WATER CONSERVATION - BRYAN	DEMAND REDUCTION	N/A	$560	0	1,311	1,606	1,719	1,988	2,489
BURLESON*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	651	909	740	988	1,063
BURLESON*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	1,014	1,271	1,383
BURLESON*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	17	41	30	38	41
BURLESON*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	22	20	87	123
BURLESON*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	154	114	143	156
BURLESON*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	85	64	80	87
BURLESON*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	131	243	242	380	495
BURLESON*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	171	127	160	174
BURLESON*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	20	26	24	40	72
BURLESON*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	468
CALDWELL	G	MUNICIPAL WATER CONSERVATION - CALDWELL	DEMAND REDUCTION	N/A	$560	0	83	167	239	242	246

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
CAMERON	G	CITY OF CAMERON LITTLE RIVER INTAKE	G | BRAZOS RUN-OF-RIVER	N/A	$80	0	2,615	2,615	2,615	2,615	2,615
CAMERON	G	MUNICIPAL WATER CONSERVATION - CAMERON	DEMAND REDUCTION	N/A	$560	0	107	218	339	449	465
CEDAR PARK*	G	BRUSHY CREEK RUA-EXISTING CONTRACTS	K | HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	$598	$598	1	1	1	1	1	1
CEDAR PARK*	G	MUNICIPAL WATER CONSERVATION - CEDAR PARK	DEMAND REDUCTION	N/A	$560	0	1,887	3,638	5,212	6,516	6,833
CEDAR PARK*	G	REUSE- CEDAR PARK	G | DIRECT NON-POTABLE REUSE	$543	$92	2,886	2,715	1,120	1,120	1,120	1,120
CEGO-DURANGO WSC	G	MUNICIPAL WATER CONSERVATION - CEGO-DURANGO WSC	DEMAND REDUCTION	N/A	$560	0	6	3	2	1	1
CENTRAL TEXAS COLLEGE DISTRICT	G	MUNICIPAL WATER CONSERVATION - CENTRAL TEXAS COLLEGE DISTRICT	DEMAND REDUCTION	N/A	$560	0	7	4	3	3	3
CHATT WSC	G	PURCHASE WATER FROM FILES VALLEY WSC	G | BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	N/A	$652	0	0	0	0	1	12
CHILDRESS CREEK WSC	G	BOSQUE COUNTY REGIONAL PROJECT	G | CLIFTON LAKE/RESERVOIR	N/A	$1020	0	203	203	203	203	203
CISCO	G	MUNICIPAL WATER CONSERVATION - CISCO	DEMAND REDUCTION	N/A	$560	0	52	52	44	42	42
CLEBURNE	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	0	3,086	3,494	3,553	3,007
CLEBURNE	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	4,791	4,563	3,911
CLEBURNE	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	0	138	143	136	117
CLEBURNE	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	73	76	72	62
CLEBURNE	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	519	538	513	440
CLEBURNE	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	290	301	287	245
CLEBURNE	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	0	827	1,144	1,362	1,401
CLEBURNE	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	581	603	574	492
CLEBURNE	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	0	87	112	142	204
CLEBURNE	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	1,323
CLEBURNE	G	MUNICIPAL WATER CONSERVATION - CLEBURNE	DEMAND REDUCTION	N/A	$560	0	561	942	1,018	1,171	1,302
CLEBURNE	G	REUSE- CLEBURNE	G | DIRECT NON-POTABLE REUSE	$422	$146	4,490	5,839	7,045	7,045	7,045	7,045
CLIFTON	G	BOSQUE COUNTY REGIONAL PROJECT	G | CLIFTON LAKE/RESERVOIR	N/A	$859	0	397	397	397	397	397
CLIFTON	G	MUNICIPAL WATER CONSERVATION - CLIFTON	DEMAND REDUCTION	N/A	$560	0	53	76	71	71	71

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
CLYDE	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$1694	N/A	214	220	0	0	0	0
COLEMAN COUNTY SUD*	F	MUNICIPAL CONSERVATION - COLEMAN COUNTY SUD	DEMAND REDUCTION	$1144	$1138	1	1	1	1	1	1
COLEMAN COUNTY SUD*	F	SUBORDINATION - HORDS CREEK LAKE	F | HORDS CREEK LAKE/RESERVOIR	$0	$0	3	3	3	3	3	3
COLEMAN COUNTY SUD*	F	SUBORDINATION - LAKE COLEMAN	F | COLEMAN LAKE/RESERVOIR	$0	$0	21	21	21	21	22	22
COLLEGE STATION	G	CARRIZO GW DEVELOPMENT FOR COLLEGE STATION IN BRAZOS COUNTY	G | CARRIZO-WILCOX AQUIFER | BRAZOS COUNTY	N/A	$198	0	0	5,234	9,695	9,796	9,796
COLLEGE STATION	G	MUNICIPAL WATER CONSERVATION - COLLEGE STATION	DEMAND REDUCTION	N/A	N/A	0	234	0	0	0	0
COLLEGE STATION	G	REUSE DPR- COLLEGE STATION	G | DIRECT POTABLE REUSE	N/A	$606	0	8,232	8,232	8,232	8,232	8,232
COOLIDGE	G	MUNICIPAL WATER CONSERVATION - COOLIDGE	DEMAND REDUCTION	N/A	N/A	0	4	0	0	0	0
COPPERAS COVE	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	0	0	0	0	517
COPPERAS COVE	G	PURCHASE RAW WATER FROM FORT HOOD	G | BRAZOS RUN-OF-RIVER	N/A	$100	0	0	0	0	125	1,285
CORIX UTILITIES TEXAS INC*	G	GULF COAST AQUIFER DEVELOPMENT	G | GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	$512	$104	349	370	399	437	468	498
CORYELL CITY WATER SUPPLY DISTRICT	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	52	54	56	57	59
CORYELL CITY WATER SUPPLY DISTRICT	G	MUNICIPAL WATER CONSERVATION - CORYELL CITY WATER SUPPLY DISTRICT	DEMAND REDUCTION	N/A	N/A	0	19	8	0	0	0
COUNTY-OTHER, BELL	G	MUNICIPAL WATER CONSERVATION - COUNTY-OTHER, BELL	DEMAND REDUCTION	N/A	$560	0	17	14	14	30	43
COUNTY-OTHER, BELL	G	PURCHASE TREATED SW FROM CENTRAL TEXAS WSC	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$1466	0	0	0	0	0	264
COUNTY-OTHER, BOSQUE	G	BOSQUE COUNTY REGIONAL PROJECT	G | CLIFTON LAKE/RESERVOIR	N/A	$1547	0	64	64	64	64	64
COUNTY-OTHER, COMANCHE	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$1008	$236	488	488	488	488	488	488
COUNTY-OTHER, CORYELL	G	CORYELL COUNTY OCR	G | CORYELL COUNTY OFF-CHANNEL LAKE/RESERVOIR	N/A	$455	0	1,308	1,308	1,308	1,308	1,308
COUNTY-OTHER, CORYELL	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | CORYELL COUNTY	N/A	$340	0	0	259	525	815	1,107
COUNTY-OTHER, ERATH	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	N/A	$438	0	0	0	0	347	347
COUNTY-OTHER, FALLS	G	WTP UPGRADE FOR ARSENIC REMOVAL (FALLS AND LIMESTONE COUNTY)	G | CARRIZO-WILCOX AQUIFER | FALLS COUNTY	$1585	$1245	53	53	53	53	53	53
COUNTY-OTHER, HILL	C	CORSICANA - HALBERT/RICHLAND CHAMBERS WTP	C | RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	N/A	$2167	0	0	0	11	19	29

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
COUNTY-OTHER, HILL	G	PURCHASE ADDITIONAL SUPPLY FROM BRANDON-IRENE WSC	G | BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	$1629	$1629	57	63	59	66	63	70
COUNTY-OTHER, HOOD	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | HOOD COUNTY	$435	$198	1,845	1,845	1,845	1,845	1,845	1,845
COUNTY-OTHER, JOHNSON	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	456	405	262	288	257
COUNTY-OTHER, JOHNSON	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	357	370	334
COUNTY-OTHER, JOHNSON	C	MIDLOTHIAN - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	$0	$0	82	182	225	198	170	158
COUNTY-OTHER, JOHNSON	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	11	18	10	12	10
COUNTY-OTHER, JOHNSON	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	9	5	5	5
COUNTY-OTHER, JOHNSON	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	59	34	35	32
COUNTY-OTHER, JOHNSON	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	40	24	25	21
COUNTY-OTHER, JOHNSON	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	92	109	85	110	120
COUNTY-OTHER, JOHNSON	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	77	45	47	42
COUNTY-OTHER, JOHNSON	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	$0	$0	13	14	12	9	12	17
COUNTY-OTHER, JOHNSON	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	112
COUNTY-OTHER, JONES	G	PURCHASE WATER FROM ABILENE	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	$76	$76	68	82	92	102	112	121
COUNTY-OTHER, MCLENNAN	G	WTP UPGRADE FOR ARSENIC REMOVAL (COUNTY-OTHER, MCLENNAN)	G | TRINITY AQUIFER | MCLENNAN COUNTY	$911	$571	250	250	250	250	250	250
COUNTY-OTHER, PALO PINTO	G	PURCHASE ADDITIONAL SUPPLY FROM THE CITY OF MINERAL WELLS	G | PALO PINTO LAKE/RESERVOIR	$2088	$2088	191	190	187	187	184	177
COUNTY-OTHER, SOMERVELL	G	SOMERVELL COUNTY WSP SURPLUS	G | WHEELER BRANCH OFF-CHANNEL LAKE/RESERVOIR	N/A	$1658	0	183	183	183	183	183
COUNTY-OTHER, TAYLOR	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$1694	0	93	96	113	125	197
COUNTY-OTHER, WILLIAMSON*	G	BRA HIGHLAND LAKE TO COUNTY-OTHER	K | HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	N/A	$145	0	2,872	2,872	2,872	2,872	2,872
COUNTY-OTHER, WILLIAMSON*	G	LAKE GRANGER ASR	G | TRINITY AQUIFER ASR | WILLIAMSON COUNTY	N/A	$77	0	54	1,164	2,940	3,404	3,477
COUNTY-OTHER, WILLIAMSON*	G	MUNICIPAL WATER CONSERVATION - COUNTY-OTHER, WILLIAMSON	DEMAND REDUCTION	N/A	$560	0	288	948	1,390	2,923	4,281
COUNTY-OTHER, WILLIAMSON*	G	PURCHASE FROM SAWS VISTA RIDGE PROJECT	G | CARRIZO-WILCOX AQUIFER | BURLESON COUNTY	N/A	$2416	0	5,700	5,700	5,700	5,700	5,700

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
COUNTY-OTHER, WILLIAMSON*	G	PURCHASE SUPPLY FROM ROUND ROCK	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$912	N/A	780	0	0	0	0	0
COUNTY-OTHER, WILLIAMSON*	G	STORAGE REALLOCATION OF LAKE WHITNEY	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	N/A	$77	0	0	0	0	12,000	26,000
COUNTY-OTHER, WILLIAMSON*	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | YEGUA-JACKSON AQUIFER | BURLESON COUNTY	N/A	$77	0	0	2,679	2,679	2,679	2,679
CRAWFORD	G	MUNICIPAL WATER CONSERVATION - CRAWFORD	DEMAND REDUCTION	N/A	$560	0	11	21	28	27	28
CROSS COUNTRY WSC	G	MUNICIPAL WATER CONSERVATION - CROSS COUNTRY WSC	DEMAND REDUCTION	N/A	$560	0	23	14	9	8	8
CROSS PLAINS	G	MUNICIPAL WATER CONSERVATION - CROSS PLAINS	DEMAND REDUCTION	N/A	$560	0	10	6	4	5	4
CROWLEY*	C	CONSERVATION - CROWLEY	DEMAND REDUCTION	N/A	$0	0	1	1	2	0	2
CROWLEY*	C	CONSERVATION, IRRIGATION RESTRICTIONS – CROWLEY	DEMAND REDUCTION	N/A	$0	0	0	1	1	1	1
CROWLEY*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$162	0	1	2	2	4	5
CROWLEY*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	3	6	7
CROWLEY*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	N/A	0	0	0	0	0	0
CROWLEY*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	N/A	0	0	0	0	0	0
CROWLEY*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	0	0	1	1
CROWLEY*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	N/A	0	0	0	0	0	0
CROWLEY*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	0	1	1	2	2
CROWLEY*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	0	0	1	1
CROWLEY*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	N/A	0	0	0	0	0	0
CROWLEY*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	2
DOG RIDGE WSC	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	261	270	278	286	294
DOUBLE DIAMOND UTILITIES	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	367	378	390	390	390	390
DOUBLE DIAMOND UTILITIES	G	MUNICIPAL WATER CONSERVATION - DOUBLE DIAMOND UTILITIES	DEMAND REDUCTION	N/A	$560	0	38	75	115	148	160
EAST CRAWFORD WSC	G	MUNICIPAL WATER CONSERVATION - EAST CRAWFORD WSC	DEMAND REDUCTION	N/A	$560	0	30	61	94	129	164

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
EAST CRAWFORD WSC	G	PURCHASE WATER FROM CITY OF WACO	G | BRAZOS RUN-OF-RIVER	$3273	$3273	113	105	93	81	68	55
ELM CREEK WSC	G	REALLOCATION OF SUPPLY FROM MOFFAT WSC	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$978	0	0	0	14	84	154
ELM CREEK WSC	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | SPARTA AQUIFER | LEE COUNTY	N/A	$77	0	0	0	33	37	42
EOL WSC	G	PURCHASE WATER FROM CITY OF WACO	G | BRAZOS RUN-OF-RIVER	$3273	$3273	116	120	125	131	131	138
FERN BLUFF MUD	G	MUNICIPAL WATER CONSERVATION - FERN BLUFF MUD	DEMAND REDUCTION	N/A	$560	0	101	197	285	367	382
FILES VALLEY WSC*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	0	0	2	9	9
FILES VALLEY WSC*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	3	10	12
FILES VALLEY WSC*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	0	0	0	1	1
FILES VALLEY WSC*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	N/A	0	0	0	0	0	0
FILES VALLEY WSC*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	0	0	1	1
FILES VALLEY WSC*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	0	0	0	1
FILES VALLEY WSC*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	0	0	0	3	4
FILES VALLEY WSC*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	0	0	1	2
FILES VALLEY WSC*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	0	0	0	1	1
FILES VALLEY WSC*	C	WAXAHACHIE - DREDGE WAXAHACHIE LAKE	C | WAXAHACHIE LAKE/RESERVOIR	N/A	$0	0	0	0	12	6	3
FILES VALLEY WSC*	C	WAXAHACHIE - UNALLOCATED SUPPLY UTILIZATION	C | BARDWELL LAKE/RESERVOIR	N/A	$0	0	0	15	7	2	1
FILES VALLEY WSC*	C	WAXAHACHIE - UNALLOCATED SUPPLY UTILIZATION	C | TRINITY INDIRECT REUSE	N/A	$0	0	0	15	9	4	1
FILES VALLEY WSC*	C	WAXAHACHIE - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	N/A	0	39	0	0	0	0
FILES VALLEY WSC*	C	WAXAHACHIE - UNALLOCATED SUPPLY UTILIZATION	C | WAXAHACHIE LAKE/RESERVOIR	N/A	$0	0	0	10	5	2	1
FILES VALLEY WSC*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	4
FLAT WSC	G	CORYELL COUNTY OCR	G | CORYELL COUNTY OFF-CHANNEL LAKE/RESERVOIR	N/A	$1309	0	1	3	3	12	22
FLAT WSC	G	MUNICIPAL WATER CONSERVATION - FLAT WSC	DEMAND REDUCTION	N/A	$560	0	9	20	32	36	40
FLORENCE	G	PURCHASE WATER FROM GEORGETOWN	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$782	$782	35	38	42	50	59	72

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
FORT BELKNAP WSC	G	PURCHASE ADDITIONAL WATER FROM CITY OF GRAHAM	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	$880	$880	95	95	95	95	95	95
FORT GATES WSC	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	270	280	306	348	390
FORT GATES WSC	G	MUNICIPAL WATER CONSERVATION - FORT GATES WSC	DEMAND REDUCTION	N/A	$560	0	33	73	93	101	110
FORT GRIFFIN SUD	G	PURCHASE TREATED WATER FROM ALBANY	G | HUBBARD CREEK LAKE/RESERVOIR	$1939	$1939	2	2	2	2	2	2
FORT HOOD	G	MUNICIPAL WATER CONSERVATION - FORT HOOD	DEMAND REDUCTION	N/A	$560	0	531	1,053	1,602	1,981	1,980
FORT WORTH*	C	ALLIANCE DIRECT REUSE	C | DIRECT NON-POTABLE REUSE	N/A	$63	0	0	0	11	16	19
FORT WORTH*	C	CONSERVATION - FORT WORTH	DEMAND REDUCTION	N/A	$65	0	0	0	19	37	50
FORT WORTH*	C	CONSERVATION, IRRIGATION RESTRICTIONS – FORT WORTH	DEMAND REDUCTION	N/A	$0	0	0	0	29	46	57
FORT WORTH*	C	CONSERVATION, WATER LOSS CONTROL - FORT WORTH	DEMAND REDUCTION	N/A	N/A	0	0	0	19	15	0
FORT WORTH*	C	FORT WORTH - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	0	0	81	104	97
FORT WORTH*	C	FORT WORTH - VILLAGE AND MARY CREEK WRF FUTURE DIRECT REUSE	C | DIRECT NON-POTABLE REUSE	N/A	$529	0	0	0	20	30	34
FORT WORTH*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	0	0	66	141	184
FORT WORTH*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	90	181	239
FORT WORTH*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	0	0	3	5	7
FORT WORTH*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	0	1	3	4
FORT WORTH*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	0	10	20	27
FORT WORTH*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	0	6	11	15
FORT WORTH*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	0	0	21	54	86
FORT WORTH*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	0	11	23	30
FORT WORTH*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	0	0	4	9	19
FORT WORTH*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	81
GATESVILLE	G	CORYELL COUNTY OCR	G | CORYELL COUNTY OFF-CHANNEL LAKE/RESERVOIR	N/A	$445	0	550	823	981	1,152	1,528

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
GATESVILLE	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	1,028	1,060	1,093	1,125	1,158
GATESVILLE	G	MUNICIPAL WATER CONSERVATION - GATESVILLE	DEMAND REDUCTION	N/A	$560	0	384	852	1,386	1,988	2,392
GEORGETOWN*	G	ALCOA PROPERTY SUPPLY	G | ALCOA LAKE/RESERVOIR	N/A	$389	0	0	0	0	4,772	6,601
GEORGETOWN*	G	ALCOA PROPERTY SUPPLY	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$389	0	0	0	0	0	3,418
GEORGETOWN*	G	ALCOA PROPERTY SUPPLY	G | BRAZOS RUN-OF-RIVER	N/A	$389	0	0	0	0	0	650
GEORGETOWN*	G	BELTON TO STILLHOUSE PIPELINE-BRA	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$352	0	5,000	5,000	5,000	5,000	5,000
GEORGETOWN*	G	GEORGETOWN WTP EXPANSION	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$229	0	12,840	12,590	12,339	12,088	11,838
GEORGETOWN*	G	MUNICIPAL WATER CONSERVATION - GEORGETOWN	DEMAND REDUCTION	N/A	$560	0	2,957	7,271	13,126	20,510	29,228
GEORGETOWN*	G	REUSE- GEORGETOWN	G | DIRECT NON-POTABLE REUSE	N/A	$46	0	1,456	1,456	1,456	1,456	1,456
GEORGETOWN*	G	TRINITY- LAKE GEORGETOWN ASR	G | TRINITY AQUIFER ASR | WILLIAMSON COUNTY	N/A	$1417	0	0	8,645	8,645	8,645	8,645
GIDDINGS	G	MUNICIPAL WATER CONSERVATION - GIDDINGS	DEMAND REDUCTION	N/A	$560	0	95	199	237	238	240
GLEN ROSE	G	MUNICIPAL WATER CONSERVATION - GLEN ROSE	DEMAND REDUCTION	N/A	$560	0	52	108	169	179	184
GLEN ROSE	G	SOMERVELL COUNTY WSP SURPLUS	G | TRINITY AQUIFER | SOMERVELL COUNTY	N/A	$1658	0	50	50	50	50	50
GODLEY	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | JOHNSON COUNTY	$1423	$231	3	12	22	35	49	65
GORDON	G	MUNICIPAL WATER CONSERVATION - GORDON	DEMAND REDUCTION	N/A	$560	0	12	24	36	42	43
GORDON	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$2167	$2167	147	147	148	148	148	148
GRAHAM	G	MUNICIPAL WATER CONSERVATION - GRAHAM	DEMAND REDUCTION	N/A	$560	0	231	463	708	962	1,210
GRAHAM	G	NEW THROCKMORTON RESERVOIR	G | NEW THROCKMORTON LAKE/RESERVOIR	N/A	$1072	0	1,500	1,500	1,500	1,500	1,500
GRANBURY	G	GRANBURY NORTH WATER TREATMENT PLANT	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	N/A	$1412	0	2,800	2,800	2,800	2,800	2,800
GRANGER	G	EAST WILLIAMSON COUNTY WATER SUPPLY PLAN	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$235	0	0	0	56	56	56
GROESBECK	G	GROESBECK OCR	G | GROESBECK OFF-CHANNEL LAKE/RESERVOIR	N/A	$216	0	1,755	1,755	1,755	1,755	1,755
HAMILTON	G	MUNICIPAL WATER CONSERVATION - HAMILTON	DEMAND REDUCTION	N/A	$560	0	30	19	12	11	11
HAMLIN	G	MUNICIPAL WATER CONSERVATION - HAMLIN	DEMAND REDUCTION	N/A	$560	0	30	55	57	57	58

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
HARKER HEIGHTS	G	KILLEEN REDUCTION TO HARKER HEIGHTS	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	N/A	$1791	0	0	0	0	0	302
HARKER HEIGHTS	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	616	636	655	674	694
HARKER HEIGHTS	G	MUNICIPAL WATER CONSERVATION - HARKER HEIGHTS	DEMAND REDUCTION	N/A	$560	0	559	1,274	1,498	1,656	1,819
HARKER HEIGHTS	G	PURCHASE RAW WATER FROM FORT HOOD	G | BRAZOS RUN-OF-RIVER	N/A	$100	0	0	0	0	0	487
HARKER HEIGHTS	G	REUSE-BELL COUNTY WCID 1 SOUTH	G | DIRECT NON-POTABLE REUSE	N/A	$1364	0	0	0	0	185	185
HASKELL	G	NCTMWA LAKE CREEK RESERVOIR	G | NCTMWA LAKE CREEK LAKE/RESERVOIR	N/A	$0	0	473	468	472	483	499
HEARNE	G	MUNICIPAL WATER CONSERVATION - HEARNE	DEMAND REDUCTION	N/A	$560	0	43	22	19	17	17
HEWITT	G	MUNICIPAL WATER CONSERVATION - HEWITT	DEMAND REDUCTION	N/A	$560	0	247	236	227	240	258
HEWITT	G	PURCHASE WATER FROM CITY OF WACO	G | BRAZOS RUN-OF-RIVER	N/A	$2164	0	0	0	62	420	771
HEWITT	G	REUSE- WMARSS BULLHIDE CREEK	G | DIRECT NON-POTABLE REUSE	N/A	$177	0	1,233	1,233	1,233	1,233	1,233
HIGHLAND PARK WSC	G	MUNICIPAL WATER CONSERVATION - HIGHLAND PARK WSC	DEMAND REDUCTION	N/A	$560	0	16	31	47	61	75
HIGHLAND PARK WSC	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | BOSQUE COUNTY	$1939	$366	82	82	82	82	82	82
HILLSBORO	G	MUNICIPAL WATER CONSERVATION - HILLSBORO	DEMAND REDUCTION	N/A	$560	0	157	320	493	516	523
HUTTO	G	ALCOA PROPERTY SUPPLY	G | ALCOA LAKE/RESERVOIR	N/A	$389	0	0	0	2,133	5,292	7,399
HUTTO	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | CARRIZO-WILCOX AQUIFER | LEE COUNTY	N/A	N/A	0	3,046	0	0	0	0
HUTTO	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | YEGUA-JACKSON AQUIFER | BURLESON COUNTY	N/A	$77	0	0	3,304	3,304	3,304	3,304
IRRIGATION, BELL	G	EDWARDS AQUIFER DEVELOPMENT	G | EDWARDS-BFZ AQUIFER | BELL COUNTY	$150	$39	585	585	585	585	585	585
IRRIGATION, BELL	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1323	$1323	85	142	199	199	199	199
IRRIGATION, BELL	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	54	55	57	59	60
IRRIGATION, BOSQUE	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$970	$970	107	179	250	250	250	250
IRRIGATION, BOSQUE	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | BOSQUE COUNTY	$195	$57	1,259	1,259	1,259	1,259	1,259	1,259
IRRIGATION, BRAZOS	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	348	348	348	348	348	348
IRRIGATION, BURLESON	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1576	$1576	804	1,340	1,876	1,876	1,876	1,876
IRRIGATION, COMANCHE	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1382	$1382	964	1,606	2,248	2,248	2,248	2,248

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
IRRIGATION, COMANCHE	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	1,159	1,196	1,233	1,269	1,306
IRRIGATION, FALLS	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	309	309	309	309	309	309
IRRIGATION, GRIMES	G	GULF COAST AQUIFER DEVELOPMENT	G | GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	$382	$46	132	131	131	131	131	131
IRRIGATION, GRIMES	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1376	$1376	20	33	47	47	47	47
IRRIGATION, HASKELL	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1594	$1594	1,747	2,912	3,922	3,933	4,010	4,010
IRRIGATION, HILL	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$680	$680	53	88	123	123	123	123
IRRIGATION, HILL	G	WOODBINE AQUIFER DEVELOPMENT	G | WOODBINE AQUIFER | HILL COUNTY	$468	$82	158	158	158	158	158	158
IRRIGATION, HOOD	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	774	774	774	774	774	774
IRRIGATION, JOHNSON	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	252	241	229	229	229	229
IRRIGATION, JOHNSON	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1241	$1241	17	28	40	40	40	40
IRRIGATION, JONES	G	PURCHASE WATER FROM ABILENE	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	$76	N/A	106	50	0	0	0	0
IRRIGATION, JONES	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1409	$1409	85	141	198	198	198	198
IRRIGATION, KNOX	G	BLAINE AQUIFER DEVELOPMENT	G | BLAINE AQUIFER | KNOX COUNTY	$136	$27	405	405	405	405	405	405
IRRIGATION, KNOX	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1662	$1662	1,319	2,199	2,791	2,665	2,829	2,829
IRRIGATION, LAMPASAS	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1285	$1285	16	27	38	38	38	38
IRRIGATION, LAMPASAS	G	MARBLE FALLS AQUIFER DEVELOPMENT	G | MARBLE FALLS AQUIFER | LAMPASAS COUNTY	$834	$149	211	203	195	198	201	204
IRRIGATION, MILAM	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1542	$1542	195	325	455	455	455	455
IRRIGATION, NOLAN	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1494	$1494	347	578	809	809	809	809
IRRIGATION, PALO PINTO	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1045	$1045	90	151	211	211	211	211
IRRIGATION, PALO PINTO	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$2230	$662	2,236	2,175	2,115	2,115	2,115	2,115
IRRIGATION, PALO PINTO	G	TURKEY PEAK RESERVOIR	G | TURKEY PEAK LAKE/RESERVOIR	N/A	$561	0	2,175	2,115	2,115	2,115	2,115
IRRIGATION, ROBERTSON	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$857	$857	2,375	3,959	5,579	5,612	5,612	5,612
IRRIGATION, STEPHENS	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1489	$1489	5	8	11	11	11	11
IRRIGATION, STEPHENS	G	OTHER AQUIFER DEVELOPMENT	G | OTHER AQUIFER | STEPHENS COUNTY	$400	$67	30	30	30	30	30	30
IRRIGATION, TAYLOR	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	N/A	1,217	0	0	0	0	0

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
IRRIGATION, TAYLOR	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$117	0	1,184	1,152	1,152	1,152	1,152
IRRIGATION, TAYLOR	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1924	$1924	49	82	114	114	114	114
IRRIGATION, THROCKMORTON	G	CROSS TIMBERS AQUIFER DEVELOPMENT	G | CROSS TIMBERS AQUIFER | THROCKMORTON COUNTY	$217	$33	152	152	152	152	152	152
IRRIGATION, THROCKMORTON	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$2118	$2118	5	8	11	11	11	11
IRRIGATION, WILLIAMSON	G	EDWARDS AQUIFER DEVELOPMENT	G | EDWARDS-BFZ AQUIFER | WILLIAMSON COUNTY	$331	N/A	172	155	149	0	0	0
IRRIGATION, WILLIAMSON	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$1404	$1404	10	17	23	23	23	23
IRRIGATION, WILLIAMSON	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	3	3	3	3	3
IRRIGATION, YOUNG*	G	CROSS TIMBERS AQUIFER DEVELOPMENT	G | CROSS TIMBERS AQUIFER | YOUNG COUNTY	$102	$18	450	450	450	450	450	450
IRRIGATION, YOUNG*	G	IRRIGATION WATER CONSERVATION	DEMAND REDUCTION	$963	$963	15	25	35	35	35	35
JARRELL-SCHWERTNER	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	174	180	185	191	196
JAYTON	G	JAYTON WTP NEW	G | SEYMOUR AQUIFER | KENT COUNTY	$2851	$1847	249	249	249	249	249	249
JAYTON	G	MUNICIPAL WATER CONSERVATION - JAYTON	DEMAND REDUCTION	N/A	$560	0	8	5	4	4	4
JAYTON	G	UPPER BASIN CHLORIDE CONTROL PROJECT	G | OTHER AQUIFER SALINE | STONEWALL COUNTY	N/A	$1644	0	118	118	118	118	118
JOHNSON COUNTY SUD*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	1,553	1,772	1,232	1,392	1,274
JOHNSON COUNTY SUD*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	1,689	1,788	1,658
JOHNSON COUNTY SUD*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	40	79	51	54	50
JOHNSON COUNTY SUD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	42	26	28	26
JOHNSON COUNTY SUD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	299	190	201	186
JOHNSON COUNTY SUD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	167	106	112	104
JOHNSON COUNTY SUD*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	313	475	404	533	594
JOHNSON COUNTY SUD*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	334	213	225	209
JOHNSON COUNTY SUD*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	$0	$0	253	47	51	39	56	86
JOHNSON COUNTY SUD*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	561

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
JOHNSON COUNTY SUD*	G	INCREASE SWATS WTP CAPACITY - ACTON MUD, JOHNSON COUNTY SUD	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	N/A	$291	0	0	1,529	1,529	1,529	1,529
JOHNSON COUNTY SUD*	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | JOHNSON COUNTY	$437	$48	208	0	0	0	737	1,491
JONAH WATER SUD	G	MUNICIPAL WATER CONSERVATION - JONAH WATER SUD	DEMAND REDUCTION	N/A	N/A	0	84	32	0	0	0
KEMPNER WSC*	G	KEMPNER WSC WTP EXPANSION	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$879	$426	1,120	1,120	1,120	2,015	2,015	2,015
KEMPNER WSC*	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	1,551	1,600	1,649	1,698	1,747
KEMPNER WSC*	G	MUNICIPAL WATER CONSERVATION - KEMPNER WSC	DEMAND REDUCTION	N/A	$560	0	234	233	229	237	249
KILLEEN	G	REUSE-BELL COUNTY WCID 1 NORTH	G | DIRECT NON-POTABLE REUSE	N/A	$555	0	1,773	1,773	1,773	1,773	1,773
KILLEEN	G	REUSE-BELL COUNTY WCID 1 SOUTH	G | DIRECT NON-POTABLE REUSE	N/A	$555	0	716	563	563	563	543
KNOX CITY	G	MUNICIPAL WATER CONSERVATION - KNOX CITY	DEMAND REDUCTION	N/A	$560	0	17	36	52	53	54
KNOX CITY	G	NCTMWA LAKE CREEK RESERVOIR	G | NCTMWA LAKE CREEK LAKE/RESERVOIR	N/A	$0	0	214	199	192	197	202
LACY LAKEVIEW	G	REUSE- WMARSS BELLMEAD/ LACY-LAKEVIEW	G | DIRECT NON-POTABLE REUSE	$424	$123	745	745	745	745	745	745
LAMPASAS	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	610	629	649	668	687
LAWN	G	MUNICIPAL WATER CONSERVATION - LAWN	DEMAND REDUCTION	N/A	$560	0	10	20	23	23	23
LEANDER*	G	BRUSHY CREEK RUA-EXISTING CONTRACTS	K | HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	$1321	$1321	17,600	17,600	17,600	17,600	17,600	17,600
LEANDER*	K	LCRA - MID BASIN RESERVOIR	K | LCRA NEW OFF-CHANNEL RESERVOIR (2030 DECADE)	N/A	$145	0	0	0	0	0	1,441
LEROY TOURS GERALD WSC	G	PURCHASE WATER FROM CITY OF WACO	G | BRAZOS RUN-OF-RIVER	$3273	$3273	70	72	74	78	82	86
LEXINGTON	G	MUNICIPAL WATER CONSERVATION - LEXINGTON	DEMAND REDUCTION	N/A	$560	0	20	23	21	21	21
LIBERTY HILL	G	BRUSHY CREEK RUA-EXISTING CONTRACTS	K | HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	$1321	$882	1,200	1,200	1,200	1,200	1,200	1,200
LITTLE ELM VALLEY WSC	G	MUNICIPAL WATER CONSERVATION - LITTLE ELM VALLEY WSC	DEMAND REDUCTION	N/A	$560	0	25	37	39	43	47
LIVESTOCK, YOUNG*	G	CROSS TIMBERS AQUIFER DEVELOPMENT	G | CROSS TIMBERS AQUIFER | YOUNG COUNTY	$1091	$91	11	11	11	11	11	11
LORENA	G	MUNICIPAL WATER CONSERVATION - LORENA	DEMAND REDUCTION	N/A	N/A	0	3	0	0	0	0
LORENA	G	REUSE- WMARSS BULLHIDE CREEK	G | DIRECT NON-POTABLE REUSE	N/A	$177	0	448	448	448	448	448
MANSFIELD*	C	CONSERVATION - MANSFIELD	DEMAND REDUCTION	$165	N/A	7	0	0	0	0	0

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
MANSFIELD*	C	CONSERVATION, IRRIGATION RESTRICTIONS – MANSFIELD	DEMAND REDUCTION	$61	$53	18	29	38	47	57	68
MANSFIELD*	C	CONSERVATION, WATER LOSS CONTROL - MANSFIELD	DEMAND REDUCTION	$2826	N/A	3	5	0	0	0	0
MANSFIELD*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	192	247	219	305	334
MANSFIELD*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	301	391	434
MANSFIELD*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	5	11	9	12	13
MANSFIELD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	6	5	6	7
MANSFIELD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	38	31	41	45
MANSFIELD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	26	21	28	31
MANSFIELD*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	39	66	72	117	156
MANSFIELD*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	46	38	49	55
MANSFIELD*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	$0	$0	20	6	7	7	12	23
MANSFIELD*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	147
MANSFIELD*	G	MUNICIPAL WATER CONSERVATION - MANSFIELD	DEMAND REDUCTION	N/A	$560	0	87	223	407	641	922
MANUFACTURING, BELL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	19	34	48	48	48	48
MANUFACTURING, BELL	G	REUSE-BELL COUNTY WCID 1 NORTH	G | DIRECT NON-POTABLE REUSE	N/A	$281	0	152	152	152	152	152
MANUFACTURING, BURLESON	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	4	6	8	8	8	8
MANUFACTURING, BURLESON	G	SPARTA AQUIFER DEVELOPMENT	G | SPARTA AQUIFER | BURLESON COUNTY	$760	$120	25	25	25	25	25	25
MANUFACTURING, ERATH	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	2	4	6	6	6	6
MANUFACTURING, ERATH	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | BELL COUNTY	$2460	N/A	1	2	0	0	0	0
MANUFACTURING, KNOX	G	BLAINE AQUIFER DEVELOPMENT	G | BLAINE AQUIFER | KNOX COUNTY	$1120	$200	25	25	25	25	25	25
MANUFACTURING, LAMPASAS	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	6	11	15	15	15	15
MANUFACTURING, LAMPASAS	G	PURCHASE TREATED WATER FROM CITY OF LAMPASAS	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$500	N/A	7	16	7	4	0	0
MANUFACTURING, LIMESTONE	G	CARRIZO AQUIFER DEVELOPMENT - LIMESTONE COUNTY MANUFACTURING	G | CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	$525	$131	314	314	314	314	314	314
MANUFACTURING, LIMESTONE	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	10	19	26	26	26	26

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
MANUFACTURING, MCLENNAN	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	144	373	522	522	522	522
MANUFACTURING, MCLENNAN	G	REUSE- WMARSS FLAT CREEK	G | DIRECT NON-POTABLE REUSE	$350	$136	2,500	2,500	2,500	2,500	2,500	2,500
MANUFACTURING, MILAM	G	CITY OF CAMERON LITTLE RIVER INTAKE	G | BRAZOS RUN-OF-RIVER	N/A	$80	0	14	14	14	14	14
MANUFACTURING, NOLAN	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	N/A	0	5	0	0	0	0
MANUFACTURING, NOLAN	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	13	26	37	37	37	37
MANUFACTURING, PALO PINTO	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	15	15	15	15	15	15
MANUFACTURING, STONEWALL	G	BLAINE AQUIFER DEVELOPMENT	G | BLAINE AQUIFER | STONEWALL COUNTY	$268	$34	56	56	56	56	56	56
MANUFACTURING, STONEWALL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	2	3	4	4	4	4
MANUFACTURING, WASHINGTON	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	17	29	41	41	41	41
MANVILLE WSC*	G	MUNICIPAL WATER CONSERVATION - MANVILLE WSC	DEMAND REDUCTION	N/A	$560	0	172	293	335	396	474
MARLIN	G	BRUSHY CREEK RESERVOIR	G | BRUSHY CREEK LAKE/RESERVOIR	N/A	$1247	0	0	2,000	2,000	2,000	2,000
MARLIN	G	MUNICIPAL WATER CONSERVATION - MARLIN	DEMAND REDUCTION	N/A	$560	0	151	296	432	583	730
MART	G	PURCHASE WATER FROM CITY OF WACO	G | BRAZOS RUN-OF-RIVER	$2164	$2164	149	165	180	200	221	244
MART	G	TRINITY - MCLENNAN COUNTY ASR	G | TRINITY AQUIFER ASR | MCLENNAN COUNTY	N/A	$1316	0	250	250	250	250	250
MCGREGOR	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	141	146	150	155	159
MERIDIAN	G	BOSQUE COUNTY REGIONAL PROJECT	G | CLIFTON LAKE/RESERVOIR	N/A	$879	0	224	224	224	224	224
MERKEL	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$1694	$1694	20	23	25	29	35	41
MEXIA	G	CARRIZO AQUIFER DEVELOPMENT - BISTONE MWSD	G | CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	N/A	$359	0	0	0	0	43	182
MINERAL WELLS*	G	MUNICIPAL WATER CONSERVATION - MINERAL WELLS	DEMAND REDUCTION	N/A	N/A	0	34	0	0	0	0
MINERAL WELLS*	G	TURKEY PEAK RESERVOIR	G | TURKEY PEAK LAKE/RESERVOIR	N/A	$98	0	494	701	891	1,080	1,267
MINING, BELL	G	EDWARDS AQUIFER DEVELOPMENT	G | EDWARDS-BFZ AQUIFER | BELL COUNTY	N/A	$324	0	0	0	0	0	615
MINING, BELL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	97	199	322	374	427	488
MINING, BELL	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | BELL COUNTY	$447	$316	4,700	4,700	4,700	4,700	4,700	4,700
MINING, BOSQUE	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	387	387	387	387	387	387
MINING, BOSQUE	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	59	104	132	131	128	127
MINING, CALLAHAN	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	7	11	15	14	13	13

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
MINING, CALLAHAN	G	PURCHASE SURPLUS WATER FROM CITY OF CROSS PLAINS	G | TRINITY AQUIFER | CALLAHAN COUNTY	$6617	N/A	27	34	23	15	7	0
MINING, CALLAHAN	G	PURCHASE WATER SURPLUS FROM EULA WSC	G | CLYDE LAKE/RESERVOIR	$6617	$1099	114	102	96	92	90	87
MINING, COMANCHE	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	13	26	26	19	13	9
MINING, COMANCHE	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$639	$97	288	288	288	288	288	288
MINING, CORYELL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	45	54	34	25	28	31
MINING, CORYELL	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | CORYELL COUNTY	$222	$48	1,270	1,270	1,270	1,270	1,270	1,270
MINING, EASTLAND	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	35	59	65	50	36	30
MINING, EASTLAND	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$371	$80	886	886	886	886	886	886
MINING, FALLS	G	FALLS COUNTY IRRIGATION REALLOCATION TO FALLS COUNTY MINING	G | BRAZOS RIVER ALLUVIUM AQUIFER | FALLS COUNTY	$0	$0	120	136	143	168	188	210
MINING, FALLS	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	7	12	18	20	21	23
MINING, FISHER	G	BLAINE AQUIFER DEVELOPMENT	G | BLAINE AQUIFER | FISHER COUNTY	$309	$109	179	166	118	75	38	5
MINING, FISHER	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	12	20	25	22	19	17
MINING, GRIMES	G	GULF COAST AQUIFER DEVELOPMENT	G | GULF COAST AQUIFER SYSTEM | GRIMES COUNTY	$168	$31	382	382	382	382	382	382
MINING, GRIMES	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	10	30	33	24	15	9
MINING, HAMILTON	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	N/A	12	12	7	0	0	0
MINING, HAMILTON	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | HAMILTON COUNTY	$368	$56	125	125	125	125	125	125
MINING, HASKELL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	3	5	6	5	5	4
MINING, HILL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	49	60	54	28	31	33
MINING, HOOD	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	62	122	156	149	143	144
MINING, HOOD	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | HOOD COUNTY	$112	$33	913	913	913	913	913	913
MINING, JOHNSON	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	124	139	106	71	81	94
MINING, JOHNSON	G	REUSE- CLEBURNE	G | DIRECT NON-POTABLE REUSE	$211	N/A	2,555	1,206	0	0	0	0
MINING, JONES	G	PURCHASE WATER FROM ABILENE	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	$76	$76	153	143	124	106	91	78
MINING, JONES	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	7	12	15	14	13	12
MINING, KNOX	G	BLAINE AQUIFER DEVELOPMENT	G | BLAINE AQUIFER | KNOX COUNTY	$560	$40	25	25	25	25	25	25
MINING, KNOX	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	N/A	$0	0	1	1	1	1	1

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
MINING, LAMPASAS	G	ELLENBURGER-SAN SABA AQUIFER DEVELOPMENT	G | ELLENBURGER-SAN SABA AQUIFER | LAMPASAS COUNTY	$936	$164	88	106	120	139	162	187
MINING, LAMPASAS	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	6	11	17	18	20	22
MINING, LEE	G	CARRIZO AQUIFER DEVELOPMENT - LEE COUNTY MINING	G | CARRIZO-WILCOX AQUIFER | LEE COUNTY	$1413	N/A	180	10	0	0	0	0
MINING, LEE	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	N/A	95	159	0	0	0	0
MINING, LIMESTONE	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	310	496	691	724	756	800
MINING, MCLENNAN	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	76	150	214	246	268	295
MINING, MCLENNAN	G	REUSE- WMARSS FLAT CREEK	G | DIRECT NON-POTABLE REUSE	$350	$136	3,200	3,200	3,200	3,200	3,200	3,200
MINING, NOLAN	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$1018	0	211	186	166	147	131
MINING, NOLAN	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	7	11	14	12	11	10
MINING, NOLAN	G	OAK CREEK RESERVOIR-CONJUNCTIVE USE	F | OAK CREEK LAKE/RESERVOIR	$1031	N/A	71	0	0	0	0	0
MINING, PALO PINTO	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	20	42	44	34	24	16
MINING, PALO PINTO	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$699	$291	653	844	622	477	333	232
MINING, SHACKELFORD	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	17	37	39	31	23	17
MINING, SOMERVELL	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	54	54	54	54	54	54
MINING, SOMERVELL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	33	64	80	74	70	68
MINING, SOMERVELL	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | SOMERVELL COUNTY	$200	$54	426	426	426	426	426	426
MINING, STEPHENS	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	152	257	312	268	228	194
MINING, STONEWALL	G	BLAINE AQUIFER DEVELOPMENT	G | BLAINE AQUIFER | STONEWALL COUNTY	$218	$89	372	372	372	372	372	372
MINING, STONEWALL	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	18	29	36	31	27	24
MINING, TAYLOR	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$117	0	237	206	188	172	159
MINING, TAYLOR	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	12	20	26	24	23	22
MINING, THROCKMORTON	G	CROSS TIMBERS AQUIFER DEVELOPMENT	G | CROSS TIMBERS AQUIFER | THROCKMORTON COUNTY	$321	$36	84	84	84	84	84	84
MINING, THROCKMORTON	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	6	10	12	11	9	8
MINING, WASHINGTON	G	GULF COAST AQUIFER DEVELOPMENT	G | GULF COAST AQUIFER SYSTEM | WASHINGTON COUNTY	$508	$192	474	745	576	422	269	168
MINING, WASHINGTON	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	17	43	49	38	26	18
MINING, WILLIAMSON*	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	155	313	516	599	685	783

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
MINING, YOUNG	G	CROSS TIMBERS AQUIFER DEVELOPMENT	G | CROSS TIMBERS AQUIFER | YOUNG COUNTY	$227	$28	181	181	181	181	181	181
MINING, YOUNG	G	INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION	$0	$0	6	14	14	11	7	5
MOFFAT WSC	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	87	90	93	95	98
MOUNTAIN PEAK SUD*	C	CONSERVATION, IRRIGATION RESTRICTIONS – MOUNTAIN PEAK SUD	DEMAND REDUCTION	$61	$47	22	30	34	42	49	55
MOUNTAIN PEAK SUD*	C	CONSERVATION, WATER LOSS CONTROL - MOUNTAIN PEAK SUD	DEMAND REDUCTION	$522	$142	33	111	121	149	173	197
MOUNTAIN PEAK SUD*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$166	0	91	186	188	261	282
MOUNTAIN PEAK SUD*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	144	245	274
MOUNTAIN PEAK SUD*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	5	10	13	16	16
MOUNTAIN PEAK SUD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	$375	0	0	5	7	8	9
MOUNTAIN PEAK SUD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	38	50	58	61
MOUNTAIN PEAK SUD*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	21	28	33	34
MOUNTAIN PEAK SUD*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	43	60	106	156	192
MOUNTAIN PEAK SUD*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	42	56	66	68
MOUNTAIN PEAK SUD*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	7	6	10	16	28
MOUNTAIN PEAK SUD*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	181
MULTI COUNTY WSC	G	CORYELL COUNTY OCR	G | CORYELL COUNTY OFF-CHANNEL LAKE/RESERVOIR	N/A	$455	0	1,276	1,001	843	663	277
MULTI COUNTY WSC	G	HAMILTON REDUCTION TO MULTI WSC	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$250	N/A	100	100	0	0	0	0
MULTI COUNTY WSC	G	PURCHASE SURPLUS WATER FROM THE CITY OF HAMILTON	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$250	$250	46	67	91	115	144	174
MUNDAY	G	MUNICIPAL WATER CONSERVATION - MUNDAY	DEMAND REDUCTION	N/A	$560	0	17	35	36	35	36
MUNDAY	G	NCTMWA LAKE CREEK RESERVOIR	G | NCTMWA LAKE CREEK LAKE/RESERVOIR	N/A	$0	0	229	214	222	229	234
MUSTANG VALLEY WSC	G	MUNICIPAL WATER CONSERVATION - MUSTANG VALLEY WSC	DEMAND REDUCTION	N/A	$560	0	38	79	120	137	138
NAVASOTA	G	MUNICIPAL WATER CONSERVATION - NAVASOTA	DEMAND REDUCTION	N/A	$560	0	110	219	236	238	242

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
NORTH BOSQUE WSC	G	MUNICIPAL WATER CONSERVATION - NORTH BOSQUE WSC	DEMAND REDUCTION	N/A	$560	0	57	131	219	319	413
NORTH BOSQUE WSC	G	TRINITY - MCLENNAN COUNTY ASR	G | TRINITY AQUIFER ASR | MCLENNAN COUNTY	N/A	$1120	0	200	200	200	200	200
NORTH MILAM WSC	G	CITY OF CAMERON LITTLE RIVER INTAKE	G | BRAZOS RUN-OF-RIVER	N/A	$80	0	38	38	38	38	38
NORTH MILAM WSC	G	MUNICIPAL WATER CONSERVATION - NORTH MILAM WSC	DEMAND REDUCTION	N/A	$560	0	18	19	18	18	18
NORTH RUNNELS WSC*	F	MUNICIPAL CONSERVATION - NORTH RUNNELS WSC	DEMAND REDUCTION	$1407	$1375	1	1	1	1	1	1
NORTH RUNNELS WSC*	F	WEST TEXAS WATER PARTNERSHIP	F | OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	N/A	$1694	0	31	30	30	30	30
NORTH RUNNELS WSC*	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$1694	N/A	31	0	0	0	0	0
NORTH RURAL WSC*	C	CONSERVATION - NORTH RURAL WSC	DEMAND REDUCTION	N/A	$0	0	1	1	1	1	1
PARKER COUNTY SUD*	C	CONSERVATION - PARKER COUNTY SUD	DEMAND REDUCTION	N/A	$37	0	0	0	0	0	1
PARKER COUNTY SUD*	C	CONSERVATION, WATER LOSS CONTROL - PARKER COUNTY SUD	DEMAND REDUCTION	N/A	N/A	0	0	0	0	0	0
PARKER COUNTY SUD*	C	PARKER COUNTY SUD - ADDITIONAL BRA	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	N/A	$1297	0	2	4	5	5	5
PARKER COUNTY SUD*	C	PARKER COUNTY SUD - ADDITIONAL BRA (SYS OPS)	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	N/A	$0	0	0	0	2	5	7
PARKER WSC	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | JOHNSON COUNTY	N/A	$661	0	0	0	0	48	145
PFLUGERVILLE*	G	MUNICIPAL WATER CONSERVATION - PFLUGERVILLE	DEMAND REDUCTION	N/A	$560	0	4	4	5	6	8
POINT ENTERPRISE WSC*	C	CONSERVATION - POINT ENTERPRISE WSC	DEMAND REDUCTION	N/A	$0	0	0	0	0	1	1
POSSUM KINGDOM WSC	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	1,934	1,934	1,934	1,934	1,934	1,934
POSSUM KINGDOM WSC	G	MUNICIPAL WATER CONSERVATION - POSSUM KINGDOM WSC	DEMAND REDUCTION	N/A	$560	0	80	161	243	323	397
POSSUM KINGDOM WSC	G	VOLUNTARY REDISTRIBUTION FROM PALO PINTO MANUFACTURING	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	$76	N/A	118	91	45	0	0	0
POST OAK SUD*	C	CORSICANA - HALBERT/RICHLAND CHAMBERS WTP	C | RICHLAND CHAMBERS LAKE/RESERVOIR NON-SYSTEM PORTION	N/A	$2167	0	0	1	41	78	118
POTOSI WSC	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$1694	$1694	506	525	542	557	572	586
PRAIRIE HILL WSC	G	MUNICIPAL WATER CONSERVATION - PRAIRIE HILL WSC	DEMAND REDUCTION	N/A	N/A	0	4	1	0	0	0
PRAIRIE HILL WSC	G	WTP UPGRADE FOR ARSENIC REMOVAL (FALLS AND LIMESTONE COUNTY)	G | CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	$1000	$631	268	268	268	268	268	268

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
RANGER	G	MUNICIPAL WATER CONSERVATION - RANGER	DEMAND REDUCTION	N/A	$560	0	33	40	38	37	37
RED RIVER AUTHORITY OF TEXAS*	G	MUNICIPAL WATER CONSERVATION - RED RIVER AUTHORITY OF TEXAS	DEMAND REDUCTION	N/A	$560	0	3	5	7	9	10
ROBERTSON COUNTY WSC	G	CARRIZO AQUIFER DEVELOPMENT - ROBERTSON COUNTY WSC	G | CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	$813	$373	550	550	550	550	550	550
ROBINSON	G	MUNICIPAL WATER CONSERVATION - ROBINSON	DEMAND REDUCTION	N/A	$560	0	220	504	557	612	672
ROBINSON	G	ROBINSON WTP EXPANSION	G | BRAZOS RUN-OF-RIVER	$481	$217	4,311	4,108	3,905	3,701	3,498	3,295
ROBY	G	MUNICIPAL WATER CONSERVATION - ROBY	DEMAND REDUCTION	N/A	$560	0	9	15	13	13	13
ROCKDALE	G	CARRIZO AQUIFER DEVELOPMENT - ROCKDALE	G | CARRIZO-WILCOX AQUIFER | LEE COUNTY	$1034	$207	79	200	433	360	360	400
ROCKDALE	G	MUNICIPAL WATER CONSERVATION - ROCKDALE	DEMAND REDUCTION	N/A	$560	0	89	180	198	202	209
ROSCOE	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$1031	0	88	90	96	101	107
ROSCOE	G	OAK CREEK RESERVOIR-CONJUNCTIVE USE	F | OAK CREEK LAKE/RESERVOIR	$1031	N/A	84	0	0	0	0	0
ROTAN	F	SUBORDINATION - CRMWD SYSTEM	F | COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	$0	$0	38	19	19	36	52	66
ROUND ROCK*	G	BRUSHY CREEK RUA-EXISTING CONTRACTS	K | HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	$922	$891	17,647	17,510	17,374	17,238	17,102	16,965
ROUND ROCK*	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	N/A	0	0	377	0	0	0
ROUND ROCK*	G	MUNICIPAL WATER CONSERVATION - ROUND ROCK	DEMAND REDUCTION	N/A	$560	0	1,935	4,192	5,026	4,972	4,951
ROUND ROCK*	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | CARRIZO-WILCOX AQUIFER | LEE COUNTY	N/A	N/A	0	1,608	0	0	0	0
ROUND ROCK*	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | SPARTA AQUIFER | BURLESON COUNTY	N/A	$77	0	2,137	4,092	4,605	4,741	4,878
ROUND ROCK*	G	WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION	G | YEGUA-JACKSON AQUIFER | BURLESON COUNTY	N/A	N/A	0	588	0	0	0	0
SALADO WSC	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	279	288	296	305	314
SALADO WSC	G	MUNICIPAL WATER CONSERVATION - SALADO WSC	DEMAND REDUCTION	N/A	$560	0	178	379	597	831	1,074
SALEM ELM RIDGE WSC	G	CITY OF CAMERON LITTLE RIVER INTAKE	G | BRAZOS RUN-OF-RIVER	N/A	$80	0	125	125	125	125	125
SANTO SUD*	G	PURCHASE ADDITIONAL SUPPLY FROM THE CITY OF MINERAL WELLS	G | PALO PINTO LAKE/RESERVOIR	N/A	$2088	0	0	0	0	0	14
SNOOK	G	MUNICIPAL WATER CONSERVATION - SNOOK	DEMAND REDUCTION	N/A	$560	0	25	50	78	104	129

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
SOMERVELL COUNTY WATER DISTRICT	G	SOMERVELL COUNTY WSP SURPLUS	G | WHEELER BRANCH OFF-CHANNEL LAKE/RESERVOIR	N/A	$1658	0	600	600	600	600	600
SOMERVILLE	G	MUNICIPAL WATER CONSERVATION - SOMERVILLE	DEMAND REDUCTION	N/A	$560	0	20	25	27	29	31
SOUTHWEST MILAM WSC	G	CARRIZO AQUIFER DEVELOPMENT - SOUTHWEST MILAM WSC	G | CARRIZO-WILCOX AQUIFER | LEE COUNTY	N/A	$184	0	200	365	325	392	534
SOUTHWEST MILAM WSC	G	MUNICIPAL WATER CONSERVATION - SOUTHWEST MILAM WSC	DEMAND REDUCTION	N/A	$560	0	25	54	61	73	85
SPORTSMANS WORLD MUD	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$76	$76	290	290	290	290	290	290
SPORTSMANS WORLD MUD	G	MUNICIPAL WATER CONSERVATION - SPORTSMAN WORLD MUD	DEMAND REDUCTION	N/A	$560	0	13	24	36	48	59
SPORTSMANS WORLD MUD	G	VOLUNTARY REDISTRIBUTION FROM PALO PINTO MANUFACTURING	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	$77	$77	33	29	23	17	9	2
STAMFORD	G	MUNICIPAL WATER CONSERVATION - STAMFORD	DEMAND REDUCTION	N/A	$560	0	68	136	212	285	342
STEAM ELECTRIC POWER, BRAZOS	G	REUSE- BRYAN (OPTION 1)	G | DIRECT NON-POTABLE REUSE	$2450	$1160	605	605	605	605	605	605
STEAM ELECTRIC POWER, JOHNSON	G	REUSE- CLEBURNE	G | DIRECT NON-POTABLE REUSE	$427	$148	571	571	571	571	571	571
STEAM ELECTRIC POWER, LIMESTONE	G	CARRIZO AQUIFER DEVELOPMENT - LIMESTONE COUNTY STEAM ELECTRIC	G | CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	$363	$54	388	388	388	388	388	388
STEAM ELECTRIC POWER, ROBERTSON	G	PURCHASE FROM WALNUT CREEK MINE-REUSE	G | BRAZOS OTHER LOCAL SUPPLY	N/A	$500	0	0	0	9,000	9,000	9,000
STEAM ELECTRIC POWER, SOMERVELL	G	SOMERVELL COUNTY WSP SURPLUS	G | TRINITY AQUIFER | SOMERVELL COUNTY	N/A	$1658	0	83	83	83	83	83
STEAM ELECTRIC POWER, SOMERVELL	G	SOMERVELL COUNTY WSP SURPLUS	G | WHEELER BRANCH OFF-CHANNEL LAKE/RESERVOIR	N/A	$1658	0	617	617	617	617	617
STEAMBOAT MOUNTAIN WSC	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	$1694	$1694	148	151	155	159	165	171
STEPHENVILLE	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$1353	$285	484	414	484	484	484	484
STRAWN	G	MUNICIPAL WATER CONSERVATION - STRAWN	DEMAND REDUCTION	N/A	$560	0	11	23	22	23	24
STRAWN	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | ERATH COUNTY	$1401	$456	35	35	35	35	35	35
SWEETWATER	F	SUBORDINATION - OAK CREEK RESERVOIR	F | OAK CREEK LAKE/RESERVOIR	$0	$202	1,025	540	503	468	431	394
SWEETWATER	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$257	0	1,651	1,668	1,731	1,787	1,839
SWEETWATER	G	OAK CREEK RESERVOIR-CONJUNCTIVE USE	F | OAK CREEK LAKE/RESERVOIR	$0	$0	102	512	549	586	623	660
TAYLOR	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	2,226	2,337	2,409	2,480	2,551
TAYLOR	G	MUNICIPAL WATER CONSERVATION - TAYLOR	DEMAND REDUCTION	N/A	$560	0	215	466	490	530	578

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
TDCJ LUTHER UNITS	G	MUNICIPAL WATER CONSERVATION - TDCJ LUTHER UNITS	DEMAND REDUCTION	N/A	$560	0	25	54	61	64	66
TDCJ W PACK UNIT	G	MUNICIPAL WATER CONSERVATION - TDCJ W PACK UNIT	DEMAND REDUCTION	N/A	$560	0	36	75	116	159	166
TEMPLE	G	LAKE GRANGER ASR	G | TRINITY AQUIFER ASR | WILLIAMSON COUNTY	N/A	$77	0	3,759	3,323	5,264	5,730	4,504
TEMPLE	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	1,550	2,153	379	80	1,473
TEMPLE	G	MUNICIPAL WATER CONSERVATION - TEMPLE	DEMAND REDUCTION	N/A	$560	0	1,868	4,232	7,057	10,263	12,469
TEMPLE	G	TEMPLE WTP EXPANSION	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	$957	$423	2,352	2,352	3,610	3,138	2,707	2,256
TEXAS A&M UNIVERSITY	G	MUNICIPAL WATER CONSERVATION - TEXAS A&M UNIVERSITY	DEMAND REDUCTION	N/A	$560	0	560	1,072	1,557	2,006	2,415
TEXAS A&M UNIVERSITY	G	TEXAS A&M SPARTA AQUIFER DEVELOPMENT	G | SPARTA AQUIFER | BRAZOS COUNTY	N/A	$224	0	0	638	638	638	638
TEXAS STATE TECHNICAL COLLEGE	G	MUNICIPAL WATER CONSERVATION - TEXAS STATE TECHNICAL COLLEGE	DEMAND REDUCTION	N/A	$560	0	88	180	274	370	466
THE BITTER CREEK WSC	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$1031	0	216	213	219	224	229
THE BITTER CREEK WSC	G	OAK CREEK RESERVOIR-CONJUNCTIVE USE	F | OAK CREEK LAKE/RESERVOIR	$1031	N/A	218	0	0	0	0	0
THE GROVE WSC	G	LAKE GRANGER AUGMENTATION-PH 2	G | CARRIZO-WILCOX AQUIFER | MILAM COUNTY	N/A	$77	0	70	72	74	76	79
THORNDALE	G	LAKE GRANGER ASR	G | TRINITY AQUIFER ASR | WILLIAMSON COUNTY	N/A	$77	0	0	0	0	2	10
THROCKMORTON	G	MUNICIPAL WATER CONSERVATION - THROCKMORTON	DEMAND REDUCTION	N/A	$560	0	14	26	40	44	44
THROCKMORTON	G	NEW THROCKMORTON RESERVOIR	G | NEW THROCKMORTON LAKE/RESERVOIR	N/A	$546	0	2,000	2,000	2,000	2,000	2,000
TWIN CREEK WSC	G	MUNICIPAL WATER CONSERVATION - TWIN CREEK WSC	DEMAND REDUCTION	N/A	$560	0	21	23	23	23	25
TYE	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	N/A	$1694	0	2	4	7	11	13
VALLEY MILLS	G	BOSQUE COUNTY REGIONAL PROJECT	G | CLIFTON LAKE/RESERVOIR	N/A	$1033	0	182	182	182	182	182
VALLEY MILLS	G	MUNICIPAL WATER CONSERVATION - VALLEY MILLS	DEMAND REDUCTION	N/A	$560	0	21	43	46	46	47
VENUS*	C	INTEGRATED PIPELINE	C | TRINITY INDIRECT REUSE	N/A	$163	0	46	92	69	96	106
VENUS*	C	MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	D | MARVIN NICHOLS LAKE/RESERVOIR	N/A	$1003	0	0	0	93	123	138
VENUS*	C	MIDLOTHIAN - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	$0	$0	86	180	116	97	80	70
VENUS*	C	TRWD - AQUIFER STORAGE AND RECOVERY PILOT	C | TRINITY AQUIFER ASR | TARRANT COUNTY	N/A	$99	0	1	4	3	4	4

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	WMS SPONSOR REGION	WMS NAME	SOURCE NAME	UNIT COST 2020	UNIT COST 2070	2020	2030	2040	2050	2060	2070
VENUS*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	C | CARRIZO-WILCOX AQUIFER | FREESTONE COUNTY	N/A	N/A	0	0	0	0	0	0
VENUS*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | CARRIZO-WILCOX AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	16	11	14	15
VENUS*	C	TRWD - CARRIZO-WILCOX GROUNDWATER	I | QUEEN CITY AQUIFER | ANDERSON COUNTY	N/A	$375	0	0	9	6	8	9
VENUS*	C	TRWD - REUSE FROM TRA CENTRAL WWTP	C | TRINITY INDIRECT REUSE	N/A	$510	0	10	24	22	37	49
VENUS*	C	TRWD - TEHUACANA	C | TEHUACANA LAKE/RESERVOIR	N/A	$1069	0	0	17	12	15	17
VENUS*	C	TRWD - UNALLOCATED SUPPLY UTILIZATION	C | TRWD LAKE/RESERVOIR SYSTEM	N/A	$0	0	2	3	2	5	8
VENUS*	C	WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	D | WRIGHT PATMAN LAKE/RESERVOIR	N/A	$907	0	0	0	0	0	46
VENUS*	G	MUNICIPAL WATER CONSERVATION - VENUS	DEMAND REDUCTION	N/A	$560	0	59	115	126	140	157
VIEW CAPS WSC	G	BRA SYSTEM OPERATION--SURPLUS	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	N/A	$1694	0	0	0	9	13	15
WACO	G	CONSERVATION - METER ENHANCEMENT PROGRAM - WACO	DEMAND REDUCTION	$2196	$93	698	2,237	2,346	2,469	2,604	2,740
WACO	G	MUNICIPAL WATER CONSERVATION - WACO	DEMAND REDUCTION	N/A	$560	0	2,583	5,360	8,389	11,642	12,436
WACO	G	REUSE- WMARSS BELLMEAD/ LACY-LAKEVIEW	G | DIRECT NON-POTABLE REUSE	$424	$123	374	374	374	374	374	374
WACO	G	REUSE- WMARSS CHINA SPRING	G | DIRECT NON-POTABLE REUSE	$2635	$701	1,120	1,120	1,120	1,120	1,120	1,120
WACO	G	REUSE- WMARSS I-84	G | DIRECT NON-POTABLE REUSE	$3711	$2527	1,400	1,400	1,400	1,680	1,680	1,680
WACO	G	TRINITY - MCLENNAN COUNTY ASR	G | TRINITY AQUIFER ASR | MCLENNAN COUNTY	N/A	$65	0	7,550	7,550	7,550	7,550	7,550
WALSH RANCH MUD	G	MUNICIPAL WATER CONSERVATION - WALSH RANCH MUD	DEMAND REDUCTION	N/A	$560	0	16	32	48	61	74
WELLBORN SUD	G	MUNICIPAL WATER CONSERVATION - WELLBORN SUD	DEMAND REDUCTION	N/A	$560	0	424	591	622	683	751
WEST	G	MUNICIPAL WATER CONSERVATION - WEST	DEMAND REDUCTION	N/A	$560	0	21	12	6	5	5
WHITNEY	G	MUNICIPAL WATER CONSERVATION - WHITNEY	DEMAND REDUCTION	N/A	$560	0	38	76	74	75	77
WILLIAMSON COUNTY MUD 10	G	MUNICIPAL WATER CONSERVATION - WILLIAMSON COUNTY MUD 10	DEMAND REDUCTION	N/A	$560	0	65	126	182	233	261
WILLIAMSON COUNTY MUD 11	G	MUNICIPAL WATER CONSERVATION - WILLIAMSON COUNTY MUD 11	DEMAND REDUCTION	N/A	$560	0	73	142	206	264	266
WILLIAMSON COUNTY MUD 9	G	MUNICIPAL WATER CONSERVATION - WILLIAMSON COUNTY MUD 9	DEMAND REDUCTION	N/A	$560	0	45	90	131	169	170

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Region G Recommended Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	**WMS SPONSOR REGION**	**WMS NAME**	**SOURCE NAME**	**UNIT COST 2020**	**UNIT COST 2070**	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
WINDSOR WATER	G	MUNICIPAL WATER CONSERVATION - WINDSOR WATER	DEMAND REDUCTION	N/A	N/A	0	2	0	0	0	0
WOODWAY	G	MUNICIPAL WATER CONSERVATION - WOODWAY	DEMAND REDUCTION	N/A	$560	0	308	635	988	1,357	1,730

					REGION G RECOMMENDED WMS SUPPLY TOTAL	119,053	291,163	353,292	395,797	442,771	491,632

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Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
ABILENE	YES	2020	ABILENE BRA SYS OPS FACILITIES EXPANSION	PUMP STATION; WATER TREATMENT PLANT EXPANSION	$8,939,000
ABILENE	YES	2020	CEDAR RIDGE RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; RESERVOIR CONSTRUCTION	$283,646,000
ABILENE	YES	2030	EXPAND WTP (23.2 MGD) - ABILENE	WATER TREATMENT PLANT EXPANSION	$61,665,000
ABILENE	YES	2030	MUNICIPAL WATER CONSERVATION - ABILENE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$12,241,000
ACTON MUD	YES	2040	EXPAND WTP SWATS - ACTON MUD	WATER TREATMENT PLANT EXPANSION	$23,934,000
ACTON MUD	YES	2030	TRINITY AQUIFER DEVELOPMENT - ACTON MUD	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$965,000
ALBANY	YES	2030	MUNICIPAL WATER CONSERVATION - ALBANY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,295,000
AQUA WSC	YES	2030	MUNICIPAL WATER CONSERVATION - AQUA WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$60,000
ARMSTRONG WSC	YES	2030	MUNICIPAL WATER CONSERVATION - ARMSTRONG WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$209,000
ASPERMONT	YES	2030	MUNICIPAL WATER CONSERVATION - ASPERMONT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$496,000
ASPERMONT	YES	2030	UPPER CHLORIDE CONTROL PROJECT SUPPLY – ASPERMONT	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK	$8,254,000
BARTLETT	YES	2030	MUNICIPAL WATER CONSERVATION - BARTLETT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$599,000
BAYLOR SUD	YES	2030	MUNICIPAL WATER CONSERVATION - BAYLOR SUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$423,416
BELL COUNTY WCID #1	YES	2030	BELL COUNTY WCID 1- NORTH REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW WATER TREATMENT PLANT	$15,186,000
BELL COUNTY WCID #1	YES	2030	BELL COUNTY WCID 1- SOUTH REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW WATER TREATMENT PLANT	$11,578,000
BELL COUNTY WCID 2	YES	2060	TRINITY AQUIFER DEVELOPMENT - BELL COUNTY WCID 2	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$979,000
BELL COUNTY WCID 3	YES	2030	MUNICIPAL WATER CONSERVATION - BELL COUNTY WCID 3	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$120,000
BELL MILAM FALLS WSC	YES	2030	MUNICIPAL WATER CONSERVATION - BELL MILAM FALLS WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$26,000
BELLMEAD	YES	2020	REUSE- BELLMEAD/ LACY-LAKE	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$8,038,000
BELTON	YES	2070	EXPAND WTP (2.1 MGD) - BELTON	WATER TREATMENT PLANT EXPANSION	$9,158,000
BELTON	YES	2030	MUNICIPAL WATER CONSERVATION - BELTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,142,000
BETHESDA WSC	YES	2030	MUNICIPAL WATER CONSERVATION - BETHESDA WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$12,420,000
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	YES	2060	CARRIZO AQUIFER DEVELOPMENT - BISTONE MWSD	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,772,000
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	YES	2030	MUNICIPAL WATER CONSERVATION - BISTONE MUNICIPAL WSD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$577,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
BRAZOS RIVER AUTHORITY	YES	2030	BELTON TO STILLHOUSE PIPELINE-BRA	CONVEYANCE/TRANSMISSION PIPELINE; DIVERSION AND CONTROL STRUCTURE; NEW SURFACE WATER INTAKE	$67,993,000
BRAZOS RIVER AUTHORITY	YES	2020	LAKE AQUILLA REALLOCATION- BRA	RAISE CONSERVATION POOL; DIVERSION AND CONTROL STRUCTURE	$24,353,000
BRAZOS RIVER AUTHORITY	YES	2020	LAKE GRANGER ASR	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; INJECTION WELL	$116,431,000
BRAZOS RIVER AUTHORITY	YES	2020	LAKE GRANGER AUGMENTATION-PHASE 2-BRA	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$845,564,000
BRAZOS RIVER AUTHORITY	YES	2050	LAKE WHITNEY REALLOCATION TO WILLIAMSON COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT	$253,824,000
BRAZOS RIVER AUTHORITY	YES	2030	WILLIAMSON COUNTY GROUNDWATER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	$4,015,016,000
BRECKENRIDGE	YES	2030	MUNICIPAL WATER CONSERVATION - BRECKENRIDGE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$282,000
BREMOND	YES	2030	MUNICIPAL WATER CONSERVATION - BREMOND	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$133,000
BRENHAM	YES	2020	GULF COAST AQUIFER DEVELOPMENT- BRENHAM	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$2,958,000
BRENHAM	YES	2030	MUNICIPAL WATER CONSERVATION - BRENHAM	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$9,182,000
BRUCEVILLE EDDY	YES	2030	MUNICIPAL WATER CONSERVATION - BRUCEVILLE EDDY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$764,000
BRUSHY CREEK MUD	YES	2030	MUNICIPAL WATER CONSERVATION - BRUSHY CREEK MUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,467,000
BRYAN	YES	2030	BRYAN ASR (CARRIZO-WILCOX)	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; INJECTION WELL	$72,404,000
BRYAN	YES	2030	CARRIZO GW DEVELOPMENT FOR BRYAN IN BRAZOS COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; WATER TREATMENT PLANT EXPANSION	$34,718,000
BRYAN	YES	2030	MUNICIPAL WATER CONSERVATION - BRYAN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$13,868,000
BRYAN	YES	2020	REUSE- BRYAN (OPTION 1)	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION	$11,092,000
CALDWELL	YES	2030	MUNICIPAL WATER CONSERVATION - CALDWELL	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,369,000
CAMERON	YES	2030	CITY OF CAMERON LITTLE RIVER INTAKE	NEW SURFACE WATER INTAKE; CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	$13,006,000
CAMERON	YES	2030	MUNICIPAL WATER CONSERVATION - CAMERON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,593,000
CEDAR PARK	YES	2020	BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT	$73,104,263
CEDAR PARK	YES	2030	MUNICIPAL WATER CONSERVATION - CEDAR PARK	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$38,089,000
CEDAR PARK	YES	2020	REUSE-CEDAR PARK	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK	$7,184,000
CEGO-DURANGO WSC	YES	2030	MUNICIPAL WATER CONSERVATION - CEGO-DURANGO WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$35,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
CENTRAL TEXAS COLLEGE DISTRICT	YES	2030	MUNICIPAL WATER CONSERVATION - CENTRAL TEXAS COLLEGE DISTRICT	DATA GATHERING/MONITORING TECHNOLOGY; CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS)	$37,000
CENTRAL WASHINGTON COUNTY WSC	YES	2020	GULF COAST AQUIFER DEVELOPMENT- CORIX UTILITIES TEXAS INC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,853,359
CHILDRESS CREEK WSC	YES	2030	BOSQUE COUNTY-REGIONAL WATER SUPPLY PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$5,744,000
CISCO	YES	2030	MUNICIPAL WATER CONSERVATION - CISCO	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$292,000
CLEBURNE	YES	2030	MUNICIPAL WATER CONSERVATION - CLEBURNE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$7,253,000
CLEBURNE	YES	2020	REUSE- CLEBURNE	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION	$29,803,000
CLIFTON	YES	2030	BOSQUE COUNTY-REGIONAL WATER SUPPLY PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$7,506,000
CLIFTON	YES	2030	MUNICIPAL WATER CONSERVATION - CLIFTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$425,000
COLLEGE STATION	YES	2040	CARRIZO GW DEVELOPMENT FOR COLLEGE STATION IN BRAZOS COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$43,914,000
COLLEGE STATION	YES	2030	COLLEGE STATION - DPR	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT	$84,177,000
COLLEGE STATION	YES	2020	COLLEGE STATION ASR (REUSE)	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; INJECTION WELL	$86,514,000
COLLEGE STATION	YES	2030	MUNICIPAL WATER CONSERVATION - COLLEGE STATION	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,305,000
COOLIDGE	YES	2030	MUNICIPAL WATER CONSERVATION - COOLIDGE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$24,000
CORYELL CITY WATER SUPPLY DISTRICT	YES	2030	MUNICIPAL WATER CONSERVATION - CORYELL CITY WATER SUPPLY DISTRICT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$108,000
COUNTY-OTHER, BELL	YES	2030	MUNICIPAL WATER CONSERVATION - COUNTY-OTHER, BELL	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$241,000
COUNTY-OTHER, BOSQUE	YES	2030	BOSQUE COUNTY-REGIONAL WATER SUPPLY PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$3,925,000
COUNTY-OTHER, COMANCHE	YES	2020	TRINITY AQUIFER DEVELOPMENT- COMANCHE COUNTY-OTHER	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$5,359,000
COUNTY-OTHER, CORYELL	YES	2040	TRINITY AQUIFER DEVELOPMENT - CORYELL COUNTY-OTHER	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$4,710,000
COUNTY-OTHER, ERATH	YES	2060	TRINITY AQUIFER DEVELOPMENT- ERATH COUNTY-OTHER	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,350,000
COUNTY-OTHER, FALLS	YES	2020	UPGRADE WTP FOR ARSENIC-FALLS COUNTY-OTHER	WATER TREATMENT PLANT EXPANSION	$255,000
COUNTY-OTHER, HOOD	YES	2020	TRINITY AQUIFER DEVELOPMENT - HOOD COUNTY-OTHER	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$6,210,000
COUNTY-OTHER, MCLENNAN	YES	2020	UPGRADE WTP FOR ARSENIC-MCLENNAN COUNTY OTHER	WATER TREATMENT PLANT EXPANSION	$2,871,000
COUNTY-OTHER, SOMERVELL	YES	2020	SOMERVELL COUNTY WATER SUPPLY PROJECTS PHASES 1-4, 7A, 9-17	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$36,250,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
COUNTY-OTHER, WILLIAMSON	YES	2020	EAST WILLIAMSON COUNTY WATER PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; STORAGE TANK	$19,974,517
COUNTY-OTHER, WILLIAMSON	YES	2030	MUNICIPAL WATER CONSERVATION - COUNTY-OTHER, WILLIAMSON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$23,850,000
CRAWFORD	YES	2030	MUNICIPAL WATER CONSERVATION - CRAWFORD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$156,000
CROSS COUNTRY WSC	YES	2030	MUNICIPAL WATER CONSERVATION - CROSS COUNTRY WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$129,000
CROSS PLAINS	YES	2030	MUNICIPAL WATER CONSERVATION - CROSS PLAINS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$54,000
DOUBLE DIAMOND UTILITIES	YES	2030	MUNICIPAL WATER CONSERVATION - DOUBLE DIAMOND UTILITIES	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$891,000
EAST CRAWFORD WSC	YES	2030	MUNICIPAL WATER CONSERVATION - EAST CRAWFORD WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$916,000
FERN BLUFF MUD	YES	2030	MUNICIPAL WATER CONSERVATION - FERN BLUFF MUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,130,000
FHLM WSC	YES	2030	FHLM WSC BRA SYS OPS FACILITIES	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION	$95,792,000
FLAT WSC	YES	2030	MUNICIPAL WATER CONSERVATION - FLAT WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$221,000
FORT GATES WSC	YES	2030	MUNICIPAL WATER CONSERVATION - FORT GATES WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$615,000
FORT HOOD	YES	2030	MUNICIPAL WATER CONSERVATION - FORT HOOD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$11,038,000
GATESVILLE	YES	2020	EXPAND WTP (1.2 MGD) - GATESVILLE	WATER TREATMENT PLANT EXPANSION	$9,577,000
GATESVILLE	YES	2030	MUNICIPAL WATER CONSERVATION - GATESVILLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$13,327,000
GEORGETOWN	YES	2050	ALCOA PROPERTY SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$241,689,000
GEORGETOWN	YES	2030	EXPAND WTP (21 MGD)- GEORGETOWN	WATER TREATMENT PLANT EXPANSION	$85,760,000
GEORGETOWN	YES	2040	LAKE GEORGETOWN ASR	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; WATER TREATMENT PLANT EXPANSION; INJECTION WELL	$306,276,000
GEORGETOWN	YES	2030	MUNICIPAL WATER CONSERVATION - GEORGETOWN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$162,839,000
GEORGETOWN	YES	2030	REUSE-GEORGETOWN	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK	$6,270,000
GIDDINGS	YES	2030	MUNICIPAL WATER CONSERVATION - GIDDINGS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,336,000
GLEN ROSE	YES	2030	MUNICIPAL WATER CONSERVATION - GLEN ROSE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,026,000
GODLEY	YES	2020	TRINITY AQUIFER DEVELOPMENT- GODLEY	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,101,000
GORDON	YES	2030	MUNICIPAL WATER CONSERVATION - GORDON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$240,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
GRAHAM	YES	2030	MUNICIPAL WATER CONSERVATION - GRAHAM	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$6,742,000
GRANBURY	YES	2030	GRANBURY NORTH WATER TREATMENT PLANT	NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION	$45,500,000
GROESBECK	YES	2030	GROESBECK OFF CHANNEL RESERVOIR- GROESBECK	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION	$23,599,000
HAMILTON	YES	2030	MUNICIPAL WATER CONSERVATION - HAMILTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$168,000
HAMLIN	YES	2030	MUNICIPAL WATER CONSERVATION - HAMLIN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$323,000
HARKER HEIGHTS	YES	2070	INTERCONNECT FROM KILLEEN TO HARKER HEIGHTS	CONVEYANCE/TRANSMISSION PIPELINE; STORAGE TANK; PUMP STATION	$2,580,000
HARKER HEIGHTS	YES	2030	MUNICIPAL WATER CONSERVATION - HARKER HEIGHTS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$10,133,000
HEARNE	YES	2030	MUNICIPAL WATER CONSERVATION - HEARNE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$238,000
HEWITT	YES	2030	MUNICIPAL WATER CONSERVATION - HEWITT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,437,000
HEWITT	YES	2030	REUSE- BULLHIDE CREEK	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$7,349,000
HIGHLAND PARK WSC	YES	2030	MUNICIPAL WATER CONSERVATION - HIGHLAND PARK WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$418,000
HIGHLAND PARK WSC	YES	2020	TRINITY AQUIFER DEVELOPMENT- HIGHLAND PARK WSC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,829,000
HILLSBORO	YES	2030	MUNICIPAL WATER CONSERVATION - HILLSBORO	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,911,000
IRRIGATION, BELL	YES	2020	EDWARDS AQUIFER DEVELOPMENT - BELL COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$922,000
IRRIGATION, BOSQUE	YES	2020	TRINITY AQUIFER DEVELOPMENT-BOSQUE COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$2,473,000
IRRIGATION, GRIMES	YES	2020	GULF COAST AQUIFER DEVELOPMENT - GRIMES COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$623,000
IRRIGATION, HILL	YES	2020	WOODBINE AQUIFER DEVELOPMENT- HILL COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$870,000
IRRIGATION, KNOX	YES	2020	BLAINE AQUIFER DEVELOPMENT - KNOX COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$631,000
IRRIGATION, LAMPASAS	YES	2020	MARBLE FALLS AQUIFER DEVELOPMENT - LAMPASAS COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$2,054,000
IRRIGATION, PALO PINTO	YES	2020	TRINITY AQUIFER DEVELOPMENT - PALO PINTO COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$49,832,000
IRRIGATION, STEPHENS	YES	2020	OTHER AQUIFER DEVELOPMENT - STEPHENS COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$143,000
IRRIGATION, THROCKMORTON	YES	2020	CROSS TIMBERS AQUIFER DEVELOPMENT - THROCKMORTON COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$405,000
IRRIGATION, WILLIAMSON	YES	2020	EDWARDS AQUIFER DEVELOPMENT-WILLIAMSON IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$675,000
IRRIGATION, YOUNG	YES	2020	CROSS TIMBERS AQUIFER DEVELOPMENT - YOUNG COUNTY IRRIGATION	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$540,000
JAYTON	YES	2030	MUNICIPAL WATER CONSERVATION - JAYTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$45,000
JAYTON	YES	2020	NEW WTP (0.4 MGD)- JAYTON	NEW WATER TREATMENT PLANT	$3,555,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
JAYTON	YES	2030	UPPER CHLORIDE CONTROL PROJECT SUPPLY - JAYTON	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK	$2,115,000
JOHNSON COUNTY SUD	YES	2040	EXPAND WTP SWATS - JOHNSON COUNTY SUD	WATER TREATMENT PLANT EXPANSION	$8,814,000
JOHNSON COUNTY SUD	YES	2020	TRINITY AQUIFER DEVELOPMENT - JOHNSON COUNTY SUD	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$9,306,000
JONAH WATER SUD	YES	2030	MUNICIPAL WATER CONSERVATION - JONAH WATER SUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$467,000
KEMPNER WSC	YES	2020	EXPAND WTP (1.8 MGD) - KEMPNER WSC	WATER TREATMENT PLANT EXPANSION	$10,821,000
KEMPNER WSC	YES	2030	MUNICIPAL WATER CONSERVATION - KEMPNER WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,386,000
KNOX CITY	YES	2030	MUNICIPAL WATER CONSERVATION - KNOX CITY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$299,000
LACY LAKEVIEW	YES	2020	REUSE- BELLMEAD/ LACY-LAKE	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$8,038,000
LAWN	YES	2030	MUNICIPAL WATER CONSERVATION - LAWN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$130,000
LEANDER	YES	2020	BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT	$142,186,421
LEXINGTON	YES	2030	MUNICIPAL WATER CONSERVATION - LEXINGTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$125,000
LIBERTY HILL	YES	2020	BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT	$3,676,679
LITTLE ELM VALLEY WSC	YES	2030	MUNICIPAL WATER CONSERVATION - LITTLE ELM VALLEY WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$261,000
LIVESTOCK, YOUNG	YES	2020	CROSS TIMBERS AQUIFER DEVELOPMENT - YOUNG COUNTY LIVESTOCK	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$151,000
LORENA	YES	2030	MUNICIPAL WATER CONSERVATION - LORENA	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$18,000
LORENA	YES	2030	REUSE- BULLHIDE CREEK	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$7,349,000
MANSFIELD	YES	2030	MUNICIPAL WATER CONSERVATION - MANSFIELD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$5,138,000
MANUFACTURING, BURLESON	YES	2020	SPARTA AQUIFER DEVELOPMENT - BURLESON COUNTY MANUFACTURING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$233,000
MANUFACTURING, KNOX	YES	2020	BLAINE AQUIFER DEVELOPMENT - KNOX COUNTY MANUFACTURING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$331,000
MANUFACTURING, LIMESTONE	YES	2020	CARRIZO AQUIFER DEVELOPMENT - LIMESTONE COUNTY MANUFACTURING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,767,000
MANUFACTURING, STONEWALL	YES	2020	BLAINE AQUIFER DEVELOPMENT - STONEWALL COUNTY MANUFACTURING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$192,000
MANVILLE WSC	YES	2030	MUNICIPAL WATER CONSERVATION - MANVILLE WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,638,000
MARLIN	YES	2040	BRUSHY CREEK RESERVOIR- MARLIN	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK	$33,229,000
MARLIN	YES	2030	MUNICIPAL WATER CONSERVATION - MARLIN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$4,066,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
MART	YES	2020	INTERCONNECT FROM WACO TO MART	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW SURFACE WATER INTAKE	$7,105,372
MERIDIAN	YES	2030	BOSQUE COUNTY-REGIONAL WATER SUPPLY PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$4,432,000
MINERAL WELLS	YES	2030	MUNICIPAL WATER CONSERVATION - MINERAL WELLS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$187,000
MINING, BELL	YES	2070	EDWARDS AQUIFER DEVELOPMENT - BELL COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$1,423,000
MINING, BELL	YES	2020	TRINITY AQUIFER DEVELOPMENT-BELL COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$8,771,000
MINING, COMANCHE	YES	2020	TRINITY AQUIFER DEVELOPMENT - COMANCHE COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$2,223,000
MINING, CORYELL	YES	2020	TRINITY AQUIFER DEVELOPMENT - CORYELL COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$3,145,000
MINING, EASTLAND	YES	2020	TRINITY AQUIFER DEVELOPMENT- EASTLAND COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$3,669,000
MINING, FISHER	YES	2020	BLAINE AQUIFER DEVELOPMENT - FISHER COUNTY MINING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$511,000
MINING, GRIMES	YES	2020	GULF COAST AQUIFER DEVELOPMENT - GRIMES COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$744,000
MINING, HAMILTON	YES	2020	TRINITY AQUIFER DEVELOPMENT - HAMILTON COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$548,000
MINING, HOOD	YES	2020	TRINITY AQUIFER DEVELOPMENT - HOOD COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$1,027,000
MINING, KNOX	YES	2020	BLAINE AQUIFER DEVELOPMENT - KNOX COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$178,000
MINING, LAMPASAS	YES	2020	ELLENBURGER SAN-SABA AQUIFER DEVELOPMENT - LAMPASAS COUNTY MINING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$2,051,000
MINING, LEE	YES	2020	CARRIZO AQUIFER DEVELOPMENT - LEE COUNTY MINING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$3,077,000
MINING, PALO PINTO	YES	2020	TRINITY AQUIFER DEVELOPMENT- PALO PINTO COUNTY MINING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$4,885,000
MINING, SOMERVELL	YES	2020	TRINITY AQUIFER DEVELOPMENT - SOMERVELL COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$876,000
MINING, STONEWALL	YES	2020	BLAINE AQUIFER DEVELOPMENT - STONEWALL COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$687,000
MINING, THROCKMORTON	YES	2020	CROSS TIMBERS AQUIFER DEVELOPMENT - THROCKMORTON COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$344,000
MINING, WASHINGTON	YES	2020	GULF COAST AQUIFER DEVELOPMENT - WASHINGTON COUNTY MINING	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$3,348,000
MINING, YOUNG	YES	2020	CROSS TIMBERS AQUIFER DEVELOPMENT - YOUNG COUNTY MINING	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$514,000
MULTI COUNTY WSC	YES	2030	CORYELL COUNTY OFF CHANNEL RESERVOIR-BRA	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION	$82,584,000
MUNDAY	YES	2030	MUNICIPAL WATER CONSERVATION - MUNDAY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$201,000
MUSTANG VALLEY WSC	YES	2030	MUNICIPAL WATER CONSERVATION - MUSTANG VALLEY WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$769,000
NAVASOTA	YES	2030	MUNICIPAL WATER CONSERVATION - NAVASOTA	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,348,000
NORTH BOSQUE WSC	YES	2030	INTERCONNECT FROM WACO TO NORTH BOSQUE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW SURFACE WATER INTAKE	$2,428,068

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
NORTH BOSQUE WSC	YES	2030	MUNICIPAL WATER CONSERVATION - NORTH BOSQUE WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,300,000
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	YES	2030	NCTMWA LAKE CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; WATER TREATMENT PLANT EXPANSION; NEW SURFACE WATER INTAKE	$259,001,000
NORTH MILAM WSC	YES	2030	MUNICIPAL WATER CONSERVATION - NORTH MILAM WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$108,000
PALO PINTO COUNTY MWD #1	YES	2030	TURKEY PEAK RESERVOIR	RESERVOIR CONSTRUCTION; CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION	$102,530,000
PARKER WSC	YES	2060	TRINITY AQUIFER DEVELOPMENT- PARKER WSC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,045,000
PFLUGERVILLE	YES	2030	MUNICIPAL WATER CONSERVATION - PFLUGERVILLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$5,557,000
POSSUM KINGDOM WSC	YES	2030	MUNICIPAL WATER CONSERVATION - POSSUM KINGDOM WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,212,000
PRAIRIE HILL WSC	YES	2030	MUNICIPAL WATER CONSERVATION - PRAIRIE HILL WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$34,000
PRAIRIE HILL WSC	YES	2020	UPGRADE WTP FOR ARSENIC- PRAIRIE HILL WSC	WATER TREATMENT PLANT EXPANSION	$1,408,000
RANGER	YES	2030	MUNICIPAL WATER CONSERVATION - RANGER	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$224,000
RED RIVER AUTHORITY OF TEXAS	YES	2030	MUNICIPAL WATER CONSERVATION - RED RIVER AUTHORITY OF TEXAS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$54,000
ROBERTSON COUNTY WSC	YES	2020	CARRIZO AQUIFER DEVELOPMENT - ROBERTSON COUNTY WSC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$3,440,000
ROBINSON	YES	2020	EXPAND WTP (4 MGD)- ROBINSON	WATER TREATMENT PLANT EXPANSION	$16,813,000
ROBINSON	YES	2030	MUNICIPAL WATER CONSERVATION - ROBINSON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$3,743,000
ROBY	YES	2030	MUNICIPAL WATER CONSERVATION - ROBY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$81,000
ROCKDALE	YES	2020	CARRIZO AQUIFER DEVELOPMENT - ROCKDALE	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; CONVEYANCE/TRANSMISSION PIPELINE	$5,086,000
ROCKDALE	YES	2030	MUNICIPAL WATER CONSERVATION - ROCKDALE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,164,000
ROUND ROCK	YES	2020	BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT	$107,826,043
ROUND ROCK	YES	2030	MUNICIPAL WATER CONSERVATION - ROUND ROCK	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$28,008,000
SALADO WSC	YES	2030	MUNICIPAL WATER CONSERVATION - SALADO WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$5,986,000
SALT FORK WATER QUALITY CORPORATION	YES	2030	UPPER BASIN CHLORIDE CONTROL PROJECT	NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; STORAGE TANK	$106,537,000
SNOOK	YES	2030	MUNICIPAL WATER CONSERVATION - SNOOK	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$719,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
SOMERVILLE	YES	2030	MUNICIPAL WATER CONSERVATION - SOMERVILLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$171,000
SONTERRA MUD	YES	2020	EAST WILLIAMSON COUNTY WATER PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; STORAGE TANK	$10,289,903
SOUTHWEST MILAM WSC	YES	2030	CARRIZO AQUIFER DEVELOPMENT - SOUTHWEST MILAM WSC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; CONVEYANCE/TRANSMISSION PIPELINE	$5,080,000
SOUTHWEST MILAM WSC	YES	2030	MUNICIPAL WATER CONSERVATION - SOUTHWEST MILAM WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$472,000
SPORTSMANS WORLD MUD	YES	2030	MUNICIPAL WATER CONSERVATION - SPORTSMANS WORLD MUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$328,000
STAMFORD	YES	2030	MUNICIPAL WATER CONSERVATION - STAMFORD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,907,000
STEAM ELECTRIC POWER, LIMESTONE	YES	2020	CARRIZO AQUIFER DEVELOPMENT - LIMESTONE COUNTY STEAM ELECTRIC	MULTIPLE WELLS/WELL FIELD; CONVEYANCE/TRANSMISSION PIPELINE	$1,709,000
STEPHENVILLE	YES	2020	TRINITY AQUIFER DEVELOPMENT- STEPHENVILLE	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT	$7,344,000
STRAWN	YES	2030	MUNICIPAL WATER CONSERVATION - STRAWN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$133,000
STRAWN	YES	2020	TRINITY AQUIFER DEVELOPMENT- STRAWN	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$2,447,000
SWEETWATER	YES	2020	INTERCONNECT FROM ABILENE TO SWEETWATER	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK	$21,667,019
TAYLOR	YES	2030	MUNICIPAL WATER CONSERVATION - TAYLOR	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$3,221,000
TDCJ LUTHER UNITS	YES	2030	MUNICIPAL WATER CONSERVATION - TDCJ LUTHER UNITS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$369,000
TDCJ W PACK UNIT	YES	2030	MUNICIPAL WATER CONSERVATION - TDCJ W PACK UNIT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$923,000
TEMPLE	YES	2020	EXPAND WTP (4.2 MGD) - TEMPLE	WATER TREATMENT PLANT EXPANSION	$35,666,000
TEMPLE	YES	2030	MUNICIPAL WATER CONSERVATION - TEMPLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$69,470,000
TEXAS A&M UNIVERSITY	YES	2030	MUNICIPAL WATER CONSERVATION - TEXAS A&M UNIVERSITY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$13,455,000
TEXAS A&M UNIVERSITY	YES	2040	TEXAS A&M SPARTA AQUIFER DEVELOPMENT	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT	$4,931,000
TEXAS STATE TECHNICAL COLLEGE	YES	2030	MUNICIPAL WATER CONSERVATION - TEXAS STATE TECHNICAL COLLEGE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$2,599,000
THROCKMORTON	YES	2030	MUNICIPAL WATER CONSERVATION - THROCKMORTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$247,000
THROCKMORTON	YES	2030	NEW THROCKMORTON RESERVOIR	RESERVOIR CONSTRUCTION; CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION	$68,103,000
TWIN CREEK WSC	YES	2030	MUNICIPAL WATER CONSERVATION - TWIN CREEK WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$137,000
VALLEY MILLS	YES	2030	BOSQUE COUNTY-REGIONAL WATER SUPPLY PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	$5,490,000

Region G Recommended Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
VALLEY MILLS	YES	2030	MUNICIPAL WATER CONSERVATION - VALLEY MILLS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$270,000
VENUS	YES	2030	MUNICIPAL WATER CONSERVATION - VENUS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$907,000
WACO	YES	2020	CONSERVATION - METER ENHANCEMENT PROGRAM - WACO	DATA GATHERING/MONITORING TECHNOLOGY	$15,282,000
WACO	YES	2030	MCLENNAN COUNTY ASR (WACO)	MULTIPLE WELLS/WELL FIELD; INJECTION WELL	$65,954,000
WACO	YES	2030	MUNICIPAL WATER CONSERVATION - WACO	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$69,284,000
WACO	YES	2020	REUSE- FLAT CREEK	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$20,014,000
WACO	YES	2020	REUSE- WMARSS CHINA SPRING	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	$25,888,000
WACO	YES	2020	REUSE- WMARSS I-84	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION	$28,249,000
WALSH RANCH MUD	YES	2030	MUNICIPAL WATER CONSERVATION - WALSH RANCH MUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$410,000
WELLBORN SUD	YES	2030	MUNICIPAL WATER CONSERVATION - WELLBORN SUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$4,183,000
WEST	YES	2030	MUNICIPAL WATER CONSERVATION - WEST	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$116,000
WHITNEY	YES	2030	MUNICIPAL WATER CONSERVATION - WHITNEY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$429,000
WILLIAMSON COUNTY MUD 10	YES	2030	MUNICIPAL WATER CONSERVATION - WILLIAMSON COUNTY MUD 10	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,452,000
WILLIAMSON COUNTY MUD 11	YES	2030	MUNICIPAL WATER CONSERVATION - WILLIAMSON COUNTY MUD 11	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$1,480,000
WILLIAMSON COUNTY MUD 9	YES	2030	MUNICIPAL WATER CONSERVATION - WILLIAMSON COUNTY MUD 9	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$946,000
WINDSOR WATER	YES	2030	MUNICIPAL WATER CONSERVATION - WINDSOR WATER	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$13,000
WOODWAY	YES	2030	MUNICIPAL WATER CONSERVATION - WOODWAY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY	$9,639,000
				REGION G RECOMMENDED CAPITAL COST TOTAI	**$9,085,844,060**

Region G Alternative Water User Group (WUG) Water Management Strategies (WMS)

						WATER MANAGEMENT STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
WUG ENTITY NAME	**WMS SPONSOR REGION**	**WMS NAME**	**SOURCE NAME**	**UNIT COST 2020**	**UNIT COST 2070**	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
ABILENE	F	WEST TEXAS WATER PARTNERSHIP (ALTERNATIVE)	F | COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	N/A	$342	0	3,191	3,330	3,470	3,609	3,749
ABILENE	F	WEST TEXAS WATER PARTNERSHIP (ALTERNATIVE)	F | OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	N/A	$342	0	5,209	5,070	4,930	4,791	4,651
BARTLETT	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | BELL COUNTY	$669	$189	275	275	275	275	275	275
BRYAN	G	CARRIZO GW DEVELOPMENT FOR BRYAN IN ROBERTSON COUNTY	G | CARRIZO-WILCOX AQUIFER | ROBERTSON COUNTY	N/A	$161	0	9,973	9,973	9,973	9,973	9,973
BRYAN	G	REUSE- BRYAN (OPTION 2)	G | DIRECT NON-POTABLE REUSE	$2439	$1243	2,419	2,419	2,419	2,419	2,419	2,419
EAST CRAWFORD WSC	G	TRINITY AQUIFER DEVELOPMENT	G | TRINITY AQUIFER | MCLENNAN COUNTY	$956	$239	113	113	113	113	113	113
JOHNSON COUNTY SUD*	G	TRINITY - JOHNSON COUNTY ASR	G | TRINITY AQUIFER ASR | JOHNSON COUNTY	N/A	$244	0	5,739	5,739	5,739	5,739	5,740
MERKEL	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$117	0	23	25	29	35	41
POTOSI WSC	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$117	0	525	542	557	572	586
STEAMBOAT MOUNTAIN WSC	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$117	0	151	155	159	165	171
TYE	G	CEDAR RIDGE RESERVOIR	G | CEDAR RIDGE LAKE/RESERVOIR	N/A	$117	0	2	4	7	11	13
REGION G ALTERNATIVE WMS SUPPLY TOTAL						2,807	27,620	27,645	27,671	27,702	27,731

*A single asterisk next to a WUG's name denotes that the WUG is split by two or more planning regions.

Region G Alternative Projects Associated with Water Management Strategies

SPONSOR NAME	SPONSOR IS WWP?	ONLINE DECADE	PROJECT NAME	PROJECT DESCRIPTION	CAPITAL COST
BARTLETT	YES	2020	TRINITY AQUIFER DEVELOPMENT - BARTLETT	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,872,000
BRAZOS RIVER AUTHORITY	YES	2050	BRA MAIN STEM LAKE WHITNEY OVERDRAFTING WITH OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; DIVERSION AND CONTROL STRUCTURE; PUMP STATION; NEW SURFACE WATER INTAKE; RESERVOIR CONSTRUCTION	$171,738,000
BRYAN	YES	2030	CARRIZO GW DEVELOPMENT FOR BRYAN IN ROBERTSON COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; WATER TREATMENT PLANT EXPANSION	$51,281,000
BRYAN	YES	2020	REUSE- BRYAN (OPTION 2)	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; STORAGE TANK	$41,105,000
EAST CRAWFORD WSC	YES	2020	TRINITY AQUIFER DEVELOPMENT- EAST CRAWFORD WSC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE	$1,149,000
JOHNSON COUNTY SUD	YES	2030	JOHNSON COUNTY ASR	MULTIPLE WELLS/WELL FIELD; INJECTION WELL; CONVEYANCE/TRANSMISSION PIPELINE	$37,085,000

REGION G ALTERNATIVE CAPITAL COST TOTAL	**$304,230,000**

Region G Water User Group (WUG) Management Supply Factor

WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. To calculate the Management Supply Factor for each WUG as a whole, not split by region-county-basin, the combined total of existing and future supply is divided by the total projected demand. If a WUG is split by more than one planning region, the whole WUG's management supply factor will show up in each of its planning region's management supply factor reports.

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
439 WSC	1.2	1.8	1.7	1.5	1.4	1.0
ABILENE	1.2	2.4	2.3	1.9	1.6	1.3
ACTON MUD	1.5	1.0	1.5	1.3	1.1	1.0
ALBANY	1.2	1.2	1.3	1.4	1.5	1.6
ALVARADO	5.5	5.0	4.6	4.2	3.8	3.4
ANSON	1.0	1.0	1.0	1.0	1.0	1.0
AQUA WSC*	1.2	1.0	1.0	1.1	1.1	1.0
ARMSTRONG WSC	2.1	2.0	2.0	1.9	1.8	1.7
ASPERMONT	0.8	2.0	2.0	2.1	2.1	2.2
AXTELL WSC	2.2	2.2	2.1	2.0	1.9	1.9
BAIRD	1.0	1.0	1.0	1.0	1.0	1.0
BARTLETT	1.3	1.2	1.2	1.1	1.1	1.0
BAYLOR SUD*	1.2	1.3	1.4	1.5	1.5	1.5
BELL COUNTY WCID 2	1.3	1.2	1.1	1.0	1.1	1.0
BELL COUNTY WCID 3	1.0	1.0	1.0	1.0	1.0	1.0
BELL MILAM FALLS WSC	3.4	3.3	3.2	3.0	2.9	2.7
BELLMEAD	3.6	3.5	3.5	3.4	3.2	3.1
BELTON	2.0	1.9	1.7	1.5	1.3	1.1
BETHANY HEARNE WSC	1.0	1.0	1.0	1.0	1.0	1.0
BETHANY WSC	3.9	3.6	3.4	3.1	2.7	2.5
BETHESDA WSC*	1.0	1.0	1.1	1.1	1.1	1.1
BIROME WSC	2.1	2.1	2.0	2.0	1.9	1.9
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	1.5	1.2	1.3	1.3	1.4	1.5
BLOCK HOUSE MUD	1.3	1.3	1.3	1.3	1.4	1.4
BOLD SPRINGS WSC	4.3	4.1	3.9	3.8	3.6	3.4
BRANDON IRENE WSC*	1.6	1.6	1.5	1.4	1.4	1.3
BRECKENRIDGE	1.9	1.9	1.9	1.9	1.9	1.9
BREMOND	2.2	2.1	2.0	1.9	1.8	1.7
BRENHAM	1.2	1.2	1.2	1.2	1.2	1.1
BRUCEVILLE EDDY	1.5	1.5	1.4	1.4	1.3	1.2
BRUSHY CREEK MUD	1.0	1.2	1.3	1.3	1.3	1.3
BRYAN	1.0	1.7	1.5	1.3	1.2	1.0
BURLESON*	1.0	1.0	1.0	1.0	1.0	1.0
CALDWELL	2.2	2.3	2.3	2.3	2.3	2.3
CALLAHAN COUNTY WSC	1.0	1.0	1.0	1.0	1.0	1.0
CALVERT	2.8	2.9	2.9	2.9	3.0	3.0
CAMERON	1.9	1.9	2.0	2.0	2.0	1.9
CEDAR PARK*	1.0	1.0	1.0	1.1	1.2	1.2
CEGO-DURANGO WSC	1.2	1.2	1.2	1.2	1.2	1.1
CENTRAL BOSQUE WSC	3.8	3.7	3.6	3.4	3.3	3.2
CENTRAL TEXAS COLLEGE DISTRICT	1.0	1.1	1.0	1.0	1.0	1.0
CENTRAL WASHINGTON COUNTY WSC	1.8	1.7	1.7	1.6	1.6	1.6
CHALK BLUFF WSC	2.7	2.8	2.9	2.9	2.9	2.9
CHAPPELL HILL WSC	1.9	1.8	1.8	1.7	1.7	1.6

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
CHATT WSC	1.2	1.2	1.2	1.1	1.0	1.0
CHILDRESS CREEK WSC	1.5	2.0	1.9	1.9	1.9	1.8
CISCO	1.3	1.3	1.4	1.4	1.4	1.4
CLEBURNE	1.9	1.9	2.4	2.6	2.2	1.9
CLIFTON	1.3	1.8	1.7	1.6	1.6	1.5
CLYDE	1.0	1.0	1.3	1.3	1.3	1.3
COLEMAN COUNTY SUD*	1.0	1.0	1.0	1.0	1.0	1.0
COLLEGE STATION	1.0	1.2	1.2	1.1	1.2	1.2
COMANCHE	1.3	1.3	1.3	1.3	1.3	1.3
COOLIDGE	2.1	2.1	2.0	1.9	1.7	1.6
COPPERAS COVE	2.0	1.8	1.7	1.5	1.0	1.0
CORIX UTILITIES TEXAS INC*	1.3	1.3	1.3	1.2	1.2	1.2
CORYELL CITY WATER SUPPLY DISTRICT	1.4	1.4	1.3	1.3	1.3	1.2
COUNTY-OTHER, BELL	3.3	3.1	2.9	2.6	1.3	1.0
COUNTY-OTHER, BOSQUE	1.1	1.1	1.1	1.1	1.1	1.1
COUNTY-OTHER, BRAZOS	1.1	1.1	1.1	1.1	1.1	1.1
COUNTY-OTHER, BURLESON	1.3	1.2	1.1	1.1	1.0	1.0
COUNTY-OTHER, CALLAHAN	1.2	1.1	1.1	1.1	1.1	1.1
COUNTY-OTHER, COMANCHE	1.0	1.0	1.1	1.0	1.0	1.0
COUNTY-OTHER, CORYELL	2.1	3.4	2.5	2.1	1.9	1.8
COUNTY-OTHER, EASTLAND	1.0	1.0	1.1	1.1	1.1	1.1
COUNTY-OTHER, ERATH	1.3	1.2	1.1	1.0	1.1	1.0
COUNTY-OTHER, FALLS	1.0	1.0	1.1	1.2	1.1	1.1
COUNTY-OTHER, FISHER	1.0	1.0	1.1	1.1	1.1	1.1
COUNTY-OTHER, GRIMES	1.0	1.0	1.0	1.1	1.1	1.1
COUNTY-OTHER, HAMILTON	1.0	1.0	1.1	1.1	1.1	1.1
COUNTY-OTHER, HASKELL	1.0	1.1	1.1	1.1	1.0	1.0
COUNTY-OTHER, HILL	1.0	1.0	1.0	1.0	1.1	1.1
COUNTY-OTHER, HOOD	1.0	1.4	1.7	1.7	2.3	3.4
COUNTY-OTHER, JOHNSON	3.3	2.7	3.6	6.8	20.7	17.6
COUNTY-OTHER, JONES	1.0	1.0	1.0	1.0	1.0	1.0
COUNTY-OTHER, KENT	1.1	1.0	1.0	1.0	1.0	1.0
COUNTY-OTHER, KNOX	1.1	1.1	1.1	1.1	1.0	1.0
COUNTY-OTHER, LAMPASAS	1.4	1.4	1.7	2.2	2.6	3.2
COUNTY-OTHER, LEE	1.2	1.1	1.0	1.0	1.0	1.0
COUNTY-OTHER, LIMESTONE	1.7	1.8	1.9	1.9	1.9	1.8
COUNTY-OTHER, MCLENNAN	0.8	1.0	1.2	1.5	1.9	2.7
COUNTY-OTHER, MILAM	1.2	1.2	1.2	1.1	1.1	1.0
COUNTY-OTHER, NOLAN	1.1	1.1	1.1	1.1	1.0	1.0
COUNTY-OTHER, PALO PINTO	1.0	1.0	1.0	1.0	1.0	1.0
COUNTY-OTHER, ROBERTSON	1.0	1.1	1.1	1.1	1.1	1.1
COUNTY-OTHER, SHACKELFORD	1.0	1.7	1.9	2.3	2.5	2.5
COUNTY-OTHER, SOMERVELL	1.0	1.2	1.1	1.1	1.0	1.0
COUNTY-OTHER, STEPHENS	1.1	1.1	1.1	1.1	1.1	1.1
COUNTY-OTHER, STONEWALL	1.0	1.1	1.1	1.1	1.1	1.1
COUNTY-OTHER, TAYLOR	1.6	1.6	1.6	1.5	1.4	1.0
COUNTY-OTHER, THROCKMORTON	3.3	3.5	3.5	3.5	3.5	3.7
COUNTY-OTHER, WASHINGTON	1.0	1.0	1.0	1.0	1.0	1.0

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
COUNTY-OTHER, WILLIAMSON*	1.0	3.6	2.1	1.5	1.2	1.2
COUNTY-OTHER, YOUNG*	1.3	1.2	1.2	1.1	1.1	1.0
CRAWFORD	1.1	1.2	1.3	1.3	1.3	1.3
CROSS COUNTRY WSC	1.4	1.5	1.4	1.4	1.4	1.4
CROSS PLAINS	1.5	1.4	1.4	1.5	1.5	1.5
CROWLEY*	1.0	1.0	1.0	1.0	1.0	1.0
DE LEON	1.4	1.4	1.4	1.4	1.4	1.4
DEANVILLE WSC	1.6	1.6	1.5	1.5	1.5	1.5
DOBBIN PLANTERSVILLE WSC*	1.1	1.1	1.0	1.0	1.0	1.0
DOG RIDGE WSC	2.3	2.3	2.1	1.8	1.7	1.5
DOUBLE DIAMOND UTILITIES	1.8	1.9	1.9	1.9	2.0	1.8
DUBLIN	1.2	1.2	1.2	1.2	1.1	1.0
EAST BELL WSC	2.7	2.4	2.2	1.9	1.7	1.6
EAST CRAWFORD WSC	1.0	1.0	1.0	1.0	1.0	1.0
EASTLAND	3.5	3.4	3.5	3.5	3.4	3.4
ELM CREEK WSC	1.3	1.2	1.0	1.0	1.0	1.0
EOL WSC	2.2	2.1	2.1	2.0	1.9	1.8
EULA WSC	1.0	1.0	1.0	1.0	1.0	1.0
FERN BLUFF MUD	1.0	1.1	1.2	1.2	1.3	1.3
FILES VALLEY WSC*	2.3	2.5	2.3	2.1	1.9	1.7
FLAT WSC	1.0	1.0	1.0	1.0	1.0	1.0
FLORENCE	1.0	1.0	1.0	1.0	1.0	1.0
FORT BELKNAP WSC	1.1	1.1	1.1	1.1	1.0	1.0
FORT GATES WSC	0.3	1.0	1.0	1.0	1.0	1.0
FORT GRIFFIN SUD	1.0	1.0	1.0	1.0	1.0	1.0
FORT HOOD	1.7	1.8	1.9	2.0	2.0	1.7
FORT WORTH*	1.1	1.0	1.0	1.0	1.0	1.0
FRANKLIN	4.6	4.3	3.8	3.3	2.8	2.4
G & W WSC*	1.1	1.1	1.1	1.1	1.1	1.0
GATESVILLE	0.8	1.1	1.1	1.1	1.1	1.1
GEORGETOWN*	0.6	1.1	1.2	1.0	1.0	1.0
GHOLSON WSC	2.4	2.2	2.1	1.9	1.8	1.7
GIDDINGS	1.5	1.4	1.5	1.5	1.4	1.4
GLEN ROSE	1.0	1.1	1.1	1.1	1.1	1.1
GODLEY	1.0	1.0	1.0	1.0	1.0	1.0
GORDON	1.0	1.0	1.1	1.1	1.1	1.1
GORMAN	1.8	1.9	1.9	1.9	2.0	2.0
GRAHAM	0.5	1.0	1.0	1.0	1.1	1.1
GRANBURY	1.4	2.5	2.3	2.1	2.0	1.9
GRANDVIEW	2.0	1.9	1.7	1.6	1.4	1.3
GRANGER	1.1	1.1	1.0	1.2	1.1	1.0
GROESBECK	0.0	2.6	2.6	2.6	2.6	2.6
H & H WSC	1.6	1.5	1.5	1.4	1.3	1.2
HAMBY WSC	1.9	1.9	1.9	1.9	1.9	1.9
HAMILTON	1.0	1.0	1.2	1.2	1.1	1.0
HAMLIN	1.3	1.3	1.3	1.2	1.2	1.2
HARKER HEIGHTS	1.3	1.3	1.3	1.1	1.1	1.0
HASKELL	0.1	1.0	1.0	1.0	1.0	1.0

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
HAWLEY WSC	1.3	1.3	1.3	1.3	1.2	1.2
HEARNE	3.7	3.2	2.6	2.6	2.6	2.6
HEWITT	0.8	1.2	1.1	1.0	1.0	1.0
HICO	3.2	3.2	3.3	3.4	3.4	3.4
HIGHLAND PARK WSC	1.0	1.0	1.1	1.1	1.2	1.2
HILCO UNITED SERVICES*	1.3	1.2	1.2	1.1	1.1	1.0
HILL COUNTY WSC	1.7	1.7	1.6	1.6	1.5	1.5
HILLSBORO	1.9	1.8	1.9	1.9	1.8	1.7
HILLTOP WSC	4.4	4.2	4.1	3.9	3.7	3.5
HOLLAND	3.1	3.1	3.2	3.2	3.2	3.2
HUBBARD	2.6	2.6	2.7	2.5	2.4	2.2
HUTTO	0.6	1.0	1.0	1.0	1.0	1.0
IRRIGATION, BELL	1.0	1.0	1.1	1.0	1.0	1.0
IRRIGATION, BOSQUE	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, BRAZOS	1.2	1.2	1.2	1.2	1.2	1.2
IRRIGATION, BURLESON	1.0	1.0	1.1	1.1	1.1	1.1
IRRIGATION, CALLAHAN	1.4	1.4	1.4	1.4	1.4	1.4
IRRIGATION, COMANCHE	0.6	0.6	0.6	0.6	0.6	0.6
IRRIGATION, CORYELL	3.4	3.4	3.4	3.4	3.4	3.4
IRRIGATION, EASTLAND	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, ERATH	1.1	1.1	1.1	1.1	1.1	1.1
IRRIGATION, FALLS	1.2	1.2	1.2	1.2	1.2	1.2
IRRIGATION, FISHER	1.2	1.2	1.2	1.2	1.2	1.2
IRRIGATION, GRIMES	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, HAMILTON	1.3	1.3	1.3	1.2	1.2	1.2
IRRIGATION, HASKELL	0.7	0.8	0.8	0.8	0.8	0.8
IRRIGATION, HILL	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, HOOD	1.1	1.1	1.1	1.1	1.1	1.1
IRRIGATION, JOHNSON	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, JONES	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, KENT	1.6	1.6	1.6	1.6	1.6	1.6
IRRIGATION, KNOX	0.7	0.7	0.7	0.8	0.8	0.7
IRRIGATION, LAMPASAS	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, LEE	1.2	1.2	1.2	1.2	1.2	1.2
IRRIGATION, LIMESTONE	5.0	5.0	5.0	5.0	5.0	5.0
IRRIGATION, MCLENNAN	1.2	1.2	1.2	1.2	1.2	1.2
IRRIGATION, MILAM	1.1	1.0	1.0	1.1	1.1	1.1
IRRIGATION, NOLAN	0.3	0.3	0.4	0.4	0.4	0.4
IRRIGATION, PALO PINTO	1.0	1.7	1.7	1.7	1.7	1.7
IRRIGATION, ROBERTSON	0.9	0.8	0.9	0.8	0.8	0.8
IRRIGATION, SHACKELFORD	1.4	1.4	1.4	1.4	1.4	1.4
IRRIGATION, SOMERVELL	1.4	1.4	1.4	1.4	1.4	1.4
IRRIGATION, STEPHENS	0.4	0.5	0.5	0.5	0.5	0.5
IRRIGATION, STONEWALL	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, TAYLOR	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, THROCKMORTON	1.0	1.0	1.0	1.0	1.0	1.0
IRRIGATION, WASHINGTON	1.6	1.6	1.6	1.6	1.6	1.6
IRRIGATION, WILLIAMSON	1.0	1.0	1.0	0.6	0.6	0.6

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
IRRIGATION, YOUNG*	1.0	1.0	1.1	1.1	1.1	1.1
ITASCA	1.4	1.4	1.4	1.4	1.4	1.3
JARRELL-SCHWERTNER	3.1	2.7	2.3	1.9	1.6	1.3
JAYTON	2.1	3.3	3.3	3.3	3.3	3.3
JOHNSON COUNTY SUD*	1.0	1.6	2.0	1.8	1.8	1.7
JONAH WATER SUD	1.1	1.1	1.1	1.0	1.0	1.0
KEENE	2.9	2.5	2.2	1.9	1.7	1.5
KEMPNER WSC*	1.3	1.7	1.6	1.8	1.7	1.6
KILLEEN	1.0	1.1	1.1	1.1	1.1	1.1
KNOX CITY	0.0	1.0	1.0	1.0	1.0	1.0
LACY LAKEVIEW	2.5	2.4	2.3	2.1	2.0	1.9
LAKE PALO PINTO AREA WSC	1.5	1.4	1.3	1.2	1.1	1.1
LAMPASAS	0.9	1.3	1.2	1.2	1.1	1.1
LAWN	1.2	1.2	1.3	1.3	1.3	1.3
LEANDER*	3.0	1.9	1.6	1.4	1.1	1.0
LEE COUNTY WSC*	3.5	3.1	2.9	2.7	2.6	2.4
LEROY TOURS GERALD WSC	3.3	3.2	3.1	3.0	2.9	2.7
LEVI WSC	4.7	4.5	4.3	4.1	3.9	3.7
LEXINGTON	2.7	2.6	2.5	2.4	2.4	2.4
LIBERTY HILL	6.0	5.2	4.4	3.8	3.3	3.0
LIPAN	1.5	1.3	1.2	1.2	1.1	1.1
LITTLE ELM VALLEY WSC	2.2	2.0	1.8	1.6	1.5	1.3
LIVESTOCK, BELL	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, BOSQUE	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, BRAZOS	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, BURLESON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, CALLAHAN	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, COMANCHE	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, CORYELL	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, EASTLAND	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, ERATH	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, FALLS	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, FISHER	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, GRIMES	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, HAMILTON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, HASKELL	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, HILL	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, HOOD	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, JOHNSON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, JONES	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, KENT	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, KNOX	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, LAMPASAS	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, LEE	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, LIMESTONE	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, MCLENNAN	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, MILAM	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, NOLAN	1.0	1.0	1.0	1.0	1.0	1.0

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
LIVESTOCK, PALO PINTO	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, ROBERTSON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, SHACKELFORD	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, SOMERVELL	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, STEPHENS	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, STONEWALL	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, TAYLOR	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, THROCKMORTON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, WASHINGTON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, WILLIAMSON	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, YOUNG*	1.0	1.0	1.0	1.0	1.0	1.0
LORENA	2.8	3.8	3.5	3.2	3.0	2.8
MANSFIELD*	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, BELL	0.8	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, BOSQUE	27.3	22.4	22.4	22.4	22.4	22.4
MANUFACTURING, BRAZOS	1.4	1.6	1.6	1.6	1.6	1.6
MANUFACTURING, BURLESON	1.2	1.2	1.2	1.2	1.2	1.2
MANUFACTURING, COMANCHE	1.3	1.2	1.2	1.2	1.2	1.2
MANUFACTURING, CORYELL	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, EASTLAND	1.9	1.8	1.8	1.8	1.8	1.8
MANUFACTURING, ERATH	1.0	1.0	1.1	1.2	1.3	1.4
MANUFACTURING, FISHER	1.5	1.3	1.3	1.3	1.3	1.3
MANUFACTURING, GRIMES	1.4	1.4	1.4	1.4	1.5	1.7
MANUFACTURING, HAMILTON	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, HILL	45.0	50.0	55.0	60.0	65.0	70.0
MANUFACTURING, HOOD	716.1	589.7	589.7	589.7	589.7	589.7
MANUFACTURING, JOHNSON	1.6	1.6	1.8	2.0	2.1	2.3
MANUFACTURING, KNOX	7.3	7.3	7.3	7.3	7.3	7.3
MANUFACTURING, LAMPASAS	1.0	1.0	1.0	1.0	1.0	1.1
MANUFACTURING, LEE	1.9	1.8	1.9	2.0	2.1	2.3
MANUFACTURING, LIMESTONE	1.2	1.1	1.1	1.1	1.1	1.1
MANUFACTURING, MCLENNAN	1.4	1.0	1.1	1.1	1.2	1.2
MANUFACTURING, MILAM	1.2	1.1	1.1	1.1	1.1	1.1
MANUFACTURING, NOLAN	1.1	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, PALO PINTO	97.6	85.0	89.0	92.9	93.5	94.1
MANUFACTURING, ROBERTSON	90.5	90.5	90.5	90.5	90.5	90.5
MANUFACTURING, SHACKELFORD	3.8	3.8	3.8	3.8	3.8	3.8
MANUFACTURING, SOMERVELL	2.7	2.0	2.0	2.0	2.0	2.0
MANUFACTURING, STEPHENS	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, STONEWALL	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, TAYLOR	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, WASHINGTON	1.0	1.0	1.1	1.1	1.1	1.1
MANUFACTURING, WILLIAMSON*	1.3	1.3	1.3	1.3	1.3	1.3
MANUFACTURING, YOUNG	2.3	2.0	2.1	2.2	2.4	2.5
MANVILLE WSC*	1.8	1.6	1.4	1.2	1.1	1.0
MARLIN	1.5	1.5	2.7	2.8	2.8	2.8
MART	1.0	1.7	1.7	1.6	1.6	1.6
MCGREGOR	3.0	3.1	3.0	2.9	2.8	2.7

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
MCLENNAN COUNTY WCID 2	2.6	2.5	2.4	2.2	2.1	2.0
MERIDIAN	2.1	2.9	2.8	2.7	2.6	2.5
MERKEL	1.0	1.0	1.0	1.0	1.0	1.0
MEXIA	1.9	1.7	1.4	1.2	1.0	1.0
MILANO WSC	1.3	1.0	1.1	1.0	1.1	1.1
MINERAL WELLS*	0.9	1.0	1.0	1.0	1.0	1.0
MINING, BELL	1.8	1.5	1.3	1.2	1.0	1.0
MINING, BOSQUE	0.8	0.8	0.9	0.9	0.9	0.9
MINING, BRAZOS	1.5	1.0	1.1	1.4	1.8	2.0
MINING, BURLESON	2.0	1.0	1.3	1.8	2.9	4.7
MINING, CALLAHAN	1.0	1.0	1.0	1.0	1.0	1.0
MINING, COMANCHE	1.2	1.0	1.4	1.9	2.7	4.0
MINING, CORYELL	1.0	1.4	3.1	4.1	3.8	3.4
MINING, EASTLAND	1.0	1.0	1.3	1.7	2.2	2.7
MINING, ERATH	2.0	1.9	2.7	3.3	4.3	5.7
MINING, FALLS	1.0	1.0	1.0	1.0	1.0	1.0
MINING, FISHER	1.0	1.0	1.0	1.0	1.0	1.0
MINING, GRIMES	1.8	1.0	1.3	1.8	2.8	4.5
MINING, HAMILTON	1.0	1.7	3.8	0.0	0.0	0.0
MINING, HASKELL	0.0	0.1	0.1	0.1	0.1	0.1
MINING, HILL	0.9	1.2	1.9	3.5	3.3	3.0
MINING, HOOD	1.1	1.0	1.1	1.2	1.2	1.2
MINING, JOHNSON	1.0	1.0	1.0	1.5	1.3	1.2
MINING, JONES	1.0	1.0	1.0	1.0	1.0	1.0
MINING, KENT	19.0	19.0	20.6	22.5	24.9	27.7
MINING, KNOX	2.1	2.1	2.2	2.2	2.3	2.3
MINING, LAMPASAS	1.0	1.0	1.0	1.0	1.0	1.0
MINING, LEE	1.0	1.0	0.0	0.0	0.0	0.0
MINING, LIMESTONE	0.3	0.4	0.4	0.4	0.4	0.3
MINING, MCLENNAN	1.6	1.4	1.4	1.2	1.1	1.0
MINING, MILAM	5.4	4.6	4.4	4.9	5.1	5.1
MINING, NOLAN	1.0	1.7	1.7	1.8	1.9	2.0
MINING, PALO PINTO	1.0	1.0	1.1	1.1	1.1	1.1
MINING, ROBERTSON	1.6	1.3	1.3	1.3	1.3	1.3
MINING, SHACKELFORD	0.4	0.3	0.4	0.5	0.7	0.9
MINING, SOMERVELL	1.1	1.0	1.1	1.2	1.2	1.3
MINING, STEPHENS	0.3	0.4	0.4	0.5	0.6	0.6
MINING, STONEWALL	1.0	1.0	1.2	1.3	1.5	1.7
MINING, TAYLOR	0.4	1.0	1.0	1.0	1.0	1.0
MINING, THROCKMORTON	1.0	1.0	1.2	1.3	1.5	1.7
MINING, WASHINGTON	1.0	1.0	1.0	1.0	1.0	1.0
MINING, WILLIAMSON*	0.1	0.1	0.1	0.1	0.1	0.1
MINING, YOUNG	1.4	1.0	1.4	1.8	2.6	3.7
MOFFAT WSC	3.0	3.1	3.0	2.9	2.7	2.5
MOODY	3.0	2.9	2.8	2.6	2.5	2.4
MORGANS POINT RESORT	3.3	2.8	2.5	2.2	1.9	1.7
MOUNTAIN PEAK SUD*	1.0	1.0	1.0	1.0	1.0	1.0
MOUNTAIN WSC	1.7	1.5	1.3	1.2	1.1	1.0

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
MULTI COUNTY WSC	1.3	5.4	4.0	3.3	2.7	1.7
MUNDAY	0.0	1.0	1.0	1.0	1.0	1.0
MUSTANG VALLEY WSC	1.0	1.0	1.1	1.2	1.2	1.2
NAVASOTA	1.4	1.4	1.5	1.5	1.5	1.4
NORTH BOSQUE WSC	1.1	1.3	1.2	1.1	1.1	1.1
NORTH MILAM WSC	1.8	1.6	1.5	1.6	1.6	1.5
NORTH RUNNELS WSC*	1.0	1.0	1.0	1.0	1.0	1.0
NORTH RURAL WSC*	1.4	1.4	1.3	1.3	1.3	1.3
OGLESBY	4.0	3.6	3.3	3.1	2.8	2.6
PALO PINTO WSC	1.6	1.5	1.5	1.4	1.4	1.4
PALOMA LAKE MUD 1	1.0	1.0	1.0	1.0	1.0	1.0
PALOMA LAKE MUD 2	1.0	1.0	1.0	1.0	1.0	1.0
PARKER COUNTY SUD*	1.2	1.0	1.0	1.0	1.0	1.0
PARKER WSC	1.7	1.5	1.3	1.1	1.0	1.0
PENDLETON WSC	2.2	2.1	2.1	2.0	1.9	1.8
PFLUGERVILLE*	1.4	1.3	1.1	1.0	1.0	1.0
POINT ENTERPRISE WSC*	1.1	1.1	1.1	1.1	1.0	1.0
POSSUM KINGDOM WSC	3.2	3.1	3.0	3.0	3.0	3.0
POST OAK SUD*	1.0	1.0	1.0	1.0	1.0	1.0
POTOSI WSC	1.0	1.0	1.0	1.0	1.0	1.0
PRAIRIE HILL WSC	1.6	1.6	1.5	1.5	1.4	1.4
RANGER	3.7	3.8	3.9	3.9	4.0	4.0
RED RIVER AUTHORITY OF TEXAS*	1.2	1.3	1.4	1.3	1.3	1.3
RIESEL	1.9	1.9	1.9	1.9	1.8	1.8
RIO VISTA	2.2	1.8	1.6	1.3	1.2	1.0
RISING STAR	1.7	1.8	1.8	1.8	1.8	1.8
ROBERTSON COUNTY WSC	2.1	1.8	1.5	1.3	1.2	1.0
ROBINSON	2.6	2.3	2.0	1.8	1.6	1.4
ROBY	1.3	1.4	1.4	1.4	1.4	1.4
ROCKDALE	1.0	1.0	1.0	1.0	1.0	1.0
ROGERS	2.7	2.6	2.5	2.4	2.3	2.2
ROSCOE	1.0	1.0	1.0	1.0	1.0	1.0
ROSEBUD	3.6	3.6	3.7	3.7	3.7	3.6
ROSS WSC	2.2	2.1	2.0	1.9	1.8	1.7
ROTAN	1.0	1.0	1.0	1.0	1.0	1.0
ROUND ROCK*	1.9	1.8	1.5	1.2	1.2	1.2
SALADO WSC	1.2	1.3	1.3	1.3	1.3	1.3
SALEM ELM RIDGE WSC	3.2	3.1	3.1	3.0	2.9	2.8
SANTO SUD*	1.2	1.2	1.1	1.1	1.0	1.0
SLC WSC	1.1	1.1	1.1	1.1	1.1	1.1
SMITH BEND WSC	2.2	2.0	2.0	2.0	2.0	2.5
SNOOK	1.7	1.7	1.7	1.7	1.8	1.8
SOMERVELL COUNTY WATER DISTRICT	9.5	3.6	3.5	3.3	3.2	3.1
SOMERVILLE	3.3	3.1	2.9	2.7	2.4	2.2
SONTERRA MUD	6.3	6.2	6.1	5.9	5.6	5.4
SOUTHWEST MILAM WSC	1.1	1.0	1.0	1.0	1.0	1.0
SPORTSMANS WORLD MUD	3.4	3.2	3.1	3.0	3.0	2.9
SPRING VALLEY WSC	1.8	1.7	1.6	1.5	1.4	1.4

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Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
STAFF WSC	1.5	1.6	1.7	1.7	1.7	1.7
STAMFORD	1.4	1.5	1.5	1.5	1.6	1.6
STEAM ELECTRIC POWER, BELL	2.1	2.1	2.1	2.1	2.1	2.1
STEAM ELECTRIC POWER, BOSQUE	2.3	2.3	2.3	2.3	2.3	2.3
STEAM ELECTRIC POWER, BRAZOS	2.4	2.5	2.5	2.5	2.5	2.5
STEAM ELECTRIC POWER, GRIMES	1.3	1.3	1.3	1.3	1.3	1.3
STEAM ELECTRIC POWER, HILL	0.0	0.0	0.0	0.0	0.0	0.0
STEAM ELECTRIC POWER, HOOD	1.0	1.0	1.0	1.0	1.0	1.0
STEAM ELECTRIC POWER, JOHNSON	1.0	1.0	1.0	1.0	1.0	1.0
STEAM ELECTRIC POWER, LIMESTONE	1.0	1.0	1.0	1.0	1.0	1.0
STEAM ELECTRIC POWER, MCLENNAN	2.2	2.2	2.2	2.2	2.2	2.2
STEAM ELECTRIC POWER, MILAM	0.0	0.0	0.0	0.0	0.0	0.0
STEAM ELECTRIC POWER, PALO PINTO	24.2	24.2	24.2	24.2	24.2	24.2
STEAM ELECTRIC POWER, ROBERTSON	1.0	1.0	1.0	1.2	1.2	1.2
STEAM ELECTRIC POWER, SOMERVELL	0.5	0.5	0.5	0.5	0.5	0.5
STEAM ELECTRIC POWER, YOUNG	1.0	1.0	1.0	1.0	1.0	1.0
STEAMBOAT MOUNTAIN WSC	1.0	1.0	1.0	1.0	1.0	1.0
STEPHENS REGIONAL SUD	1.6	1.6	1.6	1.6	1.6	1.6
STEPHENVILLE	2.3	2.1	2.0	1.9	1.8	1.7
STRAWN	1.0	1.0	1.1	1.0	1.0	1.0
STURDIVANT PROGRESS WSC	1.3	1.2	1.2	1.2	1.2	1.1
SWEETWATER	1.4	2.2	2.2	2.1	2.1	2.1
TAYLOR	1.0	1.8	1.9	1.8	1.8	1.7
TDCJ LUTHER UNITS	2.9	2.7	2.7	2.5	2.4	2.3
TDCJ W PACK UNIT	1.6	1.6	1.6	1.6	1.6	1.5
TEMPLE	1.1	1.3	1.2	1.2	1.2	1.1
TEXAS A&M UNIVERSITY	1.0	1.1	1.3	1.4	1.4	1.5
TEXAS STATE TECHNICAL COLLEGE	1.0	1.1	1.2	1.3	1.3	1.4
THE BITTER CREEK WSC	1.0	1.0	1.0	1.0	1.0	1.0
THE GROVE WSC	1.0	1.3	1.3	1.3	1.3	1.2
THORNDALE	1.1	1.1	1.1	1.0	1.0	1.0
THROCKMORTON	0.3	11.3	11.6	11.6	11.6	11.5
TOLAR	1.6	1.3	1.2	1.1	1.1	1.0
TRI COUNTY SUD	5.4	5.4	5.5	5.7	5.6	5.5
TROY	5.7	5.3	4.9	4.5	4.1	3.8
TWIN CREEK WSC	2.6	2.5	2.4	2.2	2.1	2.0
TYE	1.0	1.0	1.0	1.0	1.0	1.0
VALLEY MILLS	1.2	1.8	1.8	1.8	1.8	1.8
VENUS*	1.0	1.0	1.0	1.0	1.0	1.0
VIEW CAPS WSC	1.0	1.0	1.0	1.0	1.0	1.0
WACO	1.4	1.7	1.7	1.6	1.6	1.5
WALSH RANCH MUD	1.0	1.1	1.2	1.2	1.3	1.4
WELLBORN SUD	2.0	1.5	1.4	1.3	1.1	1.0
WEST	3.0	3.1	3.0	2.9	2.9	2.8
WEST BELL COUNTY WSC	2.2	2.1	2.1	2.1	2.1	2.1
WEST BRAZOS WSC	2.3	2.3	2.3	2.2	2.1	2.0
WEST END WSC*	1.0	1.0	1.0	1.0	1.0	1.1
WHITE ROCK WSC	3.5	3.4	3.4	3.3	3.2	3.1

*A single asterisk next to a WUG's name denotes that the WUG is split by more than one planning region.

Region G Water User Group (WUG) Management Supply Factor

	WUG MANAGEMENT SUPPLY FACTOR					
WUG NAME	2020	2030	2040	2050	2060	2070
WHITNEY	1.0	1.0	1.1	1.0	1.0	1.0
WICKSON CREEK SUD	2.0	1.8	1.6	1.4	1.2	1.0
WILLIAMSON COUNTY MUD 10	1.0	1.1	1.2	1.3	1.3	1.4
WILLIAMSON COUNTY MUD 11	1.0	1.1	1.2	1.3	1.3	1.3
WILLIAMSON COUNTY MUD 9	1.0	1.1	1.2	1.2	1.3	1.3
WILLIAMSON COUNTY WSID 3*	1.2	1.1	1.1	1.1	1.0	1.0
WILLIAMSON TRAVIS COUNTIES MUD 1*	1.4	1.4	1.4	1.4	1.4	1.4
WINDSOR WATER	2.4	2.2	2.1	2.0	1.9	1.8
WOODROW OSCEOLA WSC	2.0	2.1	2.1	2.0	2.0	1.9
WOODWAY	1.1	1.1	1.2	1.3	1.3	1.4

*A single asterisk next to a WUG's name denotes that the WUG is split by more than one planning region.

Region G Recommended Water Management Strategy (WMS) Supply Associated with a New or Amended Inter-Basin Transfer (IBT) Permit

IBT WMS supply is the portion of the total WMS benefitting WUGs that will require a new or amended IBT permit that is not considered exempt under the Texas Water Code § 11.085.

			IBT WMS SUPPLY (ACRE-FEET PER YEAR)					
WMS NAME	SOURCE BASIN	RECIPIENT WUG BASIN	2020	2030	2040	2050	2060	2070
BRA SYSTEM OPERATION--SURPLUS	BRAZOS	COLORADO	212	212	212	212	212	212

Region G Water User Groups (WUGs)
Recommended Water Management Strategy (WMS) Supply Associated with a New or Amended Inter-Basin Transfer (IBT) Permit and Total Recommended Conservation WMS Supply

IBT WMS supply is the portion of the total WMS benefitting the WUG basin split listed that will require a new or amended IBT permit that is not considered exempt under the Texas Water Code § 11.085. Total conservation supply represents all conservation WMS volumes recommended within the WUG's region-basin geographic split.

BENEFITTING WUG NAME | BASIN	WMS SOURCE ORIGIN BASIN | WMS NAME	WMS SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
BETHESDA WSC | BRAZOS BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	21	29	35
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	12
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**21**	**29**	**47**
	TOTAL RECOMMENDED CONSERVATION	**0**	**15**	**35**	**56**	**63**	**70**
BETHESDA WSC | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	432	585	701
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	237
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**432**	**585**	**938**
	TOTAL RECOMMENDED CONSERVATION	**0**	**312**	**700**	**1,134**	**1,268**	**1,417**
BURLESON | BRAZOS BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	1	1	1
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	0
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**1**	**1**	**1**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
BURLESON | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	1,013	1,270	1,382
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	468
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**1,013**	**1,270**	**1,850**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
CLEBURNE | BRAZOS BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	4,791	4,563	3,911
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	1,323
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**4,791**	**4,563**	**5,234**
	TOTAL RECOMMENDED CONSERVATION	**0**	**561**	**942**	**1,018**	**1,171**	**1,302**
COUNTY-OTHER, JOHNSON | BRAZOS BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	115	118	108
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	36
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**115**	**118**	**144**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
COUNTY-OTHER, JOHNSON | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	242	252	226
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	76
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**242**	**252**	**302**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
CROWLEY | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	3	6	7
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	2
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**3**	**6**	**9**
	TOTAL RECOMMENDED CONSERVATION	**0**	**1**	**2**	**3**	**1**	**3**
FILES VALLEY WSC | BRAZOS BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	1	3	4

Region G Water User Groups (WUGs)
Recommended Water Management Strategy (WMS) Supply Associated with a New or Amended Inter-Basin Transfer (IBT) Permit and Total Recommended Conservation WMS Supply

FILES VALLEY WSC | BRAZOS BASIN	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	1
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**1**	**3**	**5**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
FILES VALLEY WSC | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	2	7	8
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	3
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**2**	**7**	**11**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
FORT WORTH | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	90	181	239
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	81
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**90**	**181**	**320**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**67**	**98**	**107**
JOHNSON COUNTY SUD | BRAZOS BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	552	585	542
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	184
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**552**	**585**	**726**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
JOHNSON COUNTY SUD | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	1,137	1,203	1,116
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	377
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**1,137**	**1,203**	**1,493**
	TOTAL RECOMMENDED CONSERVATION	**0**	**0**	**0**	**0**	**0**	**0**
MANSFIELD | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	301	391	434
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	147
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**301**	**391**	**581**
	TOTAL RECOMMENDED CONSERVATION	**28**	**121**	**261**	**454**	**698**	**990**
MOUNTAIN PEAK SUD | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	144	245	274
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	181
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**144**	**245**	**455**
	TOTAL RECOMMENDED CONSERVATION	**55**	**141**	**155**	**191**	**222**	**252**
NORTH RUNNELS WSC | COLORADO BASIN	BRAZOS BASIN | BRA SYSTEM OPERATION--SURPLUS	31	31	30	30	30	30
	TOTAL RECOMMENDED IBT WMS SUPPLY	**31**	**31**	**30**	**30**	**30**	**30**
	TOTAL RECOMMENDED CONSERVATION	**1**	**1**	**1**	**1**	**1**	**1**
VENUS | TRINITY BASIN	SULPHUR BASIN | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD	0	0	0	93	123	138
	SULPHUR BASIN | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD	0	0	0	0	0	46
	TOTAL RECOMMENDED IBT WMS SUPPLY	**0**	**0**	**0**	**93**	**123**	**184**
	TOTAL RECOMMENDED CONSERVATION	**0**	**59**	**115**	**126**	**140**	**157**

Region G Sponsored Recommended Water Management Strategy (WMS) Supplies Unallocated* to Water User Groups (WUG)

WMS NAME	WMS SPONSOR	SOURCE NAME	UNALLOCATED STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
BRA SYSTEM OPERATION--SURPLUS	FHLM WSC	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	0	1,934	1,934	1,934	1,934	1,934
BRA SYSTEM OPERATION--SURPLUS	WEST CENTRAL TEXAS MWD	G | BRA SYSTEM OPERATIONS PERMIT SUPPLY	774	774	774	774	774	774
CARRIZO AQUIFER DEVELOPMENT - BISTONE MWSD	BISTONE MUNICIPAL WATER SUPPLY DISTRICT	G | CARRIZO-WILCOX AQUIFER | LIMESTONE COUNTY	0	0	0	0	274	97
CEDAR RIDGE RESERVOIR	ABILENE	G | CEDAR RIDGE LAKE/RESERVOIR	0	0	0	2,535	5,592	8,586
COLLEGE STATION ASR	COLLEGE STATION	G | SPARTA AND QUEEN CITY AQUIFER ASR FRESH/BRACKISH | BRAZOS COUNTY	0	3,640	3,640	3,640	3,640	3,640
LAKE AQUILLA POOL REALLOCATION	BRAZOS RIVER AUTHORITY	G | BRAZOS RIVER AUTHORITY AQUILLA LAKE/RESERVOIR SYSTEM	0	0	0	0	2,483	2,483
LAKE GRANGER ASR	CENTRAL TEXAS WSC	G | TRINITY AQUIFER ASR | WILLIAMSON COUNTY	0	3,787	7,413	3,306	2,298	3,418
LAKE GRANGER AUGMENTATION-PH 2 (SURFACE WATER)	BELL COUNTY WCID #1	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	0	2,659	2,586	2,545	2,475	2,407
LAKE GRANGER AUGMENTATION-PH 2 (SURFACE WATER)	BLUEBONNET WSC	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	0	1,219	1,257	1,262	1,297	1,330
LAKE GRANGER AUGMENTATION-PH 2 (SURFACE WATER)	UPPER LEON MWD	G | BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	0	1,122	1,157	1,193	1,228	1,263
NCTMWA LAKE CREEK RESERVOIR	NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	G | NCTMWA LAKE CREEK LAKE/RESERVOIR	0	11,964	12,015	12,014	11,991	11,965
REUSE- WMARSS FLAT CREEK	WACO	G | DIRECT NON-POTABLE REUSE	2,147	2,147	2,147	2,147	2,147	2,147
STORAGE REALLOCATION OF LAKE WHITNEY	BRAZOS RIVER AUTHORITY	G | BRAZOS RIVER AUTHORITY MAIN STEM LAKE/RESERVOIR SYSTEM	0	0	0	38,480	26,480	12,480
TURKEY PEAK RESERVOIR	PALO PINTO COUNTY MWD #1	G | TURKEY PEAK LAKE/RESERVOIR	0	3,282	3,107	2,902	2,699	2,499
UPPER BASIN CHLORIDE CONTROL PROJECT	SALT FORK WATER QUALITY CORPORATION	G | OTHER AQUIFER SALINE | KENT COUNTY	0	474	474	474	474	474
UPPER BASIN CHLORIDE CONTROL PROJECT	SALT FORK WATER QUALITY CORPORATION	G | OTHER AQUIFER SALINE | STONEWALL COUNTY	0	108	108	108	108	108
TOTAL UNALLOCATED STRATEGY SUPPLIES			**2,921**	**33,110**	**36,612**	**73,314**	**65,894**	**55,605**

* Strategy supplies created through the WMS that have not been assigned to a WUG will be allocated to the entity responsible for the water through an ‘unassigned water volumes’ entity. Only strategy supplies associated with an 'unassigned water volume' entity are shown in this report, and may not represent all strategy supplies associated with the listed WMS.

Region G Water User Group (WUG) Strategy Supplies by Water Management Strategy (WMS) Type

WMS TYPE *	STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
AQUIFER STORAGE & RECOVERY	0	17,897	27,448	31,515	35,043	35,908
CONJUNCTIVE USE	475	13,555	14,930	12,759	12,768	15,040
DIRECT POTABLE REUSE	0	8,232	8,232	8,232	8,232	8,232
GROUNDWATER DESALINATION	0	367	367	367	367	367
GROUNDWATER WELLS & OTHER	23,701	44,570	55,215	59,518	61,112	63,571
INDIRECT REUSE	0	3,866	8,972	8,819	10,458	10,451
IRRIGATION CONSERVATION	8,308	13,848	18,980	18,898	19,139	19,139
MUNICIPAL CONSERVATION	783	26,139	48,177	68,319	90,319	108,038
NEW MAJOR RESERVOIR	0	29,605	33,036	39,457	37,313	35,480
OTHER CONSERVATION	1,689	3,027	3,786	3,775	3,858	4,024
OTHER DIRECT REUSE	21,567	27,206	25,611	25,922	25,937	25,944
OTHER SURFACE WATER	62,530	102,851	108,538	118,216	138,225	165,438
OTHER STRATEGIES	0	0	0	0	0	0
SEAWATER DESALINATION	0	0	0	0	0	0
DROUGHT MANAGEMENT	0	0	0	0	0	0
TOTAL STRATEGY SUPPLIES	**119,053**	**291,163**	**353,292**	**395,797**	**442,771**	**491,632**

* WMS type descriptions can be found on the interactive state water plan website at http://texasstatewaterplan.org/ using the 'View data for' drop-down menus to navigate to a specific WMS Type page. The data used to create each WMS type value is available in Appendix 3 of the Guidelines for Regional Water Planning Data Deliverable (Exhibit D) document at http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2021/doc/current_docs/contract_docs/ExhibitD.pdf

Region G Water User Group (WUG)
Recommended Water Management Strategy (WMS) Supplies by Source Type

SOURCE SUBTYPE*	STRATEGY SUPPLY (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
AQUIFER STORAGE & RECOVERY	0	17,897	27,448	31,515	35,043	35,908
GROUNDWATER	23,701	56,580	68,563	70,658	72,224	76,918
GROUNDWATER TOTAL STRATEGY SUPPLIES	**23,701**	**74,477**	**96,011**	**102,173**	**107,267**	**112,826**
DIRECT NON-POTABLE REUSE	21,567	27,206	25,611	25,922	25,937	25,944
DIRECT POTABLE REUSE	0	8,232	8,232	8,232	8,232	8,232
INDIRECT NON-POTABLE REUSE	0	0	0	0	0	0
INDIRECT POTABLE REUSE	0	3,866	8,972	8,819	10,458	10,451
REUSE TOTAL STRATEGY SUPPLIES	**21,567**	**39,304**	**42,815**	**42,973**	**44,627**	**44,627**
ATMOSPHERE	0	0	0	0	0	0
GULF OF MEXICO	0	0	0	0	0	0
LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
OTHER LOCAL SUPPLY	0	0	0	9,000	9,000	9,000
RAINWATER HARVESTING	0	0	0	0	0	0
RESERVOIR	2,160	47,392	50,936	59,628	65,538	70,954
RESERVOIR SYSTEM	56,003	79,528	85,328	83,860	95,263	112,491
RUN-OF-RIVER	4,842	7,448	7,259	7,171	7,760	10,533
SURFACE WATER TOTAL STRATEGY SUPPLIES	**63,005**	**134,368**	**143,523**	**159,659**	**177,561**	**202,978**
REGION G TOTAL STRATEGY SUPPLIES	**108,273**	**248,149**	**282,349**	**304,805**	**329,455**	**360,431**

* A full list of source subtype definitions can be found in section 3 of the Guidelines for Regional Water Planning Data Deliverable (Exhibit D) document at http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2021/doc/current_docs/contract_docs/ExhibitD.pdf.

Region G Major Water Provider (MWP) Existing Sales and Transfers

Major Water Providers are entities of particular significance to a region's water supply as defined by the Regional Water Planning Group (RWPG), and may be a Water User Group (WUG) entity, Wholesale Water Provider (WWP) entity , or both (WUG/WWP).

Retail denotes WUG projected demands and existing water supplies used by the WUG. Wholesale denotes a WWP or WUG/WWP selling water to another entity.

439 WSC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,407	1,656	1,917	2,191	2,483	2,785
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,407**	**1,656**	**1,917**	**2,191**	**2,483**	**2,785**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,624	1,624	1,624	1,624	1,624	1,624
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,624**	**1,624**	**1,624**	**1,624**	**1,624**	**1,624**

ABILENE - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	22,261	22,698	23,050	23,440	23,874	24,238
PROJECTED WHOLESALE CONTRACT DEMANDS	16,787	16,873	16,873	16,873	16,873	16,873
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**39,048**	**39,571**	**39,923**	**40,313**	**40,747**	**41,111**
REUSE SALES TO RETAIL CUSTOMERS	1,250	1,250	1,250	1,250	1,250	2,260
SURFACE WATER SALES TO RETAIL CUSTOMERS	20,374	17,671	15,037	9,657	6,767	2,207
REUSE SALES TO WHOLESALE CUSTOMERS	6,590	6,590	6,590	6,590	6,590	5,580
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	10,197	10,283	10,283	10,283	10,283	11,293
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**38,411**	**35,794**	**33,160**	**27,780**	**24,890**	**21,340**

ACTON MUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	2,845	4,422	5,455	5,993	6,610	7,299
PROJECTED WHOLESALE CONTRACT DEMANDS	782	801	844	888	1,496	2,077
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,627**	**5,223**	**6,299**	**6,881**	**8,106**	**9,376**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,525	1,525	1,525	1,525	1,525	1,525
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,866	2,847	2,804	2,760	2,152	1,571
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	782	801	844	888	1,496	2,077
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**5,173**	**5,173**	**5,173**	**5,173**	**5,173**	**5,173**

ANSON - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	365	373	376	386	394	402
PROJECTED WHOLESALE CONTRACT DEMANDS	755	747	744	734	726	718
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,120**	**1,120**	**1,120**	**1,120**	**1,120**	**1,120**
SURFACE WATER SALES TO RETAIL CUSTOMERS	365	373	376	386	394	402
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	755	747	744	734	726	718
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,120**	**1,120**	**1,120**	**1,120**	**1,120**	**1,120**

AQUILLA WSD - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED WHOLESALE CONTRACT DEMANDS	6,512	5,952	5,952	5,952	5,952	5,952
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**6,512**	**5,952**	**5,952**	**5,952**	**5,952**	**5,952**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	5,953	5,953	5,953	5,953	5,952	5,690
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**5,953**	**5,953**	**5,953**	**5,953**	**5,952**	**5,690**

ARLINGTON - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Existing Sales and Transfers

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	66,810	68,113	68,511	69,419	69,282	69,277
PROJECTED WHOLESALE CONTRACT DEMANDS	3,983	4,407	4,663	4,947	5,264	5,596
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**70,793**	**72,520**	**73,174**	**74,366**	**74,546**	**74,873**
SURFACE WATER SALES TO RETAIL CUSTOMERS	66,819	60,028	53,553	48,960	44,990	41,625
REUSE SALES TO WHOLESALE CUSTOMERS	178	178	178	178	178	178
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	3,796	3,718	3,496	3,354	3,294	3,247
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**70,793**	**63,924**	**57,227**	**52,492**	**48,462**	**45,050**

BELL COUNTY WCID #1 - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED WHOLESALE CONTRACT DEMANDS	41,070	44,069	47,447	50,736	54,014	57,279
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**41,070**	**44,069**	**47,447**	**50,736**	**54,014**	**57,279**
REUSE SALES TO WHOLESALE CUSTOMERS	2,240	2,240	2,240	2,240	2,240	2,240
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	38,837	41,836	45,214	48,503	49,224	50,001
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**41,077**	**44,076**	**47,454**	**50,743**	**51,464**	**52,241**

BELL COUNTY WCID 3 - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,207	1,601	2,176	2,552	2,840	3,125
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,207**	**1,601**	**2,176**	**2,552**	**2,840**	**3,125**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,207	1,601	2,176	2,552	2,840	3,125
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,207**	**1,601**	**2,176**	**2,552**	**2,840**	**3,125**

BELLMEAD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,233	1,261	1,288	1,331	1,388	1,448
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,233**	**1,261**	**1,288**	**1,331**	**1,388**	**1,448**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,000	2,000	2,000	2,000	2,000	2,000
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,344	1,344	1,344	1,344	1,344	1,344
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,344**	**3,344**	**3,344**	**3,344**	**3,344**	**3,344**

BELTON - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	3,791	4,353	4,951	5,568	6,198	6,824
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,791**	**4,353**	**4,951**	**5,568**	**6,198**	**6,824**
SURFACE WATER SALES TO RETAIL CUSTOMERS	7,399	7,399	7,399	7,399	7,399	5,752
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**7,399**	**7,399**	**7,399**	**7,399**	**7,399**	**5,752**

BETHESDA WSC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	6,036	6,752	7,504	8,342	9,268	10,245
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**6,036**	**6,752**	**7,504**	**8,342**	**9,268**	**10,245**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,335	2,332	2,333	2,332	2,333	2,332
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,700	3,859	4,004	4,183	4,438	4,533
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**6,035**	**6,191**	**6,337**	**6,515**	**6,771**	**6,865**

BISTONE MUNICIPAL WATER SUPPLY DISTRICT- WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070

Region G Major Water Provider (MWP) Existing Sales and Transfers

PROJECTED RETAIL WUG DEMANDS	233	241	247	258	267	273
PROJECTED WHOLESALE CONTRACT DEMANDS	2,846	2,826	2,720	2,609	2,500	2,394
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,079**	**3,067**	**2,967**	**2,867**	**2,767**	**2,667**
GROUNDWATER SALES TO RETAIL CUSTOMERS	28	48	154	265	295	301
SURFACE WATER SALES TO RETAIL CUSTOMERS	321	221	121	21	0	0
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	2,067	2,047	1,941	1,830	1,800	1,794
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	779	779	779	779	700	600
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,195**	**3,095**	**2,995**	**2,895**	**2,795**	**2,695**

BLUEBONNET WSC - WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	7,125	7,125	7,125	7,125	7,125	7,125
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**7,125**	**7,125**	**7,125**	**7,125**	**7,125**	**7,125**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	6,897	6,854	6,808	6,763	6,717	6,671
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**6,897**	**6,854**	**6,808**	**6,763**	**6,717**	**6,671**

BRAZOS RIVER AUTHORITY - WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	738,124	738,297	738,542	738,835	739,195	739,463
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**738,124**	**738,297**	**738,542**	**738,835**	**739,195**	**739,463**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	692,638	691,508	690,450	689,440	686,275	681,841
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**692,638**	**691,508**	**690,450**	**689,440**	**686,275**	**681,841**

BRECKENRIDGE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,002	1,012	1,006	1,004	1,005	1,015
PROJECTED WHOLESALE CONTRACT DEMANDS	7	8	8	8	8	8
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,009**	**1,020**	**1,014**	**1,012**	**1,013**	**1,023**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,884	1,883	1,883	1,883	1,883	1,883
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	7	8	8	8	8	8
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,891**	**1,891**	**1,891**	**1,891**	**1,891**	**1,891**

BRENHAM - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	4,329	4,627	4,821	5,038	5,225	5,382
PROJECTED WHOLESALE CONTRACT DEMANDS	208	208	208	208	208	208
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**4,537**	**4,835**	**5,029**	**5,246**	**5,433**	**5,590**
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,701	3,701	3,701	3,701	3,701	3,701
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	208	208	208	208	208	208
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,909**	**3,909**	**3,909**	**3,909**	**3,909**	**3,909**

BRUCEVILLE EDDY - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,030	1,084	1,135	1,193	1,259	1,326
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,030**	**1,084**	**1,135**	**1,193**	**1,259**	**1,326**
GROUNDWATER SALES TO RETAIL CUSTOMERS	618	618	618	618	618	618
SURFACE WATER SALES TO RETAIL CUSTOMERS	908	902	896	890	884	878
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,526**	**1,520**	**1,514**	**1,508**	**1,502**	**1,496**

Region G Major Water Provider (MWP) Existing Sales and Transfers

BRUSHY CREEK MUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	3,084	3,022	2,985	2,965	2,960	2,959
PROJECTED WHOLESALE CONTRACT DEMANDS	518	518	518	518	518	518
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,602**	**3,540**	**3,503**	**3,483**	**3,478**	**3,477**
GROUNDWATER SALES TO RETAIL CUSTOMERS	31	31	31	31	31	31
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,807	2,785	2,763	2,741	2,719	2,697
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	518	518	518	518	518	518
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,356**	**3,334**	**3,312**	**3,290**	**3,268**	**3,246**

BRYAN - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	14,944	17,356	20,223	23,804	28,205	35,620
PROJECTED WHOLESALE CONTRACT DEMANDS	4,571	4,395	4,227	4,102	3,990	3,902
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**19,515**	**21,751**	**24,450**	**27,906**	**32,195**	**39,522**
GROUNDWATER SALES TO RETAIL CUSTOMERS	15,159	15,460	15,645	15,770	15,882	15,970
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	4,571	4,395	4,227	4,102	3,990	3,902
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**19,730**	**19,855**	**19,872**	**19,872**	**19,872**	**19,872**

BURLESON - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	6,466	7,484	8,553	9,718	10,980	12,309
PROJECTED WHOLESALE CONTRACT DEMANDS	2	2	2	2	2	2
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**6,468**	**7,486**	**8,555**	**9,720**	**10,982**	**12,311**
SURFACE WATER SALES TO RETAIL CUSTOMERS	6,463	6,439	6,516	6,652	6,868	7,105
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	2	2	2	2	2	2
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**6,465**	**6,441**	**6,518**	**6,654**	**6,870**	**7,107**

CALDWELL - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,027	1,043	1,072	1,072	1,091	1,108
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,027**	**1,043**	**1,072**	**1,072**	**1,091**	**1,108**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,276	2,276	2,276	2,276	2,276	2,276
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,276**	**2,276**	**2,276**	**2,276**	**2,276**	**2,276**

CAMERON - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,363	1,413	1,446	1,504	1,561	1,617
PROJECTED WHOLESALE CONTRACT DEMANDS	177	177	177	177	177	177
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,540**	**1,590**	**1,623**	**1,681**	**1,738**	**1,794**
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,615	2,615	2,615	2,615	2,615	2,615
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	177	177	177	177	177	177
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,792**	**2,792**	**2,792**	**2,792**	**2,792**	**2,792**

CEDAR PARK - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	19,108	20,969	21,044	21,007	20,988	20,980
PROJECTED WHOLESALE CONTRACT DEMANDS	2,392	2,447	2,447	2,447	2,447	2,447
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**21,500**	**23,416**	**23,491**	**23,454**	**23,435**	**23,427**

Region G Major Water Provider (MWP) Existing Sales and Transfers

SURFACE WATER SALES TO RETAIL CUSTOMERS	15,608	15,553	15,553	15,553	15,553	15,553
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	2,392	2,447	2,447	2,447	2,447	2,447
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**18,000**	**18,000**	**18,000**	**18,000**	**18,000**	**18,000**

CENTRAL TEXAS WSC - WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	10,537	10,537	10,537	10,537	10,537	10,537
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**10,537**	**10,537**	**10,537**	**10,537**	**10,537**	**10,537**
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	878	1,039	1,134	1,134	1,134	1,134
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	9,490	9,324	9,223	9,218	9,212	9,207
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**10,368**	**10,363**	**10,357**	**10,352**	**10,346**	**10,341**

CLEBURNE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	6,969	7,580	8,977	10,446	12,234	13,678
PROJECTED WHOLESALE CONTRACT DEMANDS	3,673	4,058	4,449	4,799	5,145	5,526
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**10,642**	**11,638**	**13,426**	**15,245**	**17,379**	**19,204**
GROUNDWATER SALES TO RETAIL CUSTOMERS	789	789	789	789	789	789
SURFACE WATER SALES TO RETAIL CUSTOMERS	8,011	7,554	7,091	6,669	6,250	5,565
REUSE SALES TO WHOLESALE CUSTOMERS	1,344	1,344	1,344	1,344	1,344	1,344
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	2,329	2,714	3,105	3,455	3,801	4,182
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**12,473**	**12,401**	**12,329**	**12,257**	**12,184**	**11,880**

COLLEGE STATION- WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	16,451	20,480	25,877	30,439	30,382	30,363
PROJECTED WHOLESALE CONTRACT DEMANDS	6	6	6	6	6	6
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**16,457**	**20,486**	**25,883**	**30,445**	**30,388**	**30,369**
GROUNDWATER SALES TO RETAIL CUSTOMERS	16,864	16,988	17,003	17,003	17,003	17,003
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	6	6	6	6	6	6
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**16,870**	**16,994**	**17,009**	**17,009**	**17,009**	**17,009**

COLORADO RIVER MWD - WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	78,771	63,361	66,028	68,933	71,891	75,368
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**78,771**	**63,361**	**66,028**	**68,933**	**71,891**	**75,368**
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	40,079	31,885	35,586	34,005	32,270	30,535
REUSE SALES TO WHOLESALE CUSTOMERS	1,855	1,855	1,855	1,855	1,855	1,855
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	30,350	29,320	28,290	27,260	26,230	25,200
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**72,284**	**63,060**	**65,731**	**63,120**	**60,355**	**57,590**

COPPERAS COVE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	4,304	4,722	5,225	5,707	6,267	6,833
PROJECTED WHOLESALE CONTRACT DEMANDS	132	129	126	125	125	125
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**4,436**	**4,851**	**5,351**	**5,832**	**6,392**	**6,958**
SURFACE WATER SALES TO RETAIL CUSTOMERS	8,692	8,695	8,698	8,699	6,142	5,031
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	132	129	126	125	125	125
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**8,824**	**8,824**	**8,824**	**8,824**	**6,267**	**5,156**

Region G Major Water Provider (MWP) Existing Sales and Transfers

CORIX UTILITIES TEXAS INC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,315	1,356	1,403	1,463	1,513	1,565
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,315**	**1,356**	**1,403**	**1,463**	**1,513**	**1,565**
GROUNDWATER SALES TO RETAIL CUSTOMERS	758	758	758	758	758	758
SURFACE WATER SALES TO RETAIL CUSTOMERS	526	525	525	525	525	526
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,284**	**1,283**	**1,283**	**1,283**	**1,283**	**1,284**

CORYELL CITY WATER SUPPLY DISTRICT- WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	933	1,044	1,171	1,287	1,413	1,542
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**933**	**1,044**	**1,171**	**1,287**	**1,413**	**1,542**
GROUNDWATER SALES TO RETAIL CUSTOMERS	83	83	83	83	83	83
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,182	1,292	1,417	1,531	1,656	1,783
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,265**	**1,375**	**1,500**	**1,614**	**1,739**	**1,866**

DOG RIDGE WSC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	724	821	924	1,036	1,152	1,268
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**724**	**821**	**924**	**1,036**	**1,152**	**1,268**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,638	1,638	1,638	1,638	1,638	1,638
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,638**	**1,638**	**1,638**	**1,638**	**1,638**	**1,638**

EASTLAND COUNTY WSD - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED WHOLESALE CONTRACT DEMANDS	5,387	5,395	5,395	5,395	5,395	5,395
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**5,387**	**5,395**	**5,395**	**5,395**	**5,395**	**5,395**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	4,375	4,345	4,315	4,285	4,255	4,225
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**4,375**	**4,345**	**4,315**	**4,285**	**4,255**	**4,225**

FERN BLUFF MUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,187	1,175	1,168	1,163	1,161	1,161
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,187**	**1,175**	**1,168**	**1,163**	**1,161**	**1,161**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,187	1,175	1,168	1,163	1,161	1,161
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,187**	**1,175**	**1,168**	**1,163**	**1,161**	**1,161**

FORT HOOD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	7,080	6,988	6,909	6,898	6,889	6,888
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**7,080**	**6,988**	**6,909**	**6,898**	**6,889**	**6,888**
SURFACE WATER SALES TO RETAIL CUSTOMERS	11,995	11,995	11,995	11,995	11,995	11,995
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**11,995**	**11,995**	**11,995**	**11,995**	**11,995**	**11,995**

FORT WORTH - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	189,110	234,597	286,277	317,771	345,469	373,410

Region G Major Water Provider (MWP) Existing Sales and Transfers

PROJECTED WHOLESALE CONTRACT DEMANDS	99,974	111,335	120,688	134,194	145,379	157,962
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**289,084**	**345,932**	**406,965**	**451,965**	**490,848**	**531,372**
REUSE SALES TO RETAIL CUSTOMERS	35,931	40,202	44,455	49,078	53,899	59,762
SURFACE WATER SALES TO RETAIL CUSTOMERS	147,041	144,415	143,983	138,914	134,498	128,337
REUSE SALES TO WHOLESALE CUSTOMERS	4,366	4,423	4,423	4,423	4,423	4,423
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	95,597	93,952	90,131	90,577	90,172	90,470
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**282,935**	**282,992**	**282,992**	**282,992**	**282,992**	**282,992**

GATESVILLE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	4,301	4,801	5,377	5,897	6,472	7,050
PROJECTED WHOLESALE CONTRACT DEMANDS	1,642	1,761	1,916	2,062	2,218	2,378
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**5,943**	**6,562**	**7,293**	**7,959**	**8,690**	**9,428**
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,260	3,109	2,922	2,743	2,555	2,362
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	1,642	1,761	1,916	2,062	2,218	2,378
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**4,902**	**4,870**	**4,838**	**4,805**	**4,773**	**4,740**

GEORGETOWN - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	26,851	34,979	43,505	53,659	65,054	78,352
PROJECTED WHOLESALE CONTRACT DEMANDS	3,474	4,287	5,305	6,428	7,727	9,013
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**30,325**	**39,266**	**48,810**	**60,087**	**72,781**	**87,365**
GROUNDWATER SALES TO RETAIL CUSTOMERS	119	177	569	792	792	792
SURFACE WATER SALES TO RETAIL CUSTOMERS	16,460	15,654	14,636	13,513	12,214	10,928
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	35	42	42	42	42	42
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	3,439	4,245	5,263	6,386	7,685	8,971
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**20,053**	**20,118**	**20,510**	**20,733**	**20,733**	**20,733**

GIDDINGS - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,154	1,268	1,328	1,347	1,364	1,374
PROJECTED WHOLESALE CONTRACT DEMANDS	13	14	15	16	17	18
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,167**	**1,282**	**1,343**	**1,363**	**1,381**	**1,392**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,730	1,729	1,728	1,727	1,726	1,725
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	13	14	15	16	17	18
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,743**	**1,743**	**1,743**	**1,743**	**1,743**	**1,743**

GRAHAM - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	2,788	2,891	2,959	3,052	3,157	3,262
PROJECTED WHOLESALE CONTRACT DEMANDS	1,348	1,360	1,365	1,367	1,374	1,381
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**4,136**	**4,251**	**4,324**	**4,419**	**4,531**	**4,643**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,426	1,309	1,190	1,070	949	828
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	849	846	845	845	846	847
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,275**	**2,155**	**2,035**	**1,915**	**1,795**	**1,675**

GRANBURY - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**

Region G Major Water Provider (MWP) Existing Sales and Transfers

PROJECTED RETAIL WUG DEMANDS	1,738	2,046	2,267	2,466	2,627	2,753
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,738**	**2,046**	**2,267**	**2,466**	**2,627**	**2,753**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,011	1,011	1,011	1,011	1,011	1,011
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,400	1,400	1,400	1,400	1,400	1,400
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,411**	**2,411**	**2,411**	**2,411**	**2,411**	**2,411**

HARKER HEIGHTS - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	6,099	7,043	8,042	9,060	10,087	11,106
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**6,099**	**7,043**	**8,042**	**9,060**	**10,087**	**11,106**
SURFACE WATER SALES TO RETAIL CUSTOMERS	8,203	8,184	8,164	8,145	8,125	8,106
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**8,203**	**8,184**	**8,164**	**8,145**	**8,125**	**8,106**

HEARNE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	759	898	1,065	1,062	1,060	1,060
PROJECTED WHOLESALE CONTRACT DEMANDS	44	46	49	52	55	59
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**803**	**944**	**1,114**	**1,114**	**1,115**	**1,119**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,799	2,797	2,794	2,791	2,788	2,784
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	44	46	49	52	55	59
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,843**	**2,843**	**2,843**	**2,843**	**2,843**	**2,843**

HEWITT - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	3,029	3,393	3,721	4,071	4,442	4,811
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,029**	**3,393**	**3,721**	**4,071**	**4,442**	**4,811**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,429	1,429	1,429	1,429	1,429	1,429
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,120	1,120	1,120	1,120	1,120	1,120
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,549**	**2,549**	**2,549**	**2,549**	**2,549**	**2,549**

HILLSBORO - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,987	2,070	2,122	2,189	2,251	2,283
PROJECTED WHOLESALE CONTRACT DEMANDS	6	7	9	10	11	12
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,993**	**2,077**	**2,131**	**2,199**	**2,262**	**2,295**
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,833	3,634	3,632	3,631	3,629	3,468
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	6	7	9	10	11	12
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,839**	**3,641**	**3,641**	**3,641**	**3,640**	**3,480**

HUNTSVILLE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	7,861	8,054	8,177	8,344	8,517	8,668
PROJECTED WHOLESALE CONTRACT DEMANDS	11,960	11,960	11,960	11,960	11,960	11,960
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**19,821**	**20,014**	**20,137**	**20,304**	**20,477**	**20,628**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,890	2,923	2,944	2,973	3,002	3,028
SURFACE WATER SALES TO RETAIL CUSTOMERS	19,400	19,400	19,400	19,400	19,400	19,400
REUSE SALES TO WHOLESALE CUSTOMERS	2,240	2,240	2,240	2,240	2,240	2,240
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	9,720	9,720	9,720	9,720	9,720	9,720
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**34,250**	**34,283**	**34,304**	**34,333**	**34,362**	**34,388**

Region G Major Water Provider (MWP) Existing Sales and Transfers

HUTTO - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	2,072	4,211	4,469	6,602	9,761	11,868
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**2,072**	**4,211**	**4,469**	**6,602**	**9,761**	**11,868**
GROUNDWATER SALES TO RETAIL CUSTOMERS	829	829	829	829	829	829
SURFACE WATER SALES TO RETAIL CUSTOMERS	336	336	336	336	336	336
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,165**	**1,165**	**1,165**	**1,165**	**1,165**	**1,165**

JARRELL-SCHWERTNER - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	958	1,140	1,369	1,623	1,916	2,222
PROJECTED WHOLESALE CONTRACT DEMANDS	560	560	560	560	560	560
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,518**	**1,700**	**1,929**	**2,183**	**2,476**	**2,782**
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,199	3,194	3,188	3,183	3,177	3,061
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	176	176	176	176	176	176
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	384	384	384	384	384	384
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,759**	**3,754**	**3,748**	**3,743**	**3,737**	**3,621**

JOHNSON COUNTY SUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	5,771	6,120	6,696	7,320	7,986	8,665
PROJECTED WHOLESALE CONTRACT DEMANDS	7,482	6,791	6,458	6,430	6,274	6,008
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**13,253**	**12,911**	**13,154**	**13,750**	**14,260**	**14,673**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,546	1,542	1,546	1,542	1,546	1,542
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,907	6,005	6,623	5,872	5,560	5,442
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	7,482	6,791	6,458	6,430	6,274	6,008
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**12,935**	**14,338**	**14,627**	**13,844**	**13,380**	**12,992**

JONAH WATER SUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	3,312	4,052	5,008	6,062	7,281	8,485
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,312**	**4,052**	**5,008**	**6,062**	**7,281**	**8,485**
GROUNDWATER SALES TO RETAIL CUSTOMERS	290	290	290	290	290	290
SURFACE WATER SALES TO RETAIL CUSTOMERS	3,312	4,052	5,008	6,062	7,281	8,485
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,602**	**4,342**	**5,298**	**6,352**	**7,571**	**8,775**

KEMPNER WSC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	2,751	3,007	3,221	3,447	3,667	3,873
PROJECTED WHOLESALE CONTRACT DEMANDS	1,684	1,698	1,714	1,729	1,743	1,756
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**4,435**	**4,705**	**4,935**	**5,176**	**5,410**	**5,629**
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,281	2,267	2,251	2,236	2,222	2,209
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	1,684	1,698	1,714	1,729	1,743	1,756
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,965**	**3,965**	**3,965**	**3,965**	**3,965**	**3,965**

KILLEEN - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	18,308	20,913	23,716	26,629	29,619	32,599

Region G Major Water Provider (MWP) Existing Sales and Transfers

PROJECTED WHOLESALE CONTRACT DEMANDS	7	7	7	7	7	7
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**18,315**	**20,920**	**23,723**	**26,636**	**29,626**	**32,606**
REUSE SALES TO RETAIL CUSTOMERS	2,240	2,240	2,240	2,240	2,240	2,240
SURFACE WATER SALES TO RETAIL CUSTOMERS	16,068	18,673	21,476	24,389	27,379	30,359
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	7	7	7	7	7	7
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**18,315**	**20,920**	**23,723**	**26,636**	**29,626**	**32,606**

LAMPASAS - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,265	1,356	1,424	1,506	1,590	1,668
PROJECTED WHOLESALE CONTRACT DEMANDS	137	151	165	178	195	213
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,402**	**1,507**	**1,589**	**1,684**	**1,785**	**1,881**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,144	1,130	1,116	1,103	1,086	1,068
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	137	151	165	178	195	213
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,281**	**1,281**	**1,281**	**1,281**	**1,281**	**1,281**

LEANDER - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	8,081	13,396	16,667	19,965	23,943	28,722
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**8,081**	**13,396**	**16,667**	**19,965**	**23,943**	**28,722**
SURFACE WATER SALES TO RETAIL CUSTOMERS	6,400	6,400	6,400	6,400	6,400	6,400
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**6,400**	**6,400**	**6,400**	**6,400**	**6,400**	**6,400**

LEE COUNTY WSC - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,268	1,409	1,516	1,604	1,716	1,850
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,268**	**1,409**	**1,516**	**1,604**	**1,716**	**1,850**
GROUNDWATER SALES TO RETAIL CUSTOMERS	4,339	4,339	4,340	4,341	4,342	4,342
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**4,339**	**4,339**	**4,340**	**4,341**	**4,342**	**4,342**

LOWER COLORADO RIVER AUTHORITY - WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	573,923	573,923	573,923	573,923	573,923	573,923
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**573,923**	**573,923**	**573,923**	**573,923**	**573,923**	**573,923**
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	2,609	3,522	4,022	5,156	4,836	4,727
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	497,716	496,803	496,303	495,169	495,489	495,598
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**500,325**	**500,325**	**500,325**	**500,325**	**500,325**	**500,325**

MANSFIELD - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	19,230	24,366	29,084	35,990	41,385	46,797
PROJECTED WHOLESALE CONTRACT DEMANDS	4,893	11,075	12,077	12,077	12,077	12,077
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**24,123**	**35,441**	**41,161**	**48,067**	**53,462**	**58,874**
SURFACE WATER SALES TO RETAIL CUSTOMERS	17,922	17,341	17,823	18,886	19,525	20,050
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	4,560	7,882	7,400	6,337	5,698	5,173
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**22,482**	**25,223**	**25,223**	**25,223**	**25,223**	**25,223**

MANVILLE WSC - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**

Region G Major Water Provider (MWP) Existing Sales and Transfers

PROJECTED RETAIL WUG DEMANDS	4,325	5,165	6,071	7,141	8,267	9,489
PROJECTED WHOLESALE CONTRACT DEMANDS	2,147	2,147	2,147	2,147	2,147	2,147
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**6,472**	**7,312**	**8,218**	**9,288**	**10,414**	**11,636**
GROUNDWATER SALES TO RETAIL CUSTOMERS	5,381	5,439	5,517	5,614	5,665	5,665
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,128	2,128	2,128	2,128	2,128	2,128
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	2,147	2,147	2,147	2,147	2,147	2,147
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**9,656**	**9,714**	**9,792**	**9,889**	**9,940**	**9,940**

MARLIN - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,849	1,908	1,901	1,850	1,904	1,961
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,849**	**1,908**	**1,901**	**1,850**	**1,904**	**1,961**
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,800	2,800	2,800	2,800	2,800	2,800
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,800**	**2,800**	**2,800**	**2,800**	**2,800**	**2,800**

MCGREGOR - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	801	813	825	846	874	905
PROJECTED WHOLESALE CONTRACT DEMANDS	132	139	144	151	160	168
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**933**	**952**	**969**	**997**	**1,034**	**1,073**
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,369	2,349	2,330	2,309	2,287	2,265
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	132	139	144	151	160	168
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,501**	**2,488**	**2,474**	**2,460**	**2,447**	**2,433**

MEXIA - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	568	634	687	745	793	826
PROJECTED WHOLESALE CONTRACT DEMANDS	969	970	970	970	971	971
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,537**	**1,604**	**1,657**	**1,715**	**1,764**	**1,797**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,098	1,077	971	860	750	644
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	969	970	970	970	971	971
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,067**	**2,047**	**1,941**	**1,830**	**1,721**	**1,615**

MINERAL WELLS - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	2,922	3,022	3,077	3,148	3,219	3,277
PROJECTED WHOLESALE CONTRACT DEMANDS	2,379	2,379	2,379	2,379	2,379	2,379
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**5,301**	**5,401**	**5,456**	**5,527**	**5,598**	**5,656**
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,754	2,619	2,483	2,348	2,212	2,077
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	2,379	2,379	2,379	2,379	2,379	2,379
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**5,133**	**4,998**	**4,862**	**4,727**	**4,591**	**4,456**

MORGANS POINT RESORT - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	582	681	787	897	1,009	1,121
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**582**	**681**	**787**	**897**	**1,009**	**1,121**
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,935	1,935	1,935	1,935	1,935	1,935
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,935**	**1,935**	**1,935**	**1,935**	**1,935**	**1,935**

Region G Major Water Provider (MWP) Existing Sales and Transfers

MOUNTAIN PEAK SUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	4,094	5,084	5,529	7,493	8,666	9,769
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**4,094**	**5,084**	**5,529**	**7,493**	**8,666**	**9,769**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,268	2,264	2,268	2,264	2,268	2,264
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,121	1,121	1,121	0	0	0
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,389**	**3,385**	**3,389**	**2,264**	**2,268**	**2,264**

NAVASOTA - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	1,474	1,486	1,493	1,514	1,541	1,567
PROJECTED WHOLESALE CONTRACT DEMANDS	114	114	114	114	138	183
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,588**	**1,600**	**1,607**	**1,628**	**1,679**	**1,750**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,039	2,039	2,039	2,039	2,015	1,970
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	114	114	114	114	138	183
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,153**	**2,153**	**2,153**	**2,153**	**2,153**	**2,153**

NORTH BOSQUE WSC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	566	687	795	905	1,017	1,127
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**566**	**687**	**795**	**905**	**1,017**	**1,127**
GROUNDWATER SALES TO RETAIL CUSTOMERS	605	605	605	605	605	605
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**605**	**605**	**605**	**605**	**605**	**605**

NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED WHOLESALE CONTRACT DEMANDS	1,797	1,797	1,769	1,739	1,710	1,678
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,797**	**1,797**	**1,769**	**1,739**	**1,710**	**1,678**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	75	60	45	30	15	0
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**75**	**60**	**45**	**30**	**15**	**0**

PALO PINTO COUNTY MWD #1 - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED WHOLESALE CONTRACT DEMANDS	9,551	9,651	9,706	9,777	9,848	9,906
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**9,551**	**9,651**	**9,706**	**9,777**	**9,848**	**9,906**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	5,788	5,647	5,507	5,367	5,226	5,087
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**5,788**	**5,647**	**5,507**	**5,367**	**5,226**	**5,087**

POSSUM KINGDOM WSC - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	868	921	956	990	1,018	1,040
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**868**	**921**	**956**	**990**	**1,018**	**1,040**
SURFACE WATER SALES TO RETAIL CUSTOMERS	750	750	750	750	750	750
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**750**	**750**	**750**	**750**	**750**	**750**

ROBINSON - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	2,472	2,896	3,275	3,671	4,078	4,482

Region G Major Water Provider (MWP) Existing Sales and Transfers

PROJECTED WHOLESALE CONTRACT DEMANDS	560	560	560	560	560	560
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,032**	**3,456**	**3,835**	**4,231**	**4,638**	**5,042**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,101	1,101	1,101	1,101	1,101	1,101
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,126	1,126	1,126	1,126	1,126	1,126
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	560	560	560	560	560	560
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,787**	**2,787**	**2,787**	**2,787**	**2,787**	**2,787**

ROCKDALE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,173	1,213	1,237	1,285	1,333	1,380
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,173**	**1,213**	**1,237**	**1,285**	**1,333**	**1,380**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,094	924	624	727	771	771
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,094**	**924**	**624**	**727**	**771**	**771**

ROUND ROCK - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	20,082	24,612	30,598	37,623	37,608	37,623
PROJECTED WHOLESALE CONTRACT DEMANDS	4,976	5,272	5,354	5,537	5,794	6,065
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**25,058**	**29,884**	**35,952**	**43,160**	**43,402**	**43,688**
GROUNDWATER SALES TO RETAIL CUSTOMERS	511	479	479	479	479	479
SURFACE WATER SALES TO RETAIL CUSTOMERS	21,635	21,371	21,289	21,106	20,849	20,578
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	173	205	205	205	205	205
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	4,803	5,067	5,149	5,332	5,589	5,860
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**27,122**	**27,122**	**27,122**	**27,122**	**27,122**	**27,122**

SALADO WSC - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,899	2,081	2,265	2,449	2,636	2,822
PROJECTED WHOLESALE CONTRACT DEMANDS	55	55	55	55	55	55
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,954**	**2,136**	**2,320**	**2,504**	**2,691**	**2,877**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,053	2,053	2,053	2,053	2,053	2,053
SURFACE WATER SALES TO RETAIL CUSTOMERS	183	183	183	183	183	183
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	55	55	55	55	55	55
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,291**	**2,291**	**2,291**	**2,291**	**2,291**	**2,291**

SOUTHWEST MILAM WSC - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,466	1,575	1,685	1,824	1,977	2,131
PROJECTED WHOLESALE CONTRACT DEMANDS	202	202	202	202	202	202
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,668**	**1,777**	**1,887**	**2,026**	**2,179**	**2,333**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,635	1,350	1,266	1,438	1,512	1,512
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	202	202	202	202	202	202
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,837**	**1,552**	**1,468**	**1,640**	**1,714**	**1,714**

STAMFORD - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	849	880	900	925	948	967
PROJECTED WHOLESALE CONTRACT DEMANDS	249	249	249	249	249	249
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,098**	**1,129**	**1,149**	**1,174**	**1,197**	**1,216**

Region G Major Water Provider (MWP) Existing Sales and Transfers

SURFACE WATER SALES TO RETAIL CUSTOMERS	1,209	1,209	1,209	1,209	1,209	1,209
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	249	249	249	249	249	249
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,458**	**1,458**	**1,458**	**1,458**	**1,458**	**1,458**

STEPHENVILLE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	2,659	2,867	3,047	3,241	3,448	3,645
PROJECTED WHOLESALE CONTRACT DEMANDS	29	35	42	48	55	64
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**2,688**	**2,902**	**3,089**	**3,289**	**3,503**	**3,709**
GROUNDWATER SALES TO RETAIL CUSTOMERS	3,751	3,745	3,738	3,732	3,725	3,716
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,862	1,862	1,862	1,862	1,862	1,862
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	29	35	42	48	55	64
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**5,642**	**5,642**	**5,642**	**5,642**	**5,642**	**5,642**

SWEETWATER- WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,953	1,996	2,017	2,084	2,140	2,192
PROJECTED WHOLESALE CONTRACT DEMANDS	1,622	1,619	1,617	1,615	1,615	1,615
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,575**	**3,615**	**3,634**	**3,699**	**3,755**	**3,807**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,657	1,663	1,667	1,671	1,671	1,671
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	672	666	662	658	658	658
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	0	0	0	0	0	0
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**2,329**	**2,329**	**2,329**	**2,329**	**2,329**	**2,329**

TARRANT REGIONAL WD - WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	492,023	573,801	648,535	721,969	795,268	885,792
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**492,023**	**573,801**	**648,535**	**721,969**	**795,268**	**885,792**
REUSE SALES TO WHOLESALE CUSTOMERS	35,931	40,202	44,455	49,078	53,899	59,762
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	443,441	441,254	432,705	424,178	413,819	401,385
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**479,372**	**481,456**	**477,160**	**473,256**	**467,718**	**461,147**

TAYLOR- WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	2,844	3,010	3,245	3,527	3,873	4,237
PROJECTED WHOLESALE CONTRACT DEMANDS	435	442	452	463	477	492
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,279**	**3,452**	**3,697**	**3,990**	**4,350**	**4,729**
SURFACE WATER SALES TO RETAIL CUSTOMERS	2,844	3,010	3,245	3,527	3,873	4,237
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	435	442	452	463	477	492
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,279**	**3,452**	**3,697**	**3,990**	**4,350**	**4,729**

TEMPLE - WUG/WWP	**WATER VOLUMES (ACRE-FEET PER YEAR)**					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	20,095	23,231	26,532	29,903	33,301	36,666
PROJECTED WHOLESALE CONTRACT DEMANDS	3,733	3,733	3,733	3,733	3,733	3,733
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**23,828**	**26,964**	**30,265**	**33,636**	**37,034**	**40,399**
SURFACE WATER SALES TO RETAIL CUSTOMERS	19,563	19,563	19,563	19,563	19,563	19,563
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	3,733	3,733	3,733	3,733	3,733	3,733
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**23,296**	**23,296**	**23,296**	**23,296**	**23,296**	**23,296**

Region G Major Water Provider (MWP) Existing Sales and Transfers

TEXAS A&M UNIVERSITY - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	6,322	6,349	6,308	6,292	6,288	6,288
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**6,322**	**6,349**	**6,308**	**6,292**	**6,288**	**6,288**
GROUNDWATER SALES TO RETAIL CUSTOMERS	6,223	6,392	6,412	6,412	6,412	6,412
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**6,223**	**6,392**	**6,412**	**6,412**	**6,412**	**6,412**

TEXAS STATE TECHNICAL COLLEGE - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	888	954	1,013	1,073	1,132	1,193
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**888**	**954**	**1,013**	**1,073**	**1,132**	**1,193**
SURFACE WATER SALES TO RETAIL CUSTOMERS	888	954	1,013	1,073	1,132	1,193
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**888**	**954**	**1,013**	**1,073**	**1,132**	**1,193**

UPPER LEON MWD - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED WHOLESALE CONTRACT DEMANDS	4,572	4,572	4,572	4,572	4,572	4,572
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**4,572**	**4,572**	**4,572**	**4,572**	**4,572**	**4,572**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	4,572	4,572	4,572	4,572	4,572	4,572
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**4,572**	**4,572**	**4,572**	**4,572**	**4,572**	**4,572**

VENUS - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	638	728	824	933	1,052	1,182
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**638**	**728**	**824**	**933**	**1,052**	**1,182**
GROUNDWATER SALES TO RETAIL CUSTOMERS	103	103	103	103	103	103
SURFACE WATER SALES TO RETAIL CUSTOMERS	443	316	310	368	400	425
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**546**	**419**	**413**	**471**	**503**	**528**

WACO - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	31,279	33,063	34,676	36,494	38,495	40,503
PROJECTED WHOLESALE CONTRACT DEMANDS	24,955	25,410	26,045	26,733	27,372	28,149
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**56,234**	**58,473**	**60,721**	**63,227**	**65,867**	**68,652**
GROUNDWATER SALES TO RETAIL CUSTOMERS	540	540	540	540	540	540
SURFACE WATER SALES TO RETAIL CUSTOMERS	40,249	39,794	39,159	38,471	37,832	37,055
REUSE SALES TO WHOLESALE CUSTOMERS	15,000	15,000	15,000	15,000	15,000	15,000
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	9,955	10,410	11,045	11,733	12,372	13,149
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**65,744**	**65,744**	**65,744**	**65,744**	**65,744**	**65,744**

WELLBORN SUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
PROJECTED RETAIL WUG DEMANDS	3,876	5,408	5,974	6,638	7,401	8,193
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,876**	**5,408**	**5,974**	**6,638**	**7,401**	**8,193**
GROUNDWATER SALES TO RETAIL CUSTOMERS	6,639	6,639	6,639	6,639	6,639	6,639
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,120	1,120	1,120	1,120	1,120	1,120
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**7,759**	**7,759**	**7,759**	**7,759**	**7,759**	**7,759**

Region G Major Water Provider (MWP) Existing Sales and Transfers

WEST CENTRAL TEXAS MWD - WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED WHOLESALE CONTRACT DEMANDS	17,977	15,620	13,260	10,900	8,540	6,200
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**17,977**	**15,620**	**13,260**	**10,900**	**8,540**	**6,200**
SURFACE WATER SALES TO WHOLESALE CUSTOMERS	17,977	15,620	13,260	10,900	8,540	6,200
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**17,977**	**15,620**	**13,260**	**10,900**	**8,540**	**6,200**

WICKSON CREEK SUD - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,648	1,828	2,022	2,267	2,537	2,832
PROJECTED WHOLESALE CONTRACT DEMANDS	8	8	8	8	9	10
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,656**	**1,836**	**2,030**	**2,275**	**2,546**	**2,842**
GROUNDWATER SALES TO RETAIL CUSTOMERS	3,292	3,361	3,223	3,098	2,985	2,896
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	8	8	8	8	9	10
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,300**	**3,369**	**3,231**	**3,106**	**2,994**	**2,906**

WILLIAMSON COUNTY WSID 3 - WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	1,018	1,063	1,086	1,116	1,152	1,189
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**1,018**	**1,063**	**1,086**	**1,116**	**1,152**	**1,189**
GROUNDWATER SALES TO RETAIL CUSTOMERS	1,189	1,189	1,189	1,189	1,189	1,189
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**1,189**	**1,189**	**1,189**	**1,189**	**1,189**	**1,189**

WOODWAY- WUG/WWP	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
PROJECTED RETAIL WUG DEMANDS	3,465	3,690	3,892	4,114	4,347	4,579
PROJECTED WHOLESALE CONTRACT DEMANDS	2	2	2	2	2	2
TOTAL PROJECTED WHOLESALE CONTRACT AND RETAIL DEMANDS	**3,467**	**3,692**	**3,894**	**4,116**	**4,349**	**4,581**
GROUNDWATER SALES TO RETAIL CUSTOMERS	2,454	2,454	2,454	2,454	2,454	2,454
SURFACE WATER SALES TO RETAIL CUSTOMERS	1,319	1,314	1,520	1,771	2,012	2,264
GROUNDWATER SALES TO WHOLESALE CUSTOMERS	2	2	2	2	2	2
TOTAL WHOLESALE AND RETAIL SALES TO CUSTOMERS	**3,775**	**3,770**	**3,976**	**4,227**	**4,468**	**4,720**

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

MWPs are entities of significance to a region's water supply as defined by the Regional Water Planning Group (RWPG) and may be a Water User Group (WUG) entity, Wholesale Water Provider (WWP) entity, or both (WUG/WWP). 'MWP Retail Customers' denotes recommended WMS supply used by the WUG. 'Transfers Related to Wholesale Customers' denotes a WWP or WUG/WWP selling or transferring recommended WMS supply to another entity. Supply associated with the MWP's wholesale transfers will only display if it is listed as the main seller in the State Water Planning database, even if multiple sellers are involved with the sale o water to WUGs. Unallocated water volumes represent MWP recommended WMS supply not currently allocated to a customer of the MWP. 'Total MWP Related WMS Supply' will display if the MWP's WMS is related to more than one WMS supply type (retail, wholesale, and/or unallocated). Associated WMS Projects are listed when the MWP is one of the project's sponsors. Report contains draft data and is subject to change.

439 WSC | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	246	253	261	269	277

439 WSC | PURCHASE FROM BELL COUNTY WCID 1

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,161	1,161	1,161	1,161	240

439 WSC | PURCHASE RAW WATER FROM FORT HOOD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	32	324	626

439 WSC | REUSE-BELL COUNTY WCID 1 SOUTH

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	32	185	185	0	20

ABILENE | BRA SYSTEM OPERATION--SURPLUS

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	5,673	7,102	7,102	5,442	5,442	5,442
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	2,472	1,073	876	915	955	990
TOTAL MWP RELATED WMS SUPPLY	8,145	8,175	7,978	6,357	6,397	6,432

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
EXPAND WTP (23.2 MGD) - ABILENE	WATER TREATMENT PLANT EXPANSION
ABILENE BRA SYS OPS FACILITIES EXPANSION	PUMP STATION; WATER TREATMENT PLANT EXPANSION

ABILENE | CEDAR RIDGE RESERVOIR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	18,815	18,889	16,300	13,200	10,100
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	3,072	3,026	3,071	3,111	3,150
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	2,535	5,592	8,586
TOTAL MWP RELATED WMS SUPPLY	0	21,887	21,915	21,906	21,903	21,836

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
EXPAND WTP (23.2 MGD) - ABILENE	WATER TREATMENT PLANT EXPANSION
CEDAR RIDGE RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; RESERVOIR CONSTRUCTION

ABILENE | MUNICIPAL WATER CONSERVATION - ABILENE

	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,624	2,197	2,001	1,995	2,023
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - ABILENE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

ABILENE | SUBORDINATION - OH IVIE NON SYSTEM PORTION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	329	1,077	1,173	1,263	1,359	1,449

ABILENE | WEST TEXAS WATER PARTNERSHIP

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	7,768	7,768	7,768	7,768	7,768
RELATED UNALLOCATED WMS WATER VOLUMES	0	420	420	420	420	420
TOTAL MWP RELATED WMS SUPPLY	0	8,188	8,188	8,188	8,188	8,188
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
WEST TEXAS WATER PARTNERSHIP	CONVEYANCE/TRANSMISSION PIPELINE; EVAPORATIVE POND; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

ACTON MUD | INCREASE SWATS WTP CAPACITY - ACTON MUD, JOHNSON COUNTY SUD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	0	3,752	3,752	3,752	3,752
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
EXPAND WTP SWATS - ACTON MUD	WATER TREATMENT PLANT EXPANSION					

ACTON MUD | TRINITY AQUIFER DEVELOPMENT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	51	51	51	51	451
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TRINITY AQUIFER DEVELOPMENT - ACTON MUD	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE					

ANSON | NO RECOMMENDED WMS SUPPLY RELATED TO MWP

AQUILLA WSD | NO RECOMMENDED WMS SUPPLY RELATED TO MWP

ARLINGTON | CONSERVATION - ARLINGTON

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	1,443	2,086	2,161	2,357	2,588	2,819

ARLINGTON | CONSERVATION, IRRIGATION RESTRICTIONS – ARLINGTON

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	1,839	2,055	2,083	2,078	2,078

ARLINGTON | CONSERVATION, WATER LOSS CONTROL - ARLINGTON

	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1,231	1,273	936	937	940	940
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CONSERVATION, WATER LOSS CONTROL - ARLINGTON	WATER LOSS CONTROL					

ARLINGTON | INTEGRATED PIPELINE

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2,297	5,403	4,703	5,927	5,855

ARLINGTON | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	6,450	7,612	7,618

ARLINGTON | TRWD - AQUIFER STORAGE AND RECOVERY PILOT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	58	242	194	228	228

ARLINGTON | TRWD - CARRIZO-WILCOX GROUNDWATER

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	1,544	1,231	1,453	1,455

ARLINGTON | TRWD - REUSE FROM TRA CENTRAL WWTP

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	463	1,449	1,541	2,273	2,728

ARLINGTON | TRWD - TEHUACANA

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	1,017	811	957	958

ARLINGTON | TRWD - UNALLOCATED SUPPLY UTILIZATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	69	151	152	236	396

ARLINGTON | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	2,577

BELL COUNTY WCID #1 | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	2,659	2,586	2,545	2,475	2,407

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

BELL COUNTY WCID #1 | PURCHASE FROM BELL COUNTY WCID 1						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	1,161	1,161	1,161	1,161	240

BELL COUNTY WCID #1 | REUSE-BELL COUNTY WCID 1 NORTH						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	1,925	1,925	1,925	1,925	1,925
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
BELL COUNTY WCID 1- NORTH REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW WATER TREATMENT PLANT					

BELL COUNTY WCID #1 | REUSE-BELL COUNTY WCID 1 SOUTH						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	748	748	748	748	748
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
BELL COUNTY WCID 1- SOUTH REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW WATER TREATMENT PLANT					

BELL COUNTY WCID 3 | MUNICIPAL WATER CONSERVATION - BELL COUNTY WCID 3						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	22	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - BELL COUNTY WCID 3	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

BELLMEAD | REUSE- WMARSS BELLMEAD/ LACY-LAKEVIEW						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1,121	1,121	1,121	1,121	1,121	1,121
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE- BELLMEAD/ LACY-LAKE	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

BELTON | BELTON WTP EXPANSION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	676
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
EXPAND WTP (2.1 MGD) - BELTON	WATER TREATMENT PLANT EXPANSION					

BELTON | LAKE GRANGER ASR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	390	466	491

BELTON | LAKE GRANGER AUGMENTATION-PH 2	
	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	436	450	73	11	0

BELTON | MUNICIPAL WATER CONSERVATION - BELTON						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	323	323	325	352	384
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - BELTON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

BETHESDA WSC | CONSERVATION - BETHESDA WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	21	34	47	61	77	94

BETHESDA WSC | CONSERVATION, IRRIGATION RESTRICTIONS – BETHESDA WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	60	73	80	87	95	102

BETHESDA WSC | CONSERVATION, WATER LOSS CONTROL - BETHESDA WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	11	12	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
CONSERVATION, WATER LOSS CONTROL - BETHESDA WSC	WATER LOSS CONTROL					

BETHESDA WSC | INTEGRATED PIPELINE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	325	555	508	726	848

BETHESDA WSC | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	696	933	1,103

BETHESDA WSC | MUNICIPAL WATER CONSERVATION - BETHESDA WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	327	735	1,190	1,331	1,487
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - BETHESDA WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

BETHESDA WSC | TRWD - AQUIFER STORAGE AND RECOVERY PILOT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	8	24	21	28	33

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

BETHESDA WSC | TRWD - CARRIZO-WILCOX GROUNDWATER						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	158	133	178	211

BETHESDA WSC | TRWD - REUSE FROM TRA CENTRAL WWTP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	65	149	166	279	396

BETHESDA WSC | TRWD - TEHUACANA						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	104	87	118	138

BETHESDA WSC | TRWD - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	11	16	16	29	58

BETHESDA WSC | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	374

BISTONE MUNICIPAL WATER SUPPLY DISTRICT | CARRIZO AQUIFER DEVELOPMENT - BISTONE MWSD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	0	186	363
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	0	274	97
TOTAL MWP RELATED WMS SUPPLY	0	0	0	0	460	460
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
CARRIZO AQUIFER DEVELOPMENT - BISTONE MWSD	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE					

BISTONE MUNICIPAL WATER SUPPLY DISTRICT | MUNICIPAL WATER CONSERVATION - BISTONE MUNICIPAL WATER SUPPLY DISTRICT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	20	40	62	83	104
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - BISTONE MUNICIPAL WSD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

BLUEBONNET WSC | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	1,219	1,257	1,262	1,297	1,330

BRAZOS RIVER AUTHORITY | BELTON TO STILLHOUSE PIPELINE-BRA	
	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	5,000	5,000	5,000	5,000	5,000
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
BELTON TO STILLHOUSE PIPELINE-BRA	CONVEYANCE/TRANSMISSION PIPELINE; DIVERSION AND CONTROL STRUCTURE; NEW SURFACE WATER INTAKE					

BRAZOS RIVER AUTHORITY | BRA HIGHLAND LAKE TO COUNTY-OTHER

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	2,872	2,872	2,872	2,872	2,872

BRAZOS RIVER AUTHORITY | LAKE AQUILLA POOL REALLOCATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	0	2,483	2,483
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LAKE AQUILLA REALLOCATION- BRA	RAISE CONSERVATION POOL; DIVERSION AND CONTROL STRUCTURE					

BRAZOS RIVER AUTHORITY | LAKE GRANGER ASR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	7,600	11,900	11,900	11,900	11,900
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LAKE GRANGER ASR	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; INJECTION WELL					

BRAZOS RIVER AUTHORITY | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	16,510	17,848	15,640	15,612	17,847
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LAKE GRANGER AUGMENTATION-PHASE 2-BRA	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION					

BRAZOS RIVER AUTHORITY | NEW / EXPANDED CONTRACT WITH BRA

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	0	2,061	2,603
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
ALLENS CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION					

BRAZOS RIVER AUTHORITY | NEW / EXPANDED CONTRACT WITH GCWA

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	13,440	16,103	18,238	24,450
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
ALLENS CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION					

BRAZOS RIVER AUTHORITY | PARKER COUNTY SUD - ADDITIONAL BRA (SYS OPS)

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	285	670	1,053

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

BRAZOS RIVER AUTHORITY | RICHMOND GRP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	701	1,793	2,847
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
ALLENS CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION					

BRAZOS RIVER AUTHORITY | STORAGE REALLOCATION OF LAKE WHITNEY						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	0	12,000	26,000
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	38,480	26,480	12,480
TOTAL MWP RELATED WMS SUPPLY	0	0	0	38,480	38,480	38,480
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
LAKE WHITNEY REALLOCATION TO WILLIAMSON COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT					

BRAZOS RIVER AUTHORITY | WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	7,379	10,075	10,621	10,761	10,903
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
WILLIAMSON COUNTY GROUNDWATER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD					

BRECKENRIDGE | MUNICIPAL WATER CONSERVATION - BRECKENRIDGE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	51	29	16	15	14
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - BRECKENRIDGE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

BRENHAM | BRA SYSTEM OPERATION--SURPLUS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	774	774	774	774	774	774

BRENHAM | GULF COAST AQUIFER DEVELOPMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	628	559	365	167	0	33
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
GULF COAST AQUIFER DEVELOPMENT- BRENHAM	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE					

BRENHAM | MUNICIPAL WATER CONSERVATION - BRENHAM						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	367	755	1,170	1,592	1,648

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - BRENHAM	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

BRUCEVILLE EDDY | MUNICIPAL WATER CONSERVATION - BRUCEVILLE EDDY

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	79	129	126	130	137

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - BRUCEVILLE EDDY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

BRUSHY CREEK MUD | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	697	719	741	763	785

BRUSHY CREEK MUD | MUNICIPAL WATER CONSERVATION - BRUSHY CREEK MUD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	233	263	243	238	237

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - BRUSHY CREEK MUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

BRUSHY CREEK MUD | PURCHASE SUPPLY FROM ROUND ROCK

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	250	0	0	0	0	0

BRYAN | BRYAN ASR (CARRIZO-WILCOX)

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	6,000	6,000	6,000	8,500	10,500

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
BRYAN ASR (CARRIZO-WILCOX)	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; INJECTION WELL

BRYAN | CARRIZO GW DEVELOPMENT FOR BRYAN IN BRAZOS COUNTY

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	7,501	7,501	7,501	7,501	7,501

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
CARRIZO GW DEVELOPMENT FOR BRYAN IN BRAZOS COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; WATER TREATMENT PLANT EXPANSION

BRYAN | MUNICIPAL WATER CONSERVATION - BRYAN

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,311	1,606	1,719	1,988	2,489

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - BRYAN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

BRYAN | REUSE- BRYAN (OPTION 1)

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	605	605	605	605	605	605
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
REUSE- BRYAN (OPTION 1)	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION					

BURLESON | CONSERVATION - BURLESON

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	4	9	14	28	46	61

BURLESON | CONSERVATION, IRRIGATION RESTRICTIONS – BURLESON

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	38	39	43	59	72	80

BURLESON | CONSERVATION, WATER LOSS CONTROL - BURLESON

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	6	6	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CONSERVATION, WATER LOSS CONTROL - BURLESON	WATER LOSS CONTROL					

BURLESON | INTEGRATED PIPELINE

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	788	1,091	930	1,265	1,359
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
BURLESON - ADDITIONAL INFRASTRUCTURE FROM FT WORTH	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION					

BURLESON | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	1,274	1,627	1,768

BURLESON | TRWD - AQUIFER STORAGE AND RECOVERY PILOT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	20	49	38	49	53

BURLESON | TRWD - CARRIZO-WILCOX GROUNDWATER

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	312	248	397	467

BURLESON | TRWD - REUSE FROM TRA CENTRAL WWTP

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	159	292	304	486	633

BURLESON | TRWD - TEHUACANA

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	205	160	205	222

BURLESON | TRWD - UNALLOCATED SUPPLY UTILIZATION

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	24	31	30	51	92

BURLESON | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	598

CALDWELL | MUNICIPAL WATER CONSERVATION - CALDWELL

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	83	167	239	242	246
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - CALDWELL	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

CAMERON | CITY OF CAMERON LITTLE RIVER INTAKE

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2,615	2,615	2,615	2,615	2,615
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	177	177	177	177	177
TOTAL MWP RELATED WMS SUPPLY	0	2,792	2,792	2,792	2,792	2,792
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CITY OF CAMERON LITTLE RIVER INTAKE	NEW SURFACE WATER INTAKE; CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION					

CAMERON | MUNICIPAL WATER CONSERVATION - CAMERON

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	107	218	339	449	465
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - CAMERON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

CEDAR PARK | BRUSHY CREEK RUA-EXISTING CONTRACTS

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1	1	1	1	1	1
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

CEDAR PARK | DROUGHT MANAGEMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	410	393	393	393	393	393

CEDAR PARK | MUNICIPAL CONSERVATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	203	420	590	586	583	582
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL CONSERVATION - CEDAR PARK	DATA GATHERING/MONITORING TECHNOLOGY; CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL					

CEDAR PARK | MUNICIPAL WATER CONSERVATION - CEDAR PARK						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,887	3,638	5,212	6,516	6,833
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - CEDAR PARK	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

CEDAR PARK | REUSE- CEDAR PARK						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	2,886	2,715	1,120	1,120	1,120	1,120
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE-CEDAR PARK	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK					

CENTRAL TEXAS WSC | LAKE GRANGER ASR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	3,787	7,413	3,306	2,298	3,418

CLEBURNE | INTEGRATED PIPELINE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	3,086	3,494	3,553	3,007

CLEBURNE | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	4,791	4,563	3,911

CLEBURNE | MUNICIPAL WATER CONSERVATION - CLEBURNE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	561	942	1,018	1,171	1,302
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - CLEBURNE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

CLEBURNE | REUSE- CLEBURNE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	4,490	5,839	7,045	7,045	7,045	7,045
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE- CLEBURNE	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION					

CLEBURNE | TRWD - AQUIFER STORAGE AND RECOVERY PILOT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	138	143	136	117

CLEBURNE | TRWD - CARRIZO-WILCOX GROUNDWATER						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	882	915	872	747

CLEBURNE | TRWD - REUSE FROM TRA CENTRAL WWTP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	827	1,144	1,362	1,401

CLEBURNE | TRWD - TEHUACANA						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	581	603	574	492

CLEBURNE | TRWD - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	87	112	142	204

CLEBURNE | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	1,323

COLLEGE STATION | CARRIZO GW DEVELOPMENT FOR COLLEGE STATION IN BRAZOS COUNTY						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	5,234	9,695	9,796	9,796
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
CARRIZO GW DEVELOPMENT FOR COLLEGE STATION IN BRAZOS COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

COLLEGE STATION | COLLEGE STATION ASR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	3,640	3,640	3,640	3,640	3,640

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
COLLEGE STATION ASR (REUSE)	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; INJECTION WELL

COLLEGE STATION | MUNICIPAL WATER CONSERVATION - COLLEGE STATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	234	0	0	0	0

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - COLLEGE STATION	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

COLLEGE STATION | REUSE DPR- COLLEGE STATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	8,232	8,232	8,232	8,232	8,232

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
COLLEGE STATION - DPR	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT

COLORADO RIVER MWD | SUBORDINATION - CRMWD SYSTEM

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	6,479	6,440	7,841	13,401	19,165	25,371
RELATED UNALLOCATED WMS WATER VOLUMES	19,729	19,892	18,514	12,983	7,225	952
TOTAL MWP RELATED WMS SUPPLY	26,208	26,332	26,355	26,384	26,390	26,323

COLORADO RIVER MWD | SUBORDINATION - OH IVIE NON SYSTEM PORTION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	1,082	1,077	1,173	1,263	1,376	1,562

COLORADO RIVER MWD | WARD COUNTY WELL FIELD EXPANSION AND DEVELOPMENT OF WINKLER COUNTY WELL FIELD - CRMWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	22,400	22,400	22,400

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
CRMWD - WARD COUNTY WELL FIELD EXPANSION AND DEVELOPMENT OF WINKLER COUNTY WELL FIELD	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION

COLORADO RIVER MWD | WARD COUNTY WELL FIELD WELL REPLACEMENT - CRMWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	755	2,650	6,296	8,361	10,343

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
CRMWD - WARD COUNTY WELL REPLACEMENT	MULTIPLE WELLS/WELL FIELD

COLORADO RIVER MWD | WEST TEXAS WATER PARTNERSHIP

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	8,400	8,400	8,400	8,400	8,400

COPPERAS COVE | LAKE GRANGER AUGMENTATION-PH 2

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	517

COPPERAS COVE | PURCHASE RAW WATER FROM FORT HOOD

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	125	1,285

CORIX UTILITIES TEXAS INC | DROUGHT MANAGEMENT

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	77	82	86	89	93	98

CORIX UTILITIES TEXAS INC | EXPANDED USE OF LOCAL GROUNDWATER

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	1	2	4

CORIX UTILITIES TEXAS INC | GULF COAST AQUIFER DEVELOPMENT

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	349	370	399	437	468	498

CORYELL CITY WATER SUPPLY DISTRICT | LAKE GRANGER AUGMENTATION-PH 2

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	52	54	56	57	59

CORYELL CITY WATER SUPPLY DISTRICT | MUNICIPAL WATER CONSERVATION - CORYELL CITY WATER SUPPLY DISTRICT

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	19	8	0	0	0

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - CORYELL CITY WATER SUPPLY DISTRICT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

DOG RIDGE WSC | LAKE GRANGER AUGMENTATION-PH 2

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	261	270	278	286	294

EASTLAND COUNTY WSD | NO RECOMMENDED WMS SUPPLY RELATED TO MWP

FERN BLUFF MUD | MUNICIPAL WATER CONSERVATION - FERN BLUFF MUD

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	101	197	285	367	382

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - FERN BLUFF MUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

FHLM WSC | BRA SYSTEM OPERATION--SURPLUS

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	1,934	1,934	1,934	1,934	1,934
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
FHLM WSC BRA SYS OPS FACILITIES	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION					

FORT HOOD | MUNICIPAL WATER CONSERVATION - FORT HOOD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	531	1,053	1,602	1,981	1,980
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - FORT HOOD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

FORT WORTH | ALLIANCE DIRECT REUSE

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,344	3,696	3,696	3,696	3,696
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	1,003	3,002	4,058	4,144	4,144
TOTAL MWP RELATED WMS SUPPLY	0	2,347	6,698	7,754	7,840	7,840
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
FORT WORTH DIRECT REUSE - ALLIANCE CORRIDOR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; WATER TREATMENT PLANT EXPANSION					

FORT WORTH | CONSERVATION - FORT WORTH

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	3,156	4,702	5,546	6,502	8,207	10,102

FORT WORTH | CONSERVATION, IRRIGATION RESTRICTIONS – FORT WORTH

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	5,673	7,038	8,588	9,504	10,318	11,145

FORT WORTH | CONSERVATION, WATER LOSS CONTROL - FORT WORTH

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	17,960	20,007	8,588	6,336	3,439	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CONSERVATION, WATER LOSS CONTROL - FORT WORTH	WATER LOSS CONTROL					

FORT WORTH | FORT WORTH - UNALLOCATED SUPPLY UTILIZATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	15,961	25,228	26,749	23,525	18,821

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
FORT WORTH - 35 MGD WTP EXPANSION-EAGLE MOUNTAIN	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 23 MGD WTP EXPANSION-WEST PLANT	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 50 MGD WTP EXPANSION-ROLLING HILLS	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 35 MGD WTP EXPANSION-WEST PLANT	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 30 MGD WTP EXPANSION-EAGLE MOUNTAIN	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 50 MGD WTP EXPANSION-GENERAL 1	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 50 MGD WTP EXPANSION-GENERAL 2	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 50 MGD WTP EXPANSION-GENERAL 3	WATER TREATMENT PLANT EXPANSION
FORT WORTH - 50 MGD WTP EXPANSION-GENERAL 4	WATER TREATMENT PLANT EXPANSION

FORT WORTH | FORT WORTH - VILLAGE AND MARY CREEK WRF FUTURE DIRECT REUSE

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	6,687	6,687	6,687	6,687	6,687

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
FORT WORTH VILLAGE CREEK WRF FUTURE DIRECT REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; WATER TREATMENT PLANT EXPANSION
FORT WORTH MARY'S CREEK WRF FUTURE DIRECT REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; WATER TREATMENT PLANT EXPANSION

FORT WORTH | INTEGRATED PIPELINE

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	21,285	21,745	31,839	35,846

FORT WORTH | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	29,809	40,887	46,636

FORT WORTH | TRWD - AQUIFER STORAGE AND RECOVERY PILOT

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	951	890	1,220	1,392

FORT WORTH | TRWD - CARRIZO-WILCOX GROUNDWATER

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	6,088	5,694	7,810	8,908

FORT WORTH | TRWD - REUSE FROM TRA CENTRAL WWTP

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	5,707	7,117	12,203	16,703

FORT WORTH | TRWD - TEHUACANA

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	4,008	3,749	5,142	5,866

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

FORT WORTH | TRWD - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	1,467	1,301	2,099	3,731

FORT WORTH | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	15,778

GATESVILLE | CORYELL COUNTY OCR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	550	823	981	1,152	1,528
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
EXPAND WTP (1.2 MGD) - GATESVILLE	WATER TREATMENT PLANT EXPANSION					

GATESVILLE | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,028	1,060	1,093	1,125	1,158
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
EXPAND WTP (1.2 MGD) - GATESVILLE	WATER TREATMENT PLANT EXPANSION					

GATESVILLE | MUNICIPAL WATER CONSERVATION - GATESVILLE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	384	852	1,386	1,988	2,392
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - GATESVILLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

GEORGETOWN | ALCOA PROPERTY SUPPLY						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	4,772	10,669
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	2,133	5,292	7,399
TOTAL MWP RELATED WMS SUPPLY	0	0	0	2,133	10,064	18,068
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
ALCOA PROPERTY SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

GEORGETOWN | BELTON TO STILLHOUSE PIPELINE-BRA						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	5,000	5,000	5,000	5,000	5,000

GEORGETOWN | DROUGHT MANAGEMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

MWP RETAIL CUSTOMERS	15	17	17	19	20	22

GEORGETOWN | GEORGETOWN WTP EXPANSION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	12,840	12,590	12,339	12,088	11,838
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
EXPAND WTP (21 MGD)- GEORGETOWN	WATER TREATMENT PLANT EXPANSION					

GEORGETOWN | MUNICIPAL CONSERVATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	8	17	28	35	39	41
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL CONSERVATION - GEORGETOWN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY; WATER LOSS CONTROL					

GEORGETOWN | MUNICIPAL WATER CONSERVATION - GEORGETOWN						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2,957	7,271	13,126	20,510	29,228
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - GEORGETOWN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

GEORGETOWN | REUSE- GEORGETOWN						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,456	1,456	1,456	1,456	1,456
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE-GEORGETOWN	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK					

GEORGETOWN | TRINITY- LAKE GEORGETOWN ASR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	8,645	8,645	8,645	8,645
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
LAKE GEORGETOWN ASR	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; WATER TREATMENT PLANT EXPANSION; INJECTION WELL					

GIDDINGS | MUNICIPAL WATER CONSERVATION - GIDDINGS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	95	199	237	238	240
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - GIDDINGS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

GRAHAM | MUNICIPAL WATER CONSERVATION - GRAHAM						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	231	463	708	962	1,210

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - GRAHAM	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

GRAHAM | NEW THROCKMORTON RESERVOIR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,500	1,500	1,500	1,500	1,500

GRAHAM | PURCHASE ADDITIONAL WATER FROM CITY OF GRAHAM

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	95	95	95	95	95	95

GRANBURY | GRANBURY NORTH WATER TREATMENT PLANT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2,800	2,800	2,800	2,800	2,800

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
GRANBURY NORTH WATER TREATMENT PLANT	NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION

HARKER HEIGHTS | KILLEEN REDUCTION TO HARKER HEIGHTS

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	302

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
INTERCONNECT FROM KILLEEN TO HARKER HEIGHTS	CONVEYANCE/TRANSMISSION PIPELINE; STORAGE TANK; PUMP STATION

HARKER HEIGHTS | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	616	636	655	674	694

HARKER HEIGHTS | MUNICIPAL WATER CONSERVATION - HARKER HEIGHTS

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	559	1,274	1,498	1,656	1,819

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - HARKER HEIGHTS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

HARKER HEIGHTS | PURCHASE RAW WATER FROM FORT HOOD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	487

HARKER HEIGHTS | REUSE-BELL COUNTY WCID 1 SOUTH

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	185	185

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

HEARNE | MUNICIPAL WATER CONSERVATION - HEARNE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	43	22	19	17	17
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - HEARNE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

HEWITT | MUNICIPAL WATER CONSERVATION - HEWITT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	247	236	227	240	258
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - HEWITT	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

HEWITT | PURCHASE WATER FROM CITY OF WACO						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	62	420	771

HEWITT | REUSE- WMARSS BULLHIDE CREEK						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,233	1,233	1,233	1,233	1,233
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE- BULLHIDE CREEK	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

HILLSBORO | MUNICIPAL WATER CONSERVATION - HILLSBORO						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	157	320	493	516	523
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - HILLSBORO	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

HUNTSVILLE | MUNICIPAL CONSERVATION, HUNTSVILLE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	210	331	384	435	490	546
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL CONSERVATION, HUNTSVILLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS)					

HUNTSVILLE | WATER LOSS REDUCTION, HUNTSVILLE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	49	145	232	237	242	246
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
WATER LOSS REDUCTION, HUNTSVILLE	WATER LOSS CONTROL					

HUTTO | ALCOA PROPERTY SUPPLY

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	2,133	5,292	7,399

HUTTO | WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	3,046	3,304	3,304	3,304	3,304

JARRELL-SCHWERTNER | LAKE GRANGER AUGMENTATION-PH 2						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	174	180	185	191	196

JOHNSON COUNTY SUD | CONSERVATION - JOHNSON COUNTY SUD						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1	2	4	6	8	10

JOHNSON COUNTY SUD | CONSERVATION, WATER LOSS CONTROL - JOHNSON COUNTY SUD						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	2	2	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CONSERVATION, WATER LOSS CONTROL - JOHNSON COUNTY SUD	WATER LOSS CONTROL					

JOHNSON COUNTY SUD | INCREASE SWATS WTP CAPACITY - ACTON MUD, JOHNSON COUNTY SUD						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	1,529	1,529	1,529	1,529
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
EXPAND WTP SWATS - JOHNSON COUNTY SUD	WATER TREATMENT PLANT EXPANSION					

JOHNSON COUNTY SUD | INTEGRATED PIPELINE						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,651	1,884	1,310	1,479	1,354

JOHNSON COUNTY SUD | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	1,795	1,900	1,762

JOHNSON COUNTY SUD | TRINITY AQUIFER DEVELOPMENT						
DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	208	0	0	0	737	1,491
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TRINITY AQUIFER DEVELOPMENT - JOHNSON COUNTY SUD	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

JOHNSON COUNTY SUD | TRWD - AQUIFER STORAGE AND RECOVERY PILOT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	42	84	54	57	53

JOHNSON COUNTY SUD | TRWD - CARRIZO-WILCOX GROUNDWATER						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	539	343	363	337

JOHNSON COUNTY SUD | TRWD - REUSE FROM TRA CENTRAL WWTP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	333	505	429	567	631

JOHNSON COUNTY SUD | TRWD - TEHUACANA						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	355	226	239	222

JOHNSON COUNTY SUD | TRWD - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	269	50	54	41	59	91

JOHNSON COUNTY SUD | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	596

JONAH WATER SUD | MUNICIPAL WATER CONSERVATION - JONAH WATER SUD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	84	32	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - JONAH WATER SUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

KEMPNER WSC | DROUGHT MANAGEMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	32	35	39	42	45	49

KEMPNER WSC | KEMPNER WSC WTP EXPANSION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1,120	1,120	1,120	2,015	2,015	2,015
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
EXPAND WTP (1.8 MGD) - KEMPNER WSC	WATER TREATMENT PLANT EXPANSION					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

KEMPNER WSC | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,551	1,600	1,649	1,698	1,747

KEMPNER WSC | MUNICIPAL CONSERVATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	12	12	11	11	12	12
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL CONSERVATION - KEMPNER WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY; WATER LOSS CONTROL					

KEMPNER WSC | MUNICIPAL WATER CONSERVATION - KEMPNER WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	234	233	229	237	249
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - KEMPNER WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

KILLEEN | KILLEEN REDUCTION TO HARKER HEIGHTS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	0	0	302

KILLEEN | REUSE-BELL COUNTY WCID 1 NORTH						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,773	1,773	1,773	1,773	1,773

KILLEEN | REUSE-BELL COUNTY WCID 1 SOUTH						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	716	563	563	563	543

LAMPASAS | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	610	629	649	668	687

LEANDER | BRUSHY CREEK RUA-EXISTING CONTRACTS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	17,600	17,600	17,600	17,600	17,600	17,600
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	1,200	1,200	1,200	1,200	1,200	1,200
TOTAL MWP RELATED WMS SUPPLY	18,800	18,800	18,800	18,800	18,800	18,800
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

LEANDER | DROUGHT MANAGEMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	320	594	616	645	659	686

LEANDER | LCRA - MID BASIN RESERVOIR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,400	1,400	2,600	2,600	4,041

LEE COUNTY WSC | DROUGHT MANAGEMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	42	43	45	48	58	68

LOWER COLORADO RIVER AUTHORITY | AUSTIN RETURN FLOWS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	12,600	14,027	14,027	14,027	14,027	14,027
RELATED UNALLOCATED WMS WATER VOLUMES	7,144	15,249	14,560	14,723	12,971	12,510
TOTAL MWP RELATED WMS SUPPLY	19,744	29,276	28,587	28,750	26,998	26,537

LOWER COLORADO RIVER AUTHORITY | DOWNSTREAM RETURN FLOWS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	3,000	3,000	3,000	3,000	4,200
RELATED UNALLOCATED WMS WATER VOLUMES	3,985	1,969	3,072	4,164	5,267	4,067
TOTAL MWP RELATED WMS SUPPLY	3,985	4,969	6,072	7,164	8,267	8,267

LOWER COLORADO RIVER AUTHORITY | LCRA - ACQUIRE ADDITIONAL WATER RIGHTS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	250	250	250	250	250
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
LCRA - ACQUIRE ADDITIONAL WATER RIGHTS	WATER RIGHT/PERMIT LEASE OR PURCHASE					

LOWER COLORADO RIVER AUTHORITY | LCRA - AQUIFER STORAGE AND RECOVERY						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	12,973	12,973	12,973	12,973
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
LCRA - AQUIFER STORAGE AND RECOVERY	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK; NEW SURFACE WATER INTAKE; DIVERSION AND CONTROL STRUCTURE					

LOWER COLORADO RIVER AUTHORITY | LCRA - BAYLOR CREEK RESERVOIR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	18,000	18,000	18,000	18,000

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
LCRA - BAYLOR CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION; DIVERSION AND CONTROL STRUCTURE; WATER RIGHT/PERMIT AMENDMENT NO IBT

LOWER COLORADO RIVER AUTHORITY | LCRA - ENHANCED RECHARGE (MAR)

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	14,486	14,486	14,486	14,486
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LCRA - ENHANCED RECHARGE AND CONJUNCTIVE USE	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION; DIVERSION AND CONTROL STRUCTURE; NEW WATER RIGHT/PERMIT NO IBT; WATER RIGHT/PERMIT AMENDMENT NO IBT					

LOWER COLORADO RIVER AUTHORITY | LCRA - EXCESS FLOWS RESERVOIR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	10,541	13,797	15,997	15,997	16,897
RELATED UNALLOCATED WMS WATER VOLUMES	0	28,706	25,450	23,250	23,250	22,350
TOTAL MWP RELATED WMS SUPPLY	0	39,247	39,247	39,247	39,247	39,247
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LCRA - EXCESS FLOWS PERMIT OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION; DIVERSION AND CONTROL STRUCTURE					

LOWER COLORADO RIVER AUTHORITY | LCRA - EXPAND USE OF GROUNDWATER (CARRIZO-WILCOX AQUIFER)

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	30	30	30	30	30
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - LCRA	CONVEYANCE/TRANSMISSION PIPELINE; SINGLE WELL					

LOWER COLORADO RIVER AUTHORITY | LCRA - IMPORT RETURN FLOWS FROM WILLIAMSON COUNTY

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	2,500	7,000	15,000	25,000
RELATED UNALLOCATED WMS WATER VOLUMES	0	5,460	8,420	9,380	6,840	0
TOTAL MWP RELATED WMS SUPPLY	0	5,460	10,920	16,380	21,840	25,000
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LCRA - IMPORT RETURN FLOWS FROM WILLIAMSON COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION; NEW WATER RIGHT/PERMIT EXEMPT IBT; NEW WATER RIGHT/PERMIT NON-EXEMPT IBT					

LOWER COLORADO RIVER AUTHORITY | LCRA - INTERRUPTIBLE WATER FOR AGRICULTURE (LCRA WMP AMENDMENTS)

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	63,495	25,797	13,105	0	0	0

LOWER COLORADO RIVER AUTHORITY | LCRA - MID BASIN RESERVOIR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	1,400	8,120	12,020	15,570	17,181
RELATED UNALLOCATED WMS WATER VOLUMES	0	18,600	11,880	7,980	4,430	2,819

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

TOTAL MWP RELATED WMS SUPPLY	0	20,000	20,000	20,000	20,000	20,000
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LCRA - MID-BASIN OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION; DIVERSION AND CONTROL STRUCTURE					

LOWER COLORADO RIVER AUTHORITY | LCRA - PRAIRIE SITE RESERVOIR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
RELATED UNALLOCATED WMS WATER VOLUMES	0	19,000	9,500	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
LCRA - PRAIRIE SITE OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION; CANAL LINING; DIVERSION AND CONTROL STRUCTURE					

MANSFIELD | CONSERVATION - MANSFIELD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	178	331	486	716	951	1,221

MANSFIELD | CONSERVATION, IRRIGATION RESTRICTIONS – MANSFIELD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	500	701	833	1,030	1,181	1,332

MANSFIELD | CONSERVATION, WATER LOSS CONTROL - MANSFIELD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	93	117	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CONSERVATION, WATER LOSS CONTROL - MANSFIELD	WATER LOSS CONTROL					

MANSFIELD | INTEGRATED PIPELINE

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	4,671	5,476	4,790	6,259	6,494
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					

MANSFIELD | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	0	0	6,568	8,036	8,448
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					

MANSFIELD | MUNICIPAL WATER CONSERVATION - MANSFIELD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

MWP RETAIL CUSTOMERS	0	87	223	407	641	922
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - MANSFIELD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

MANSFIELD | TRWD - AQUIFER STORAGE AND RECOVERY PILOT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	118	245	196	239	252

MANSFIELD | TRWD - CARRIZO-WILCOX GROUNDWATER

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	0	1,566	1,255	1,535	1,614
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					

MANSFIELD | TRWD - REUSE FROM TRA CENTRAL WWTP

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	942	1,469	1,568	2,399	3,026
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					

MANSFIELD | TRWD - TEHUACANA

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	0	1,031	826	1,011	1,062
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					

MANSFIELD | TRWD - UNALLOCATED SUPPLY UTILIZATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	537	145	155	155	249	440
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION					

MANSFIELD | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	0	0	0	0	2,858

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MANSFIELD - 15 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION
MANSFIELD - 35 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION
MANSFIELD - 20 MGD WTP EXPANSION	WATER TREATMENT PLANT EXPANSION

MANVILLE WSC | DROUGHT MANAGEMENT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	488	589	687	799	899	993

MANVILLE WSC | EXPANDED USE OF LOCAL GROUNDWATER

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	703
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
EXPANSION OF TRINITY AQUIFER SUPPLIES - MANVILLE WSC	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD					

MANVILLE WSC | MUNICIPAL WATER CONSERVATION - MANVILLE WSC

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	172	293	335	396	474
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - MANVILLE WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

MARLIN | BRUSHY CREEK RESERVOIR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	2,000	2,000	2,000	2,000
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
BRUSHY CREEK RESERVOIR- MARLIN	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; STORAGE TANK					

MARLIN | MUNICIPAL WATER CONSERVATION - MARLIN

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	151	296	432	583	730
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - MARLIN	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

MCGREGOR | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	141	146	150	155	159

MEXIA | CARRIZO AQUIFER DEVELOPMENT - BISTONE MWSD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	43	182

MEXIA | PURCHASE CARRIZO-WILCOX SUPPLY FROM MEXIA

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	10	17	21	25	0	0

MINERAL WELLS | CONSERVATION - MINERAL WELLS

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	6	9	3	4	5	6

MINERAL WELLS | CONSERVATION, IRRIGATION RESTRICTIONS – MINERAL WELLS

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	9	10	0	0	0	0

MINERAL WELLS | CONSERVATION, WATER LOSS CONTROL - MINERAL WELLS

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	2	2	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CONSERVATION, WATER LOSS CONTROL - MINERAL WELLS	WATER LOSS CONTROL					

MINERAL WELLS | MUNICIPAL WATER CONSERVATION - MINERAL WELLS

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	34	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - MINERAL WELLS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

MINERAL WELLS | PURCHASE ADDITIONAL SUPPLY FROM THE CITY OF MINERAL WELLS

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	191	190	187	187	184	192

MINERAL WELLS | TURKEY PEAK RESERVOIR

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	543	778	983	1,186	1,386

MORGANS POINT RESORT | NO RECOMMENDED WMS SUPPLY RELATED TO MWP

MOUNTAIN PEAK SUD | CONSERVATION - MOUNTAIN PEAK SUD

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	92	151	183	270	338	408

MOUNTAIN PEAK SUD | CONSERVATION, IRRIGATION RESTRICTIONS – MOUNTAIN PEAK SUD

DATA DESCRIPTION	WATER VOLUMES (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	80	112	118	169	196	219

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

MOUNTAIN PEAK SUD | CONSERVATION, WATER LOSS CONTROL - MOUNTAIN PEAK SUD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	121	419	422	603	698	782
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
CONSERVATION, WATER LOSS CONTROL - MOUNTAIN PEAK SUD	WATER LOSS CONTROL					

MOUNTAIN PEAK SUD | INTEGRATED PIPELINE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	809	781	1,306	1,638	1,635

MOUNTAIN PEAK SUD | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	1,791	2,104	2,129

MOUNTAIN PEAK SUD | TRWD - AQUIFER STORAGE AND RECOVERY PILOT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	20	35	53	63	64

MOUNTAIN PEAK SUD | TRWD - CARRIZO-WILCOX GROUNDWATER						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	223	342	402	407

MOUNTAIN PEAK SUD | TRWD - REUSE FROM TRA CENTRAL WWTP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	163	209	428	628	762

MOUNTAIN PEAK SUD | TRWD - TEHUACANA						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	147	225	265	268

MOUNTAIN PEAK SUD | TRWD - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	412	25	22	42	66	111

MOUNTAIN PEAK SUD | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	720

NAVASOTA | MUNICIPAL WATER CONSERVATION - NAVASOTA	
	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	110	219	236	238	242
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - NAVASOTA	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

NORTH BOSQUE WSC | MUNICIPAL WATER CONSERVATION - NORTH BOSQUE WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	57	131	219	319	413
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - NORTH BOSQUE WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

NORTH BOSQUE WSC | TRINITY - MCLENNAN COUNTY ASR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	200	200	200	200	200
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
INTERCONNECT FROM WACO TO NORTH BOSQUE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW SURFACE WATER INTAKE					

NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY | NCTMWA LAKE CREEK RESERVOIR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	936	885	886	909	935
RELATED UNALLOCATED WMS WATER VOLUMES	0	11,964	12,015	12,014	11,991	11,965
TOTAL MWP RELATED WMS SUPPLY	0	12,900	12,900	12,900	12,900	12,900
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
NCTMWA LAKE CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; RESERVOIR CONSTRUCTION; WATER TREATMENT PLANT EXPANSION; NEW SURFACE WATER INTAKE					

PALO PINTO COUNTY MWD #1 | TURKEY PEAK RESERVOIR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	2,175	2,115	2,115	2,115	2,115
RELATED UNALLOCATED WMS WATER VOLUMES	0	3,282	3,107	2,902	2,699	2,499
TOTAL MWP RELATED WMS SUPPLY	0	5,457	5,222	5,017	4,814	4,614
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TURKEY PEAK RESERVOIR	RESERVOIR CONSTRUCTION; CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION					

POSSUM KINGDOM WSC | BRA SYSTEM OPERATION--SURPLUS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	1,934	1,934	1,934	1,934	1,934	1,934

POSSUM KINGDOM WSC | MUNICIPAL WATER CONSERVATION - POSSUM KINGDOM WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	80	161	243	323	397

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - POSSUM KINGDOM WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

POSSUM KINGDOM WSC | VOLUNTARY REDISTRIBUTION FROM PALO PINTO MANUFACTURING

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	118	91	45	0	0	0

ROBINSON | MUNICIPAL WATER CONSERVATION - ROBINSON

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	220	504	557	612	672
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - ROBINSON	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

ROBINSON | ROBINSON WTP EXPANSION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	4,311	4,108	3,905	3,701	3,498	3,295
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
EXPAND WTP (4 MGD)- ROBINSON	WATER TREATMENT PLANT EXPANSION					

ROCKDALE | CARRIZO AQUIFER DEVELOPMENT - ROCKDALE

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	79	200	433	360	360	400
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CARRIZO AQUIFER DEVELOPMENT - ROCKDALE	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; CONVEYANCE/TRANSMISSION PIPELINE					

ROCKDALE | MUNICIPAL WATER CONSERVATION - ROCKDALE

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	89	180	198	202	209
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - ROCKDALE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

ROUND ROCK | BRUSHY CREEK RUA-EXISTING CONTRACTS

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	17,647	17,510	17,374	17,238	17,102	16,965
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
BRUSHY CREEK RUA WATER SUPPLY	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; NEW WATER TREATMENT PLANT					

ROUND ROCK | DROUGHT MANAGEMENT

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	68	79	88	99	109	118

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

ROUND ROCK | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	377	0	0	0

ROUND ROCK | MUNICIPAL CONSERVATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	6	1	0	0	0	0
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL CONSERVATION - ROUND ROCK	DATA GATHERING/MONITORING TECHNOLOGY; CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL					

ROUND ROCK | MUNICIPAL WATER CONSERVATION - ROUND ROCK						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,935	4,192	5,026	4,972	4,951
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - ROUND ROCK	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

ROUND ROCK | WILLIAMSON COUNTY GROUNDWATER – SOUTH OPTION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	4,333	4,092	4,605	4,741	4,878

SALADO WSC | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	279	288	296	305	314

SALADO WSC | MUNICIPAL WATER CONSERVATION - SALADO WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	178	379	597	831	1,074
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - SALADO WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

SALT FORK WATER QUALITY CORPORATION | UPPER BASIN CHLORIDE CONTROL PROJECT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	367	367	367	367	367
RELATED UNALLOCATED WMS WATER VOLUMES	0	582	582	582	582	582
TOTAL MWP RELATED WMS SUPPLY	0	949	949	949	949	949
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
UPPER BASIN CHLORIDE CONTROL PROJECT	NEW WATER TREATMENT PLANT; CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; STORAGE TANK					

SOUTHWEST MILAM WSC | CARRIZO AQUIFER DEVELOPMENT - SOUTHWEST MILAM WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	200	365	325	392	534
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
CARRIZO AQUIFER DEVELOPMENT - SOUTHWEST MILAM WSC	MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; CONVEYANCE/TRANSMISSION PIPELINE					

SOUTHWEST MILAM WSC | MUNICIPAL WATER CONSERVATION - SOUTHWEST MILAM WSC						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	25	54	61	73	85
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - SOUTHWEST MILAM WSC	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

STAMFORD | MUNICIPAL WATER CONSERVATION - STAMFORD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	68	136	212	285	342
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MUNICIPAL WATER CONSERVATION - STAMFORD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

STEPHENVILLE | TRINITY AQUIFER DEVELOPMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	484	414	484	484	484	484
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	1	2	0	0	0	0
TOTAL MWP RELATED WMS SUPPLY	485	416	484	484	484	484
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TRINITY AQUIFER DEVELOPMENT- STEPHENVILLE	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT					

SWEETWATER | CEDAR RIDGE RESERVOIR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	0	1,651	1,668	1,731	1,787	1,839
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	216	186	166	147	131
TOTAL MWP RELATED WMS SUPPLY	0	1,867	1,854	1,897	1,934	1,970
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
INTERCONNECT FROM ABILENE TO SWEETWATER	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK					

SWEETWATER | OAK CREEK RESERVOIR-CONJUNCTIVE USE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	102	512	549	586	623	660
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	373	0	0	0	0	0
TOTAL MWP RELATED WMS SUPPLY	475	512	549	586	623	660

SWEETWATER | SUBORDINATION - OAK CREEK RESERVOIR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
MWP RETAIL CUSTOMERS	1,025	540	503	468	431	394

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	448	448	446	446	446
TOTAL MWP RELATED WMS SUPPLY	1,025	988	951	914	877	840

TARRANT REGIONAL WD | INTEGRATED PIPELINE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	31,490	66,810	62,936	89,222	101,912
RELATED UNALLOCATED WMS WATER VOLUMES	0	50,385	32,541	52,768	35,031	21,687
TOTAL MWP RELATED WMS SUPPLY	0	81,875	99,351	115,704	124,253	123,599
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TRWD - ADDITIONAL TRANSMISSION PIPELINE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK					
TRWD - CEDAR CREEK WETLANDS REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION					
TRWD - ADDITIONAL CAPACITY TO CONVEY RICHLAND CHAMBERS REUSE (IPL)	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK					

TARRANT REGIONAL WD | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	86,267	114,579	132,587
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	81,257	52,945	34,937
TOTAL MWP RELATED WMS SUPPLY	0	0	0	167,524	167,524	167,524
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
MARVIN NICHOLS (328) - TRWD, NTMWD, UTRWD	RESERVOIR CONSTRUCTION; CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK; NEW WATER RIGHT/PERMIT AMENDMENT NON-EXEMPT IBT					

TARRANT REGIONAL WD | TRWD - AQUIFER STORAGE AND RECOVERY PILOT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	790	2,989	2,570	3,419	3,958
RELATED UNALLOCATED WMS WATER VOLUMES	2,500	1,710	2,011	2,430	1,581	1,042
TOTAL MWP RELATED WMS SUPPLY	2,500	2,500	5,000	5,000	5,000	5,000
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TRWD - ASR PILOT	MULTIPLE WELLS/WELL FIELD					

TARRANT REGIONAL WD | TRWD - CARRIZO-WILCOX GROUNDWATER						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	19,104	16,483	21,940	25,446
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	5,821	11,499	5,898	2,648
TOTAL MWP RELATED WMS SUPPLY	0	0	24,925	27,982	27,838	28,094
WMS RELATED MWP SPONSORED PROJECTS	**PROJECT DESCRIPTION**					
TRWD - CARRIZO-WILCOX GROUNDWATER	STORAGE TANK; CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION					

TARRANT REGIONAL WD | TRWD - REUSE FROM TRA CENTRAL WWTP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	6,346	17,917	20,598	34,197	47,481
RELATED UNALLOCATED WMS WATER VOLUMES	0	13,654	12,083	19,402	15,803	12,519
TOTAL MWP RELATED WMS SUPPLY	0	20,000	30,000	40,000	50,000	60,000

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
TRWD - REUSE FROM TRA CENTRAL WWTP	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION

TARRANT REGIONAL WD | TRWD - TEHUACANA

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	12,578	10,851	14,414	16,673
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	8,492	10,219	6,656	4,397
TOTAL MWP RELATED WMS SUPPLY	0	0	21,070	21,070	21,070	21,070

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
TRWD - TEHUACANA RESERVOIR	PUMP STATION; RESERVOIR CONSTRUCTION

TARRANT REGIONAL WD | TRWD - UNALLOCATED SUPPLY UTILIZATION

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	7,146	998	2,777	2,667	4,453	8,291
RELATED UNALLOCATED WMS WATER VOLUMES	507	1,049	28	28	31	56
TOTAL MWP RELATED WMS SUPPLY	7,653	2,047	2,805	2,695	4,484	8,347

TARRANT REGIONAL WD | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	0	0	0	0	44,857
RELATED UNALLOCATED WMS WATER VOLUMES	0	0	0	0	0	11,819
TOTAL MWP RELATED WMS SUPPLY	0	0	0	0	0	56,676

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
WRIGHT PATMAN REALLOCATION NTMWD, TRWD, AND UTRWD	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; NEW SURFACE WATER INTAKE; RESERVOIR CONSTRUCTION; STORAGE TANK; NEW WATER RIGHT/PERMIT NON-EXEMPT IBT

TAYLOR | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2,226	2,337	2,409	2,480	2,551

TAYLOR | MUNICIPAL WATER CONSERVATION - TAYLOR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	215	466	490	530	578

WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION
MUNICIPAL WATER CONSERVATION - TAYLOR	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY

TEMPLE | LAKE GRANGER ASR

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	3,759	3,323	5,264	5,730	4,504

TEMPLE | LAKE GRANGER AUGMENTATION-PH 2

	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,550	2,153	379	80	1,473

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

TEMPLE | MUNICIPAL WATER CONSERVATION - TEMPLE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1,868	4,232	7,057	10,263	12,469
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - TEMPLE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

TEMPLE | TEMPLE WTP EXPANSION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	2,352	2,352	3,610	3,138	2,707	2,256
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
EXPAND WTP (4.2 MGD) - TEMPLE	WATER TREATMENT PLANT EXPANSION					

TEXAS A&M UNIVERSITY | MUNICIPAL WATER CONSERVATION - TEXAS A&M UNIVERSITY						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	560	1,072	1,557	2,006	2,415
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - TEXAS A&M UNIVERSITY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

TEXAS A&M UNIVERSITY | TEXAS A&M SPARTA AQUIFER DEVELOPMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	638	638	638	638
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
TEXAS A&M SPARTA AQUIFER DEVELOPMENT	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT					

TEXAS STATE TECHNICAL COLLEGE | MUNICIPAL WATER CONSERVATION - TEXAS STATE TECHNICAL COLLEGE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	88	180	274	370	466
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - TEXAS STATE TECHNICAL COLLEGE	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

UPPER LEON MWD | LAKE GRANGER AUGMENTATION-PH 2						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	0	1,122	1,157	1,193	1,228	1,263

VENUS | CONSERVATION - VENUS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	1	2	2

VENUS | CONSERVATION, IRRIGATION RESTRICTIONS – VENUS	
	WATER VOLUMES (ACRE-FEET PER YEAR)

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1	1	1	1	1

VENUS | INTEGRATED PIPELINE						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	47	94	71	99	110

VENUS | MARVIN NICHOLS (328) STRATEGY FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	96	127	143

VENUS | MIDLOTHIAN - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	92	187	121	105	88	79

VENUS | MUNICIPAL WATER CONSERVATION - VENUS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	61	118	130	145	163
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - VENUS	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

VENUS | TRWD - AQUIFER STORAGE AND RECOVERY PILOT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	1	4	3	4	4

VENUS | TRWD - CARRIZO-WILCOX GROUNDWATER						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	27	18	24	27

VENUS | TRWD - REUSE FROM TRA CENTRAL WWTP						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	10	25	23	38	51

VENUS | TRWD - TEHUACANA						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	18	12	16	18

VENUS | TRWD - UNALLOCATED SUPPLY UTILIZATION						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2	3	2	5	8

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

VENUS | WRIGHT PATMAN REALLOCATION FOR NTMWD, TRWD, AND UTRWD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	0	0	0	0	48

WACO | CONSERVATION - METER ENHANCEMENT PROGRAM - WACO						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	698	2,237	2,346	2,469	2,604	2,740
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
CONSERVATION - METER ENHANCEMENT PROGRAM - WACO	DATA GATHERING/MONITORING TECHNOLOGY					

WACO | MUNICIPAL WATER CONSERVATION - WACO						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	2,583	5,360	8,389	11,642	12,436
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - WACO	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

WACO | REUSE- WMARSS BELLMEAD/ LACY-LAKEVIEW						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	374	374	374	374	374	374
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	1,866	1,866	1,866	1,866	1,866	1,866
TOTAL MWP RELATED WMS SUPPLY	2,240	2,240	2,240	2,240	2,240	2,240

WACO | REUSE- WMARSS BULLHIDE CREEK						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	1,681	1,681	1,681	1,681	1,681

WACO | REUSE- WMARSS CHINA SPRING						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1,120	1,120	1,120	1,120	1,120	1,120
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE- WMARSS CHINA SPRING	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

WACO | REUSE- WMARSS FLAT CREEK						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	5,700	5,700	5,700	5,700	5,700	5,700
RELATED UNALLOCATED WMS WATER VOLUMES	2,147	2,147	2,147	2,147	2,147	2,147
TOTAL MWP RELATED WMS SUPPLY	7,847	7,847	7,847	7,847	7,847	7,847
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE- FLAT CREEK	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK					

Region G Major Water Provider (MWP) Water Management Strategy (WMS) Summary

WACO | REUSE- WMARSS I-84						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	1,400	1,400	1,400	1,680	1,680	1,680
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
REUSE- WMARSS I-84	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION					

WACO | TRINITY - MCLENNAN COUNTY ASR						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	7,550	7,550	7,550	7,550	7,550
TRANSFERS RELATED TO WHOLESALE CUSTOMERS	0	450	450	450	450	450
TOTAL MWP RELATED WMS SUPPLY	0	8,000	8,000	8,000	8,000	8,000
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MCLENNAN COUNTY ASR (WACO)	MULTIPLE WELLS/WELL FIELD; INJECTION WELL					

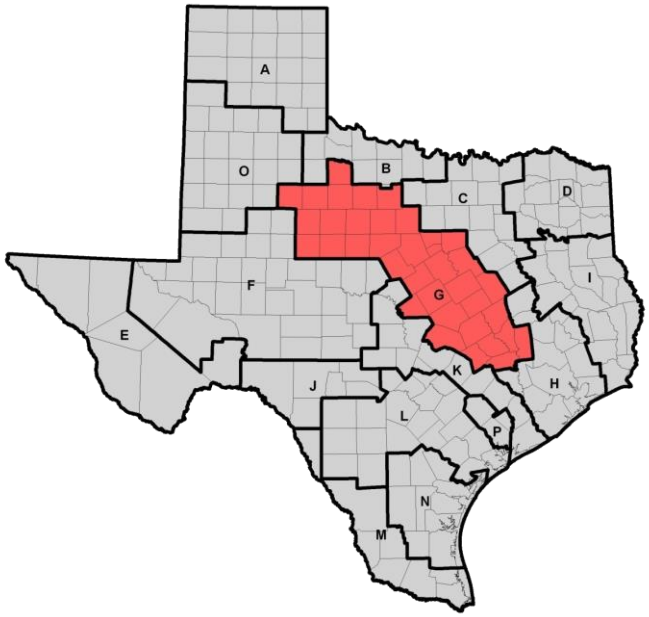
WELLBORN SUD | MUNICIPAL WATER CONSERVATION - WELLBORN SUD						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	424	591	622	683	751
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - WELLBORN SUD	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					

WEST CENTRAL TEXAS MWD | BRA SYSTEM OPERATION--SURPLUS						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
RELATED UNALLOCATED WMS WATER VOLUMES	774	774	774	774	774	774

WICKSON CREEK SUD | NO RECOMMENDED WMS SUPPLY RELATED TO MWP

WILLIAMSON COUNTY WSID 3 | DROUGHT MANAGEMENT						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	20	22	20	19	19	19

WOODWAY | MUNICIPAL WATER CONSERVATION - WOODWAY						
	WATER VOLUMES (ACRE-FEET PER YEAR)					
DATA DESCRIPTION	2020	2030	2040	2050	2060	2070
MWP RETAIL CUSTOMERS	0	308	635	988	1,357	1,730
WMS RELATED MWP SPONSORED PROJECTS	PROJECT DESCRIPTION					
MUNICIPAL WATER CONSERVATION - WOODWAY	CONSERVATION - MUNICIPAL (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); DATA GATHERING/MONITORING TECHNOLOGY					



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Description of the Planning Area

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1 Description of the Planning Area

1.1 Background

Senate Bill 1 (SB1), which was passed into law in June 1997 and enacted by the 75th Texas Legislature, stemmed from increased awareness of Texas' vulnerability to drought and of the limitations of existing water supplies to meet the needs of the state's growing population. Senate Bill 2 (SB2), enacted in September 2001, expanded on the regional water planning process as created by SB1, and provided for further analysis and planning for water resources in the state. With rapidly growing populations, the need to adequately plan for existing and future water needs is vital to the economic health of the region and State. Some areas of the State are already facing near-term water shortages, and the projected population is expected to double by 2060. The purpose of SB1 and SB2 is to ensure that the water needs of all Texans are met in the 21st century.

The SB1/SB2 legislation calls for a "bottom up" water planning process wherein Regional Water Planning Groups (RWPGs) are formed with members representing a minimum of 11 different interests, including the environment, industry, municipalities, water authorities, and the public. The Texas Water Development Board (TWDB) has established 16 regional water planning areas; each with its own RWPG. Each RWPG is tasked with preparing a regional water plan for its area that assesses the available water supplies, the projected demands on these supplies and identifies a means to meet future water needs while maintaining long-term protection of the State's resources.

In accordance with SB2 (as amended), all of the regional water plans must be completed, adopted and submitted to the TWDB by November 5, 2020. The TWDB will approve and compile the 16 regional plans into the 2021 State Water Plan. The regional and state water plans will continue to be updated every 5 years.

1.1.1 Brazos G Regional Water Planning Area

The Brazos G Regional Water Planning Area (BGRWPA), shown in Figure 1-1, comprises all or portions of 37 central Texas counties. The Brazos G Area is about 31,600 square miles in area, or 12 percent of the State's total area. About 90 percent of the region lies in the Brazos River Basin. Figure 1-2 shows the major features of the BGRWPA, such as major cities, reservoirs, and highways. This figure also shows that parts of several counties extend into the Red, Trinity, Colorado, and San Jacinto River Basins. Cities in the region with current populations greater than 50,000 are Abilene, Bryan, Cedar Park, College Station, Killeen, Round Rock, Temple, and Waco[1].

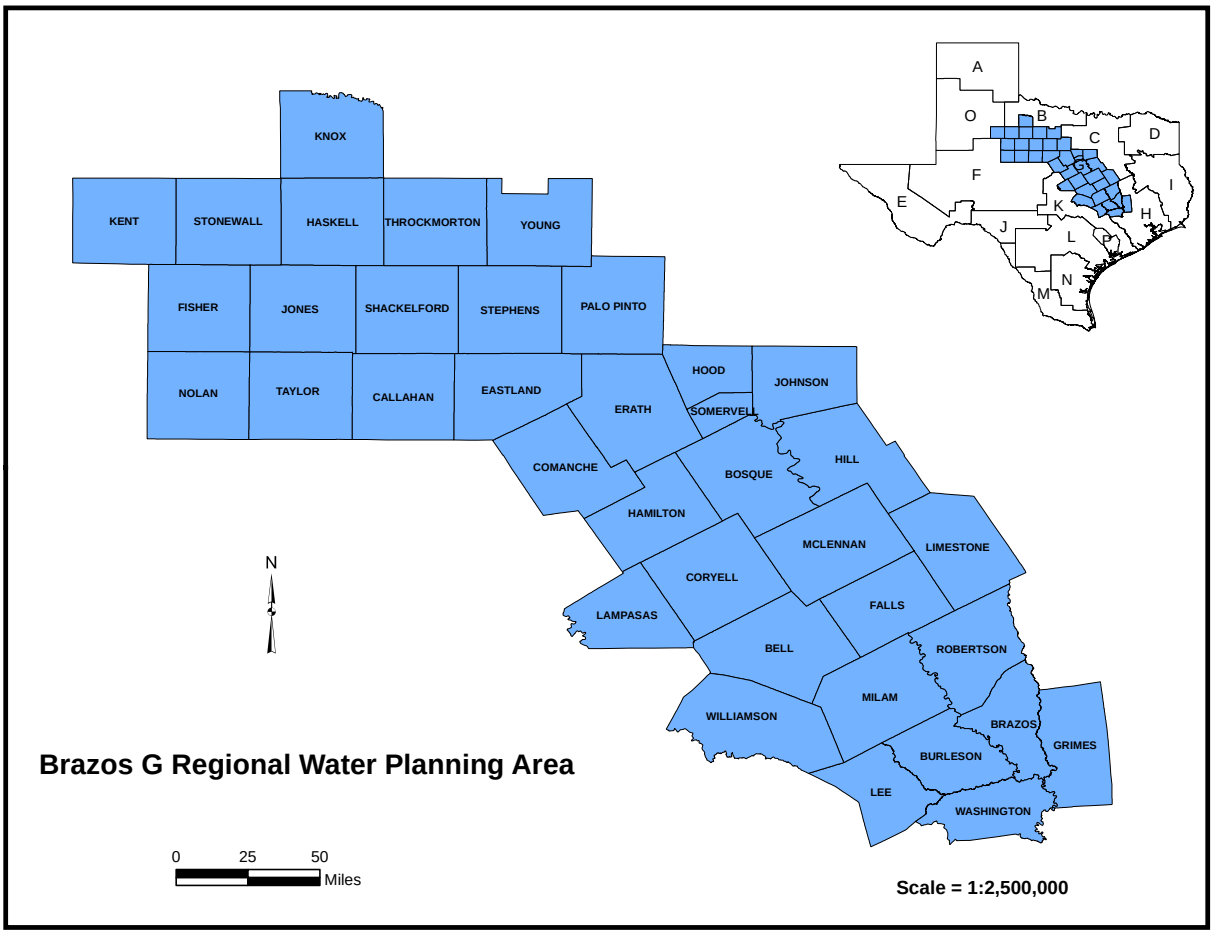
The region's geography varies from the rugged, uneven terrain and sandy soils of Kent and Knox Counties in the northwest to the hilly, forested areas and rich soils in Grimes and Washington Counties in the southeast. In the central part of the region are the Blackland Prairies in Hill and McLennan Counties.[2]

[1] U.S. Census Bureau, *2010 Census*, http://www.census.gov/2010census/

[2] The Dallas Morning News, *1997-1998 Texas Almanac*, 1998.

Members of the Brazos G RWPG who contributed to the development of the 2021 Brazos G Regional Water Plan are listed in Table 1-1. These members represent 12 interests: the public, counties, municipalities, industries, agriculture, the environment, small businesses, electric-generating utilities, river authorities, water districts, groundwater districts and water utilities. The Brazos G RWPG has retained the services of engineering firms and other specialists to assist the RWPG with the preparation of the regional plan, and it has designated the Brazos River Authority (BRA) as its administrative contracting agency.

Figure 1-1. Location Map



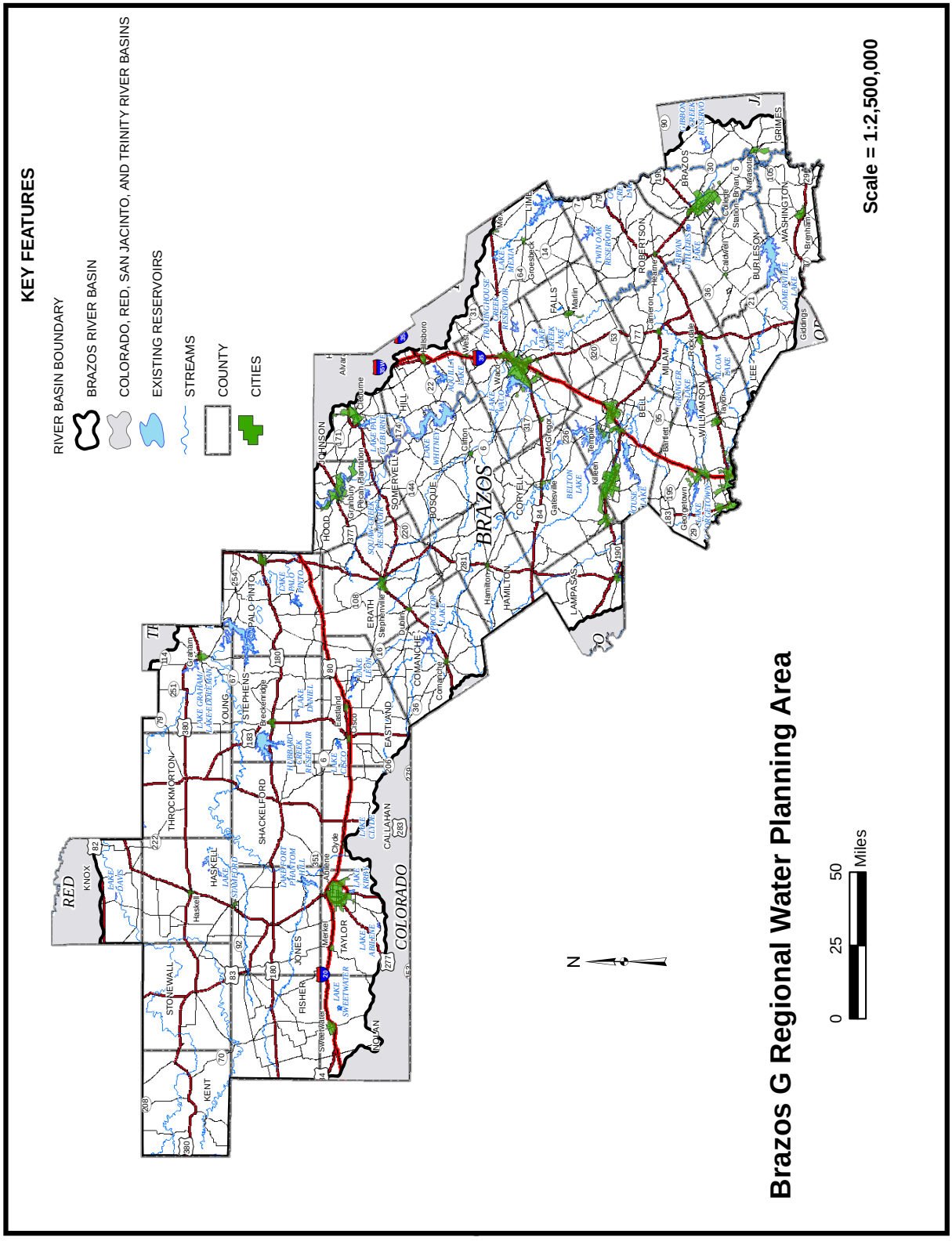


Figure 1-2. Major Features of the Brazos G Area

Table 1-1. Current and Recent Brazos G RWPG Members

Interest Group	Name
Voting Members	
Agricultural	Judge Dale Spurgin Wayne Wilson (Chairman)
Counties	Judge David Blackburn Judge Scott M. Felton Commissioner Gary Myers Commissioner Tim Brown (Jan 2019) Commissioner Mike Sutherland (Jan 2019)
Electric Generating Utilities	Gary L. Spicer
Environmental	Luci Dunn Kevin Wagner (July 2017)
Industry	Terrill Tomecek
Municipalities	Jim Briggs Tommy O'Brien Wiley Stem Jerry K. "Kenny" Weldon
Public	Gary Newman
River Authorities	David Collinsworth Phil Ford (Apr 2018)
Small Business	Gail L. Peek
Water Districts	Joe Cooper Kelly Kinard
Groundwater Management Areas	Dirk Aaron Dale Adams Zach Holland Mike McGuire Gary Westbrook Judy Parker (May 2018)
Water Utilities	Charles Beseda
Non-Voting Members	
Texas Water Development Board	Jean Devlin Thomas Barnett (former)
Texas Parks and Wildlife Department	Jennifer Bronson-Wilson
Texas Department of Agriculture	Michelle Bobo David Kercheval (former)
Texas State Soil and Water Conservation Board	Rusty Ray

* Date represents date of resignation.

1.2 Population

1.2.1 Regional Trends

Figure 1-3 illustrates population growth in the entire BGRWPA for 1900 to 2010 and projected growth for 2020 to 2070. Table A-1 in Appendix A gives historical population data for each county in the BGRWPA, as well as regional and State population totals, for 1990 to 2010.

From 1900 to 1970, population in the Brazos G Area grew slowly at an average rate of 0.4 percent per year from 680,093 people to 895,682. During the same period, the total population of Texas grew at an average rate of 1.9 percent annually, from 3,048,710 to 11,196,730. Beginning in the 1970s, however, both the State's and the region's population began to increase at faster rates. Growth in the region was about 2 percent annually, which approximates the State's total growth rate of 2 percent. Population in the BGRWPA is expected to increase by an average of 1.3 percent annually, reaching 4.35 million by 2070. This is roughly double the census population in 2010.

Population trends may be further understood by dividing the BGRWPA into three subregions: the northwestern Rolling Plains, the central IH-35 Corridor, and the southeastern Lower Basin. Table A-2 in Appendix A provides historical population data for all counties in each subregion from 1900 to 2010.

Figure 1-3. Historical and Projected BGWRPA Population

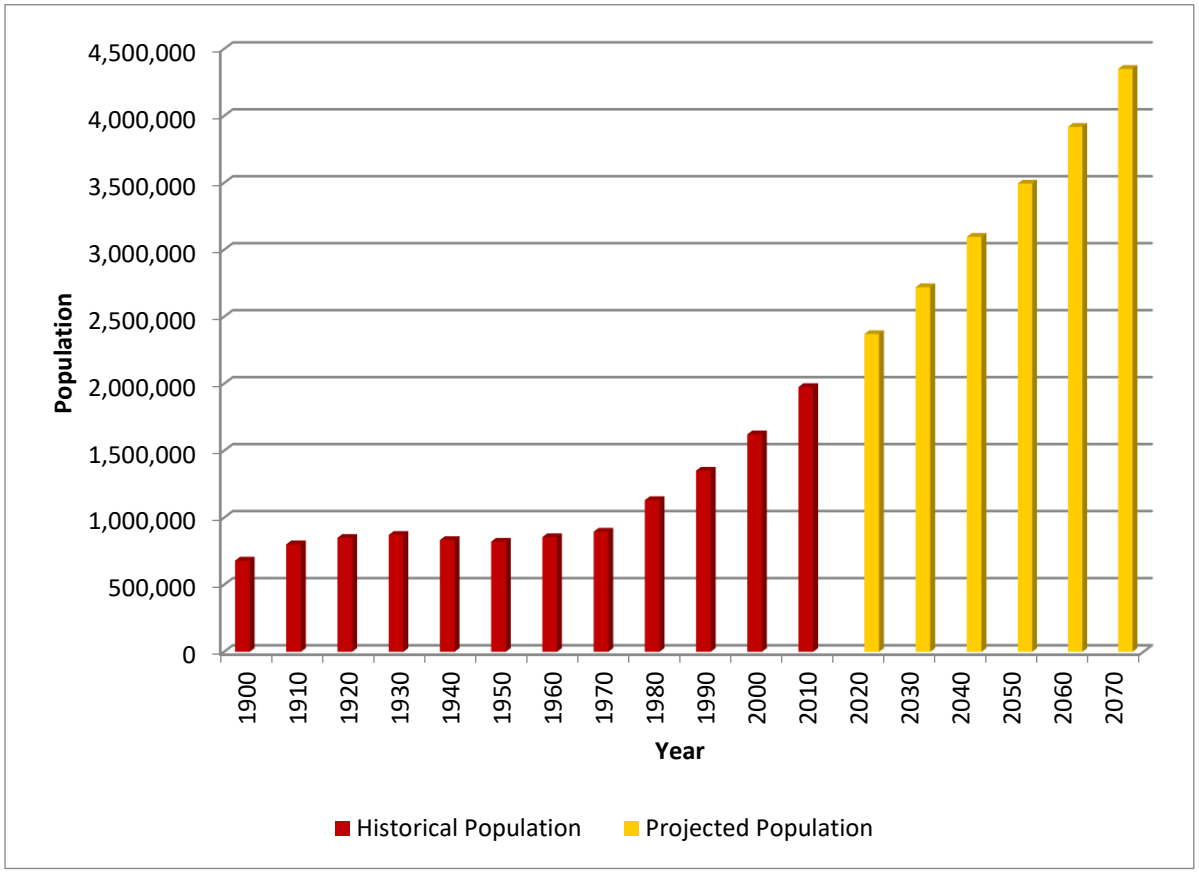
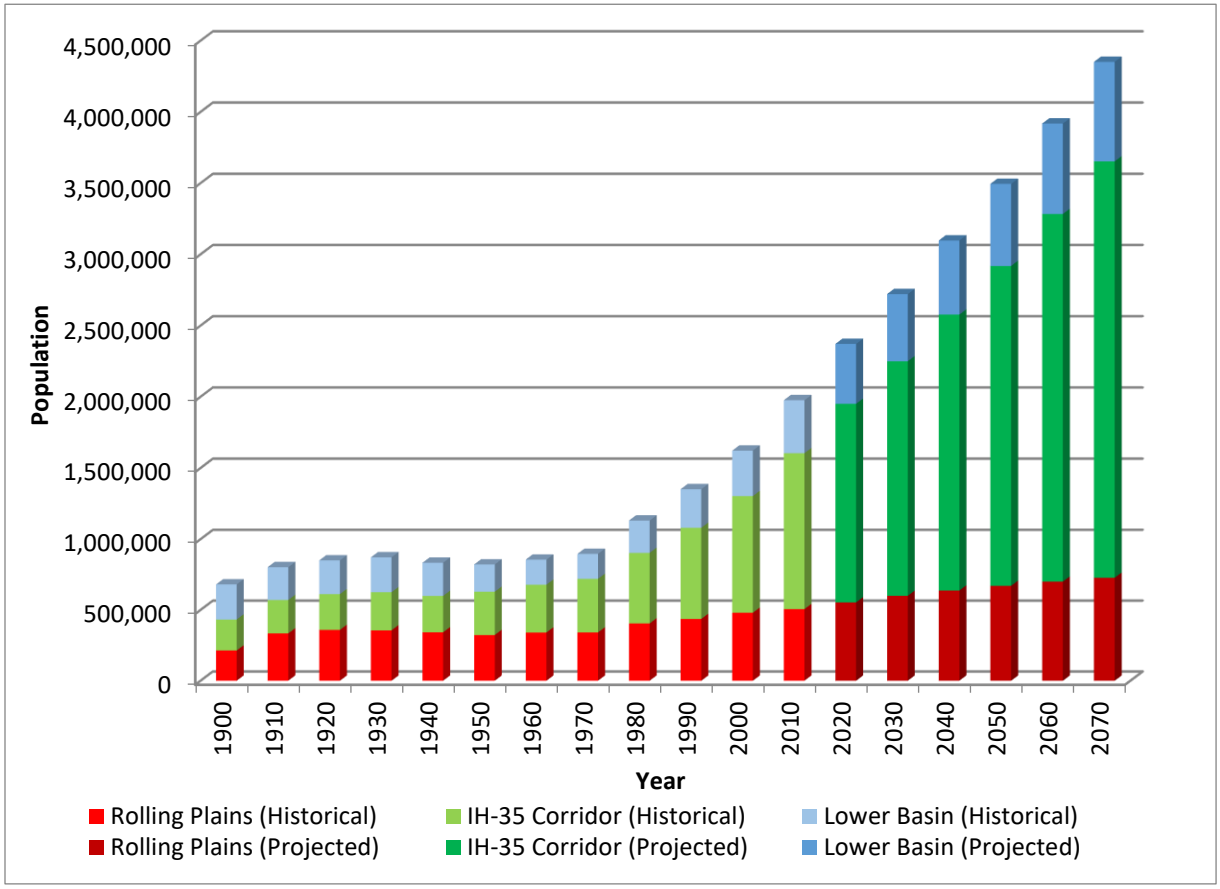


Figure 1-4 illustrates historical population growth in the three subregions from 1900 to 2010 and projected growth from 2020 to 2070. Figure 1-5 and Figure 1-6 illustrate population distribution by county for years 2020 and 2070, respectively. The greatest growth is projected to occur along the IH-35 corridor, which connects some of the larger cities in the region and the state. Table 1-2 presents 2010 populations and projected populations for 2020 and 2070 for the major cities in each subregion. Major cities are defined as those having at least 10,000 people in 2010. This table also presents the percent change in populations from 2020 to 2070 in each city. The overall division of the population between large cities and rural areas is expected to increase from 56.6 percent in 2010 to 61.2 percent by 2070.

Figure 1-4. Historical and Projected Population by Subregion



1.2.2 Rolling Plains

The counties in the Rolling Plains subregion are Knox, Kent, Stonewall, Haskell, Throckmorton, Young, Fisher, Jones, Shackelford, Stephens, Palo Pinto, Nolan, Taylor, Callahan, Eastland, Erath, Hood, Somervell, Comanche, Hamilton, Bosque, Coryell, and Lampasas. These counties, with about 25 percent of the BGRWPA's population in 2010, have grown moderately since 1970 at an average rate of 0.8 percent per year. Major cities in this subregion include Abilene, Copperas Cove, Gatesville, Mineral Wells, Stephenville, and Sweetwater.

1.2.3 IH-35 Corridor

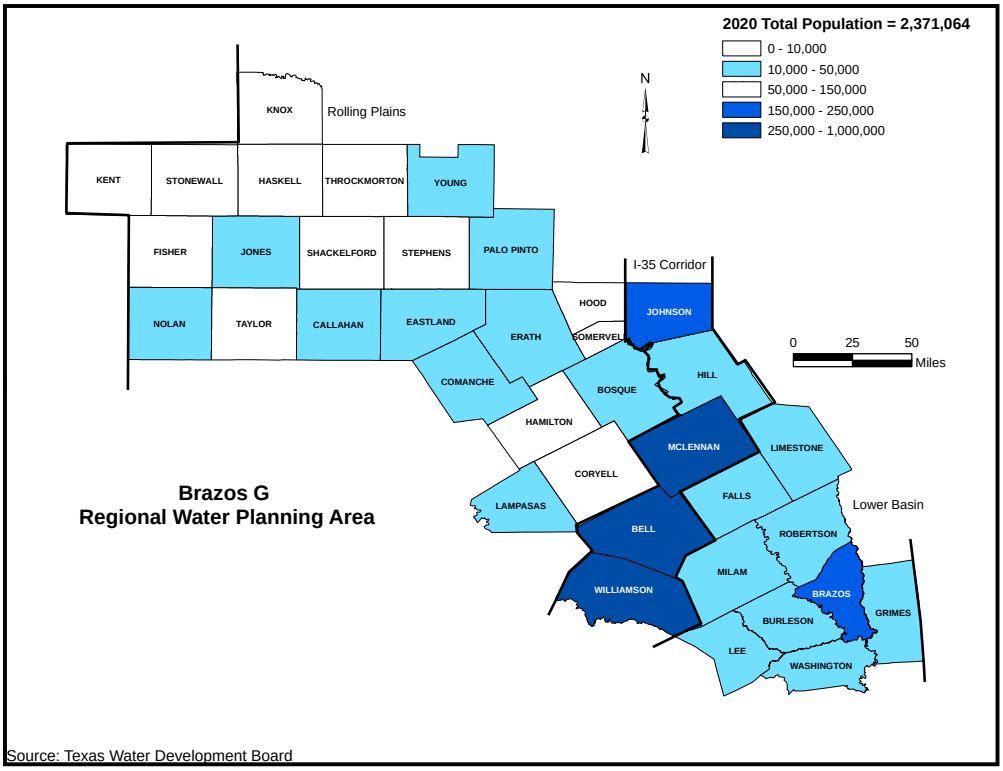
The counties in the IH-35 Corridor are Johnson, Hill, McLennan, Bell, and Williamson. Population growth in these counties has been rapid since 1970, averaging 2.4 percent annually. In this subregion, cities with a current population greater than 10,000 include Belton, Burleson, Cedar Park, Cleburne, Fort Hood, Georgetown, Harker Heights, Hewitt, Hutto, Killeen, Leander, Robinson, Round Rock, Taylor, Temple, and Waco[3]. Total population in the IH-35 Corridor was about 56 percent of the region's total in year 2010, and it is expected to keep growing rapidly.

1.2.4 Lower Basin

Counties in the Lower Basin are Limestone, Falls, Milam, Robertson, Lee, Burleson, Brazos, Washington, and Grimes. This subregion also has seen a relatively high growth rate averaging 1.5 percent annually since 1970. Major cities include Brenham, Bryan, and College Station. The Lower Basin had 19 percent of the population of the BGRWPA in 2010.

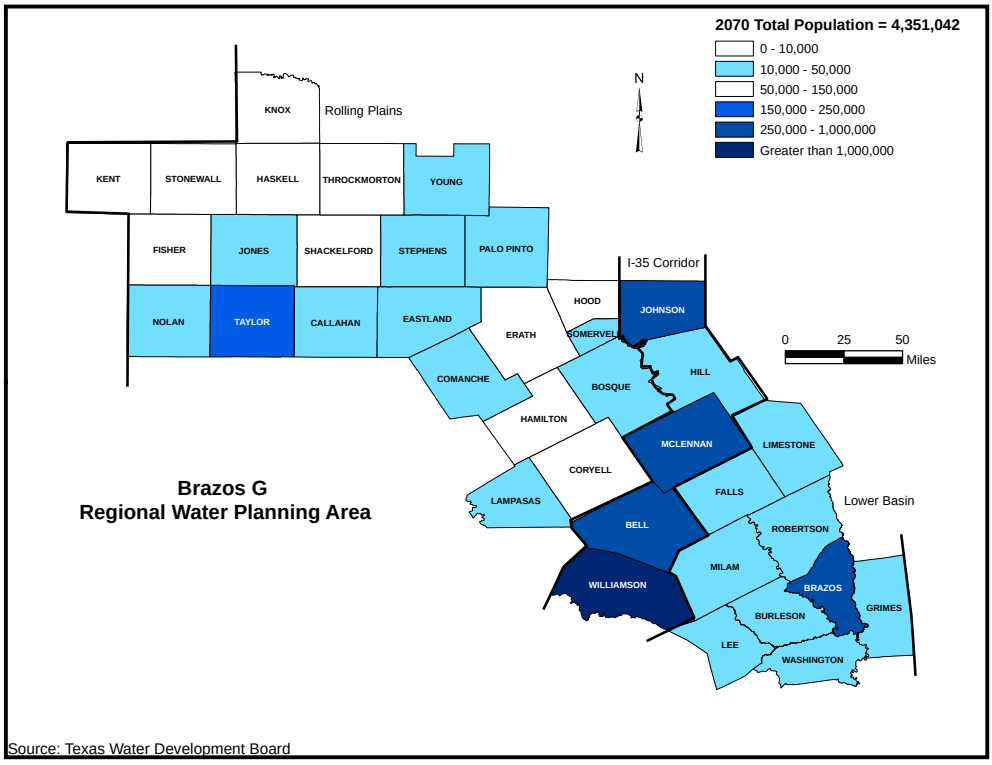
[3] U.S. Census Bureau, *2010 Census*, http://www.census.gov/2010census/

Figure 1-5. 2020 Population Distribution by County



Source: Texas Water Development Board

Figure 1-6. 2070 Population Distribution by County



Source: Texas Water Development Board

Table 1-2. Population of Major Cities in the BGRWPA (Greater than 10,000 People in 2010)

City	County	Population Data[1]			% Change
		2010	*2020*	*2070*	*(2020 to 2070)*
Rolling Plains					
Abilene	Jones, Taylor	117,063	122,542	141,659	15.6
Copperas Cove	Coryell	32,032	35,213	59,807	69.8
Gatesville	Coryell	15,751	17,489	29,702	69.8
Mineral Wells[2]	Palo Pinto	14,644	15,820	19,470	23.1
Stephenville	Erath	17,123	19,044	27,953	46.8
Sweetwater	Nolan	10,906	12,196	14,609	19.8
IH-35 Corridor					
Belton	Bell	18,216	21,753	41,063	88.8
Burleson[2]	Johnson	29,111	34,351	66,588	93.8
Cedar Park	Williamson	48,448	81,716	90,641	10.9
Cleburne	Johnson	29,337	38,220	78,919	106.5
Fort Hood	Bell, Coryell	29,589	30,950	31,296	1.1
Georgetown	Williamson	47,400	118,763	358,109	201.5
Harker Heights	Bell	26,700	31,372	59,222	88.8
Hewitt	McLennan	13,549	17,373	29,034	67.1
Hutto	Williamson	14,698	17,326	101,202	484.1
Killeen	Bell	127,921	144,243	272,291	88.8
Leander	Williamson	25,444	48,575	185,879	282.7
Robinson	McLennan	10,509	12,851	24,296	89.1
Round Rock[2]	Williamson	98,525	123,598	239,565	93.8
Taylor	Williamson	15,191	17,233	27,220	58.0
Temple	Bell	66,102	81,736	154,295	88.8
Waco	McLennan	124,805	132,512	178,976	35.1
Lower Basin					
Brenham	Washington	15,716	18,423	23,810	29.2
Bryan	Brazos	76,201	84,196	211,266	150.9
College Station	Brazos	93,857	100,854	195,852	94.2
Total, Major Cities	**—**	**1,118,838**	**1,378,349**	**2,662,724**	**93.2**
% of Region Total	**—**	**56.6**	**58.1**	**61.2**	
Total, Rural Areas	**—**	**856,996**	**992,715**	**1,688,318**	**70.1**
% of Region Total	**—**	**43.4**	**41.9**	**38.8**	
Region Total	**—**	**1,975,834**	**2,371,064**	**4,351,042**	**83.5**

[1] 2010 population data obtained from U.S. Census. 2020 and 2070 projections are based on TWDB.
[2] Represents only the portion of the city located in Region G

1.3 Economic Activities

The BGRWPA includes all or part of the following metropolitan statistical areas as defined by the Texas State Data Center: Abilene, Waco, Dallas-Fort Worth-Arlington Killeen-Temple-Fort Hood, Austin-Round Rock, and College Station - Bryan. The economy of the region can be divided into the following general sectors: agriculture, agribusiness, mineral production, wholesale and retail trade, and varied manufacturing. Table 1-3 lists 2016 payrolls and employment in the BGRWPA by subregion and economic sector.[4] As of this writing, 2016 was the most recent year for which such data were available. Payroll and employment in the Brazos G Area were concentrated along the IH-35 Corridor, which in 2016 had a total payroll of about $16.4 billion and employment of approximately 440,000 people. Primary economic activities were manufacturing, retail trade, and services, accounting for about 64 percent of the region's total payroll in 2016.

Table 1-3. 2016 Economic Data (x$1,000)

Economic Sector[1]	Rolling Plains	IH-35 Corridor	Lower Basin	Region Total
Agricultural, Forestry, Fishing	$9,970	$795	$2,032	$12,797
Mining	$205,657	$198,476	$138,260	$542,393
Construction	$442,424	$1,269,836	$457,709	$2,169,969
Manufacturing	$496,570	$1,751,183	$510,386	$2,758,139
Transportation, Public Utilities	$377,470	$595,876	$159,640	$1,132,986
Wholesale Trade	$235,224	$796,502	$200,670	$1,232,396
Retail Trade	$590,413	$1,625,922	$437,986	$2,654,321
Finance, Insurance, Real Estate	$324,404	$1,370,931	$271,515	$1,966,850
Services	$1,687,746	$7,674,877	$1,390,313	$10,752,936
Unclassified	$174,430	$522,329	$137,545	$834,304
Not Categorized	$81,829	$494,275	$105,931	$682,035
Total Payroll	$4,788,661	$16,403,984	$3,907,547	$25,100,192
Total Employed[2]	169,336	440,058	153,010	762,404

[1] Data from U.S. Census Bureau
[2] Data from Bureau of Labor Statistics

1.4 Climate

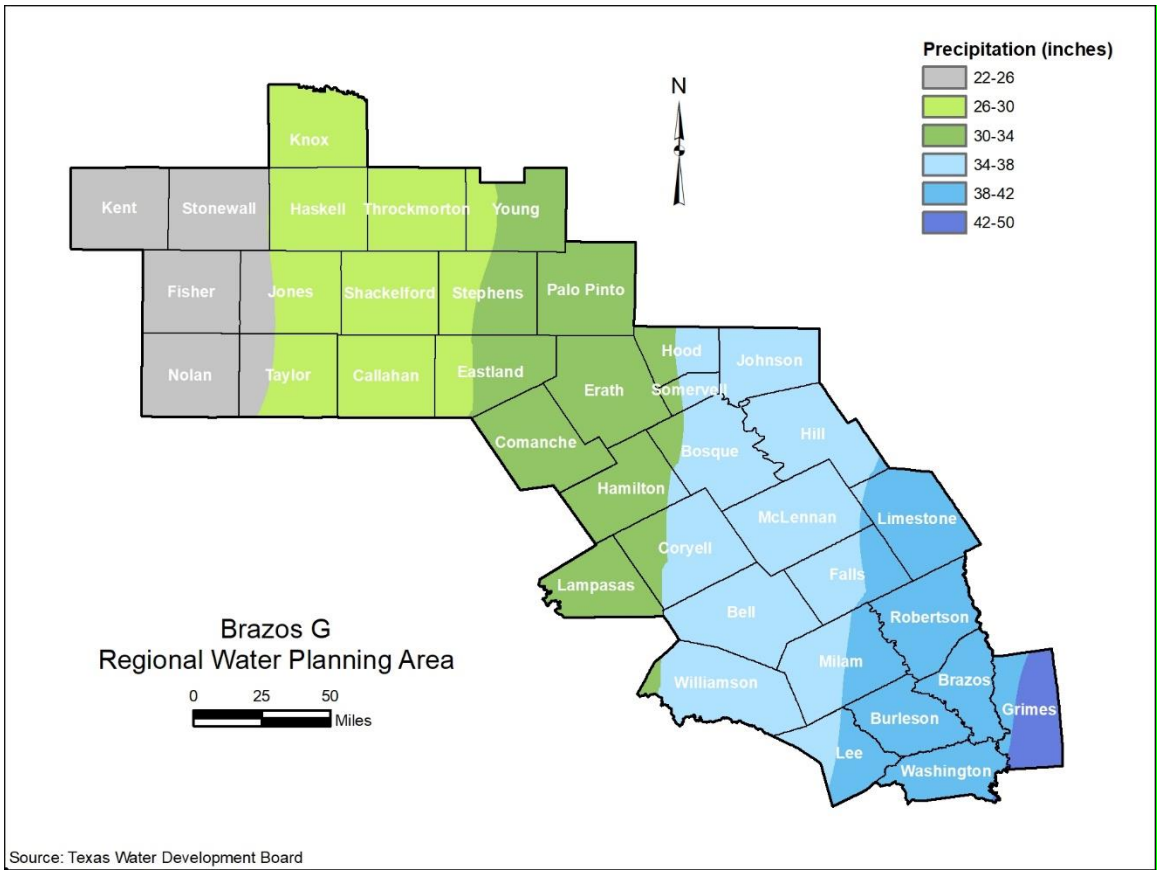
Temperatures[5] in the Brazos G area range from an average low of 28° F to 41° F to an average high of 55° F to 62° F in January. For July, temperatures across the planning area range from an average low of 69° F to 74° F to an average high of 93° F to 97° F. Average

[4] U.S. Census Bureau, "2016 Economic Data," Online: available URL: http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

[5] PRISM Climate Group - Northwest Alliance for Computation Science and Engineering, 2019. Historical Past and Recent Years Datasets for Precipitation and Temperature. http://www.prism.oregonstate.edu/

annual precipitation[6] ranges from 22 to 26 inches in in the northwestern most counties of the region to 38 to 50 inches in the southeastern most counties. Figure 1-7 depicts average annual precipitation for the entire region.

Figure 1-7. Average Annual Precipitation (1981 to 2017)

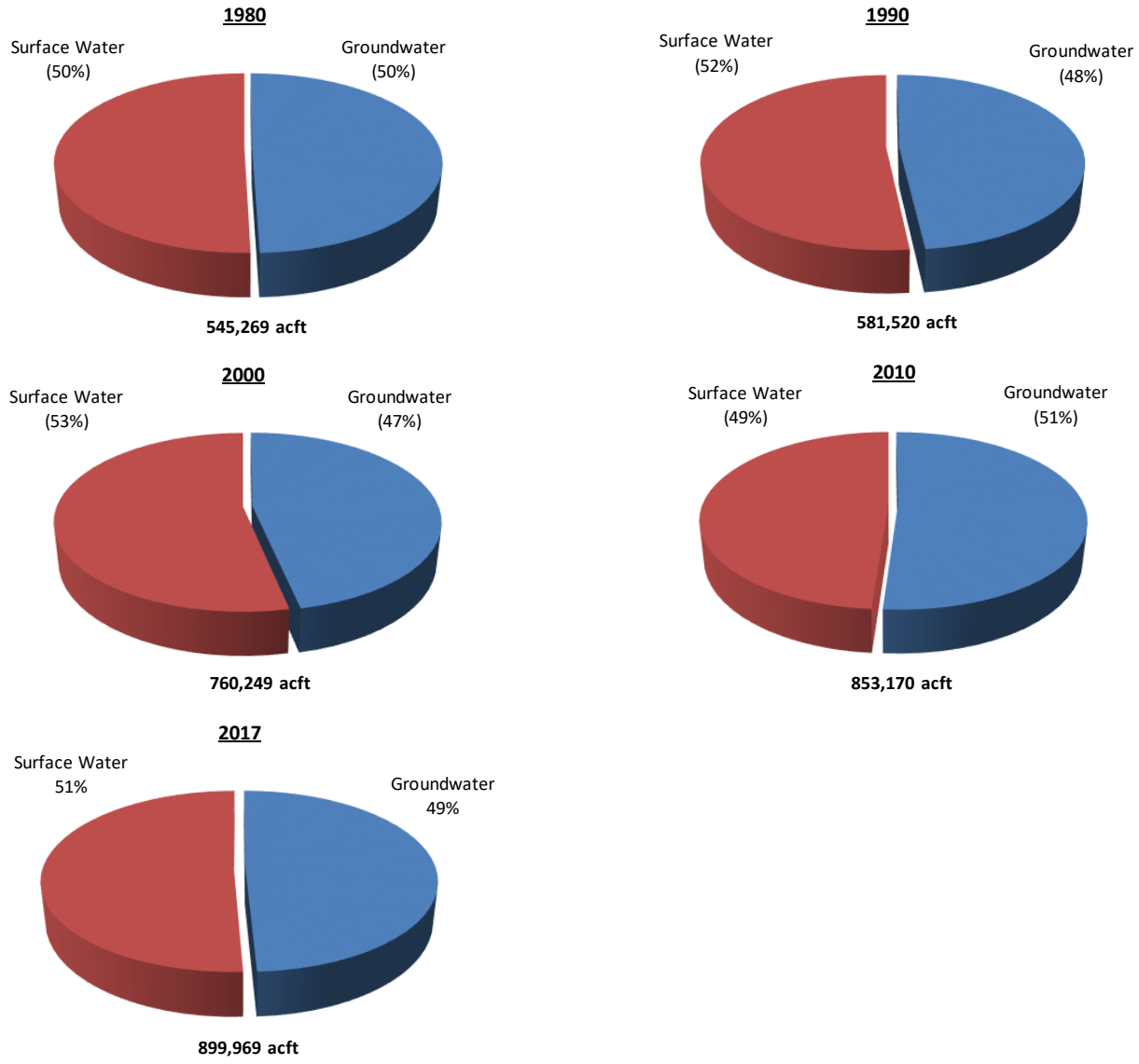


1.5 Sources of Water

Table A-3 in Appendix A provides historical data on use of groundwater and surface water within the BGRWPA from 1980 to 2017. These data suggest that the planning area depended slightly more on surface water than on groundwater. Figure 1-8 shows the proportion of surface water use to groundwater use in 1980, 1990, 2000, 2010 and 2017. While the proportions were equal in 1980, surface water use was greater by 2 percent in 1990, and 3 percent in 2000. In 2010, the surface water use was 2 percent less than groundwater. In 2017, surface water use was 2 percent more than groundwater.

[6] Texas Water Development Board (TWDB), Water Data for Texas – Lake Evaporation and Precipitation Dataset. Accessed at: https://waterdatafortexas.org/lake-evaporation-rainfall

Figure 1-8. BGRWPA Historical Water Use by Source



1.5.1 Groundwater

Aquifers[7,8,9]

Portions of six major and eleven minor aquifers extend into the Brazos G Area (Figure 1-9 and Figure 1-10). Major aquifers are defined generally as those aquifers that supply large amounts of water to large areas of the State. Minor aquifers are defined as those that supply large amounts of water to small areas of the State or provide small supplies to wide

[7] Texas Water Commission, *Groundwater Quality in Texas - An Overview of Natural and Man-Affected Conditions*, TWC Report No. 89-01, 1989.

[8] Texas Water Development Board (TWDB), *Water for Texas*, 1997.

[9] TWDB, *Estimated Groundwater Pumpage by County and Aquifer*, 2010.

areas. Figure 1-11 shows historical water pumpage for each aquifer in the BGRWPA in 1980, 1990, 2000, 2010 and 2017. In 2017, about 74 percent of the groundwater pumped came from four aquifers: Brazos Valley Alluvium, Carrizo-Wilcox, Seymour, and Trinity. Table 1-4 presents historical pumpage in 2010 and projected availability in 2070 of groundwater in each aquifer in the BGRWPA.

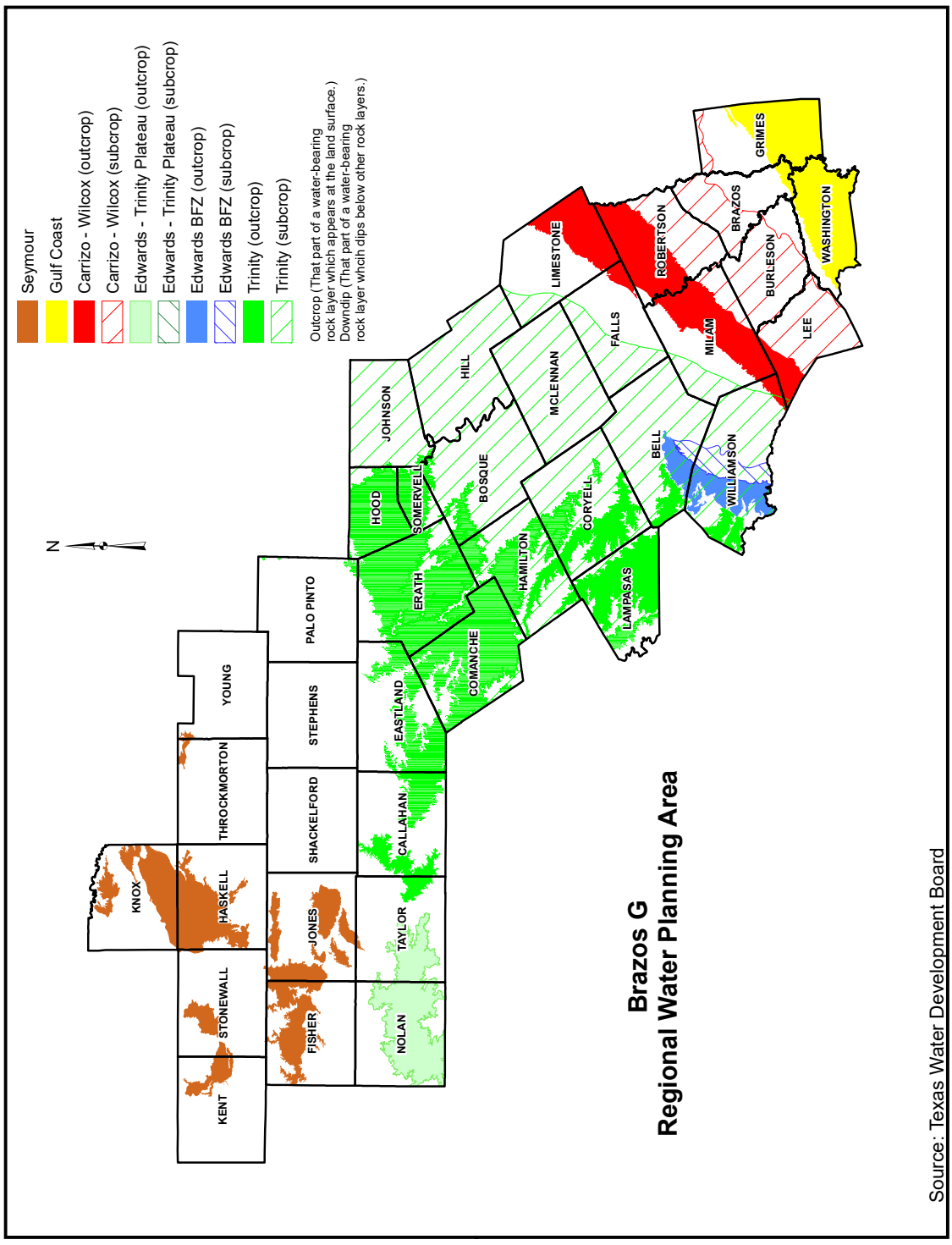
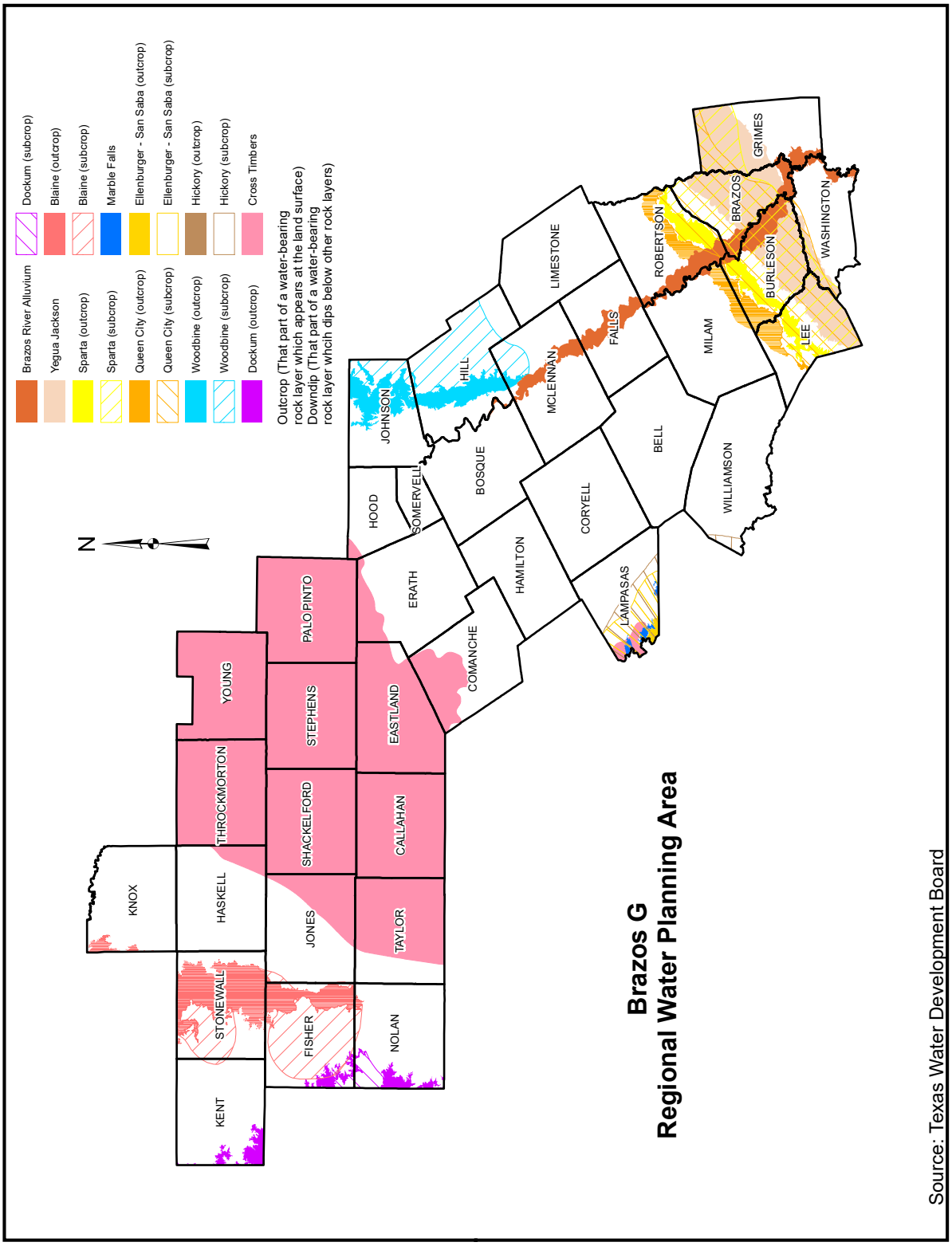


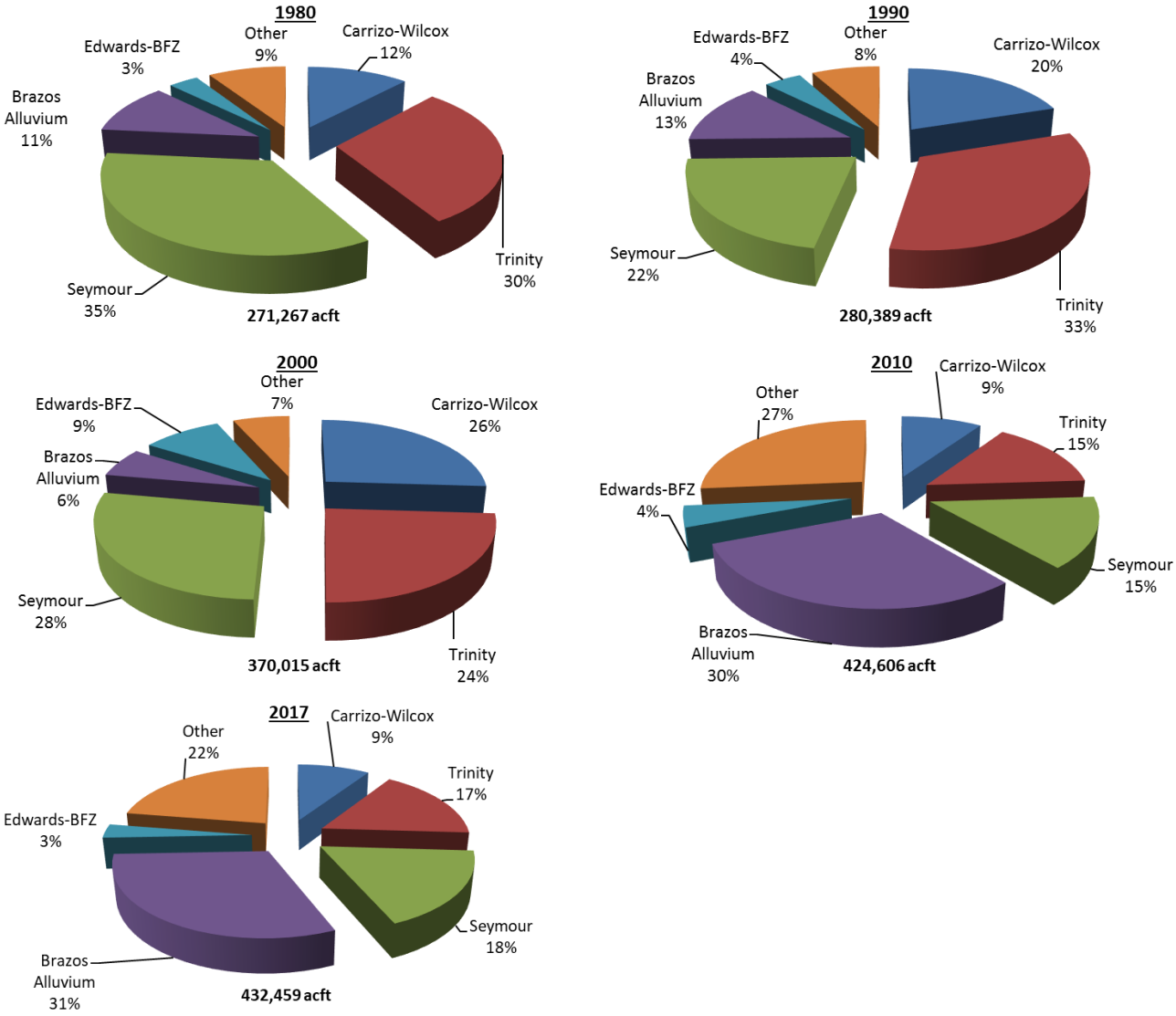
Figure 1-9. Major Aquifers



Source: Texas Water Development Board

Figure 1-10. Minor Aquifers

Figure 1-11. Brazos G Area Historical Water Pumpage by Aquifer



Fewer than half of the aquifers in the BGRWPA have potential for further development. Seven of them extend only slightly into the planning area. The aquifers that do offer potential for further development are all in the southeastern part of the region.

In the western part of the region, the Seymour Aquifer is the most significant in terms of usage and yield. The Seymour Aquifer has an uneven distribution, is highly developed, and most of its water is used for irrigation. The Seymour Aquifer is prone to depletion if subjected to a combination of prolonged drought and heavy use, but groundwater supply in the aquifer has remained mostly constant. Along with the Seymour, the fringes of three aquifers, the Dockum, Blaine, and Edwards-Trinity (Plateau), extend into the west end of the planning area, but these offer little room for further development. In the northeastern part of the region, there is a wide area with no major or minor aquifers, including Throckmorton, Young, Shackelford, Stephens, and Palo Pinto Counties. In these areas, locally occurring groundwater is not associated with a defined major or minor aquifer system and is primarily used for domestic and livestock purposes.

Table 1-4. Historical Pumpage and Future Availability in Brazos G Area Aquifers

Aquifer	2017 Pumpage (acft)	2070 Availability (acft/yr)	Remarks
Western Area			
Seymour	76,410	79,424	Fully developed
Dockum	14,330	12,079	Limited extent within region
Blaine	340	22,320	Limited extent within region
Edwards-Trinity (Plateau)	2,170	1,182	Limited extent within region
Cross Timbers	ND[1]	2,714	Recently named minor aquifer
Subtotal:	93,250	117,719	
Central Area			
Trinity	72,120	121,296	Overdeveloped in some areas
Edwards (BFZ)	13,700	9,921	Overdeveloped in drought
Woodbine	410	2,566	Limited extent within region
Marble Falls	20	2,837	Limited extent within region
Ellenburger-San Saba	20	2,593	Limited extent within region
Hickory	ND[1]	113	Limited extent within region
Subtotal:	86,270	139,326	
Southeastern Area			
Brazos River Alluvium	133,070	257,587	Added potential, water quality variable
Carrizo-Wilcox	40,090	206,988	Large added potential
Queen City	2,680	2,532	
Sparta	4,530	17,248	Added potential
Gulf Coast	2,710	28,216	Added potential
Navasota River Alluvium	ND[1]	2,216	
Yegua-Jackson	3,080	20,497	
Subtotal:	186,160	535,284	
Other and Undifferentiated	66,820	847	Many widely-scattered sources
Total:			

[1] ND indicates no data available.

The Trinity Aquifer is the most significant groundwater source in the central part of the BGRWPA. It is widespread and furnishes small to moderate amounts of groundwater in 17 counties. In the confined portions of the aquifer, however, development has resulted in significant declines in water levels.

In the southeastern part of the area, groundwater supplies are dominated by the Carrizo-Wilcox System and the Gulf Coast Aquifer. The Carrizo-Wilcox has significant potential for further development, but the Gulf Coast Aquifer in this area has low to moderate potential.

Several minor aquifers also have potential for further development over wide areas in this sector. The Brazos Alluvium, which lies along the Brazos River, also extends into the central portion of the area and has some potential for additional development, but most of the BGRWPA's undeveloped groundwater lies in the southeastern sector.

The Trinity Aquifer and all other aquifers to the southeast have outcrop areas under water-table conditions and downdip areas with overlying confining layers where artesian conditions may occur. Most of these aquifers contain fresh water to considerable depths, and all contain slightly saline water just downdip (commonly to the southeast) of the fresh water. Maps in Appendix B show the locations of fresh water, defined as containing less than 1,000 milligrams per liter (mg/L) total dissolved solids (TDS), and slightly saline water, defined as having 1,000 to 3,000 mg/L TDS, within various aquifers. Maps are included for all aquifers within the BGRWPA that have availability estimated to exceed 5,000 acre-feet per year (acft/yr). The use of aquifers with groundwater containing more than 1,000 mg/L TDS is an option only where consumers can use the saline water or where special treatment (desalination or blending) is available. More detailed descriptions and availability of water from each aquifer in the BGRWPA are in Appendix B.

Major Springs

The BGRWPA contains few major springs, defined as springs with discharges commonly greater than 1 cubic foot per second (cfs). The majority of these issue from the Edwards-Balcones Fault Zone (BFZ) Aquifer in Bell and Williamson Counties and from the Marble Falls Aquifer in Lampasas County. Of the Edwards Aquifer springs, all but one are intermittent. The three largest Edwards springs are:

1. Salado Springs at Salado in Bell County along the Lampasas River with discharges ranging from 5 to 60 cfs.
2. Berry Springs, which is located 5 miles north of Georgetown in Williamson County, with discharges ranging from 0 to 50 cfs.
3. San Gabriel Springs at Georgetown in Williamson County with discharges ranging from 0 to 25 cfs.

Springs from the Marble Falls Aquifer include Hancock Park Springs along the Sulfur River, which is a tributary to the Lampasas River, with discharges reportedly ranging from 6 to 12 cfs, and Swimming Pool Springs at Hancock Park with a reported discharge of 1.3 to 1.6 cfs. Both springs are in the City of Lampasas in Lampasas County.

Some springs in the region significantly affect the quality of the water in the Brazos River. These are primarily the salt springs and seeps, such as those along Salt Croton and Croton Creeks, in the upper Brazos River Basin in Dickens, Kent, and Stonewall Counties. These natural saltwater sources cause the water in the main stem of the Brazos River above Possum Kingdom Lake to be too saline for most uses during low flow periods. For example, from 1963 to 1986, TDS and chloride concentrations in Croton Creek near Jayton averaged 7,933 mg/L and 3,169 mg/L, respectively. The mean values for TDS and chlorides in the Salt Croton Creek near Aspermont from 1969 to 1977 were 71,237 mg/L and 41,516 mg/L, respectively. Water in Possum Kingdom Lake usually contains more than 400 mg/L chloride and 1,200 mg/L TDS. The natural chloride pollution in the upper Brazos River affects water quality in the lower basin. In the Brazos River at Richmond, it

has been estimated that 85 percent (or about 95 mg/L for the years 1946 to 1986)[10] of the chloride is from the upper basin.

There are many smaller springs in the Brazos G Area, but cataloging is inconsistent and incomplete. Only a few small springs have been cataloged in just nine of the 37 counties in the BGRWPA.[11] These springs flow substantially less than 1 cfs, and most flow only a few gallons per minute (1 cfs = 448.8 gpm).

1.5.2 Surface Water

The BGWRPA lies within the Brazos River Basin, the boundaries of which are the Red River Basin to the north, the Colorado River Basin to the west, the Trinity and San Jacinto River Basins to the east, and the counties of Fayette, Austin, Waller, and Montgomery to the south. The total drainage area for the Brazos River Basin is about 45,400 square miles, and of this about 28,400 square miles are in the BGRWPA.

The Brazos River is the third-largest river in Texas and the largest river between the Rio Grande River and the Red River in terms of total watershed area.[12] The Brazos River rises in three upper forks: the Double Mountain Fork, Salt Fork, and Clear Fork. Twenty-nine major reservoirs provide surface water to the BGRWPA. Major reservoirs, listed in Table 1-5, are defined as having an authorized conservation capacity greater than 10,000 acft. This table shows amounts of storage and annual use that the Texas Commission on Environmental Quality (TCEQ) authorizes for each reservoir. Figure 1-2 shows locations of some of the reservoirs in the BGRWPA, and Table A-5 in Appendix A provides more detailed information about all reservoirs in the BGRWPA with a permitted capacity greater than 2,500 acft. Diversions permitted for municipal, industrial, irrigation, and mining uses for each BGRWPA subregion are listed in Table 1-6. Total diversions permitted by use in each BGWRPA county are given in Table A-6 in Appendix A.

[10] Ganze, C. Keith and Ralph A. Wurbs, “Compilation and Analysis of Monthly Salt Loads and Concentrations in the Brazos River Basin,” U.S. Army Corps of Engineers, Contract No. DACW63-88-M-0793, January 1989.

[11] Brune, Gunnar, *Major and Historical Springs of Texas: TWDB Report 189*, 1970.

[12] The Dallas Morning News, *2004-2005 Texas Almanac*, 2004.

Table 1-5. Major Reservoirs in BGRWPA (Authorized Capacity Greater than 10,000 acft)

Reservoir	Stream	County	Authorized Storage (acft)	Authorized Use (acft/yr)	Owner
Abilene	Elm Creek	Taylor	11,868	1,675	City of Abilene
Alcoa Lake	Sandy Creek	Milam	15,650	14,000	Aluminum Co. of America
Aquilla	Aquilla Creek	Hill	52,400	13,896	U.S. Army Corps of Engineers[1]
Belton	Leon River	Bell	469,600	130,257	U.S. Army Corps of Engineers[2]
Cisco	Sandy Creek	Eastland	45,000	2,027	City of Cisco
Cleburne	Nolan Creek	Johnson	25,600	6,000	City of Cleburne
Daniel	Gonzales Creek	Stephens	11,400	2,100	City of Breckenridge
Dansby Power Plant	Unnamed Trib. Brazos River	Brazos	15,227	850	City of Bryan
Fort Phantom Hill	Elm Creek	Jones	73,960	33,190	City of Abilene
Georgetown	North Fork San Gabriel River	Williamson	37,100	13,610	U.S. Army Corps of Engineers[1]
Gibbons Creek	Gibbons Creek	Grimes	32,084	9,740	Texas Municipal Power Agency
Graham/Eddleman	Flint Creek	Young	52,386	20,000	City of Graham
Granbury	Brazos River	Hood	155,000	64,712	Brazos River Authority
Granger	San Gabriel River	Williamson	65,500	19,840	U.S. Army Corps of Engineers[1]
Hubbard Creek	Hubbard Creek	Stephens	317,750	56,000	West Central Texas MWD
Leon	Leon River	Eastland	28,000	6,300	Eastland Co. WSD
Limestone	Navasota River	Robertson	225,400	65,074	Brazos River Authority
Millers Creek Lake[3]	Millers Creek	Baylor	30,696	5,000	North Central Texas MWA
Palo Pinto	Palo Pinto Creek	Palo Pinto	44,124	18,500	Palo Pinto MWD
Possum Kingdom	Brazos River	Palo Pinto	724,739	230,750	Brazos River Authority
Proctor	Leon River	Comanche	59,400	19,658	U.S. Army Corps of Engineers[1]
Somerville	Yegua Creek	Washington	160,110	48,000	U.S. Army Corps of Engineers[1]
Squaw Creek	Squaw Creek	Somervell	151,500	23,180	Texas Utilities Electric Co.
Stamford	Paint Creek	Haskell	60,000	10,000	City of Stamford

Table 1-5. Major Reservoirs in BGRWPA (Authorized Capacity Greater than 10,000 acft)

Reservoir	Stream	County	Authorized Storage (acft)	Authorized Use (acft/yr)	Owner
Stillhouse Hollow	Lampasas River	Bell	235,700	67,768	U.S. Army Corps of Engineers[1]
Tradinghouse	Tradinghouse Creek	McLennan	37,800	15,000	Texas Utilities Electric Co.
Truscott Brine	Bluff Creek	Knox	107,000	N/A	Red River Authority of Texas
Twin Oak	Duck Creek	Robertson	30,319	13,200	Texas Utilities Electric Co.
Waco	Bosque River	McLennan	192,062	192,062	U.S. Army Corps of Engineers[5]
Whitney	Brazos River	Hill	50,000	18,336	U.S. Army Corps of Engineers[1]
Totals	**—**	**—**	**3,517,375**	**1,025,334**	—

[1] Water rights held by the Brazos River Authority.
[2] Water rights held by the Brazos River Authority and the Department of the Army (Fort Hood).
[3] Millers Creek Lake is listed in Baylor County in Region B, but is used exclusively in the Brazos G Area.
[4] Storage authorization includes both Lake Stamford and College Lake
[5] Water rights held by the City of Waco.

Table 1-6. Permitted Surface Water Diversions by Subregion

Subregion	Permitted Diversion (acft/yr) [1]					
	Municipal	Industrial	Irrigation	Mining	Other[2]	Total
Rolling Plains	505,047	46,058	62,023	9,249	75	622,451
IH-35 Corridor	467,025	109,181	21,286	1,121	5	598,618
Lower Basin	204,415	170,977	97,179	2,385	1,480	476,436
Region Total	1,176,487	326,216	180,488	12,755	1,560	1,697,506

[1] Available supply may be less than the permitted diversion based on hydrologic conditions and priority of individual water rights.
[2] Category includes consumptive amounts for recreation and other uses as classified by the TCEQ.

1.6 Wholesale Water Providers

Wholesale water providers are defined in 31 TAC §357 as any person or entity that sells wholesale water to water user groups or other wholesale water providers, or that the RWPG expects or recommends to deliver or sell water to water user groups or other wholesale water providers during the period covered by the regional water plan. It is the responsibility of the RWPG to identify wholesale water providers within the region to be evaluated for plan development. There are 12 identified wholesale water providers located primarily in the BGRWPA. These providers are listed in Table 1-7 and described below.

Brazos River Authority

The largest provider of water in the BGRWPA is the BRA. The BRA also operates water and wastewater treatment systems, has programs to assess and protect water quality, does water supply planning, and supports water conservation efforts in the Brazos River Basin. The BRA provides water from three wholly owned and operated reservoirs: Lake Granbury, Possum Kingdom Lake, and Lake Limestone. The BRA also owns water rights for the proposed Allens Creek Reservoir in Region H. In addition to these sources, the BRA contracts for conservation storage space in the eight U.S. Army Corps of Engineers reservoirs in the region: Lakes Proctor, Belton, Stillhouse Hollow, Georgetown, Granger, Somerville, Whitney, and Aquilla. The total permitted capacity of the 12 constructed reservoirs in the BRA system is approximately 2.3 million acft. The BRA holds rights for diversion in the region totaling 661,901 acft, and contracts to supply water to municipal, industrial, and agricultural water customers in the BGRWPA and other regions. The BRA's largest current municipal customers, based on contracted supply, include Bell County Water Control and Improvement District No. 1, the City of Georgetown, and the City if Temple.

In 2016 the Brazos River Authority (BRA) obtained Water Use Permit No. 5851 (System Operations Permit) from the Texas Commission on Environmental Quality (TCEQ) for the diversion, impoundment, and use of (1) previously unappropriated state water in the Brazos River Basin, and (2) BRA owned return flows discharged into state watercourses not already authorized for use by other entities. The water right currently authorizes a maximum combined diversion of up to 334,345 acft/yr. Diversions are authorized in 40 individual stream segments basin-wide, with each stream segment assigned a specific maximum annual diversion amount.

Table 1-7. Wholesale Water Providers in the Brazos G Area

Entity	Current Contracts (acft/yr)	Water Source
Brazos G WWPs		
Aquilla WSD	5,952	Lake Aquilla
Bell County WCID #1	23,795	Lake Belton
Bluebonnet WSC	7,125	Lake Belton
Brazos River Authority	737,560[1,2]	Lakes Aquilla, Belton, Georgetown, Granbury, Granger, Limestone, Possum Kingdom, Proctor, Somerville, Stillhouse Hollow, Whitney and BRA System Operations Permit
Brazos River Authority	22,128[3]	Highland Lakes Supply, Colorado Basin
Central Texas WSC	10,537	Lake Stillhouse Hollow
Eastland County WSD	5,339	Lake Leon
FHLM WSC	1,934[4]	BRA System Operations Permit
North Central Texas MWA	1,797[2]	Millers Creek Lake
Palo Pinto County MWD No. 1	4,250	Lake Palo Pinto
Upper Leon MWD	4,572	Lake Proctor
Salt Fork Water Quality Corporation	-	Local saline groundwater
West Central Texas MWD	17,900	Hubbard Creek Reservoir

[1] Includes 11,403 acft/yr in the Lake Aquilla System, 251,643 acft/yr in the Little River System, 379,515 acft/yr in the Main Stem/Lower Basin System, and 94,999 of System Operations Permit supply contracts (pending) (does not include GM Reserve or TPWD Trust) (based on contractual commitment list provided by BRA, dated 1/28/2020).

[2] Includes contracts in other regions.

[3] House Bill 1437 supplies from the Lower Colorado River Authority (based on contractual commitment list provided by BRA, dated 1/28/2020). 25,000 acft/yr is available, but not currently committed.

[4] Contract pending with BRA.

Aquilla Water Supply District

Aquilla Water Supply District is located in Hill County, and obtains raw water from Lake Aquilla through a contract with the BRA. The district supplies treated water to five wholesale customers. The City of Hillsboro is the district's largest customer with a contract for 3,640 acft/yr. Total existing contracted sales for Aquilla Water Supply District are in the amount of 5,952 acft/yr.

Bell County WCID No. 1

Bell County WCID No. 1 currently obtains raw water from Lake Belton for distribution to its customers and will soon also obtain water through new facilities at Lake Stillhouse Hollow. Major customers include and the U.S. Department of the Army (Fort Hood) and the Cities

of Belton, Copperas Cove, Harker Heights, and Killeen. Bell County WCID No. 1 is currently contracted for a total treated water supply volume of 23,795 acft/yr, plus an additional supply to meet demands for Bell County WCID No. 3.

Bluebonnet Water Supply Corporation

The Bluebonnet Water Supply Corporation (WSC) is located in Bell County. The WSC obtains raw water from Lake Belton, and sells treated water to nine entities in the BGRWPA. The largest customer is the City of McGregor, which holds a contract for 2,139 acft/yr. The total annual contracted supply to be provided by Bluebonnet WSC is 7,125 acft.

Central Texas Water Supply Corporation

Central Texas WSC contracts with the BRA to obtain raw water from Lake Stillhouse Hollow and sells treated water under contract to 19 municipal water user groups; the largest of these contracts is with the Bell-Milam-Falls WSC for 2,327 acft/yr. Supply contracts by the Central Texas WSC total 10,537 acft/yr.

Eastland County Water Supply District

The Eastland County Water Supply District owns and operates Lake Leon and has a water right to divert 5,800 acft for municipal and industrial purposes and 500 acft for irrigation. The district currently provides treated water to entities in Eastland County through the Cities of Eastland and Ranger. Current supply contracts by the Eastland County WSD total 5,339 acft/yr plus an additional treated supply volume to meet demands for Eastland County-Manufacturing.

FHLM Water Supply Corporation

Several Public Water Supply entities in Falls, Hill, Limestone, and McLennan Counties formed the FHLM Water Supply Corporation to address the elevated arsenic levels, groundwater compliance issues, Trinity Aquifer depletion, and exchange information concerning treatment technologies and operations and maintenance considerations among the member entities. The main purpose of creating the FHLM WSC was to serve as the financing vehicle to obtain funding to support regional water projects for the area. The FHLM WSC has contracted with the BRA for 1,934 acft/yr of surface water supplies to be used by member utilities for blending and/or replacing existing groundwater supply, and is currently pursuing an additional water supply contract with the City of Waco.

North Central Texas Municipal Water Authority

North Central Texas Municipal Water Authority supplies treated water to entities in Knox, Haskell and Stonewall Counties. The district has water rights to divert 5,000 acft/yr of raw water from Millers Creek Reservoir for municipal, industrial, and mining purposes. Current supply contracts from the North Central Texas Municipal Water Authority, including contracts for out of region sales, total 1,797 acft/yr.

Palo Pinto County Municipal Water District No. 1

Palo Pinto County Municipal Water District No. 1 owns and operates Lake Palo Pinto, which is used to supply water to entities in Palo Pinto and Parker Counties. The district has rights to 18,500 acft a year for municipal and steam electric power uses. Treated water is supplied to the City of Mineral Wells (and its customers), Lake Palo Pinto Water Supply Corporation, and steam-electric entities in Palo Pinto County. Current supply contracts form the Palo Pinto County MWD No. 1 total 4,250 acft/yr plus an additional treated water volume to meet demands for the City of Mineral Wells.

Salt Fork Water Quality Corporation

The Salt Fork Water Quality Corporation (SFWQC) was formed to develop a project for reducing surface water salinity in the Brazos River Basin. The project concept involves constructing a series of wells to be used for intercepting highly saline water currently being discharged to waterways from a series of seeps and springs in the Upper Brazos Basin. Captured water would be treated and processed to remove the salt which could then be used for commercial application, while the resulting freshwater would be available to for use by local municipal utilities. This project has yet to be developed, and the SFWQC does not currently hold any supply contracts.

Upper Leon Municipal Water District

The Upper Leon Municipal Water District obtains water from Lake Proctor through contracts with the BRA. The MWD provides treated water to the Cities of Comanche, De Leon, Dublin, Gorman, Hamilton, Stephenville, and the Comanche County WSC. Current supply contracts from the Upper Leon MWD total 4,572 acft/yr.

West Central Texas Municipal Water District

The West Central Texas Municipal Water District diverts raw water from Hubbard Creek Reservoir, which it owns and operates, for distribution to the Cities of Abilene, Albany, Anson, and Breckenridge. This district has rights to 56,000 acft/yr of water for municipal, industrial, irrigation, and mining uses. Current supply contracts from the West Central Texas MWD total 17,900 acft/yr.

1.7 Major Water Providers

The Brazos G RWPG defines Major Water Providers (MWPs) to be:

- Any WWP that is not also a municipal WUG, or
- Any WUG with a total municipal demand in the Brazos G Area of at least 1,000 acft/yr, including contractual sales to other municipal utilities.

Based on the above definition, the Brazos G RWPG has identified 91 WUGs and WWPs as Major Water Providers for the 2021 Brazos G Plan, listed in Table 1-8. This 2021 Brazos G Plan includes data summaries specific to these MWPs.

Table 1-8. Major Water Providers in the Brazos G Area

439 WSC	City of Bruceville-Eddy	FHLM WSC	Johnson County SUD	City of Navasota	City of Temple
City of Abilene	Brushy Creek MUD	Fern Bluff MUD	Jonah Water SUD	North Bosque WSC	Texas A&M University
Acton MUD	City of Bryan	Fort Hood	Kempner WSC	North Central Texas Municipal Water Authority	Texas State Technical College
City of Anson	City of Burleson	City of Fort Worth	City of Killeen	Palo Pinto County MUD No. 1	Upper Leon Municipal Water District
Aquilla WSD	City of Caldwell	City of Gatesville	City of Lampasas	Possum Kingdom WSC	City of Venus
City of Arlington	City of Cameron	City of Georgetown	City of Leander	City of Robinson	City of Waco
Bell County WCID No.1	City of Cedar Park	City of Giddings	Lee County WSC	City of Rockdale	Wellborn SUD
Bell County WCID No.2	Central Texas WSC	City of Graham	Lower Colorado River Authority	City of Round Rock	West Central Texas MWD
City of Bellmead	City of Cleburne	City of Granbury	City of Mansfield	Salado WSC	Wickson Creek SUD
City of Belton	City of College Station	City of Harker Heights	Manville WSC	Salt Fork Water Quality Corporation (SFWQC)	Williamson County WSID No 3
Bethesda WSC	Colorado River Municipal Water District	City of Hearne	City of Marlin	Southwest Milam WSC	City of Woodway
Bistone Municipal Water Supply District	City of Copperas Cove	City of Hewitt	City of McGregor	City of Stamford	
Bluebonnet WSC	Corix Utilities Texas, Inc	City of Hillsboro	City of Mexia	City of Stephenville	

Table 1-8. Major Water Providers in the Brazos G Area

Brazos River Authority (BRA)	Coryell City Water Supply District	City of Huntsville	City of Mineral Wells	City of Sweetwater	
City of Breckenridge	Dog Ridge WSC	City of Hutto	Morgans Point Resort	Tarrant Regional Water District	
City of Brenham	Eastland County WSC	Jarrell-Schwertner WSC	Mountain Peak SUD	City of Taylor	

1.8 Current Water Users and Demand Centers

1.8.1 Regional Water Use

Total water use by each county in the BGRWPA is summarized in Figure 1-12 for 2017. Water use can be classified into four general types of use: municipal, industrial, agricultural, and non-consumptive. Figure 1-13 shows historical water use by municipalities, industries, and agriculture in the BGRWPA. Industrial use can be further broken down into three sub-categories: manufacturing, steam-electric cooling, and mining. Agricultural use consists of the subcategories of water used for irrigation and livestock. Historical water use in the planning area for six categories is summarized in Table 1-9.

In Appendix A, Table A-7 gives historical water-use data for all counties in the BGRWPA, and Table A-8 gives historical water-use data by category of use. Historical surface water use greater than or equal to 1,000 acft is given in Appendix D by each water-right holder.

1.8.2 Municipal Use

Municipal water use includes water consumed for residential and commercial enterprises and institutions. Residential and commercial uses are categorized together because they are similar types of uses (i.e., they both use water primarily for drinking, cleaning, sanitation, air-conditioning, and landscape watering). Generally, municipal use does not include water use by large industries. Projections for future municipal use account for population growth and anticipated efforts at water conservation. Municipal use of 362,506 acft accounted for about 40 percent of the region's total water use in 2017. Figure 1-14 shows municipal water use in each BGRWPA county in 2017.

Figure 1-12. 2017 Total Water Use by County

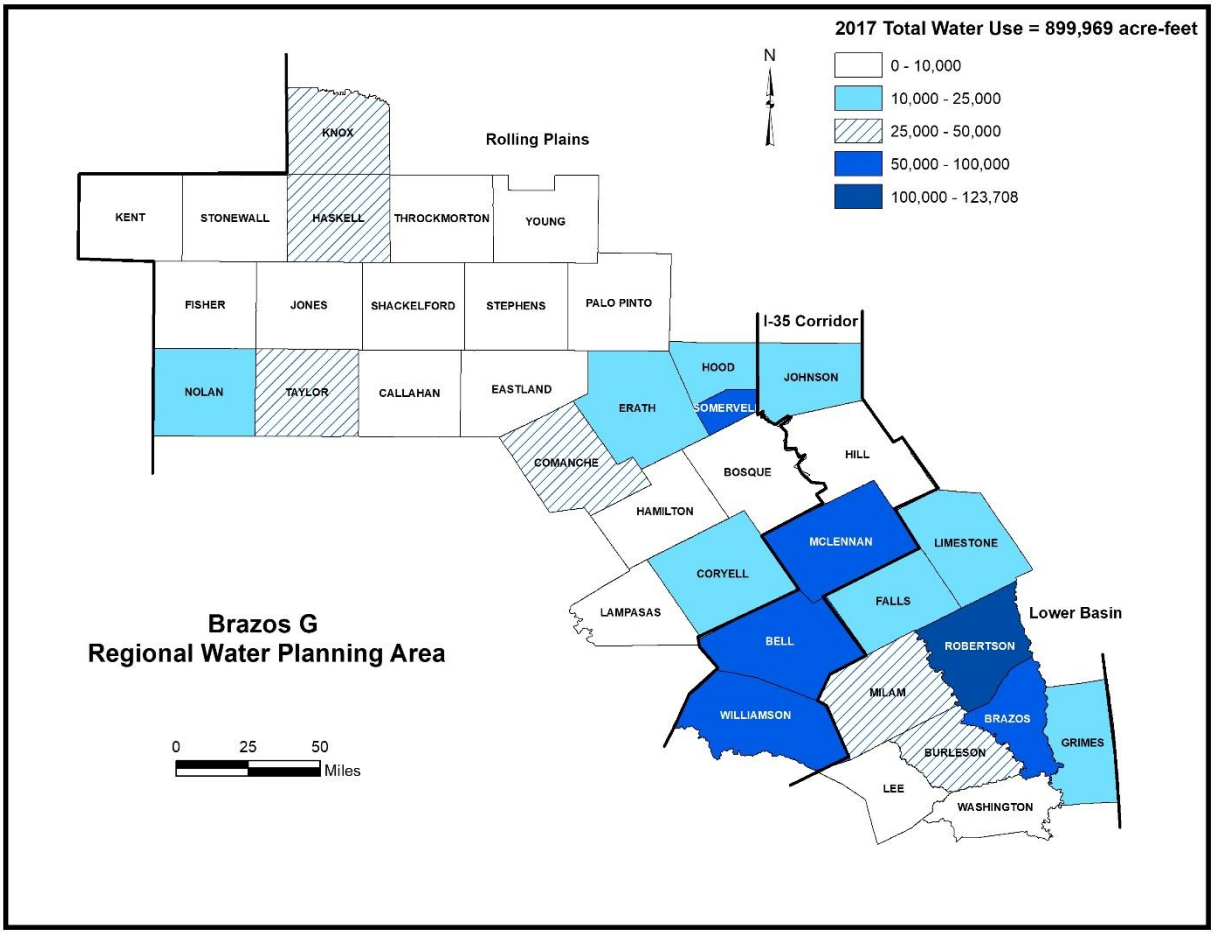


Figure 1-13. Historical Water Use by Type

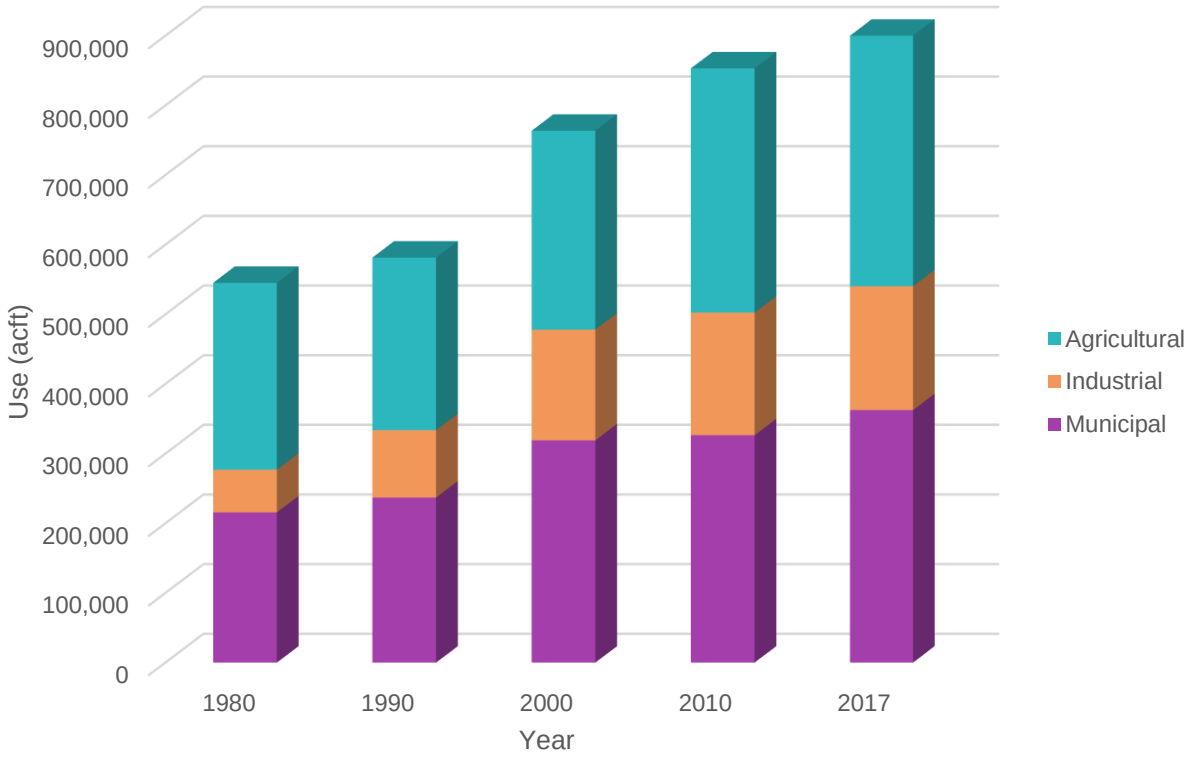
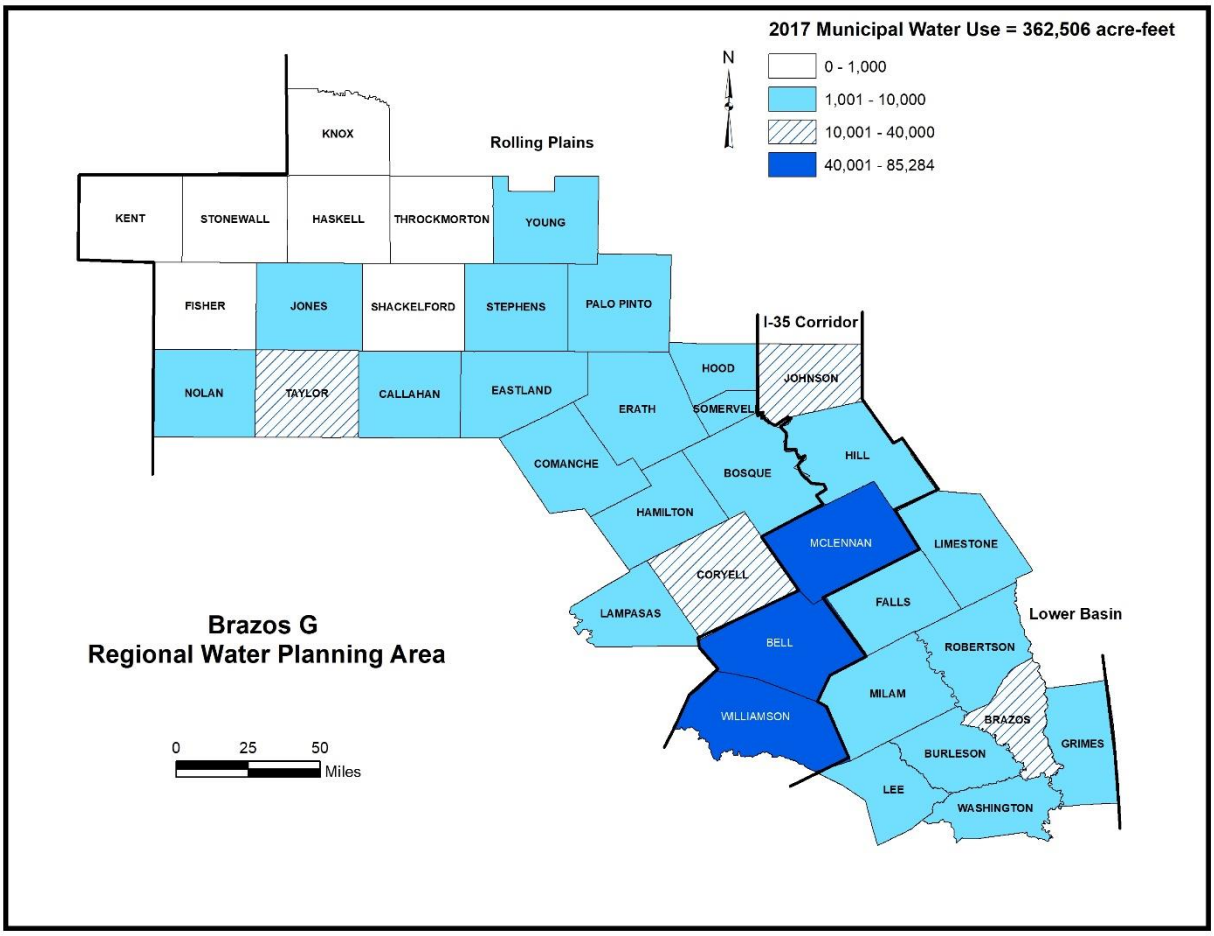


Table 1-9. Historical Water Use[1] (acft/yr)

Category	1980	1990	2000	2010	2017
Municipal Use	215,744	236,955	312,169	332,760	362,506
Manufacturing Use	21,124	32,240	60,522	9,124	10,821
Steam-Electric Use	28,686	57,657	97,921	113,553	153,229
Mining Use	11,413	6,944	4,143	57,644	13,730
Irrigation Use	229,387	200,954	232,911	298,754	315,648
Livestock Use	38,915	46,770	53,222	55,208	44,035
Total Use	545,269	581,520	760,888	867,043	899,969
Percent of State Total	3.06%	3.70%	4.69%	6.24%	6.50%

[1] Historical data obtained from TWDB.

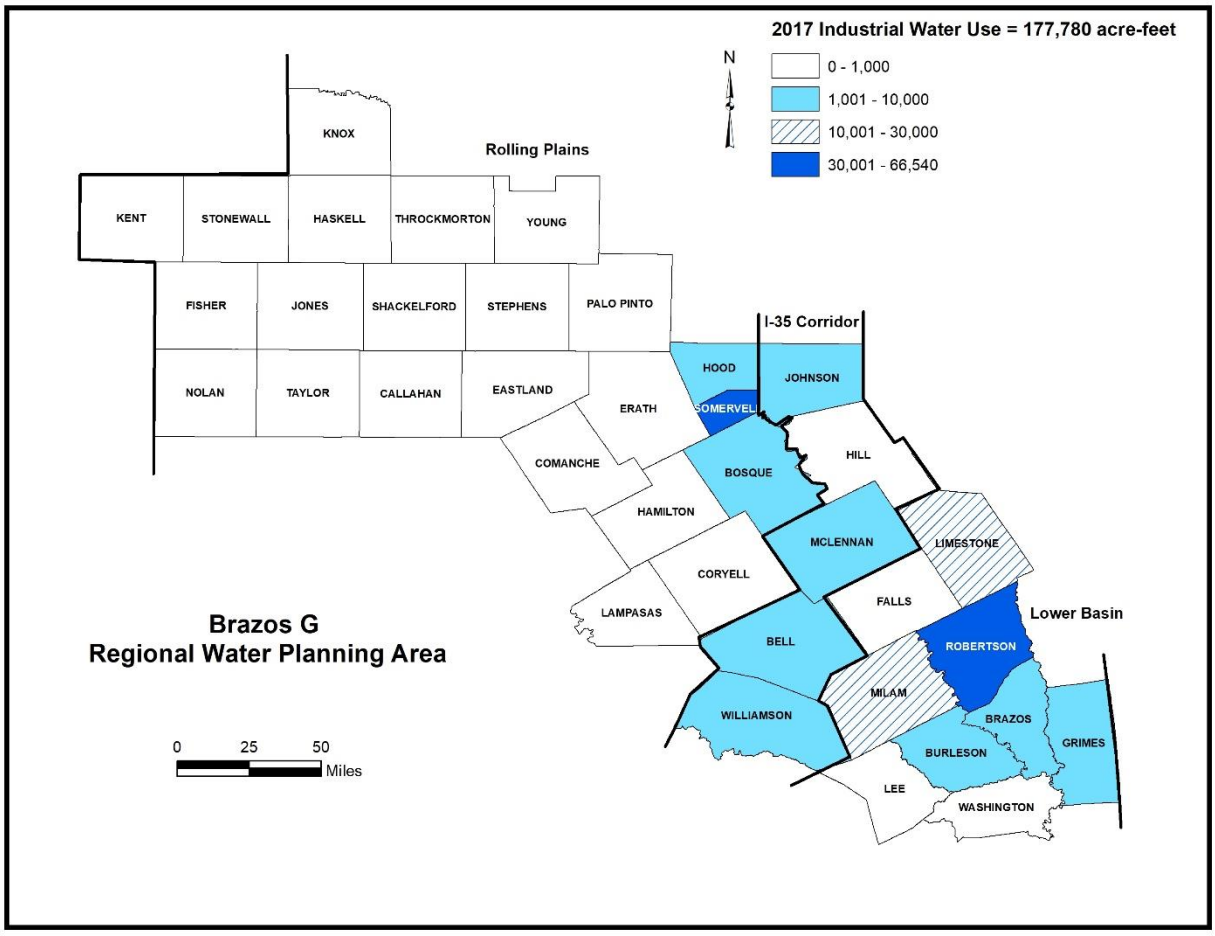
Figure 1-14. 2017 Municipal Water Use



1.8.3 Industrial Use

Industrial use consists of water used for manufacturing, for steam-electric cooling during power generation, and for mining operations. Projections for industrial use account for expected growth of industries, population changes, available mineral reserves, and production rates. In 2017, industrial use was 177,780 acft, or about 20 percent of the total water used in the BGRWPA. Refer to Figure 1-15 for 2017 industrial water use by county.

Figure 1-15. 2017 Industrial Water Use (Manufacturing, Steam-Electric Cooling, and Mining)



Manufacturing

Manufacturing use is water used for producing finished goods. Manufacturing use was 10,821 acft in 2017, or 6 percent of total industrial water usage that year.

Steam-Electric Cooling

This category is water used during the power-generation process and is typically losses due to forced evaporation during cooling. Water that is diverted and not consumed (i.e., return flow) is not included in the power-generation total. Water use for steam-electric cooling in 2017 was 153,229 acft, or 86 percent of total industrial water use.

Mining

Mining use is water consumed for exploration and production of oil and gas, and for mining of lignite, sand, gravel, and such. Mining use in 2017 was 13,730 acft, or 8 percent of the total industrial water use.

1.8.4 Agricultural Use

Agricultural use is water used for irrigation and for watering livestock. Agricultural use was 359,683 acft in 2017 or 40 percent of the BGRWPA's total water use. Agricultural water use by each county in the planning area in 2017 is summarized in Figure 1-16.

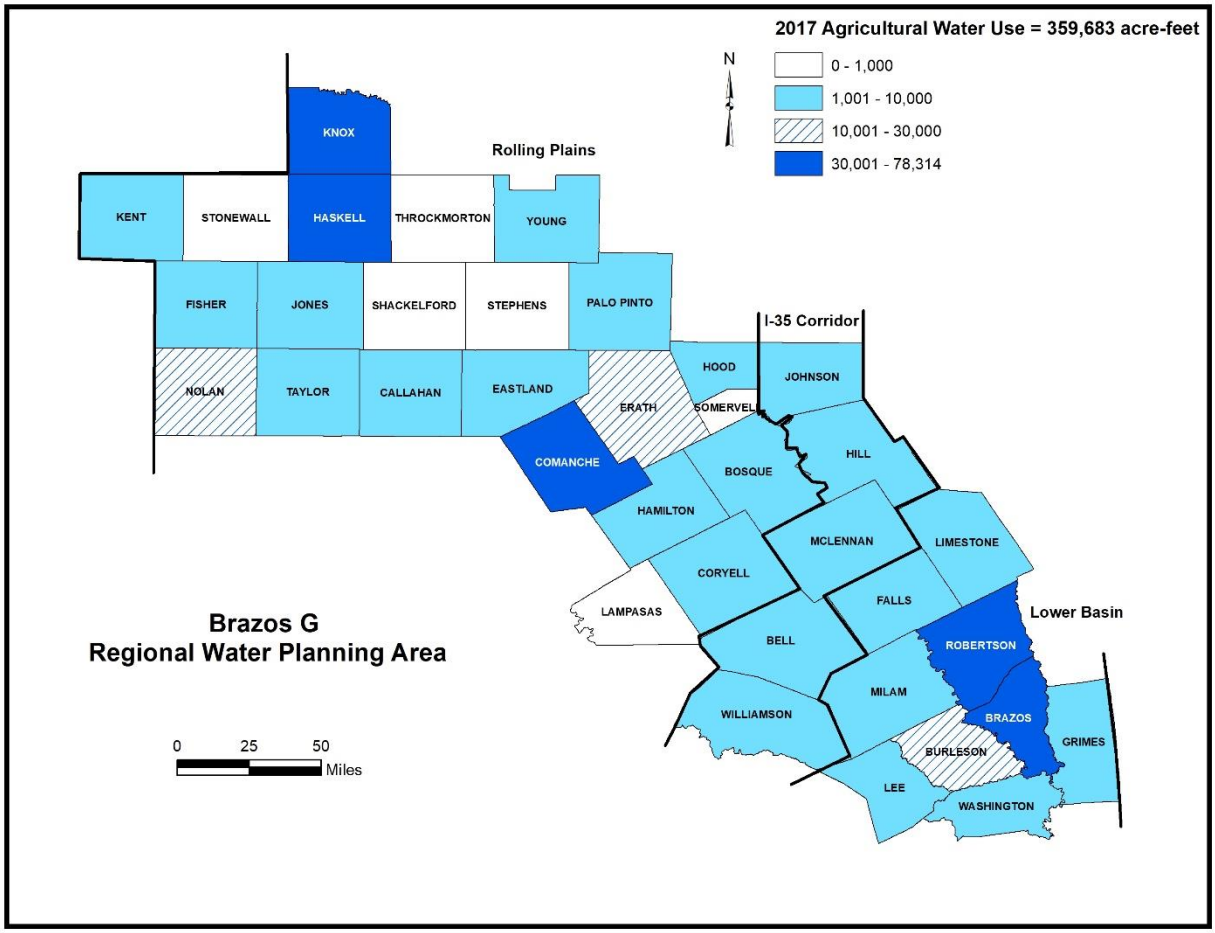
Irrigation

Irrigation use in 2017 totaled 315,648 acft, or about 88 percent of the total agricultural water use. Refer to Appendix F for more detailed information about irrigation use in the BGRWPA.

Livestock Watering

The estimate of use for livestock watering is based on a determination of the total number of livestock in the region. A uniform water-consumption rate for each type of animal is applied to this total number. The categories of livestock considered are cattle and calves, poultry, sheep and lambs, and hogs and pigs. Livestock watering totaled 44,035 acft, or 12 percent of agricultural use in 2017. Refer to Appendix F for more detailed information on water used for livestock.

Figure 1-16. 2017 Agricultural Water Use (Livestock and Irrigation)



1.8.5 Non-Consumptive Use

Non-consumptive use is water that is diverted and then returned to the river basin with minimal change in volume and temperature, or is used but never leaves the river system. The majority of non-consumptive water use in the BGRWPA is associated with recreational use and the return flow from power generation. Water-related recreational activities include boating, camping, fishing, and swimming. Recreational use in the BGRWPA is supported by numerous state parks and by public facilities for boating and camping at various lakes and reservoirs.

Navigation is another form of non-consumptive use. Other than small watercraft used primarily for recreation on lakes and rivers, the BGRWPA includes no use of water for navigation. No water management strategy considered by the BGRWPG will affect navigation, either in the BGRWPA or in adjacent regions.

Power generation demands large amounts of water for cooling equipment. Twenty steam-electric power-generating facilities were operating in the BGRWPA in 2008 (BEG, 2008). Most of the diverted water was returned to the Brazos River Basin. Water that is lost to evaporation during the cooling process is considered industrial use and is discussed in Section 1.5.3.

1.9 Natural Resources

1.9.1 Regional Vegetation

The BGRWPA lies within several different vegetational areas, or ecoregions.[13] Figure 1-17 shows the locations of these ecoregions, which are relatively homogenous areas in terms of geography, hydrology, and land use. The five ecoregions in the BGRWPA are the Rolling Plains, Blackland Prairies, Post Oak Savannah, Cross Timbers and Prairies, and Edwards Plateau. A general description for each ecoregion is provided below. More detailed information is provided in Appendix E.

Rolling Plains

The Rolling Plains are part of the Great Plains of the central United States. The Rolling Plains region covers about 24 million acres of gently rolling to moderately rough terrain. The region is bordered on the west by the Caprock Escarpment, on the south by the Edwards Plateau, and on the east by the Cross Timbers and Prairies region. Annual precipitation averages about 22 to 30 inches, and elevations range from 800 to 3,000 feet above sea level. The eastern part of the Rolling Plains is called the Reddish Prairie. Soils vary from coarse sands in outwash terraces near streams to tight clays or red-bed clays and shales.

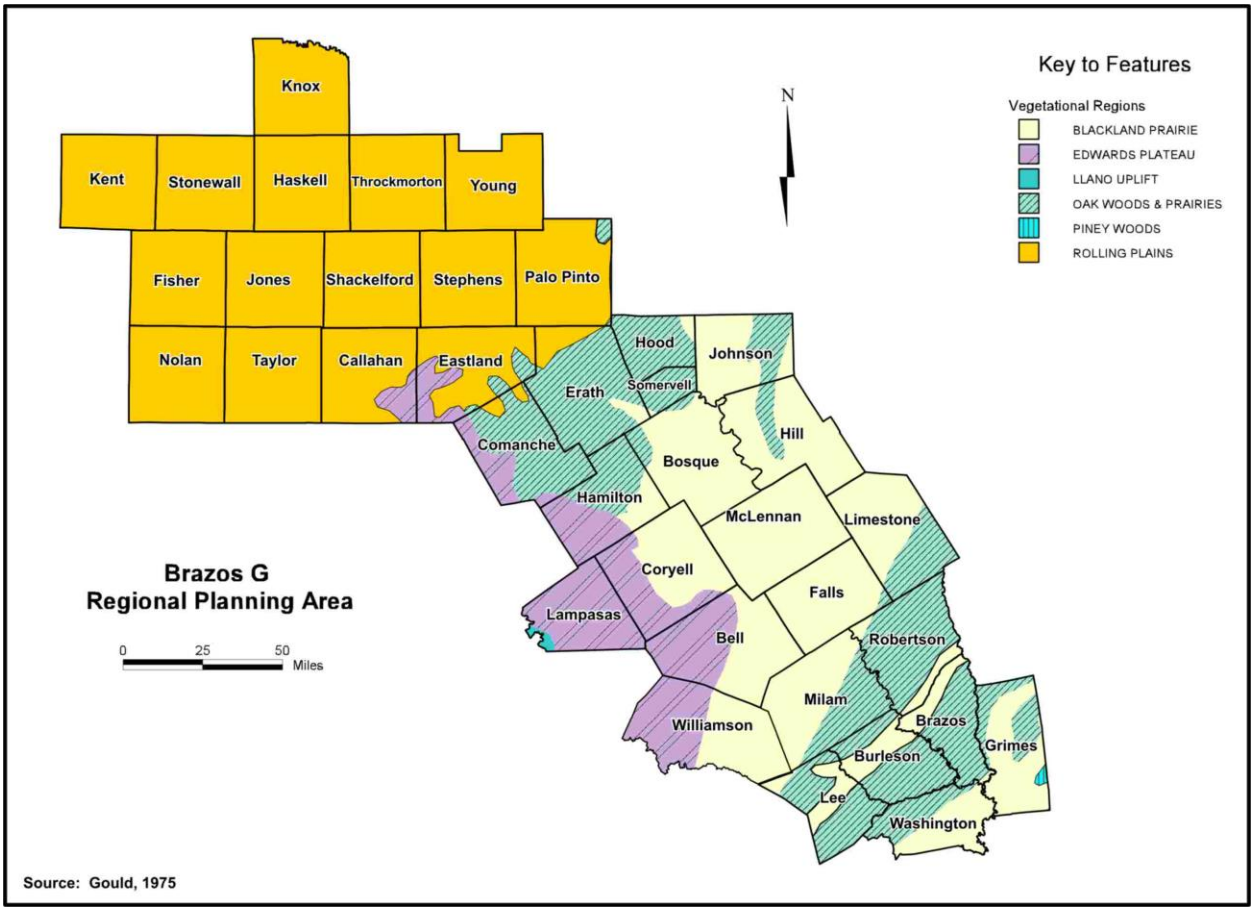
Blackland Prairies

The Blackland Prairies region consists of nearly level to gently rolling topography. It covers about 11.5 million acres from Grayson and Red River Counties in northeast Texas to Bexar County in the south-central part of the State where it merges with the brush land of the Rio

[13] Gould, F.W., *The Grasses of Texas*, Texas A&M University Press, College Station, Texas, 1975.

Grande Plains. Annual precipitation is 30 to 45 inches, and elevations range from 300 to 800 feet above sea level. The term blackland comes from the uniformly dark-colored, calcareous clays in the Alfisols (fertile mineral soils). Soils in the Blackland Prairies are interspersed with gray-colored, acidic sandy loams. This highly fertile region has widely been used for agriculture, but it is increasingly used for ranching.[14] Experts estimate that less than one percent of the Blackland Prairies remain in a near-natural condition.[15]

Figure 1-17. Vegetational Areas of the Brazos G Area



Post Oak Savannah

The Post Oak Savannah covers about 8.5 million acres in east-central Texas and consists of closely associated and intermingled prairies and woodlands on slightly acidic sandy or clay loams. Topography in this region is gently rolling to hilly, with moderate to deeply dissected drainage paths. Soils in uplands are generally light-colored, acidic sandy loams or sands, and soils in bottomlands are light-brown to dark-gray acidic sandy loams or clays. Much of this vegetational area is used for crops and grazing.

[14] Gould, F.W. and Schuster, J.L. and Hatch, S.L., *Texas Plants B, An Ecological Summary*, Texas Agricultural Experiment Station, Texas A&M University, College Station, Texas, 1990.

[15] Smeins and Diamond, 1986.

Cross Timbers and Prairies

The Cross Timbers and Prairies vegetational area covers about 17 million acres in north-central Texas. Geology in this area is diverse, and the topography varies from gently rolling to hilly to deeply dissected. Rapid surface drainage is typical throughout the region. Soils are typically brown, neutral-to-slightly acidic, sandy or clay loams.

Edwards Plateau

The Edwards Plateau area covers about 24 million acres. This includes a large portion of the Hill Country in west-central Texas, the Llano Uplift, and the Stockton Plateau. Average annual precipitation increases from west to east across this region. Limestone or caliche typically underlie the shallow, variably-textured soils, although granitic rock underlies soil in the Llano Uplift. Land use in this vegetational area is dominated by ranching of cattle, sheep, and goats. This region reportedly once was dominated by a grassland or an open savannah climax community, except in steep canyons and slopes where junipers and oaks were dominant. The widespread disturbance associated with grazing livestock eventually allowed brush and tree species to spread widely throughout the original grasslands and savannahs.

1.9.2 Regional Geology

Figure 1-18 shows the varied geology of the planning area. Generally, the formations in the northwest part of the planning area are the older Blaine and San Angelo Formations of the Paleozoic era. The central part of the planning area is typically dominated by younger formations from the Cretaceous era, such as the Trinity Group; the Navarro and Taylor Groups; and the Austin, Eagle Ford, Woodbine, and U. Washita Groups. The youngest formations are in the southern part of the planning area. These formations include the Cook Mountain, Weches, Sparta, and Yegua, among others. Many areas near streams and rivers are dominated by alluvial deposits.

1.9.3 Soils

The soils of the upper Brazos River Basin are agriculturally and ecologically important. Throughout the Brazos G Area, soils are varied and are influenced by both geology and surface drainage. Figure 1-19 shows the locations of different orders of soil in the BGRWPA. These soil types are briefly described in the following subsections.

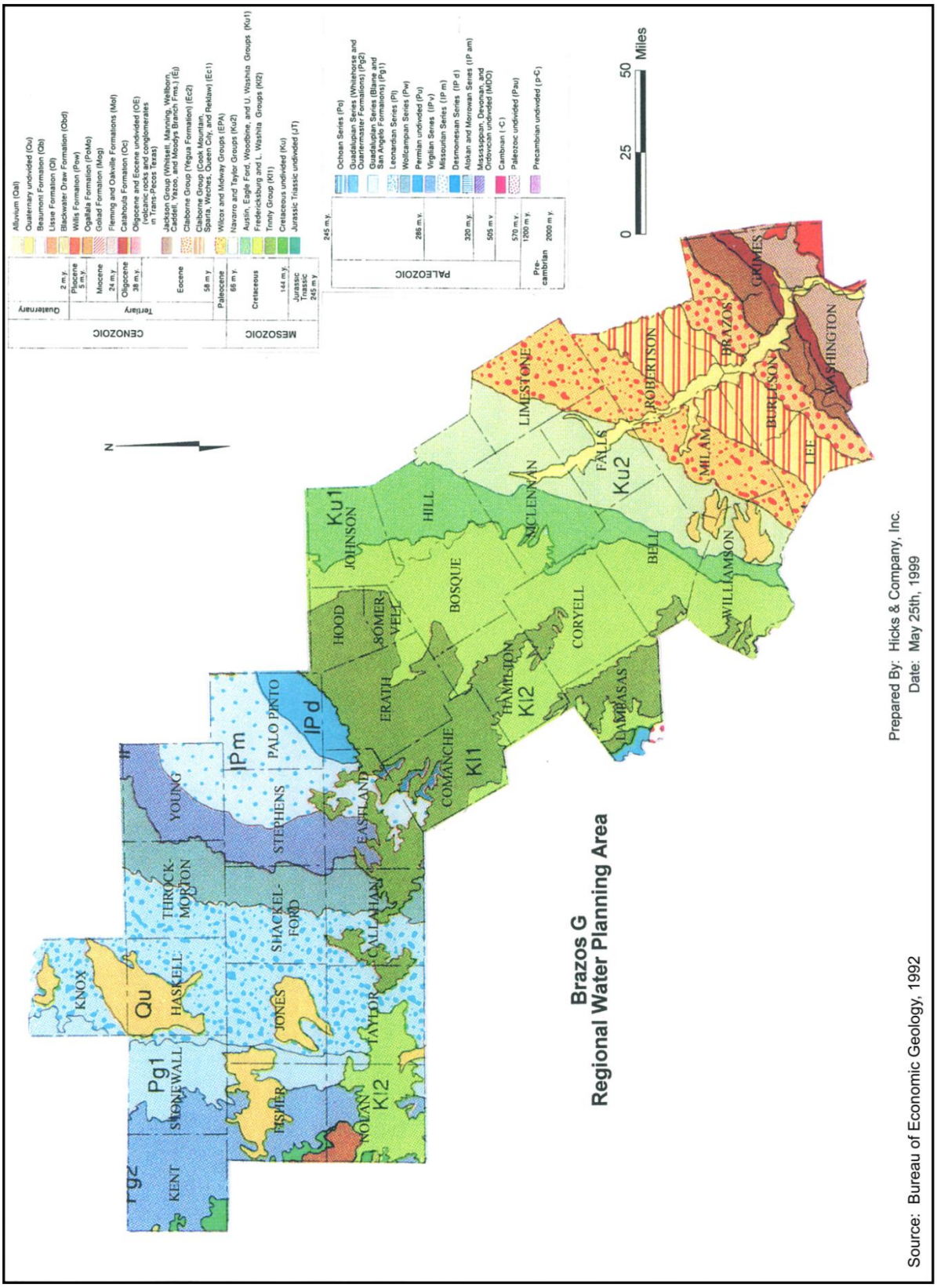


Figure 1-18. Geology of the Brazos G Area

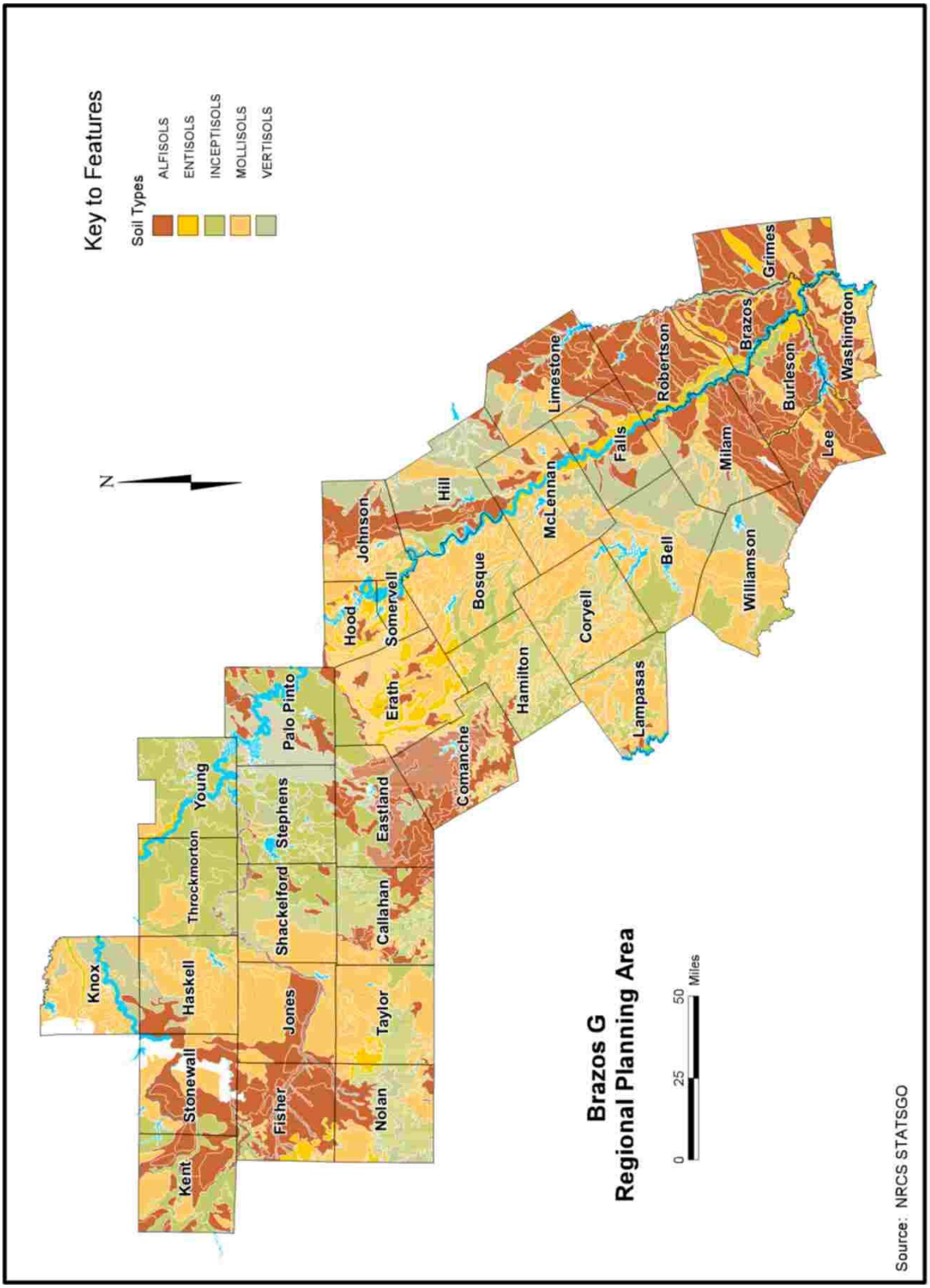


Figure 1-19. Soils of the Brazos G Area

Alfisols

Alfisols are mineral soils with a gray-to-brown surface horizon. These soils form under humid, cool-to-hot areas of native grasslands. They are productive and favor good crop yields.

Entisols

Entisols are typical of rangeland in west and southwest Texas. In this order, soils range from infertile sands and bedrock to highly productive soils on recent alluvium. A characteristic common to all Entisols is the lack of significant profile development.

Inceptisols

Inceptisols are thought to form relatively quickly from the alteration of parent material. Productivity varies among soils in this order, and it is affected by factors such as levels of organic matter and drainage. Typically, Inceptisols have slightly higher profile development than Entisols.

Mollisols

Mollisols are considered important agriculturally and are characterized by a thick, dark surface horizon. These soils develop under grassland-prairie vegetation typical of the central United States. Mollisols cover more land area in the United States than any other soil order.

Vertisols

Vertisols have a high clay content and therefore may develop deep cracks from shrinking during dry periods. The fine texture of Vertisols and their tendency to shrink excessively makes them generally unstable for building foundations and even for some agricultural uses.

1.9.4 Wetlands

Wetlands are defined by the U.S. Army Corps of Engineers as areas that, due to a combination of hydrologic and soil conditions, are capable of supporting hydrophytic vegetation. In the Brazos G Area, wetlands are found primarily in narrow strips along rivers and streams.

As a natural resource, wetlands are especially valued because of their location on the landscape, the wide variety of ecological functions they perform, and the uniqueness of their plant and animal communities. Many wetlands are also valued for their aesthetic qualities, as sites for educational research, as sites of historic and archaeological importance, and as locations for storing or conveying floodwaters. Wetlands provide high-quality habitats for wildlife, including foraging and nesting areas for birds and spawning and nursery areas for fish.

1.9.5 Water Resources

Rivers and reservoirs are important ecological resources for the Brazos G Area. These support diverse aquatic plants and animals as well as terrestrial wildlife living along the

banks. Important rivers and creeks in the planning area include the Brazos, Leon, Bosque, Lampasas, San Gabriel, South Wichita, Little, Clear Fork of the Brazos, and Yegua Creek. These rivers contribute to unique vegetational communities that provide habitat for wildlife. There are more than 40 species of aquatic amphibians, reptiles, and mammals in the planning area. Waterfowl heavily use the mature, hardwood, bottomland forests and forested wetlands often associated with rivers. Aquatic habitats include riffles and pools, which support both invertebrates and fish.

Reservoirs (Figure 1-20) provide habitat for inland fish stocks and waterfowl. Many reservoirs in the planning area provide habitat for fish stocks and waterfowl including Lake Stamford, Hubbard Creek Reservoir, Possum Kingdom Lake, Lake Leon, Lake Proctor, Lake Whitney, Lake Stillhouse Hollow, Lake Belton, Lake Waco, and Lake Somerville.

Although few in number, the major springs and seeps in the planning area that produce frequent flows are often rich in wildlife habitat and ecological diversity. Springs represent a transition from groundwater to surface water. Where frequent springflow occurs, an abundance of moisture is provided, resulting in diverse vegetational communities unique to such areas. Typical vegetation includes willows, cottonwoods, hackberry, elms, rushes, sedges, and smartweed. These vegetational communities often provide optimal habitat for native wildlife.

1.9.6 Wildlife Resources

Biotic Provinces

Just as Texas has been divided into major plant zones,[16] the State has also been classified into biotic provinces based on the distribution of topographic features, climate, vegetation types, and terrestrial vertebrates [17] (Figure 1-21). The BGRWPA includes the Kansan, Austroriparian, Balconian, and Texan biotic provinces.

[16] Gould, Op. Cit., 1975.

[17] Blair, 1950.

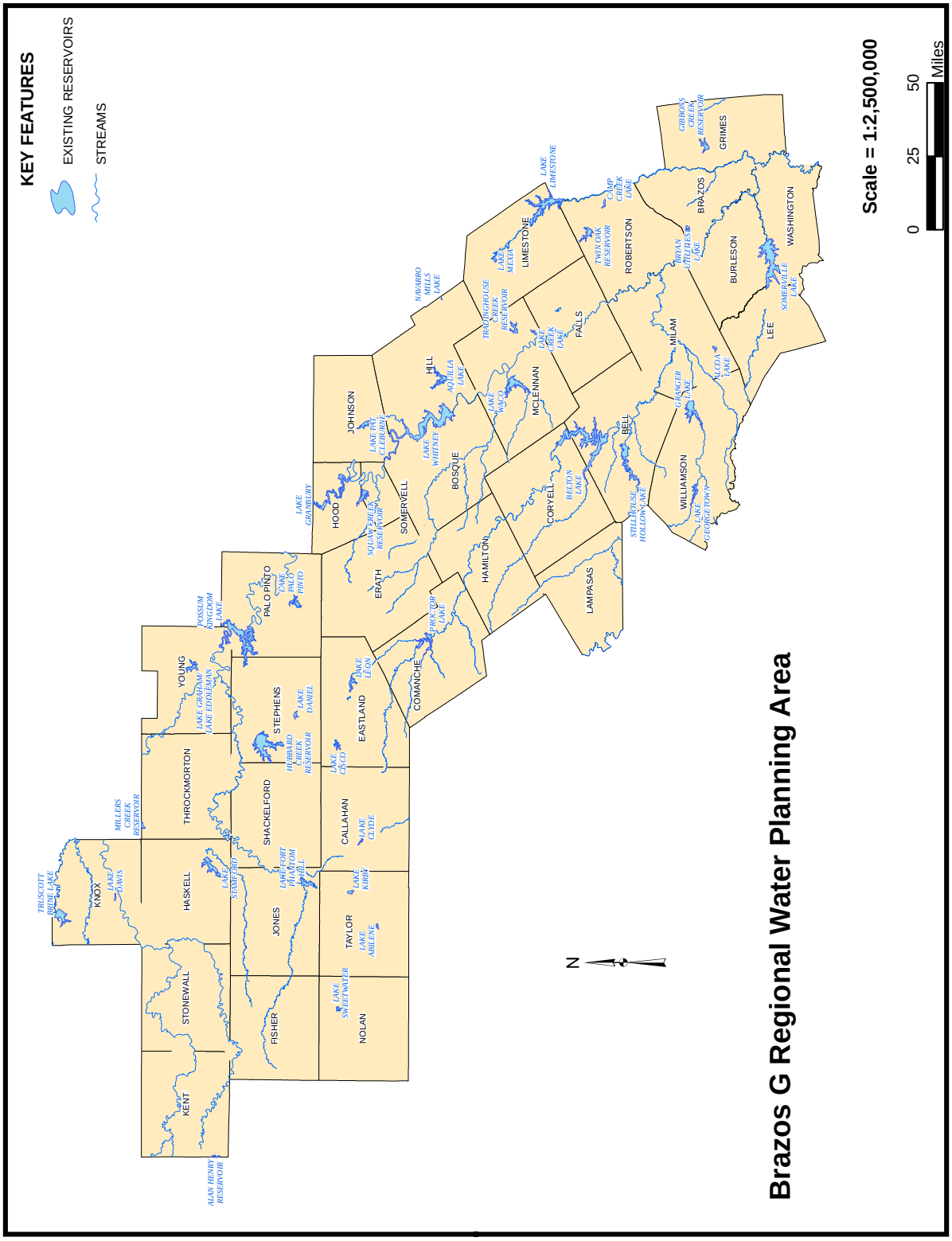
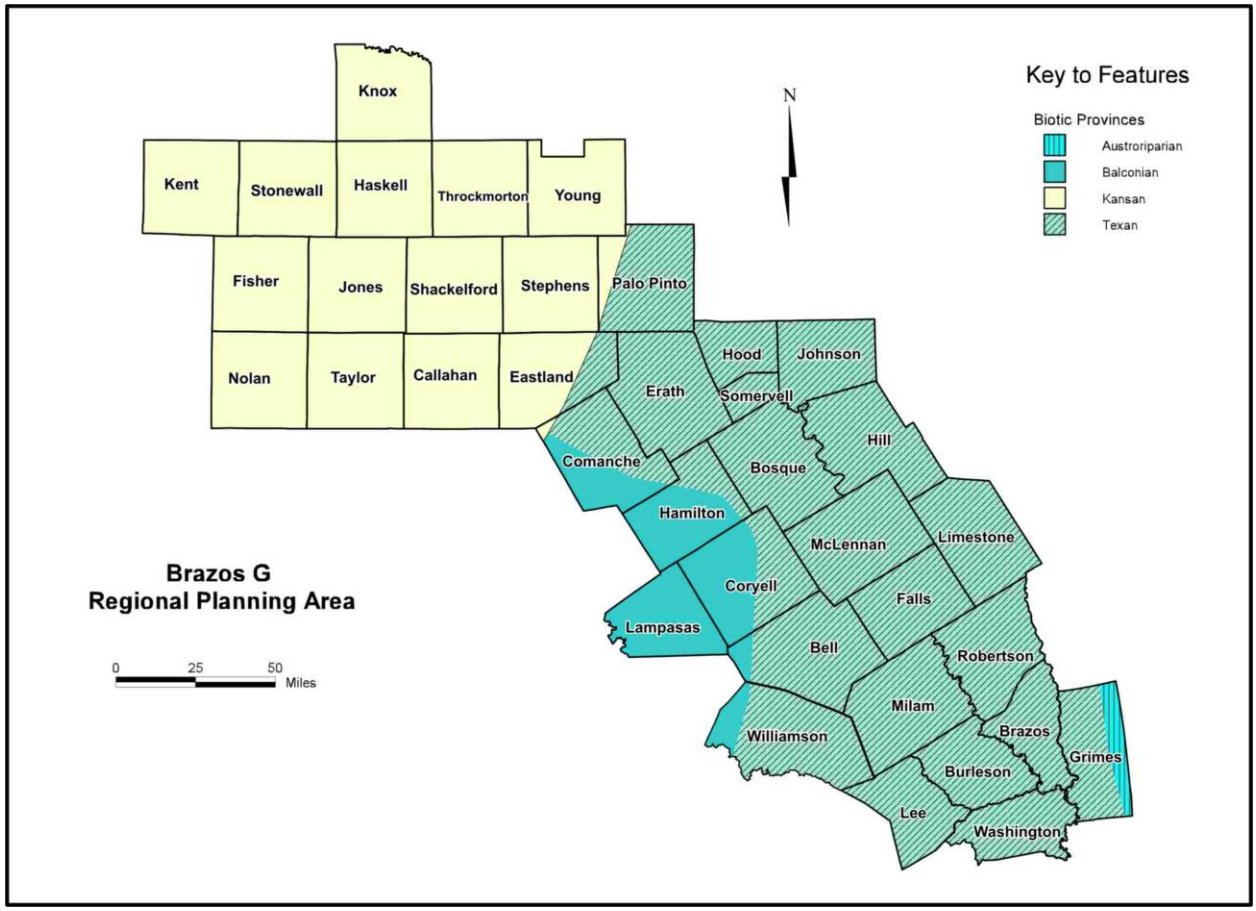


Figure 1-20. Water Resources of the Brazos G Area

Figure 1-21. Biotic Provinces of the Brazos G Area



Kansan

The Kansan province runs southward from the Texas panhandle and across the Rolling Plains area of the Brazos G Area. It meets the Texan biotic province at the western boundary of the Cross Timbers and Prairies vegetational area. There is little available moisture in the province, and moisture that is available decreases from east to west. The plant associations vary. However, they fall into three general categories of associations: the mixed-grass plains, the mesquite-grass association, and the short-grass plains.

Austroriparian

The western fringe of the Austroriparian province extends into the southeastern rim of the Brazos G Area. This province comprises the pine and hardwood forests of the eastern Gulf Coastal plain. The province is limited to the west due to low moisture. However, vegetational communities found in the westward extensions of the province occur along drainageways where environmental conditions allow.

Balconian

The Balconian province includes most of the Edwards Plateau excluding the region west of the Pecos River. The Edwards Plateau is a physio-graphically discrete unit. It has a variety of wildlife, and its vegetation is different from that found in adjacent provinces. The

abundant vertebrate species are a mixture of Austroriparian, Tamaulipan, Chihuahuan, and Kansan.

Most of the Balconian province lies on Cretaceous limestone, but igneous intrusives and sediments of Precambrian age are exposed in the Llano Uplift. Limestone caverns and springs are common features of this province. Massive outcrops of limestone are characteristic of the stream canyons, and limestone fragments occur at the surface over almost the entire area.

Rainfall amounts typically decrease from east to west. The most characteristic plant association is the juniper-oak scrub. Mesquite is also distributed throughout the province.

Texan

The Texan biotic province has no true endemic species of vertebrates. In this area, western species tend to encroach into open habitats, and eastern species encroach along the many wooded drainageways extending through the landscape. The Texan province has supported 49 species of mammals, 39 species of snakes, 16 species of lizards, 2 types of land turtles, 18 types of toads and frogs (anurans), and 5 species of salamander (urodeles).

Threatened and Endangered Species

In planning water-management strategies, one major consideration is the potential impact on threatened and endangered species. Table E-1 in Appendix E gives a complete list of threatened and endangered species in each county in the BGRWPA. Some of the more widely seen of these are the golden-cheeked warbler (Dendroica chrysoparia), the black-capped vireo (Vireo atricapillus), and the bald eagle (Haliaeetus leucocephalus).

1.9.7 Agricultural Resources

Agriculture is a mainstay of the BGRWPA rural economy. Among livestock, cattle were the most significant component, approaching 2.01 million head with an additional 96,000 dairy cows in 2017. Over 17 million acres, or about 85 percent of BGRWPA's total area, were classified as farmland in 2017. Of the 17 million acres of farmland, about 4.6 million acres were classified as cropland, of which about 2.8 million acres were harvested. Refer to Appendix F for detailed listings of agricultural information for the BGRWPA.

The Texas Department of Agriculture has specified several Agricultural Statistics Districts for the purpose of keeping records. The districts within the BGRWPA are 2N and 2S (Rolling Plains), 3 (Cross Timbers), 4 (Blacklands), 5S (South East), 7 (Lampasas County), and 8N (South Central).

Rolling Plains

Counties in the Rolling Plains (Districts 2N and 2S) are Fisher, Haskell, Jones, Kent, Knox, Nolan, Stonewall, and Taylor. The major dryland products are extensive row-crops, such as cotton, and wheat. Irrigation comes from the Seymour Aquifer where available. Major crops include wheat and cotton. Hay and silage are also produced, but because of low rainfall, their acreage is much less than in other districts in the BGRWPA.

Cross Timbers

The Cross Timbers counties (District 3) are Callahan, Comanche, Eastland, Erath, Hood, Palo Pinto, Shackelford, Somervell, Stephens, Throckmorton, and Young. Combined, these counties lead the State in dairy production. This is due to several factors such as available groundwater from the Trinity Aquifer, soils suitable for forage production, topography conducive to dairy operation, and an existing infrastructure. The major crops produced in the Cross Timbers are hay and silage, with smaller amounts of peanuts, pecans, and vegetables irrigated from the Trinity Aquifer.

Blacklands

The Blacklands counties (District 4) are Bell, Bosque, Coryell, Falls, Hamilton, Hill, Johnson, Limestone, McLennan, Milam, and Williamson. Lampasas County (District 7) is included for the purposes of this analysis. The Blacklands is noted for dryland production of corn for grain, grain sorghum, wheat for grazing and grain, cotton, and hay. Irrigation in the Blacklands is limited by lack of sufficient groundwater supply.

South East and South Central Texas

South East and South Central Texas counties (District 5S and 8N) are Brazos, Burleson, Grimes, Lee, Robertson, and Washington. This subregion has limited row-crop agriculture because suitable topography and soils are limited. Hay and silage are the major agricultural products. The Brazos River Bottoms counties (Brazos, Burleson, and Robertson) produce most of the crops in the subregion, including corn for grain, grain sorghum, and cotton. The Brazos River Alluvium is the major source of groundwater for the Brazos River Bottoms.

1.10 Threats and Constraints to Water Supply

Projected population growth in the region, particularly along the IH-35 Corridor, will strain existing municipal supplies. The population of Williamson County within Region G, for example, is projected to increase more than 150% between 2020 and 2070 to about 1,490,951 people. Water will become even more valuable, especially in the western and central parts of the BGRWPA, due to limited options for new reservoirs and because the aquifers in these areas have limited potential for further development.

Other concerns include the high content of chloride in surface-water runoff from the upper Brazos River Basin. Water with high chloride content is more expensive to treat and therefore places capital constraints on suppliers who obtain surface water from affected streams and reservoirs.

Zebra mussels are an invasive species impacting water quality in reservoirs and impairing the operation of water supply infrastructure. The Texas Parks and Wildlife Department maintains an up-to-date list of the occurrences of zebra mussels at the following web site:

https://tpwd.texas.gov/huntwild/wild/species/exotic/zebramusselmap.phtml

According to the website, as of September 1, 2020, the following reservoirs in the Brazos G Area are either “infested”, i.e., established reproducing populations, or “positive”, i.e., zebra mussels or their larvae have been detected: Lake Belton, Lake Georgetown, Lake Granger, Lake Stillhouse Hollow, and Lake Waco. The Little River, downstream of Lakes

Belton, Stillhouse Hollow, Georgetown and Granger is also positive for zebra mussels. Several reservoirs in the adjacent Trinity and Colorado River Basins are also infested or positive.

1.10.1 Susceptibility of Water Supplies to Drought

Groundwater

The 16 aquifers within the BGRWPA vary in drought resistance, but all tend to have more resistance than most surface-water reservoirs. Most of the thick, deep, and extensive sand aquifers with moderate to high transmissivity react very slowly to droughts. Their supplies are virtually drought-proof even during long droughts. These aquifers, such as the Carrizo-Wilcox and Gulf Coast Aquifers, store enormous amounts of water. Somewhat thinner, yet still extensive, sand aquifers with low to moderate transmissivity commonly are only slightly less drought resistant. These aquifers include the Trinity, Woodbine, Queen City, Sparta, and Hickory.

During long droughts, shallow alluvial aquifers from which large withdrawals are made experience water level declines that are relatively large in comparison to total saturated thickness. Supplies from these aquifers, such as the Seymour and Brazos River Alluvium Aquifers, can be affected by drought but generally only by extended droughts. In extended droughts, available well yields are typically reduced, and pumps must run longer for a given level of supply.

In thin aquifers with shallow supplies, drought resistance may not be adequate. Such aquifers in the BGRWPA include the Dockum, Blaine, and Edwards-Trinity (Plateau). Also, shallow supplies in or near outcrop areas of aquifers, even of major aquifers, may have limited drought resistance.

Aquifers composed of limestone and/or dolomite are commonly the least drought-resistant. This is because these aquifers typically have only about one-tenth as much storage per cubic foot as sand aquifers. For limestone aquifers, the amount of well development is also an important factor in drought resistance. Thus, the Edwards (BFZ) Aquifer, with more developed well capacity than is available in extended droughts, is the least drought-resistant of all the aquifers in the BGRWPA. Depending on location and exact local conditions, springflows and some Edwards (BFZ) well supplies are substantially reduced in only moderate droughts. In contrast, the Marble Falls and Ellenburger-San Saba Aquifers, which are relatively undeveloped by wells, can more slowly discharge a part of their stored water during long droughts.

In the Brazos G Area, for supplies drawing from the Edwards (BFZ) Aquifer, drought planning is critical. All of the other aquifers in the region are drought resistant due to their inherent characteristics.

Surface Water

Surface water supplies in the region vary greatly, as annual rainfall ranges from 20 to 24 inches in Kent County in the northwest, to 40 to 48 inches in Grimes County in the southeast. Evaporation rates show a similarly wide variation, with the highest rates occurring in the northwestern part of the region.

Drought originates from a deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector. Drought should be considered relative to some long-term average condition of balance between precipitation and evapotranspiration (i.e., evaporation + transpiration). It is also related to the timing (i.e., principal season of occurrence, delays in the start of the rainy season, occurrence of rains in relation to principal crop growth stages) and the effectiveness of the rains. Other climatic factors such as high temperature, high wind, and low relative humidity are often associated with drought and can significantly aggravate its severity.

Hydrological drought is associated with the effects of periods of precipitation shortfalls on surface water supply. The frequency and severity of hydrological drought is often defined on a watershed or river basin scale. Although all droughts originate with a deficiency of precipitation, hydrologists are more concerned with how this deficiency affects the water supply. Firm yields of reservoirs are estimated based on water that would be available through a repeat of the historic drought of record, which includes the effects of reduced runoff and high evaporation rates during the drought period. Water supply from run-of-the-river diversions are estimated based on water that would be available[18] through a repeat of the drought of record as well, but without the benefit of using stored water. The water supply estimates throughout this water plan are reliable through a repeat of the drought of record and are therefore not particularly susceptible to drought-induced shortages. However, the northwestern counties of the Brazos G Area are currently suffering through a particularly dry spell and data indicate new record drought conditions.

In 2009, 2011, 2012, and 2013 priority calls were made in the Brazos Basin. In July 2013 TCEQ issued an Order for the Brazos Basin including Possum Kingdom Lake and below Possum Kingdom Lake. The Order suspended or modified approximately 900 water rights in the Brazos Basin in 21 counties. The Order required the owners of larger reservoirs affected by the Order to submit pass-through plans, detailing their response to the priority call. The priority call was rescinded on October 10, 2013.

On April 9, 2014 the TCEQ directed that a new Watermaster be appointed for the Brazos River Basin including Possum Kingdom Lake and the watershed below the lake. The purpose of the Watermaster is to maintain compliance with water rights by monitoring stream flows, reservoir levels and water use. It is also the responsibility of the Watermaster to mediate the curtailment of water use if a priority call is initiated.

1.10.2 Identified Water Quality Problems

Water quality varies throughout the upper, middle and lower portions of the BGRWPA. Water quality is generally good in aquifers and in the tributaries of the Brazos River. However, high concentrations of chloride are found in the main stem of the Brazos River. Three factors affecting water quality in the Brazos G Area are wastewater disposal, high-density agricultural activities, and natural saline contamination.[19] Except for the third factor,

[18] Estimates of municipal and industrial run-of-river diversions are for 100 percent reliability. For irrigation uses, run-of-river reliability less than 100 percent is often acceptable.

[19] Texas Natural Resource Conservation Commission (TNRCC), *Summary Report: Regional Assessments of Water Quality Pursuant to the Texas Clean Rivers Act (Senate Bill 818)*, 1992.

these threats are associated with the growth of both population and the economy, which are expected to continue in the future.

Water quality data collection and assessment studies have been conducted since 1991 through the Texas Clean Rivers Program (CRP). Through collaborative efforts with other agencies and basin residents, the BRA identifies and evaluates water quality and watershed management issues, establishes priorities for corrective actions, and implements activities to improve and protect the Brazos River basin. Identified surface water quality problems within the BGRWPA are summarized according to specific regions in the basin, and are based on information from the Texas Clean Rivers Program 2004 Basin Highlights Report.[20]

Upper Basin Region

The Upper Basin Region includes the Salt and Double Mountain Forks and the Clear Fork of the Brazos River. Water quality data reveal water quality impacts represented by high conductivity levels, along with high total dissolved solids and chloride concentrations. While this region contributes only 14 to 18 percent of the total Brazos River flow, the area contributes 45 to 55 percent of the total dissolved minerals and about 75 to 85 percent of the dissolved salts.

Upper Central Basin Activity Region

The Upper Central Basin of the Brazos River includes eight lakes, five watersheds, and a variety of land uses interconnected throughout the watersheds. The Upper Central Basin Region generally covers from Bell County north to Hood County. Numerous watershed protection and management projects are being conducted in this region to address declining water quality due to impacts from industrial, agricultural, municipal, and natural causes. On-going activities and water quality issues in this area include:

- In 2002, the BRA began a special study on Lake Granbury to assess impacts from septic systems in the coves throughout the lake.
- The BRA currently monitors Aquilla Creek at FM 933 in this watershed. TCEQ has been monitoring Lake Aquilla as a result of its placement on the State's 303 (d) list for impairments due to high concentrations of atrazine.
- The Bosque River Watershed drains approximately 1,652 square miles and discharges into Lake Waco. Elevated bacteria, nutrient and algal growth are concerns for this watershed, due to high non-point source pollution activity generally attributed to confined animal feeding operations. There are several on-going activities undertaken by the State, BRA, City of Waco, and local entities to monitor and reduce pollution in this watershed.
- A number of sites in the Leon River watershed show concerns for elevated bacteria and nutrient concentrations, as well as depressed dissolved oxygen.
- Lake Stillhouse Hollow experiences above average water quality conditions and remains primarily undeveloped. Discharging into the Lampasas river downstream

[20] Brazos River Authority (BRA), Texas Clean Rivers Program 2004 Highlights Report, available online at http://www.brazos.org/CleanRiversProgram/BasinReport/Executive_Summary.pdf, 2004.

of the lake, Salado Creek is experiencing concerns from elevated nutrient concentrations.

Lower Central Basin Activity Region

Portions of the Lower Central Basin are subject to non-point source discharges and nutrient loading from agricultural activities. Data collected to date show that Cottonwood Branch in Brazos County near Bryan has very high concentrations of nutrients and elevated bacteria levels. Lakes Limestone and Granger also show concerns for nutrient loading that is contributing to increased aquatic plant growth.

Additionally, elevated naturally occurring arsenic levels have been experienced in Trinity Aquifer groundwater produced from certain areas of Falls, Hill, Limestone, and Milam Counties which has created compliance issues with USEPA drinking water standards.

Lower Basin Activity Region

The BRA monitors eight sites in Yegua Creek watershed, including two sites on Lake Somerville. The lake, which spans 11,460 acres, has experienced several fish kills. Lake Somerville has experienced both elevated and depressed pH levels, which may be attributed to fluctuations in blue-green algae populations.

1.10.3 Identified Threats to Agricultural and Natural Resources

Drought and water quality are the two primary threats to agricultural and natural resources in the Brazos G Area.

Threats to Agricultural Resources

Drought is the primary threat to agricultural resources in the Brazos G Area. During long droughts, surface water supplies for unconfined livestock are diminished. If the drought extends through the season for growing forages, production is reduced due to the lack of forageable food. Additional threats to livestock arise from the reduced water supply for rural water systems that are not interconnected or that are not supplied by a reliable source. This is especially true in the northwest part of the region. Water for confined livestock (e.g., dairy cattle and poultry) and for crop irrigation typically comes from groundwater.

Water quality can also pose a threat to agricultural resources. Increased levels of salts and total dissolved solids may damage certain crops and require additional water for irrigation. High levels of salts can accumulate on the surface soils, creating a hardpan effect that impedes percolation of irrigated water. As water quality degrades, crop selection and production may be limited. An additional threat to crop production is the migration into agricultural land of municipal well fields to supply groundwater to growing cities. Groundwater Conservation Districts and Underground Water Conservation Districts have been created in part to manage groundwater supplies that may have competing interests.

Threats to Natural Resources

The Brazos River Basin within the BGRWPA is a freshwater eco-region that is defined as primarily temperate coastal rivers and lakes habitat, with high ranking habitats for fish,

reptiles and amphibian species.[21] Identified threats to these biological resources stem from the combined effects of land use disturbance, reduced stream flow from prolonged droughts as well as current and future water diversions from water supply projects, lower lake levels, and impacted quality of surface and groundwater. Declining flows can affect the availability and quality of aquatic habitats and streamside vegetation and also contribute to changes in water temperature and chemistry. As discussed in Section 1.7.2, water quality in the Brazos River Basin has been degraded by increased concentrations of chlorides, dissolved metals, ammonia, nitrates, and phosphates, pesticides, algae, and fecal coliform bacteria. Under lower flow conditions, greater effects from pesticide contamination could occur through higher concentrations of chlorinated hydrocarbons and organic phosphates. A summary of potential effects that identified threats would have on biological resources is presented in Table 1-10. The water resources impacted by water quality concerns identified in Section 1.7.2 within the Brazos River Basin are presented in Table 1-11.

Reduced stream flows and reservoir levels, which are brought on by drought and increases in water use, pose the greatest potential threat to aquatic species in the region. Lower stream flows would alter the proportion of stream runs, riffles, pools, and backwater sloughs and decrease the wetted perimeter (total available habitat). These changes in habitat may benefit some species, primarily hardy, generalist species, but would negatively impact most species and result in reduced species richness. Riparian vegetation is also threatened by less over bank flooding and a shift to more mesic (drier) conditions with a decline in those species that are dependent on flooding processes (cottonwood, willow, and pecan) and an increase in species tolerating drier conditions (hackberry and mesquite).

Table 1-10. Summary of Regional Threats to Biological Resources in the Brazos River Basin

Threat	Potential Effects to Aquatic Organisms	Potential Effects to Riparian Vegetation
Rivers & Streams		
Lower Streamflows	Decreased stream runs, riffles, pools, and backwater sloughs resulting in lower habitat diversity and species richness.	Less overbank flooding and shift to more mesic (drier) conditions with decline in species dependent on flooding processes and increase in species tolerating drier conditions.
Lower Water Quality	Lower habitat suitability; lower habitat diversity, species richness, and abundance; possible direct and indirect adverse effects from point and non-point source contaminants.	Potentially enhanced growth from higher concentrations of phosphorus, nitrates, and other nutrients; but increased growth could be suppressed by lower water tables from declining flows, increased salinities or exposure to contaminants.

[21] Abell, R.A, D.M. Olson, E. Dinerstein, P.T. Hurley, J.T. Diggs, W. Eichbaum, S. Walters, W. Wettengel, T. Allnutt, C.J. Loucks, and P. Hedao. 2000. Freshwater Eco-regions of North America – A Conservation Assessment. World Wildlife Fund. Island Press. Washington D.C. 320 pp.

Table 1-10. Summary of Regional Threats to Biological Resources in the Brazos River Basin

Threat	Potential Effects to Aquatic Organisms	Potential Effects to Riparian Vegetation
Reservoirs		
Lower Reservoir Levels	If prolonged, less available habitat resulting in lower species diversity & species abundance. If seasonal, potential positive effects through enhanced fishery production, depending on timing and duration of subsequent rising lake levels.	Increase in growth of shoreline herbaceous and woody vegetation during lower lake levels, but growth suppressed or reversed by rising lake levels and seasonal inundation.
Lower Water Quality	Lower habitat suitability; lower habitat diversity, species richness, and species abundance.	Potentially enhanced growth from higher concentrations of phosphorus, nitrates, and other nutrients; but growth suppressed or reversed through lower water tables from declining flows, increased salinities or exposure to contaminants.
Bays & Estuaries		
Reduced freshwater inflows	Possible change in hydrological dynamics of estuary. Projected effects would be minimal due to limited coastal marsh habitats associated with the Brazos River Estuary.	Effects considered minimal due to limited coverage resulting from previous levee construction and river channelization.

Table 1-11. Location of Threats to Biological Resources Related to Water Quality in the Brazos Basin

Identified Threats	Upper Basin	Upper Central Basin	Lower Central Basin	Lower Basin
Increased Chlorides	Salt and Double Mountain Forks; Clear Fork; White River Lake.	Upper Brazos River	Lake Limestone	
Fecal Coliform Bacteria	Millers Creek;	Upper Brazos River; Possum Kingdom Lake; Lake Granbury; Lake Whitney; Bosque River; Lake Waco; Lake Proctor; Leon River; Lake Belton	Central Brazos River	Lower Brazos River
Dissolved Oxygen				Lower Brazos River
Increased Nutrients[1]	Clear Fork of the Brazos; Deadman Creek; California Creek	Bosque River; Lake Waco; Lake Proctor, Leon River; Lake Belton; Salado Creek	Central Brazos River; Still Creek/Thompson Creek; Lake Limestone; Lake Granger	Lower Brazos River
Algae		Upper Brazos River; Bosque River; Lake Waco		Lower Brazos River
Pesticides & Heavy Metals	Upper Brazos River	Upper Brazos River; Aquilla Creek		

[1] Includes: Ammonia, Phosphorus, Nitrogen, Nitrate-Nitrogen

1.11 Drought Preparations

With the significant historical growth across the state and considering the current projections for future growth in the Brazos G area, the demand for water is expected to continue increasing. Preparation and planning for potential future drought(s) is critical to ensuring a sufficient water supply is available to meet user demands. Refer to Chapter 7 of this plan for detailed information concerning the drought of record in the Brazos G area, current drought preparation and considerations, and recommendations for additional regional level drought response planning tools.

Drought contingency plans are required by the State for wholesale water suppliers, irrigation districts, and retail water suppliers. For surface water right-holders that supply 1,000 acft/yr or more for non-irrigation use and 10,000 acft/yr for irrigation use, SB1 requires a water conservation plan. To aid entities in the region with the development of these plans, example water conservation and drought management plans are provided in Appendices J and K.

In addition, conservation plans are commonly included in the management plans of Groundwater Conservation Districts or Underground Water Conservation Districts.

1.12 Existing Programs and Goals

1.12.1 Groundwater Regulation

Priority Groundwater Management Areas (PGMAs)

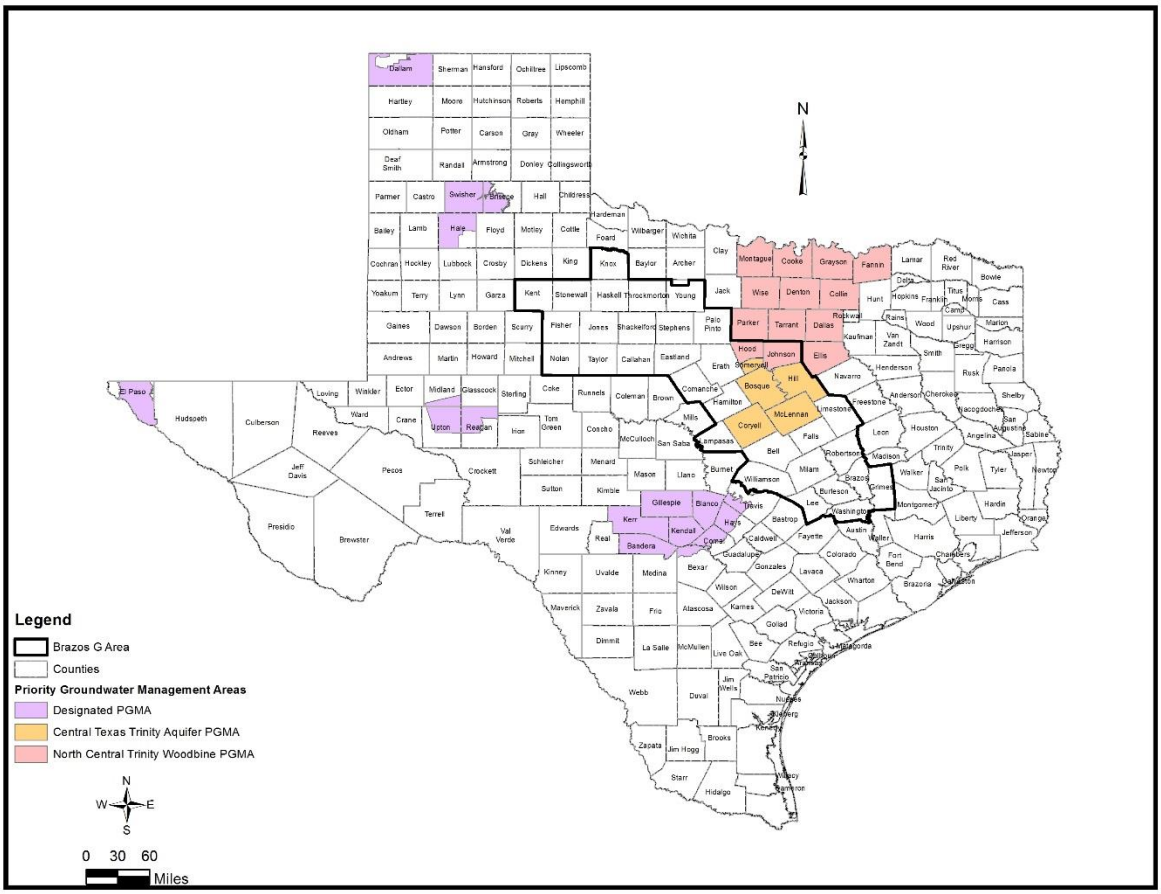
The Texas Legislature authorized the TCEQ to identify and delineate priority groundwater management areas (PGMAs) as "those areas of the state that are experiencing or that are expected to experience, within the immediately following 25-year period, critical groundwater problems, including shortages of surface water or groundwater, land subsidence resulting from groundwater withdrawal, and contamination of groundwater supplies" (§Section 35.007, Chapter 35, Title 2, Texas Water Code).

Following a PGMA designation, TCEQ may recommend creating a groundwater conservation district. Citizens in the PGMA have two years to establish a Groundwater Conservation District (GCD). If a GCD is not established in the required timeframe, a GCD will be established that is consistent with the original TCEQ recommendation, which will be governed by a locally elected board of directors.

TCEQ designated two PGMA areas in the BGRWPA, the Central Texas-Trinity Aquifer PGMA and the Northern Trinity and Woodbine Aquifers PGMA, shown on Figure 1-22. TCEQ designated the Central Texas-Trinity Aquifer PGMA on October 31, 2008. Counties in this PGMA include Bosque, Coryell, Hill, McLennan, and Somervell. The Northern Trinity and Woodbine Aquifers PGMA was designated on February 11, 2009. This PGMA includes Collin, Cooke, Dallas, Denton, Ellis, Fannin, Grayson, Hood, Johnson, Montague, Parker, Tarrant, and Wise counties. Only Hood and Johnson counties are in the Brazos G Area.

At the time of this plan, all affected counties in the PGMA areas are part of GCDs. In 2007 the Upper Trinity GCD was formed, which includes Hood County. In May 2009, Bosque County joined the Middle Trinity GCD. The Tablerock GCD, which included Coryell County, was dissolved by the Legislature; Coryell County joined the Middle Trinity GCD in 2009. In 2009, the Texas Legislature created the Prairielands GCD and the Southern Trinity GCD. The Prairieland GCD includes Johnson, Hill and Somervell counties. At this time, only McLennan County is part of the Southern Trinity GCD. A map of groundwater conservation districts is presented in Figure 1-23.

Figure 1-22. Priority Groundwater Management Areas



Groundwater Conservation Districts and Groundwater Management Areas

There are thirteen GCDs in the BGRPA, as shown on Figure 1-23 and listed in Table 1-12. All GCDs are required to develop and implement a management plan to manage groundwater resources. A list of the GCDs' management plan approval dates are shown on Table 1-12 and are available through the TWDB website.

In 2001, Senate Bill 2 of the 77th Texas Legislature authorized the TWDB to designate Groundwater Management Areas (GMAs) that would include all major and minor aquifers of the state. Sixteen GMAs were delineated and adopted by the TWDB in 2002 and cover all major and minor aquifers in Texas. The BGRWPA intersects GMA 6, 7, 8, 12, and 14. These GMAs are shown on Figure 1-23 and are listed in Table 1-13.

In 2005, House Bill 1763 of the 79th Texas Legislature required GCDs in groundwater management areas to meet and define the Desired Future Conditions (DFCs) of the groundwater resources within the groundwater management area. The legislation requires that the DFCs be defined by September 1, 2010 and every 5 years thereafter. This requires joint planning among the GCDs in each GMA to determine Desired Future Conditions.

Desired Future Conditions are defined by statute to be "the desired, quantified condition of groundwater resources (such as water levels, spring flows, or volumes) within a management area at one or more specified future times as defined by participating

groundwater conservation districts within a groundwater management area as part of the joint groundwater planning process." The most common DFCs are based on the volume of groundwater in storage over time, water levels (limiting decline within the aquifer), water quality (limiting deterioration of quality) or spring flow (defining a minimum flow to sustain).

After the DFCs are determined by the GMAs, the TWDB performs quantitative analysis to determine the amount of groundwater available for production that does not exceed the DFC. For aquifers where a Groundwater Availability Model (GAM) exists, the GAM is used to develop the MAG (Available Groundwater). The MAG estimated through this process is then used by RWPGs as the available groundwater for the planning period. For aquifers or local groundwater that are not listed as a minor or major aquifer, the water availability is based on historical use and available hydrogeological records. Table 1-13 shows the status of the Desired Future Conditions development, and the status of the determination of Modeled Available Groundwater (MAG) for each GMA in the BGRWPA.

Figure 1-23. Groundwater Conservation Districts and Groundwater Management Areas Located Wholly or Partially within the Brazos G Area

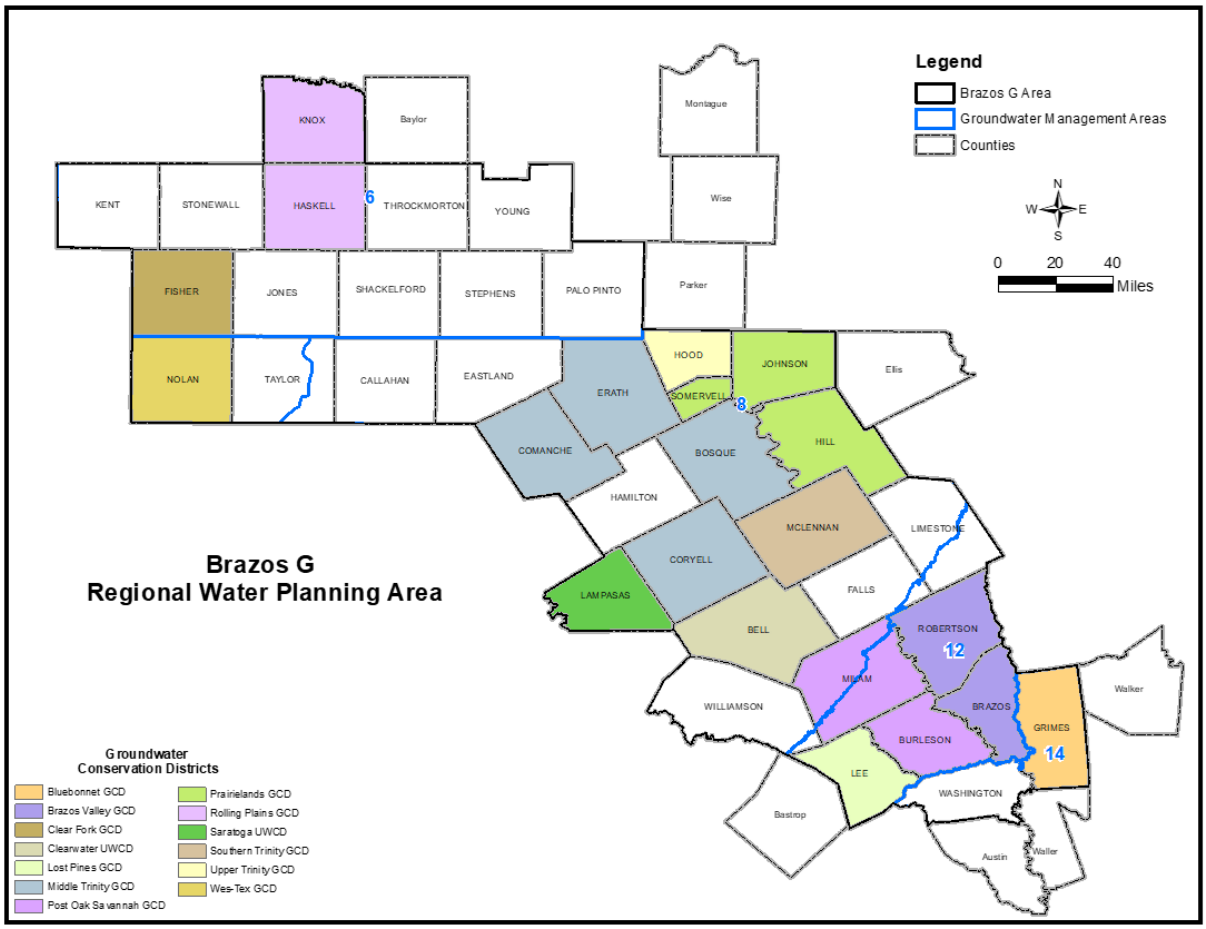


Table 1-12. Groundwater Conservation District Management Plan Approval Dates

Name of District	Date Plan Approved
Bluebonnet Groundwater Conservation District	12/31/2018
Brazos Valley Groundwater Conservation District	05/13/2019
Clear Fork Groundwater Conservation District	01/15/2015
Clearwater Groundwater Conservation District	03/12/2019
Lost Pines Groundwater Conservation District	01/24/2018
Middle Trinity Groundwater Conservation District	02/08/2019
Post Oak Savannah Groundwater Conservation District	12/29/2017
Prairielands Groundwater Conservation District	05/31/2019
Rolling Plans Groundwater Conservation District	09/15/2015
Saratoga Groundwater Conservation District	08/31/2020
Southern Trinity Groundwater Conservation District	09/15/2015
Upper Trinity Groundwater Conservation District	12/10/2018
Wes-Tex Conservation District	03/18/2020

Table 1-13. Groundwater Conservation Districts, Aquifers, Desired Future Conditions (DFCs), and Modeled Available Groundwater (MAG) Status by GMA for the Brazos G Area

Groundwater Management Area 6			
Clear Fork GCD, Rolling Plains GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Seymour	Major	Adopted 11/17/2016	Submitted 06/30/2017. GR 16-031 MAG
Dockum	Minor	Adopted 11/17/2016	Submitted 06/30/2017. GR 16-031 MAG
Blaine	Minor	Adopted 11/17/2016	Submitted 06/30/2017. GR 16-031 MAG
Cross Timbers	Minor	No DFC Adopted[1]	-
Groundwater Management Area 7			
Wes-Tex GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Edwards-Trinity(Plateau)	Major	Adopted 03/22/2018	Submitted 09/21/2018. GR 16-026 MAG Version 2
Dockum	Minor	No DFC Adopted[1]	-
Groundwater Management Area 8			
Clearwater UWCD, Middle Trinity GCD, Post Oak Savannah GCD[2], Prairielands GCD, Saratoga UWCD, Southern Trinity GCD, Upper Trinity GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Trinity	Major	Adopted 01/31/2017	Submitted 01/19/2018. GR 17-029 MAG
Edwards (BFZ)	Major	Adopted 01/31/2017	Submitted 01/19/2018. GR 17-029 MAG
Brazos River Alluvium	Minor	No DFC Adopted[1]	-
Ellenburger-San Saba	Minor	Adopted 01/31/2017	Submitted 01/19/2018. GR 17-029 MAG
Hickory	Minor	Adopted 01/31/2017	Submitted 01/19/2018. GR 17-029 MAG
Marble Falls	Minor	Adopted 01/31/2017	Submitted 01/19/2018. GR 17-029 MAG
Woodbine	Minor	Adopted 01/31/2017	Submitted 01/19/2018. GR 17-029 MAG
Groundwater Management Area 12			
Brazos Valley GCD, Post Oak Savannah GCD[2], Lost Pines GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Carrizo-Wilcox	Major	Adopted 05/25/2017	Submitted 12/15/2017. GR 17-030 MAG
Brazos River Alluvium	Minor	Adopted 05/25/2017	Submitted 12/15/2017. GR 17-030 MAG
Queen City	Minor	Adopted 05/25/2017	Submitted 12/15/2017. GR 17-030 MAG
Sparta	Minor	Adopted 05/25/2017	Submitted 12/15/2017. GR 17-030 MAG
Yegua-Jackson	Minor	Adopted 05/25/2017	Submitted 12/15/2017. GR 17-030 MAG

Groundwater Management Area 14			
Bluebonnet GCD			
Aquifer	**Major or Minor Aquifer?**	**Desired Future Conditions Status**	**Modeled Available Groundwater Status**
Carrizo-Wilcox	Major	No DFC Adopted[1]	-
Gulf Coast	Major	Adopted 04/29/02016	Submitted 12/15/2016. GR 16-024 MAG
Brazos River Alluvium	Minor	No DFC Adopted[1]	-
Queen City	Minor	No DFC Adopted[1]	-
Sparta	Minor	No DFC Adopted[1]	-
Yegua-Jackson	Minor	No DFC Adopted[1]	-

[1] No DFC is currently adopted by GMA for this aquifer and no corresponding MAG has been published by the GMA. Availability estimates presented elsewhere in this plan are based on historic modeling and/or modeling during MAG development for other aquifers. [2] Post Oak Savannah GCD is in GMA 8 and GMA 12.

Texas Clean Rivers Act

In 1991, the 72nd Legislature passed the Texas Clean Rivers Act [22] to establish for the first time a watershed basis for water quality planning in Texas.[23,24] The Act requires each river basin in the State to be assessed for water quality and management strategies on an on-going basis. It also requires reports to be provided to the TCEQ every even-numbered year.[25] The Act provides specific guidelines for accomplishing the water quality assessments, including: (1) comprehensive assessments on a watershed basis with emphasis on non-point sources, nutrients, and toxic materials; (2) delegation of responsibility for assessments to river authorities; (3) formation of river basin steering committees; (4) discharge permitting on a basin-wide basis; and (5) assessment fees charged to wastewater- and water-rights permittees.

The BRA is a partner with the TCEQ in the Clean Rivers Program for the BGRWPA. The program provides funding for BRA staff to assess water quality in the Brazos River Basin and to document local problems. Also, the program provides fee payers with site-specific information on water quality such as receiving water assessments and flow data. The 2004 Report[26] for the Brazos River Basin provides an assessment of water quality for the basin, drawing attention to: (1) the need for more long-term data on water quality, (2) a continued emphasis on the Basin Steering Committee for direction and comment on the water quality assessment program, (3) continued assistance in water quality monitoring from local partners in the Basin Monitoring Program, (4) emphasis on assessing and maintaining data, and (5) development of a geographical information system for the basin. The 2004 Report provides detailed findings about water quality and related items for selected sub-

[22] Senate Bill 818, amending the Texas Water Code, Sections 5.103, 5.105, 26.011; T.A.C. Sections 320.1-320.9

[23] TNRCC, Op. Cit., 1992.

[24] TNRCC, Op. Cit., 1999.

[25] BRA, “Planning and Environmental Division”, [Online] Available URL: http://www.brazos.org/home.htm, 1999.

[26] BRA, Op. Cit., 2004.

watersheds of the basin. The findings most relevant to the BGRWPA were summarized in Section 1.7.2.

1.12.2 Clean Water Act

The 1972 Federal Water Pollution Control Act, which as amended is called the Clean Water Act, is the federal law with the most impact on water quality protection in the BGRWPA. As amended in 1977 and again in 1987, the Clean Water Act: (1) establishes the framework for monitoring and controlling industrial and municipal point-source discharges through the National Pollutant Discharge Elimination System (NPDES), (2) authorizes federal assistance for the construction of municipal wastewater treatment facilities, and (3) requires cities to obtain permits for stormwater or non-point-source discharges.[27] The Clean Water Act also includes provisions to protect specific aquatic resources. Section 303 establishes a non-degradation policy for high quality waters and provides for establishment of state standards for receiving water quality. Section 401 allows states to enforce water quality requirements for federal projects such as dams. Section 404 provides safeguards for wetlands and other waters from the discharge of dredged or fill material. Section 305 calls for the TCEQ to prepare and submit a water quality inventory to the U.S. Environmental Protection Agency.[28] Other provisions protect particular types of ecosystems such as lakes (Section 314), estuaries (Section 320), and oceans (Section 403).[29] Several of these provisions are relevant to specific water quality concerns in the BGRWPA.

1.12.3 Safe Drinking Water Act

The Safe Drinking Water Act, passed in 1974 and amended in 1986 and 1996, allows the U.S. Environmental Protection Agency to set standards for drinking water quality. These standards are divided into two categories: National Primary Drinking Water Regulations (primary standards that must be met by all public water suppliers) and National Secondary Water Regulations (secondary standards that are not enforceable, but are recommended). Primary standards protect water quality by limiting levels of contaminants that are known to adversely affect public health and that are anticipated to occur in water. Secondary standards have been set for contaminants that may affect cosmetic or aesthetic qualities of water (e.g., taste, odor, or color). For some constituents, the State of Texas has secondary standards that differ from the National standards.

1.12.4 Source Water Assessment and Protection Program

The TCEQ's Source Water Assessment and Protection (SWAP) Program can be an important part of water resource management. The SWAP Program, authorized by the Safe Drinking Water Act, assists local jurisdictions in preventing contamination of drinking water supplies. It identifies sources of public drinking water, determines potential contaminants, assesses water systems' susceptibility to contamination, and informs the

[27] 33 USCA, Sections 1251 through 1387.

[28] TWDB, 1997.

[29] Adler, R.W., Landman, J. and Cameron, D., *The Clean Water Act: Twenty Years Later*, Island Press, Washington D.C., 1993.

public of the results. It is part of a comprehensive, integrated approach to clean ground and surface water undertaken by the TCEQ.

The centerpiece of the SWAP Program is a focus on prevention. Water can be easily contaminated, but it is difficult and expensive to clean up. Through the SWAP Program, by preventing contamination, jurisdictions are able to avoid the cost of removing contamination and maintain clean, reliable sources for drinking water.

The SWAP Program is designed to assist Texas communities in protecting their drinking water sources. Its goal is to increase public awareness of the importance of protecting drinking water sources and actions that can be taken to protect those sources. The SWAP Process involves seven steps:

1. Delineation (or mapping) of source water protection areas, any areas surrounding a drinking water source, whether from ground or surface water;
2. Conducting an inventory of actual or potential sources of contamination in the delineated area;
3. Conducting an analysis of the relative susceptibility of the water supply to those contamination sources and presenting the results to the public water supply in the form of a Source Water Susceptibility Assessment Report. These results provide insights into activities near your water sources and serve as the starting point for implementing source water protection.
4. Working with selected local communities to make information available to the public;
5. Voluntary application of best management practices to prevent contamination, such as land use practices, regulations and permits, structural measures, good housekeeping practices, public education and emergency response planning;
6. Monitoring and continually assessing source water supplies; and,
7. Conducting triennial sampling and continually monitoring, assessing and conducting protection activities.

By conducting continual monitoring, assessment and protection activities, communities can minimize potential sources of contamination and protect source water supplies over the long-term.

1.12.5 State Water Availability Modeling Initiatives

TCEQ Water Availability Models (WAMs)

Water Availability Models (WAMs) are computer-based simulation models used to determine water availability for surface water rights under Texas' priority system. These models are used to evaluate water availability for newly requested water rights or water right amendments. The models are also used for regional water planning. There are twenty individual WAMs that cover the twenty-three river basins in Texas, including coastal basins. The period of record most WAMs is approximately 1940 to 1997, although the hydrology has been extended for the Colorado WAM through 2016. The TCEQ has initiated an update of the Brazos WAM to extend the hydrologic data in the model through 2018.

There are two WAM scenarios used and maintained by TCEQ staff:

- Full Authorization (Run3) – In the Full Authorization scenario all water rights utilize their full authorized amounts. This scenario is used to evaluate perpetual water rights and amendments.
- Current Conditions (Run 8) – The Current Conditions scenario Includes return flows, current reservoir conditions and has water rights diversions based on historical use. This scenario is used to evaluate term water rights.

Most of the Brazos G Planning Area falls within the area covered by the Brazos WAM. Existing supplies and future water management strategies were evaluated using a modified WAM Run 3. The modified WAM Run3 includes existing and future sediment conditions for reservoirs.

TWDB Groundwater Availability Models (GAMs)

Groundwater Availability Models (GAMs) were developed under the direction of the TWDB. The GAMs cover most of the major and minor aquifers within Texas. The GAMs are used in the regional planning process as discussed in 1.11.1. Based on the agreed upon Desired Future Condition (DFC) the GAMs are run to develop the MAG for each aquifer to be used in the Regional Planning Process.

1.13 Previous Water Supply Planning in the Brazos G Area

As discussed in previous sections, the Brazos G Area is a large and diverse with varying needs of water users in the different parts of the region. In response to these different needs, the region has a history of successful local water supply planning and development. These studies are too numerous to identify and list in entirety here. Some of the more recent studies include:

- Bosque County water treatment and distribution study to address water needs in Bosque County in the central Brazos River Basin. The study was completed in March 2004.[30]
- The Brazos River Authority and Tarrant Regional Water District sponsored a water supply study for Parker and Johnson Counties in the central Brazos River Basin to meet the growing needs of this area. Phase 1 of the study was completed in April 2004.[31]
- The West Central Brazos River Basin Regional Water Treatment and Distribution Facility Study evaluated water needs in the upper Brazos River Basin. This study was completed in August 2004.[32]

[30] Carter-Burgess, March 2004, Bosque County Regional Water Treatment and Distribution Facilities Plan, Final Report to the Brazos River Authority.

[31] Freese and Nichols, April 2004, Regional Water Supply and Wastewater Service Study for Johnson and Parker Counties, Phase I.

[32] Freese and Nichols, August 2004, West Central Brazos River Basin Regional Water Treatment and Distribution Facility Plan.

- Bell/Williamson Regional Water Supply Facility Plan – Included eight participants in southern Bell County and Northern Williamson County. The study recommended the cooperation of these eight participants in development of infrastructure and water supply projects.
- The City of Abilene and the Cities of Midland and San Angelo (Region F) have formed the West Texas Water Partnership (WTWP) to identify and secure long-range water supplies for the three cities and the surrounding region. Results from ongoing studies will be reflected in future regional water plans.
- The Falls, Hill, Limestone, and McLennan Counties (FHLM)-TWDB Regional Water Facility Planning Study evaluated the feasibility of a regional water system to replace and/or supplement multiple smaller water systems currently providing service within the FHLM area. The study addresses elevated arsenic concentrations experienced by study participants and also evaluates water treatment and transmission alternatives to meet the arsenic Maximum Contaminant Level (MCL). [33]

Brief summaries of the *Brazos G Regional and State Water Plans* and several studies completed recently are presented in the following sections.

1.13.1 Brazos G Regional and State Water Plans

Since SB1 was passed in 1997, the Brazos G Regional Planning Group has completed four rounds of planning, with regional plans adopted in 2001, 2006, 2011, and 2016. These regional plans have been rolled up with 15 other regional plans into the State Water Plan in 2002, 2007, 2012, and 2017 respectively. Each successive plan has been updated to reflect the most relevant information at the time. This section provides a brief summary of each of the Brazos G Regional water Plans and the State Water Plans.

2001 Brazos G Regional Water Plan[34]

The 2001 Brazos G Regional Water Plan found that on a regional basis, there are sufficient water supplies to meet the projected demands. In year 2050, the region was projected to have a surplus of about 500,000 acre-feet per year, yet there were some entities that did not have enough water to meet projected needs. The highest growth areas were identified along the I-35 corridor in the central part of the region, straining existing groundwater supplies. Slower economic growth and implementation of previous long-term planning in the upper Brazos G Area resulted in fewer municipal needs in this part of the region. However, water quality concerns in the upper Brazos River Basin can limit water supplies.

The major recommended strategies in the 2001 plan included four new major reservoirs, reallocation of hydropower storage in Lake Whitney, coordinated operation of reservoir systems for the Brazos River Authority and the City of Abilene, chloride control in the upper Brazos River Basin, and further development of groundwater from the Carrizo-Wilcox aquifer. Since the plan was completed, the California Creek Diversion Project, a recommended strategy in the 2001 plan for the City of Stamford to supplement supplies

[33] Susan Roth, 2015, Final Draft Report – FHLM Regional Water Facility Planning Study

[34] Brazos G Regional Planning Group, January 2001, Regional Water Plan

from Lake Stamford, has been constructed and is operational. Other smaller projects also have been completed or are in the design phase.

The recommended new major reservoirs include:

- Millican Reservoir (Bundic Dam Site):
- Little River Reservoir:
- South Bend Reservoir (long-term strategy):
- Breckenridge Reservoir (long-term strategy):

2006 Brazos G Regional Water Plan[35]

In the 2006 plan, a comparison of total supplies available in the region with demand for all use categories in the region shows a surplus past the year 2050. These mask shortages that are projected to occur to individual water supply entities and water user groups. Shortages were shown for entities in 32 of the 37 counties in the Brazos G Area. The recommended water strategies included advanced water conservation, wastewater reuse, system operation of Brazos River Authority Reservoirs, conjunctive use, desalination, aquifer storage and recovery, brush management, weather modification, six new on-channel and five new off-channel reservoirs, regional interconnection, Carrizo-Wilcox aquifer development and voluntary redistribution. The total supply from these recommended water supplies is over 590,000 acre-feet per year at an estimated cost of over $1 billion.

2011 Brazos G Regional Water Plan[36]

In the 2011 plan, a comparison of total supplies available in the region (developed groundwater supplies and firm surface water) with demand for all use categories in the region shows a surplus past the year 2040. These mask shortages that are projected to occur to individual water supply entities and water user groups. Shortages are projected for Williamson County starting at about the year 2020, while overall regional supplies are projected to exceed regional demands until past the year 2040. Even within most counties that have projected overall surpluses, there are individual entities that do not have sufficient supply to meet projected needs. Shortages were shown for entities in 31 of the 37 counties in the Brazos G Area. The recommended water strategies included advanced water conservation, wastewater reuse, system operation of Brazos River Authority Reservoirs, conjunctive use, desalination, aquifer storage and recovery, brush management, weather modification, nine new on-channel and six new off-channel reservoirs, regional interconnection, Carrizo-Wilcox aquifer development, voluntary redistribution, storage reallocation of federal reservoirs and reservoir connections. The total supply from these recommended water supplies is over 587,000 acre-feet per year at an estimated cost of over $3 billion.

[35] Brazos G Regional Planning Group, January 2006, Regional Water Plan

[36] Brazos G Regional Planning Group, January 2011, Regional Water Plan

2016 Brazos G Regional Water Plan[37]

Municipal demands are developed assuming a hot, dry year, with 2011 typically selected as the basis for estimating daily per capita use values (GPCD) for each WUG. Conservation is considered first as a water management.

The 2016 Brazos G Regional Water Plan includes recommendations for 99,573 acft/yr of municipal conservation savings and another 46,662 acft/yr for wastewater reuse. The conservation savings are in excess of those already included in the TWDB demand projections. Conservation recommendations for several entities in Williamson County go beyond this and call for a reduction to a target of 120 GPCD by 2070.

Total new supplies of water into the Brazos G Area total 397,655 acft/yr, comprised of newly developed groundwater, supply transferred from other regions, newly developed surface water supplies, or supplies made available through conservation or augmentation of existing facilities. Total project costs for these new supplies exceed $2.5 billion.

System operation of the Brazos River Authority's reservoirs can increase supplies in the Brazos G Area by nearly 167,000 acft/yr (assuming interruptible supplies can be firmed up through conjunctive operation with other sources), with additional supplies available to the Region H Area in the lower basin. This strategy would more efficiently utilize the existing resources of the BRA by expanding the supply that can be developed from the BRA's existing reservoirs, thus delaying the need for new reservoirs to meet growing needs in the basin. Related to this, overdrafting of Lake Granger when the reservoir is nearly full and injecting part of this supply into the Trinity Aquifer through an Aquifer Storage and Recovery (ASR) project can yield an additional 9,050 acft/yr of supply when the ASR well field is operated in conjunction with Lake Granger to meet demands.

During the Brazos G regional water planning process, water management strategies such as additional development of Carrizo-Wilcox Aquifer groundwater and the Lake Granger Augmentation Project were preferred options to include in the 2016 Brazos G Regional Water Plan. When confronted by the Modeled Available Groundwater (MAG) limitations of these two options, the BGRWPG had little alternative but to make the Little River Off-Channel Reservoir a recommended strategy.

Water for Texas 2002[38]

This was the first State Water Plan to be adopted by the TWDB after the passage of SB1 in 1997. It was estimated that by 2050, almost 900 cities statewide (representing 38 percent of the projected population) and other water users will need either to reduce demand (through conservation and/or drought management) or develop additional sources of water beyond those currently available to meet their needs during droughts. The proposed water management strategies had an estimated cost of $17.9 billion.

[37] Brazos G Regional Planning Group, January 2016, Regional Water Plan

[38] Texas Water Development Board, January 2002, Texas State Water Plan.

Water for Texas 2007[39]

The state was projected to grow from 21 million people in 2000 to approximately 46 million people in 2060. It was estimated that Texas would need 8.8 million acre-feet of water by 2060 to meet this growth. The 16 Regional Water Planning Groups identified 4,500 water management strategies to provide an additional 9.0 million acre-feet of water. The estimated cost of these strategies was approximately $30.7 billion. Without this investment there would be a potential $9.1 billion impact to businesses and workers by 2020 with increased impact of $98.4 billion by 2060.

Water for Texas 2012[40]

The 16 Regional Water Planning Groups (Planning Groups) identified a total of 2,569 water user groups. Of those groups, 895 (35 percent) in 2020 would have water supply needs if the state were facing drought conditions, increasing to 1,085 (42 percent) in 2060. The Water Planning groups recommended feasible water management strategies to meet most of those needs. Solutions proposed by the Planning Groups include strategies such as the use of currently developed surface water and groundwater sources, conservation, reuse, new interbasin transfers, and development of additional groundwater and surface water resources. 26 new reservoirs were recommended by the Planning Groups to meet identified needs of the water user groups. The Planning Groups estimated total capital costs over the next 50 years to meet needs for additional water supplies at $53 billion, including $27 billion to implement strategies for municipal water user groups. Meeting these costs will require a long-term financial commitment from local political subdivisions, regional authorities, and the State of Texas.

Water for Texas 2017[41]

The 16 Regional Water Planning Groups (Planning Groups) identified a total of 4.76 million acre-feet per year of water needs in 2020, increasing to 8.89 million acre-feet/year by 2070. These needs include 511,000 acre-feet/year of municipal needs in 2020 and 3.41 million acre-feet/year in 2070, a 568 percent increase. The 16 regional water planning groups recommended about 5,500 water management strategies. The principal strategies to address those needs include demand management (mostly in the form of conservation) (30 percent of the supply recommended), reuse of wastewater (14 percent), additional groundwater development (10 percent), and surface water strategies (45 percent). Planning groups recommended 26 new major reservoir that would provide about 1.1 million acre-feet per year of new supplies. About 2,500 individual projects are associated with the recommended water management strategies, with an estimated implementation cost of $63 billion.

[39] Texas Water Development Board, January 2007, Texas State Water Plan.

[40] Texas Water Development Board, January 2012, Texas State Water Plan.

[41] Texas Water Development Board, January 2017, Texas State Water Plan.

1.13.2 Bosque County Regional Water Treatment and Distribution Facilities Plan

The *2001 Brazos G Regional Water Plan* identified several water users in Bosque County with shortages over the planning period. In an attempt to address this widely known shortage, the Brazos River Authority, Texas Water Development Board, and the Cities of Clifton and Meridian jointly sponsored a study to determine the regional water needs and to evaluate existing and proposed water facilities.

The study evaluated four alternatives to supply water to the different users, including individual treatment and delivery systems to a regional facility that would serve all participants. The study recommended the regional facility, which would include expansion of the City of Clifton's water treatment plant and interconnections to the other participants, including Clifton, Childress WSC, Meridian, Valley Mills and Walnut Springs.

1.13.3 Falls, Hill, Limestone, and McLennan Counties (FHLM) – TWDB Regional Water Facility Planning Study

FHLM WSC, in conjunction with 26 other entities, commissioned this study to evaluate the feasibility of developing a regional water infrastructure plan to serve existing and future populations through 2040 in the study area within Falls, Hill, Limestone, and McLennan Counties. Changes to the Maximum Contaminant Level (MCL) for arsenic published by the United States Environmental Protection Agency (USEPA) in 2001 caused a number of water systems to be non-compliant ue to naturally-occuring and elevated arsenic levels in local groundwater supplies. Additionally, regional declines in the Trinity Aquifer also created supply concerns beyond that of just the arsenic concentrations.

The study evaluated different alternatives for meeting the projects goals including blending of water with elevated arsenic concentrations, individual treatment systems violating the arsenic MCL, a new regional surface water treatment plant, and Carrizo-Aquifer development. The study recommended that the Carrizo-Wilcox Aquifer development project be implemented since it diversifies the water supply portfolio in a cost-effective manner for the member utilities while also securing long term water supplies. The study noted that individual treatment by affected utilities would provide the shortest development time period, and if a negotiated Agreed Order with the USEPA couldn't not be obtained for implementing the recommended Carrizo-Wilcox Regional Groundwater Project, individual treatment or blending should be pursued to satisfy USEPA requirements related to the arsenic MCL.

1.13.4 Regional Water Supply and Wastewater Service Study for Johnson and Parker Counties, Phase I

The Brazos River Authority and Tarrant Regional Water District (TRWD) jointly commissioned a study to investigate the feasibility of developing regional water supply and wastewater treatment facilities to serve the unmet needs of the two counties. The first phase of an anticipated two-phase study was completed in April 2004. The primary objective of the first phase was to identify and evaluate raw water supply and water and wastewater treatment concepts of mutual interest to the Authority, TRWD and their primary wholesale customers. Subject to the Phase I identification of concepts deemed worthy of

additional study, a Phase II study may further study those options that show promise from an engineering, economic, water quality and institutional standpoint.

Phase I of the study identified several water supply scenarios to serve water user groups with projected shortages in each county. The study focused on concepts that would blend the higher TDS water from the Brazos Basin with lower TDS water from the Trinity River Basin to reduce the need to desalinate the Brazos Basin water. The study concluded that a regional water treatment plant in northwest Johnson County treating a blend of BRA and TRWD water could economically serve a large area of northwest Johnson, southwest Tarrant and southeast Parker counties, including the new growth in Fort Worth's extraterritorial jurisdiction. A second option involved a plant in northeast Johnson County which could supply a large area with unmet needs including the rapidly growing areas around Mansfield and Burleson. Phase II of the study is intended to provide more detailed information required by stakeholders to allow them to further evaluate these concepts in relation to their own interests and potential participation in a regional system. Phase II has not been initiated to date.

1.13.5 West Central Brazos River Basin Regional Water Treatment and Distribution Facility Study

The Brazos River Authority, Texas Water Development Board, and the U.S. Economic Development Administration sponsored a water treatment and distribution study for water users in the upper Brazos River Basin. This study was initiated in response to the significant drought that occurred in the late 1990s and subsequent years, and developed a plan to meet demands 25 percent greater than projected needs in order to account for the future uncertainties of droughts.

The West Central Brazos River Basin Regional Water Treatment and Distribution Facility Plan evaluated the water needs in an 18-county area, assessed the economic impacts of water shortages and identified a plan to develop and efficiently utilize the water resources in the area. Specific concerns identified in the study included water quality of surface water sources, limited groundwater sources, and limited existing infrastructure to move water from areas with supply to areas with needs.

Recognizing the vulnerability of small surface lakes and the uncertainty of groundwater, this study focused on interconnecting existing supply sources and developing new supplies to provide a safe level of supply to water users and increase the reliability of existing sources to promote economic growth in the region. Collectively, over 25 potential water management strategies were evaluated to meet specific needs in the region. In addition, three general strategies (brush control, weather modification and salt water control) were reviewed as potential means to improve water quality and quantity in the region.

The study conducted numerous hydraulic analyses to evaluate the possibility of moving water through existing and improved infrastructure, including the West Central Brazos Distribution System in Stephens County (formerly the Kerr-McKee pipeline). Two scenarios demonstrated the greatest potential impact to the region:

- Interconnection between Abilene and North Central Texas MWA
- Interconnections among Shackelford WSC, Stephens County Rural WSC and the City of Throckmorton using the West Central Brazos Distribution System

Other major strategies recommended in this study include:

- Regional water treatment plant to treat water from Possum Kingdom Lake
- Connection from Lake Stamford to Throckmorton
- Turkey Peak Reservoir in Palo Pinto County
- Diverting water from the Clear Fork of the Brazos River to Hubbard Creek Lake and increasing the capacity to transport water to Abilene

1.14 Summary of Water Loss Audits in Brazos G Area

Retail public water utilities are required to complete and submit a water loss audit form to the Texas Water Development Board. The first water loss audit reports were submitted to the TWDB by March 31, 2006. Entities with greater than 3,300 connections are required to submit their water loss audit to TWDB on an annual basis. In addition, all other retail public suppliers are required to submit a water loss audit once every five years with the next scheduled audit due May 1, 2021. Recently passed legislation requires that water loss audits be completed by a person trained to conduct water loss auditing. The TWDB offers in-person training across the State and also offers the training through an online Water Loss Auditor Training Video. The water audit reporting requirements follow the International Water Association (IWA) and American Water Works Association (AWWA) Water Loss Control Committee methodology.

The primary purposes of a water loss audit are to account for all of the water being used and to identify potential areas where water can be saved. Water losses are classified as either apparent loss or real loss. Apparent loss is the water that has been used but has not been tracked. It includes losses associated with inaccurate meters, billing adjustment and waivers, and unauthorized consumption. Real loss is the actual water loss of water from the system, and includes main breaks and leaks, customer service line breaks and leaks, and storage overflows. The sum of the apparent loss and the real loss make up the total water loss for a utility.

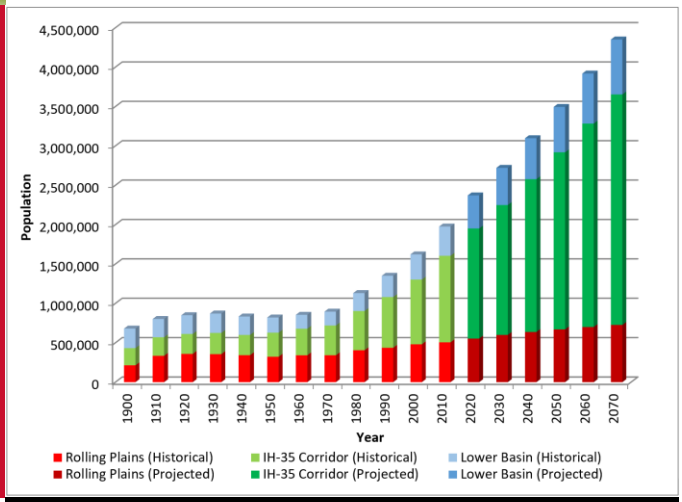
In the Brazos G Area in 2017, sixty public water suppliers submitted a water loss audit to TWDB. Table 1-14 summarizes the water loss audit information that was collected by the TWDB for the 2017 calendar year. The average total water loss was nearly 19%, which is higher than the 2017 statewide average of 14.56%. The region encourages the reduction in water loss where feasible.

Table 1-14. Summary of Water Loss Audits in the Brazos G Area

Statistic	Real Loss for WUGs with Less than 32 Connections per Mile (gal/mi/day)	Real Loss for WUGs with 32 or More Connections per Mile (gal/mi/day)	Apparent Daily Loss (gal/connection /day)	Total Water Use (GPCD)	Water Loss (GPCD)	Total Water Loss (%)
Median	473.08	33.42	6.04	115.14	18.91	16.42
Average	776.21	42.96	9.19	119.16	22.63	18.99

2

Projected Population and Water Demands



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2 Projected Population and Water Demands

2.1 Introduction

The Texas Water Development Board (TWDB) publishes population and water demand projections for each county in the state for use by the regional water planning groups. Population projections were developed for municipal water user groups (WUGs), which are defined as private or publically-owned water systems that provide more than 100 acre-feet per year (acft/yr) for municipal use, and "County-Other" to capture those people living outside the WUG-sized utilities. In the Brazos G Area, population projections were completed for 283 municipal WUGs, including 37 County-Other WUGs. Multiple municipal WUGs are located in more than one county, resulting in 389 individual municipal WUG projections when the portions of WUGs located in different counties are separated. Water demand projections were also developed for other types of use on a county-wide basis, including manufacturing, steam-electric, mining, irrigation, and livestock uses.

The TWDB has adopted several revisions to the population and water demand projections for the Brazos G Area, as suggested by the Brazos G regional water planning group (RWPG). Revisions have been made to the census-based population projections, and municipal, manufacturing, irrigation and steam-electric water demand projections. Revisions to the population and municipal water demand projections for municipal WUGs resulted from coordination with individual utilities and included modifications to both population and/or projected per-capita water use (gallons per capita daily [gpcd]) projections. Water demand projections for mining use in Lee and Robertson Counties were revised to reflect input from industry and the Brazos G RWPG.

2.2 Population Projections

As shown in Figure 2-1, the population of the 37-county area is projected to increase from 2,371,598 in 2020 to 4,351,969 in 2070, an increase of 184 percent (1.4 percent annual growth). This is somewhat greater than the projected statewide population growth during the same period of 105 percent (1.2 percent annually). In 2070, it is projected that 34 percent of the Brazos G Area population will live in Williamson County, 16 percent in Bell County, 11 percent in Brazos County, 8 percent in McLennan County, 8 percent in Johnson County, 4 percent in Taylor County, 3 percent in Coryell County, and 16 percent among remaining counties. Projections and growth rates for each of the 37 counties and 283 WUGs, including "County-Other," in the Brazos G Area are presented in Table 2-1.

Growth in the Brazos G Area is concentrated along the Interstate Highway 35 (IH-35) corridor, stretching from Williamson County in the south to Johnson County in the north. Growth is also taking place along US Highway 183 in Williamson and Lampasas counties, Taylor and Jones counties (Abilene area), and Brazos County (Bryan/College Station area). Williamson County is projected to be the fastest growing county between 2020 and 2070, growing at 2.5 percent annually. Bell, Brazos, Bosque, Coryell, Hood, Johnson, and Williamson, Robertson counties are all projected to grow at 1.0 percent or more annually. A comparison of the annual growth rates for all the counties is shown in Figure 2-2.

Figure 2-1. Population Projections

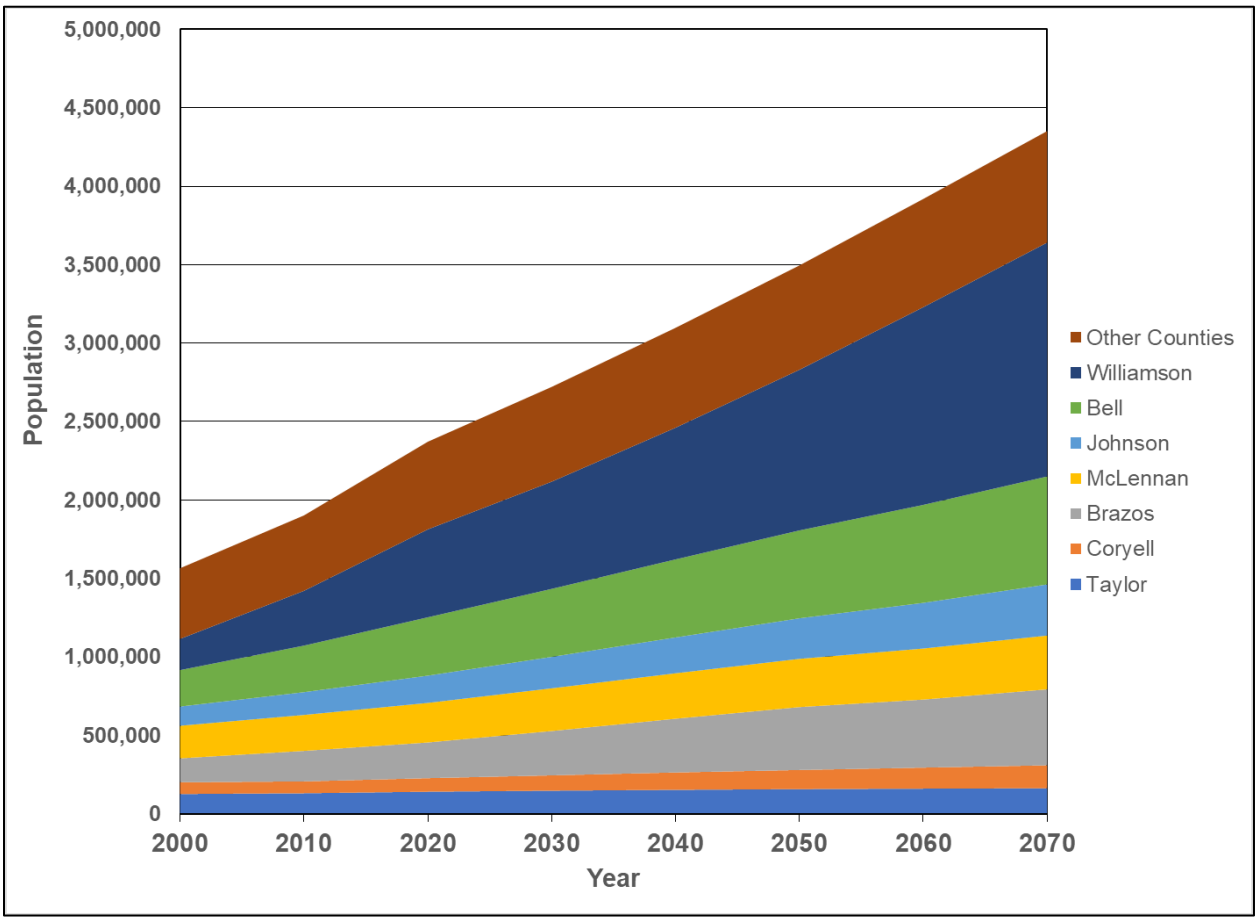


Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Bell County										
439 WSC	5,274	5,598	10,220	12,327	14,490	16,700	18,961	21,285	0.60%	1.36%
Armstrong WSC	1,980	2,143	2,616	2,810	2,994	3,168	3,338	3,507	0.79%	0.56%
Bartlett (P)	818	690	827	972	1,123	1,272	1,417	1,561	-1.69%	1.34%
Bell County WCID 2	-	-	2,239	2,535	2,835	3,130	3,419	3,704	-	-
Bell County WCID 3	-	-	7,403	10,072	13,930	16,468	18,362	20,216	-	-
Bell-Milam-Falls WSC (P)	1,980	2,153	2,255	2,430	2,596	2,754	2,909	3,061	0.84%	0.59%
Belton	14,623	18,216	21,753	25,571	29,514	33,433	37,278	41,063	2.22%	1.34%
Central Texas College District	-	-	70	71	71	71	71	71	-	-
County-Other	-	-	2,694	2,971	3,248	3,525	7,405	11,107	-	-
Dog Ridge WSC	3,534	2,623	5,211	6,126	7,070	8,008	8,930	9,836	-2.94%	1.34%
East Bell County WSC (P)	2,274	3,011	3,486	4,122	4,781	5,436	6,079	6,710	2.85%	1.38%
Elm Creek WSC (P)	1,445	1,947	2,257	2,685	3,129	3,572	4,006	4,434	3.03%	1.43%
Fort Hood CDP (P)	17,282	15,174	16,936	17,196	17,282	17,282	17,282	17,282	-1.29%	0.22%
Georgetown	-	-	2,967	3,488	4,027	4,562	5,086	5,602	-	-
Harker Heights	17,308	26,700	31,372	36,879	42,566	48,218	53,763	59,222	4.43%	1.34%
Holland	1,102	1,121	1,100	1,132	1,154	1,172	1,189	1,206	0.17%	0.15%
Jarrell-Schwertner WSC (P)	1,231	1,141	2,264	2,826	3,488	4,182	4,956	5,751	-0.76%	1.34%
Kempner WSC (P)	2,471	1,671	1,900	2,166	2,393	2,603	2,803	2,991	-3.84%	1.34%
Killeen	86,911	127,921	144,243	169,560	195,711	221,697	247,195	272,291	3.94%	1.34%
Little Elm Valley WSC (P)	-	-	1,505	1,769	2,042	2,313	2,580	2,842	-	-
Moffat WSC	3,732	3,931	4,019	4,242	4,440	4,621	4,799	4,974	0.52%	0.39%
Morgans Point Resort	2,989	4,170	5,077	6,110	7,187	8,261	9,315	10,353	3.39%	1.53%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Pendleton WSC	2,431	2,592	2,284	2,430	2,565	2,691	2,813	2,934	0.64%	0.01%
Rodgers	1,117	1,218	1,343	1,450	1,551	1,648	1,743	1,837	0.87%	0.61%
Salado WSC	3,847	4,391	6,001	6,648	7,288	7,913	8,525	9,128	1.33%	1.03%
Temple	54,514	66,102	81,736	96,082	110,900	125,626	140,074	154,295	1.95%	1.34%
The Grove WSC (P)	-	-	1,218	1,306	1,509	1,709	1,904	2,098	-	-
Troy	-	-	2,049	2,321	2,598	2,869	3,136	3,398	-	-
West Bell County WSC	5,456	4,263	4,911	5,321	5,348	5,348	5,348	5,348	-2.44%	0.41%
Bell County Total	232,319	296,776	371,956	433,618	497,830	560,252	624,686	688,107	2.48%	1.41%
Bosque County										
Childress Creek WSC	2,091	2,382	2,226	2,432	2,537	2,602	2,644	2,670	1.31%	0.49%
Clifton	3,542	3,442	3,859	4,215	4,398	4,513	4,585	4,629	-0.29%	0.49%
County-Other	-	-	5,645	6,189	6,442	6,564	6,609	6,806	-	-
Cross Country WSC (P)	178	660	756	825	860	883	897	905	14.00%	0.48%
Highland Park WSC (P)			415	452	474	491	505	516		
Hilco United Services (P)	-	-	1,420	1,530	1,610	1,694	1,774	1,863	-	-
Meridian	1,491	1,493	1,764	1,927	2,011	2,062	2,097	2,117	0.01%	0.49%
Mustand Valley WSC	-	-	2,104	2,299	2,399	2,459	2,500	2,525	-	-
Smith Bend WSC	-	-	751	820	856	878	892	689	-	-
Valley Mills (P)	1,120	1,190	1,370	1,495	1,560	1,601	1,626	1,642	0.61%	0.49%
Bosque County Total	8,422	9,167	20,310	22,184	23,147	23,747	24,129	24,362	0.85%	1.64%
Brazos County										
Bryan	65,660	76,201	84,196	99,959	118,714	140,827	167,176	211,266	1.50%	1.46%
College Station	57,404	83,714	100,854	129,102	165,261	195,852	195,852	195,852	3.85%	1.59%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
County-Other	6,572	8,683	2,687	2,687	2,687	2,687	2,687	2,687	2.82%	-0.45%
Texas A&M University	10,486	10,143	11,851	12,000	12,000	12,000	12,000	12,000	-0.33%	0.28%
Wellborn SUD	6,550	8,106	16,864	25,740	29,094	32,870	37,074	41,402	2.15%	1.31%
Wickson Creek SUD (P)	5,743	8,004	11,202	12,965	14,731	16,815	18,992	21,339	3.38%	1.69%
Brazos County Total	152,415	194,851	227,654	282,453	342,487	401,051	433,781	484,546	2.49%	1.53%
Burleson County										
Caldwell	3,449	4,104	4,896	5,060	5,276	5,312	5,412	5,498	1.75%	0.49%
County-Other	6,439	5,825	5,502	6,273	6,488	7,021	7,262	7,402	-1.00%	0.49%
Deanville WSC	2,570	2,900	3,186	3,244	3,379	3,356	3,401	3,440	1.22%	0.49%
Milano WSC (P)	1,447	1,730	1,774	1,908	1,994	2,079	2,146	2,203	1.80%	0.49%
Snook	568	511	865	930	970	1,013	1,045	1,072	-1.05%	0.49%
Somerville	1,704	1,376	1,530	1,686	1,848	2,033	2,226	2,432	-2.12%	0.49%
Southwest Milam WSC (P)	293	741	786	845	883	921	950	975	9.72%	0.49%
Burleson County Total	16,470	17,187	18,539	19,946	20,838	21,735	22,442	23,022	0.43%	0.49%
Callahan County										
Baird	1,623	1,496	1,601	1,601	1,601	1,601	1,601	1,601	-0.81%	0.00%
Callahan County WSC (P)	-	-	2,097	2,245	2,326	2,367	2,399	2,418	-	-
Clyde	3,344	3,713	3,792	4,060	4,205	4,280	4,337	4,372	1.05%	0.35%
Coleman County WSC (P)	392	150	241	258	267	273	276	277	-9.16%	0.35%
County-Other	6,408	7,133	2,887	3,206	3,383	3,471	3,535	3,578	1.08%	0.41%
Cross Plains	1,068	982	1,134	1,214	1,257	1,280	1,296	1,307	-0.84%	0.35%
EULA WSC	-	-	2,499	2,676	2,771	2,823	2,860	2,884	-	-
Hamby WSC (P)	-	-	152	159	163	167	169	171	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Potosi WSC (P)	70	70	79	85	88	89	91	92	0.00%	0.36%
Callahan County Total	12,905	13,544	14,482	15,504	16,061	16,351	16,564	16,700	0.48%	0.35%
Comanche County										
Comanche	4,482	4,335	4,491	4,670	4,791	4,947	5,081	5,208	-0.33%	0.31%
County-Other	7,111	7,393	7,715	8,021	8,228	8,498	8,728	8,944	0.39%	0.31%
De Leon	2,433	2,246	2,296	2,387	2,448	2,529	2,597	2,662	-0.80%	0.31%
Comanche County Total	14,026	13,974	14,502	15,078	15,467	15,974	16,406	16,814	-0.04%	0.31%
Coryell County										
Central Texas College District	-	-	710	710	710	710	710	710	-	-
Copperas Cove (P)	29,455	31,457	35,213	39,984	45,294	49,935	54,882	59,807	0.66%	1.11%
Coryell City Water Supply District	3,221	4,334	4,950	5,619	6,366	7,019	7,714	8,407	3.01%	1.11%
County-Other	4,183	3,844	2,474	4,864	7,599	9,942	12,494	15,050	-0.84%	2.70%
Elm Creek WSC (P)	320	358	395	450	509	561	617	673	1.13%	1.11%
Flat WSC	-	-	467	530	601	662	727	793	-	-
Fort Gates WSC	-	-	1,913	2,173	2,461	2,714	2,983	3,250	-	-
Fort Hood CDP (P)	16,429	14,415	14,014	14,014	14,014	14,014	14,014	14,014	-1.30%	0.22%
Gatesville	15,591	15,751	17,489	19,858	22,494	24,799	27,257	29,702	0.10%	1.11%
Kempner WSC	3,409	2,712	3,542	3,978	4,371	4,755	5,120	5,463	-2.26%	1.11%
Mountain WSC	-	-	1,639	1,861	2,109	2,326	2,555	2,785	-	-
Multi-County WSC (P)	2,370	2,517	2,445	2,777	3,145	3,468	3,811	4,153	0.60%	1.11%
Mustang Valley WSC	-	-	28	30	31	33	33	33	-	-
Oglesby	-	-	645	732	829	914	1,005	1,095	-	-
The Grove WSC (P)	-	-	181	191	219	249	277	305	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Coryell County Total	74,978	75,388	86,105	97,771	110,752	122,101	134,199	146,240	0.05%	1.11%
Eastland County										
Cisco	3,851	3,899	4,108	4,197	4,201	4,203	4,203	4,203	0.12%	0.10%
County-Other	6,009	6,217	5,211	5,326	5,331	5,331	5,331	5,331	0.34%	0.10%
Eastland	3,769	3,960	3,946	4,032	4,035	4,035	4,035	4,035	0.50%	0.10%
Fort Griffin SUD (P)	-	-	12	14	14	14	14	14	-	-
Gorman	1,236	1,083	1,082	1,106	1,107	1,107	1,107	1,107	-1.31%	0.10%
Ranger	2,584	2,468	2,654	2,712	2,715	2,715	2,715	2,715	-0.46%	0.10%
Rising Star	835	835	867	886	887	887	887	887	0.00%	0.10%
Staff WSC	-	-	1,269	1,295	1,296	1,296	1,296	1,296	-	-
Stephens Regional SUD (P)	13	121	140	144	144	144	144	144	24.99%	0.11%
Eastland County Total	18,297	18,583	19,289	19,712	19,730	19,732	19,732	19,732	0.16%	0.10%
Erath County										
County-Other	14,326	17,113	18,611	20,848	22,698	24,811	26,462	27,989	1.79%	0.82%
Dublin	3,754	3,654	4,449	4,833	5,198	5,199	5,545	5,864	-0.27%	0.82%
Gordon	-	-	31	33	35	36	37	38	-	-
Stephenville	14,921	17,123	19,044	21,209	23,037	24,781	26,430	27,953	1.39%	0.82%
Erath County Total	33,001	37,890	42,135	46,923	50,968	54,827	58,474	61,844	1.39%	0.82%
Falls County										
Bell-Milam-Falls WSC (P)	915	1,199	1,149	1,207	1,221	1,191	1,228	1,265	2.74%	0.30%
Burceville-Eddy (P)	2	4	1,061	1,144	1,507	1,599	1,691	1,782	7.18%	0.00%
Cego-Durango WSC	-	-	1,054	1,108	1,119	1,093	1,126	1,160	-	-
County-Other	3,432	3,817	6,108	6,380	6,082	5,797	5,916	6,047	1.07%	0.30%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
East Bell County WSC (P)	612	300	318	335	338	329	340	349	-6.88%	0.30%
Little Elm Valley WSC (P)	-	-	78	90	104	117	131	144	-	-
Marlin	6,628	5,967	6,772	7,115	7,189	7,020	7,233	7,453	-1.05%	0.30%
North Milam WSC (P)	-	-	17	17	19	20	20	21	-	-
Rosebud	1,493	1,412	1,553	1,632	1,648	1,610	1,659	1,709	-0.56%	0.30%
West Brazos WSC (P)	1,820	1,366	1,303	1,369	1,383	1,350	1,392	1,434	-2.83%	0.30%
Falls County Total	14,902	14,065	19,413	20,397	20,610	20,126	20,736	21,364	-0.58%	0.70%
Fisher County										
Bitter Creek WSC (P)	1,150	839	1,013	1,013	1,013	1,013	1,013	1,013	-3.10%	0.01%
County-Other	910	984	655	655	655	655	655	655	0.78%	0.01%
Roby	673	643	666	666	666	666	666	666	-0.45%	0.01%
Rotan	1,611	1,508	1,667	1,667	1,667	1,667	1,667	1,667	-0.66%	0.01%
Fisher County Total	4,344	3,974	4,001	4,001	4,001	4,001	4,001	4,001	-0.89%	0.01%
Grimes County										
County-Other	11,388	12,048	8,833	9,035	9,064	9,032	8,873	8,604	0.56%	0.36%
Dobbin-Plantersville WSC	1,560	1,976	1,794	2,078	2,294	2,522	2,710	2,875	2.39%	1.09%
G&W WSC	1,023	2,441	3,528	4,723	5,629	6,587	7,381	8,075	9.09%	2.12%
Navasota	6,789	7,049	7,529	7,771	7,955	8,149	8,310	8,450	0.38%	0.25%
TDCJ Luther Units	-	-	1,478	1,615	1,720	1,830	1,922	2,001	-	-
TDCJ W Pack Units	-	-	1,687	1,845	1,964	2,089	2,194	2,285	-	-
Wickson Creek SUD (P)	2,792	3,090	4,592	5,112	5,632	6,245	6,887	7,577	1.02%	0.59%
Grimes County Total	23552	26,604	29,441	32,179	34,258	36,454	38,277	39,867	1.23%	0.68%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Hamilton County										
County-Other	3,281	3,374	3,387	3,431	3,431	3,431	3,431	3,431	0.28%	0.03%
Hamilton	2,977	3,095	3,114	3,172	3,172	3,172	3,172	3,172	0.39%	0.04%
Hico	1,341	1,379	1,385	1,404	1,404	1,404	1,404	1,404	0.28%	0.03%
Multi-County WSC (P)	630	669	676	696	696	696	696	696	0.60%	0.07%
Hamilton County Total	8,229	8,517	8,562	8,703	8,703	8,703	8,703	8,703	0.34%	0.04%
Haskell County										
County-Other	2,246	1,908	2,640	2,667	2,680	2,708	2,746	2,805	-1.62%	0.10%
Haskell	3,106	3,322	3,239	3,272	3,290	3,322	3,372	3,444	0.67%	0.11%
Stamford (P)	43	33	34	34	34	34	35	36	-2.61%	0.15%
Haskell County Total	5,395	5,263	5,913	5,973	6,004	6,064	6,153	6,285	-0.25%	0.30%
Hill County										
Birome WSC (P)	-	-	741	789	822	855	881	901	-	-
Bold Springs WSC (P)	-	-	155	167	178	188	199	209	-	-
Brandon-Irene WSC (P)	2,009	1,796	1,750	1,863	1,940	2,018	2,080	2,126	-1.11%	0.45%
Chatt WSC	-	-	726	772	805	837	862	882	-	-
County-Other	5,784	8,069	1,974	2,166	2,141	2,102	1,936	1,881	3.39%	0.45%
Double Diamond Utilities (P)	-	-	1,863	1,939	2,018	2,078	2,126	2,213	-	-
Files Valley WSC (P)	1,963	2,449	2,538	2,702	2,812	2,928	3,014	3,065	2.24%	0.45%
Gholson WSC	-	-	677	752	818	885	952	1,017	-	-
Hilco United Services (P)	8,232	8,456	4,039	4,352	4,579	4,819	5,048	5,201	0.27%	0.45%
Hill County WSC	-	-	3,446	3,669	3,820	3,976	4,093	4,189	-	-
Hillsboro	-	-	9,313	9,916	10,324	10,744	11,063	11,226	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Hubbard	1,586	1,423	1,585	1,687	1,756	1,827	1,882	1,912	-1.08%	0.45%
Itasca	1,503	1,644	1,727	1,839	1,914	1,991	2,051	2,099	0.90%	0.45%
Johnson County SUD (P)	177	202	135	148	165	182	199	216	1.33%	0.45%
Parker WSC (P)	371	275	285	303	316	329	338	345	-2.95%	0.45%
Post Oak SUD	-	-	898	963	1,020	1,112	1,239	1,369	-	-
Whitney	1,833	2,087	2,570	2,624	2,732	2,843	2,928	2,997	1.31%	0.45%
Woodrow-Osceola WSC	5,396	3,900	3,406	3,626	3,775	3,929	4,046	4,141	-3.19%	0.45%
Hill County Total	28,854	30,301	37,828	40,277	41,935	43,643	44,937	45,989	0.49%	0.70%
Hood County										
Acton MUD (P)	12,222	13,689	19,353	31,209	39,017	43,099	47,606	52,589	1.14%	2.29%
County-Other	17,508	22,875	25,280	19,711	16,411	16,208	14,682	11,981	2.71%	-0.57%
Granbury	5,718	7,978	14,656	17,791	20,037	21,972	23,458	24,596	3.39%	1.29%
Lipan	-	-	946	1,098	1,206	1,299	1,370	1,425	-	-
Santo SUD (P)	-	-	55	60	63	67	70	75	-	-
Tolar	504	681	1,026	1,230	1,377	1,502	1,599	1,673	3.06%	1.21%
Hood County Total	35,952	45,223	61,316	71,099	78,111	84,147	88,785	92,339	2.32%	1.20%
Johnson County										
Acton MUD (P)	101	245	255	411	514	569	627	693	9.27%	2.81%
Alvarado	3,288	3,785	4,174	4,715	5,273	5,884	6,544	7,250	1.42%	1.12%
Bethany WSC	3000	3466	3879	4392	4921	5501	6,127	6,797	1.45%	1.14%
Bethesda WSC (P)	14,650	13,493	18,180	20,976	23,861	27,024	30,437	34,090	-0.82%	1.29%
Burleson (P)	17514	29111	34351	41851	48862	53368	59,303	66,588	5.21%	1.43%
Cleburne	26,005	29,337	38,220	42,564	51,236	60,121	70,546	78,919	1.21%	1.01%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
County-Other	15,969	14,888	8,874	10,757	8,035	4,397	1,390	1,500	-0.70%	-0.10%
Crowley	0	31	61	96	132	170	212	257	-	3.59%
Double Diamond Utilities (P)	-	-	122	127	132	136	139	249	-	-
Fort Worth	0	0	0	0	0	5,036	8,057	10,072	-	-
Godley	879	1,009	1,009	1,139	1,271	1,418	1,574	1,743	1.39%	1.11%
Grandview	1,358	1,561	1,755	1,981	2,214	2,470	2,745	3,039	1.40%	1.12%
Johnson County SUD (P)	28,333	32,415	42,033	45,973	51,300	56,628	61,955	67,282	1.36%	1.29%
Keene	5,003	6,106	7,307	8,557	9,846	11,260	12,785	14,416	2.01%	1.41%
Mansfield (P)	622	1,652	2,576	3,695	4,849	6,115	7,481	8,942	10.26%	2.89%
Mountain Peak SUD (P)	1,200	1,585	3,579	4,362	5,170	6,056	7,012	8,035	2.82%	1.71%
Parker WSC (P)	1,753	2,464	3,008	3,763	4,544	5,398	6,320	7,307	3.46%	1.90%
Rio Vista	656	873	1,117	1,366	1,623	1,906	2,210	2,535	2.90%	1.74%
Venus (P)	1,892	2,895	3,335	3,848	4,377	4,957	5,583	6,253	4.35%	1.29%
Johnson County Total	122,223	144,916	173,835	200,573	228,160	258,414	291,047	325,967	1.72%	1.36%
Jones County										
Abilene (P)	5,488	5,145	5,203	5,508	5,721	5,904	6,056	6,180	-0.64%	0.39%
Anson	2,556	2,430	2,565	2,716	2,821	2,912	2,986	3,047	-0.50%	0.39%
County-Other	1,248	2,096	2,853	3,026	3,154	3,260	3,354	3,428	5.32%	0.38%
Hamby WSC (P)	-	-	449	471	483	493	500	506	-	-
Hamlin	2,248	2,124	2,254	2,386	2,478	2,559	2,623	2,678	-0.57%	0.39%
Hawley WSC (P)	5,006	4,682	4,795	5,070	5,266	5,433	5,570	5,681	-0.67%	0.39%
Stamford (P)	3,593	3,091	3,305	3,499	3,635	3,751	3,848	3,926	-1.49%	0.39%
Jones County Total	20,139	19,568	21,424	22,676	23,558	24,312	24,937	25,446	-0.29%	0.44%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Kent County										
County-Other	346	274	116	134	134	134	134	134	-2.31%	0.01%
Jayton	513	534	682	682	682	682	682	682	0.40%	0.02%
Kent County Total	859	808	798	816	816	816	816	816	-0.61%	0.02%
Knox County										
Baylor SUD (P)	-	-	7	7	7	7	7	7	-	-
County-Other	1,507	1,289	1,255	1,297	1,326	1,358	1,385	1,407	-1.55%	0.25%
Knox City	1,219	1,130	1,147	1,194	1,218	1,247	1,270	1,290	-0.76%	0.25%
Munday	1,527	1,300	1,327	1,381	1,410	1,443	1,470	1,492	-1.60%	0.25%
Red River Authority of Texas	-	-	111	124	125	128	128	129	-	-
Knox County Total	4,253	3,719	3,847	4,003	4,086	4,183	4,260	4,325	-1.33%	0.25%
Lampasas County										
Copperas Cove (P)	137	575	1,040	1,401	1,759	2,126	2,450	2,742	15.42%	2.85%
Corix Utilities Texas Inc. (P)	-	-	2,226	2,280	2,417	2,562	2,664	2,770	-	-
County-Other	5,972	2,518	1,119	1,167	1,028	882	780	672	-8.27%	-0.63%
Kempner WSC (P)	3,081	7,958	9,563	10,572	11,350	12,146	12,851	13,485	9.95%	0.75%
Lampasas	6,786	6,681	7,852	8,680	9,320	9,973	10,551	11,072	-0.16%	0.75%
Lampasas County Total	15,976	17,732	21,800	24,100	25,874	27,689	29,296	30,741	1.05%	0.92%
Lee County										
Aqua WSC (P)	2,604	2,460	2,832	3,184	3,386	3,460	3,509	3,536	-0.57%	0.61%
County-Other	2,418	1,623	1,286	1,445	1,538	1,568	1,593	1,606	-3.91%	0.61%
Giddings	5,105	4,881	5,792	6,512	6,927	7,078	7,179	7,233	-0.45%	0.61%
Lee County WSC (P)	4,125	6,213	7,557	8,497	9,036	9,233	9,365	9,435	4.18%	0.61%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Lexington	1,178	1,177	1,373	1,545	1,642	1,679	1,702	1,715	-0.01%	0.61%
Southwest Milam WSC (P)	227	258	291	328	348	357	361	364	1.29%	0.61%
Lee County Total	15,657	16,612	19,131	21,511	22,877	23,375	23,709	23,889	0.59%	0.61%
Limestone County										
Birome WSC (P)	-	-	98	105	109	113	117	118	-	-
Bistone Municipal Water Supply District	-	-	586	615	635	665	690	704	-	-
Coolidge	848	955	1,074	1,190	1,285	1,389	1,474	1,534	1.20%	0.84%
County-Other	8,766	9,034	3,270	3,161	3,143	3,196	3,120	3,313	0.30%	0.26%
Groesbeck	4,291	4,328	4,377	4,419	4,453	4,490	4,520	4,502	0.09%	0.08%
Mart (P)	0	2	5	8	10	12	14	16		3.53%
Mexia	6,563	7,459	8,458	9,432	10,223	11,092	11,797	12,296	1.29%	0.89%
Point Enterprise WSC	-	-	782	825	858	889	916	935	-	-
Point Oak SUD	-	-	152	163	173	185	199	213	-	-
Prairie Hill WSC (P)	-	-	846	903	951	1,002	1,048	1,079	-	-
SLC WSC	-	-	1,229	1,302	1,361	1,426	1,478	1,509	-	-
Tri-County SUD (P)	1,059	1,080	2,128	2,236	2,259	2,206	2,273	2,319	0.20%	0.18%
White Rock WSC	-	-	2,131	2,256	2,357	2,469	2,560	2,614	-	-
Limestone County Total	21,527	22,858	25,136	26,615	27,817	29,134	30,206	31,152	0.60%	0.52%
McLennan County										
Axtell WSC	-	-	1,378	1,487	1,584	1,681	1,778	1,873	-	-
Bellmead	9,214	9,901	10,398	11,037	11,602	12,170	12,736	13,292	0.72%	0.50%
Birome WSC (P)	-	-	471	502	522	543	560	573	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Bold Springs WSC (P)	-	-	1,780	1,920	2,040	2,162	2,282	2,399	-	-
Bruceville-Eddy (P)	1,488	1,471	4,522	4,879	4,907	5,207	5,506	5,799	-0.11%	0.63%
Central Bosque WSC	-	-	856	925	985	1,045	1,105	1,164	-	-
Chalk Bluff WSC	2,700	2,646	2,646	2,646	2,646	2,646	2,646	2,646	-0.20%	0.00%
Coryell City Water Supply District (P)	469	631	763	915	1,049	1,184	1,319	1,451	3.01%	1.40%
County-Other	25,112	27,641	9,914	8,377	7,334	6,003	4,688	3,404	0.96%	-0.01%
Crawford	705	717	727	739	749	759	769	779	0.17%	0.14%
Cross County WSC (P)	2,372	2,409	2,503	2,540	2,571	2,603	2,636	2,667	0.15%	0.13%
East Crawford	-	-	967	1,044	1,111	1,179	1,247	1,314	-	-
Elm Creek WSC (P)	1,343	1,631	1,807	2,069	2,300	2,532	2,764	2,992	1.96%	1.07%
EOL WSC	-	-	1,894	2,044	2,177	2,311	2,443	2,574	-	-
Gholson	922	1,061	1,760	1,956	2,129	2,302	2,476	2,645	1.41%	0.85%
H&H WSC	-	-	1,607	1,734	1,846	1,961	2,073	2,182	-	-
Hewitt	11,085	13,549	17,373	19,949	22,225	24,514	26,795	29,034	2.03%	1.09%
Highland Park WSC (P)	-	-	170	186	195	202	207	212	-	-
Hilltop WSC	-	-	819	885	941	999	1,057	1,113	-	-
Lacy-Lakeview	5,764	6,489	6,831	7,487	8,064	8,647	9,227	9,797	1.19%	0.75%
Leroy Tours Gerald WSC	-	-	1,371	1,480	1,576	1,673	1,769	1,863	-	-
Levi WSC	-	-	912	984	1,047	1,112	1,176	1,239	-	-
Lorena	1,433	1,691	1,968	2,218	2,440	2,662	2,884	3,101	1.67%	0.96%
Mart (P)	2,273	2,207	2,370	2,558	2,724	2,891	3,057	3,221	-0.29%	0.63%
McGregor	4,727	4,987	5,234	5,480	5,696	5,915	6,132	6,346	0.54%	0.39%
Mclennan County WCID 2	-	-	1,762	1,902	2,025	2,149	2,273	2,395	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Moody	1,400	1,371	1,566	1,690	1,800	1,911	2,020	2,129	-0.21%	0.63%
North Bosque WSC	1,350	1,950	2,229	2,743	3,197	3,653	4,108	4,554	3.75%	1.57%
Prairie Hill WSC (P)			611	652	687	723	756	787		
Riesel	973	1,007	1,241	1,279	1,314	1,348	1,383	1,417	0.34%	0.27%
Robinson	7,845	10,509	12,851	15,380	17,613	19,859	22,099	24,296	2.97%	1.38%
Ross WSC	-	-	2,336	2,521	2,684	2,849	3,013	3,175	-	-
Spring Valley WSC	-	-	1,934	2,088	2,223	2,359	2,495	2,628	-	-
Texas State Technical College	-	-	579	624	664	704	743	783	-	-
Valley Mills (P)	3	13	23	33	42	52	61	70	15.79%	2.80%
Waco	113,726	124,805	132,512	142,778	151,846	160,966	170,055	178,976	0.93%	0.62%
West	2,692	2,807	2,706	2,807	2,896	2,986	3,075	3,163	0.42%	0.32%
West Brazos WSC (P)	1,614	1,208	1,139	1,229	1,309	1,390	1,470	1,548	-2.86%	0.63%
Windsor Water	-	-	636	687	731	776	821	864	-	-
Woodway	8,733	8,452	9,045	9,762	10,396	11,033	11,669	12,292	-0.33%	0.63%
McLennan County Total	207,943	229,153	252,211	272,216	289,887	307,661	325,373	342,757	0.98%	0.67%
Milam County										
Bell-Milam-Falls WSC (P)	1,327	1,610	1,506	1,596	1,659	1,739	1,808	1,873	1.95%	0.46%
Cameron	5,634	5,552	5,904	6,254	6,504	6,820	7,089	7,343	-0.15%	0.46%
County-Other	3,186	2,305	1,050	1,111	1,156	1,212	1,262	1,306	-3.19%	0.46%
Milano WSC (P)	1,568	1,828	1,841	1,951	2,027	2,127	2,210	2,290	1.55%	0.46%
North Milam WSC (P)	-	-	1,410	1,494	1,553	1,629	1,693	1,753	-	-
Rockdale	5,439	5,595	6,004	6,362	6,613	6,934	7,210	7,468	0.28%	0.46%
Salem Elm Ridge WSC	-	-	842	892	927	973	1,011	1,047	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Southwest Milam WSC (P)	5,419	6,018	6,262	6,634	6,898	7,232	7,519	7,789	1.05%	0.46%
Thorndale	1,278	1,334	1,415	1,499	1,559	1,634	1,699	1,760	0.43%	0.46%
Milam County Total	23,851	24,242	26,234	27,793	28,896	30,300	31,501	32,629	0.16%	0.50%
Nolan County										
County-Other	1,893	1,838	1,074	1,135	1,175	1,220	1,257	1,286	-0.29%	0.40%
Roscoe	1,378	1,322	1,402	1,481	1,535	1,593	1,639	1,679	-0.41%	0.40%
Sweetwater	11,415	10,906	12,196	12,880	13,347	13,852	14,258	14,609	-0.46%	0.40%
The Bitter Creek WSC	-	-	1,462	1,543	1,600	1,660	1,709	1,751	-	-
Nolan County Total	14,686	14,066	16,134	17,039	17,657	18,325	18,863	19,325	-0.43%	0.53%
Palo Pinto County										
County-Other	9,512	10,527	3,021	3,185	3,284	3,334	3,310	3,224	1.02%	0.48%
Gordon	-	-	636	684	717	747	771	790	-	-
Lake Palo Pinto Area WSC	-	-	1,004	1,077	1,127	1,173	1,208	1,235	-	-
Mineral Wells (P)	14,770	14,644	15,820	16,978	17,760	18,483	19,034	19,470	-0.09%	0.49%
North Rural WSC	-	-	1,631	1,750	1,831	1,905	1,962	2,006	-	-
Palo Pinto WSC	-	-	864	928	971	1,010	1,040	1,064	-	-
Parker County SUD	-	-	60	80	102	128	158	193	-	-
Possum Kingdom WSC	1,414	1,668	1,946	2,088	2,185	2,273	2,341	2,394	1.67%	0.49%
Santo SUD (P)	-	-	2,028	2,208	2,330	2,470	2,614	2,768	-	-
Sportsmans World MUD	-	-	123	132	138	144	148	152	-	-
Stephens Regional SUD (P)	13	35	43	46	48	50	51	52	10.41%	0.49%
Strawn	739	653	753	808	845	879	906	926	-1.23%	0.49%
Sturdivant Progress WSC	-	-	2,606	2,807	2,942	3,079	3,196	3,305	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Palo Pinto County Total	26,448	27,527	30,535	32,771	34,280	35,675	36,739	37,579	0.40%	0.52%
Robertson County										
Bethany Hearne WSC	-	-	323	354	384	414	443	471	-	-
Bremond	876	929	989	1,085	1,174	1,266	1,355	1,442	0.59%	0.80%
Calvert	1,426	1,192	1,193	1,193	1,193	1,193	1,193	1,193	-1.78%	0.00%
County-Other	4,171	4,873	1,353	1,353	1,353	1,353	1,353	1,353	1.57%	0.72%
Franklin	1,470	1,564	1,851	2,031	2,357	2,735	3,175	3,684	0.62%	0.80%
Hearne	4,690	4,459	4,474	5,454	6,648	6,648	6,648	6,648	-0.50%	0.00%
Robertson County WSC	2,529	2,760	2,849	3,458	4,072	4,806	5,541	6,208	0.88%	0.80%
Twin Creek WSC	838	845	1,496	1,643	1,776	1,918	2,052	2,183	0.08%	0.80%
Wellborn SUD (P)	0	0	4,744	4,981	5,230	5,492	5,766	6,055	-	-
Wickson Creek SUD (P)	0	0	422	483	544	616	691	772	-	-
Robertson County Total	16,000	16,622	19,694	22,035	24,731	26,441	28,217	30,009	0.38%	0.99%
Shackelford County										
Albany	1,921	2,034	2,174	2,327	2,314	2,329	2,329	2,329	0.57%	0.32%
Callahan County WSC (P)	-	-	55	59	61	62	63	64	-	-
County-Other	1,368	1,331	247	158	145	127	116	107	-0.27%	-0.19%
Fort Griffin SUD (P)	-	-	635	654	657	660	663	665	-	-
Hamby WSC (P)	-	-	431	452	464	473	480	486	-	-
Stephens Regional SUD (P)	13	13	16	16	16	16	16	16	0.00%	0.12%
Shackelford County Total	3,302	3,378	3,558	3,666	3,657	3,667	3,667	3,667	0.23%	0.14%
Somervell County										
County-Other	4,687	6,046	5,289	5,909	6,355	6,700	6,995	7,227	2.58%	0.71%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Glen Rose	2,122	2,444	2,836	3,169	3,409	3,593	3,750	3,876	1.42%	0.71%
Somervell County Water District	-	-	1,357	1,516	1,631	1,720	1,794	1,855	-	-
Somervell County Total	6,809	8,490	9,482	10,594	11,395	12,013	12,539	12,958	2.23%	0.71%
Stephens County										
Breckenridge	5,868	5,780	5,903	6,130	6,232	6,298	6,315	6,380	-0.15%	0.17%
County-Other	1,148	1,406	453	465	477	487	526	498	2.05%	0.17%
Fort Belknapp WSC (P)	35	48	50	52	53	53	54	54	3.21%	0.20%
Fort Griffin SUD (P)	-	-	679	705	710	716	719	721	-	-
Possum Kingdom WSC (P)	141	73	80	83	84	85	85	86	-6.37%	0.15%
Staff WSC	-	-	415	425	426	426	426	426	-	-
Stephens Regional SUD (P)	2,482	2,323	2,347	2,433	2,473	2,498	2,516	2,528	-0.66%	0.18%
Stephens County Total	9,674	9,630	9,927	10,293	10,455	10,563	10,641	10,693	-0.05%	0.17%
Stonewall County										
Aspermont	1,021	919	925	927	927	927	927	927	-1.05%	0.02%
County-Other	672	571	576	577	577	577	577	577	-1.62%	0.01%
Stonewall County Total	1,693	1,490	1,501	1,504	1,504	1,504	1,504	1,504	-1.27%	0.02%
Taylor County										
Abilene (P)	110,438	111,918	117,339	122,766	127,252	130,807	133,461	135,479	0.13%	0.35%
Coleman County WSC (P)	140	95	153	160	166	171	174	177	-3.80%	0.36%
County-Other	4,019	5,345	5,769	6,034	6,263	6,445	6,582	6,680	2.89%	0.35%
Hamby WSC (P)	-	-	286	300	307	314	318	322	-	-
Hawley WSC (P)	677	484	624	660	686	707	725	740	-3.30%	0.35%
Lawn	-	-	645	674	699	719	733	744	-	-

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Merkel	2,637	2,590	3,024	3,163	3,279	3,370	3,439	3,491	-0.18%	0.35%
North Runnels WSC	-	-	326	339	342	344	346	348	-	-
Potosi WSC (P)	3,430	4,605	5,187	5,426	5,626	5,782	5,899	5,989	2.99%	0.35%
Steamboat Mountain WSC	3,342	4,485	4,410	4,615	4,784	4,916	5,016	5,092	2.99%	0.35%
Tye	1,158	1,242	1,319	1,380	1,430	1,471	1,500	1,522	0.70%	0.35%
View Caps WSC	-	-	1,593	1,666	1,727	1,776	1,811	1,839	-	-
Taylor County Total	125,841	130,764	140,675	147,183	152,561	156,822	160,004	162,423	0.38%	0.36%
Throckmorton County										
Baylor SUD (P)	-	-	15	15	15	15	16	16	-	-
County-Other	761	496	317	312	312	311	310	309	-4.19%	0.00%
Fort Belknapp WSC (P)	105	179	185	185	185	185	185	185	5.48%	0.01%
Fort Griffin SUD (P)	-	-	128	133	133	134	134	135	-	-
Stephens Regional SUD (P)	79	138	155	155	155	155	155	155	5.74%	0.01%
Throckmorton	905	828	846	846	846	846	846	846	-0.89%	0.01%
Throckmorton County Total	1,850	1,641	1,646	1,646	1,646	1,646	1,646	1,646	-1.19%	0.01%
Washington County										
Brenham	13,507	15,716	18,423	20,048	21,155	22,256	23,111	23,810	1.53%	0.59%
Central Washington County WSC	-	-	1,990	2,116	2,203	2,289	2,356	2,412	-	-
Chappell Hill WSC	-	-	922	981	1,022	1,062	1,093	1,119	-	-
Corix Utilities Texas Inc. (P)	-	-	3,690	3,926	4,087	4,247	4,372	4,473	-	-
County-Other	16,866	18,002	10,687	10,890	11,010	11,124	11,199	11,240	0.65%	0.29%
West End WSC	-	-	487	555	618	686	753	826	-	-
Washington County Total	30,373	33,718	36,199	38,516	40,095	41,664	42,884	43,880	1.05%	0.44%

Table 2-1. Historical and Projected Population by Water User Group/County

WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Williamson County										
Bartlett (P)	857	933	1,047	1,119	1,207	1,303	1,411	1,523	0.85%	0.79%
Bell-Milam-Falls WSC (P)	274	214	289	363	455	554	666	783	-2.44%	2.40%
Block House MUD	4,452	6,175	6,419	6,419	6,419	6,419	6,419	6,419	3.33%	0.06%
Brushy Creek MUD	11,322	12,705	20,248	20,248	20,248	20,248	20,248	20,248	1.16%	0.69%
Cedar Park (P)	25,508	48,448	81,716	90,641	90,641	90,641	90,641	90,641	6.63%	0.83%
County-Other	12,960	39,689	39,226	25,684	60,702	93,158	200,315	295,818	11.84%	2.54%
Fern Bluff MUD	5,319	5,691	5,793	5,793	5,793	5,793	5,793	5,793	0.68%	0.07%
Florence	1,054	1,136	1,357	1,439	1,542	1,653	1,779	1,909	0.75%	0.72%
Georgetown	28,339	47,400	118,763	157,075	196,912	244,043	296,697	358,109	5.28%	2.40%
Granger	1,299	1,419	1,551	1,659	1,796	1,942	2,108	2,280	0.89%	0.81%
Hutto	1,250	14,698	17,326	35,646	37,963	56,194	83,181	101,202	27.95%	3.48%
Jarrell-Schwertner WSC (P)	2,720	2,216	4,786	5,838	7,118	8,499	10,044	11,656	-2.03%	2.40%
Jonah Water SUD	7,962	8,489	23,500	29,522	37,022	45,097	54,255	63,275	0.64%	2.40%
Leander	7,596	25,444	48,575	74,150	97,757	121,365	150,905	185,879	12.85%	4.16%
Liberty Hill	1,409	967	2,063	2,592	3,250	3,959	4,763	5,595	-3.69%	2.40%
Manville WSC (P)	5,273	6,093	12,107	14,528	17,434	20,920	25,105	30,126	1.46%	2.40%
Paloma Lake MUD 1	-	-	2,339	3,210	3,210	3,210	3,210	3,210	-	-
Paloma Lake MUD 2	-	-	2,058	2,469	2,469	2,469	2,469	2,469	-	-
Pflugerville	0	300	373	469	588	717	862	1,013	-	2.40%
Round Rock (P)	60,060	98,525	123,598	154,326	193,827	239,565	239,565	239,565	5.07%	2.40%
Sonterra MUD	-	-	5,895	6,195	6,495	6,795	7,095	7,395	-	-
Southwest Milam (P)	1,245	1,210	1,816	2,283	2,862	3,486	4,196	4,927	-0.28%	2.40%

Table 2-1. Historical and Projected Population by Water User Group/County

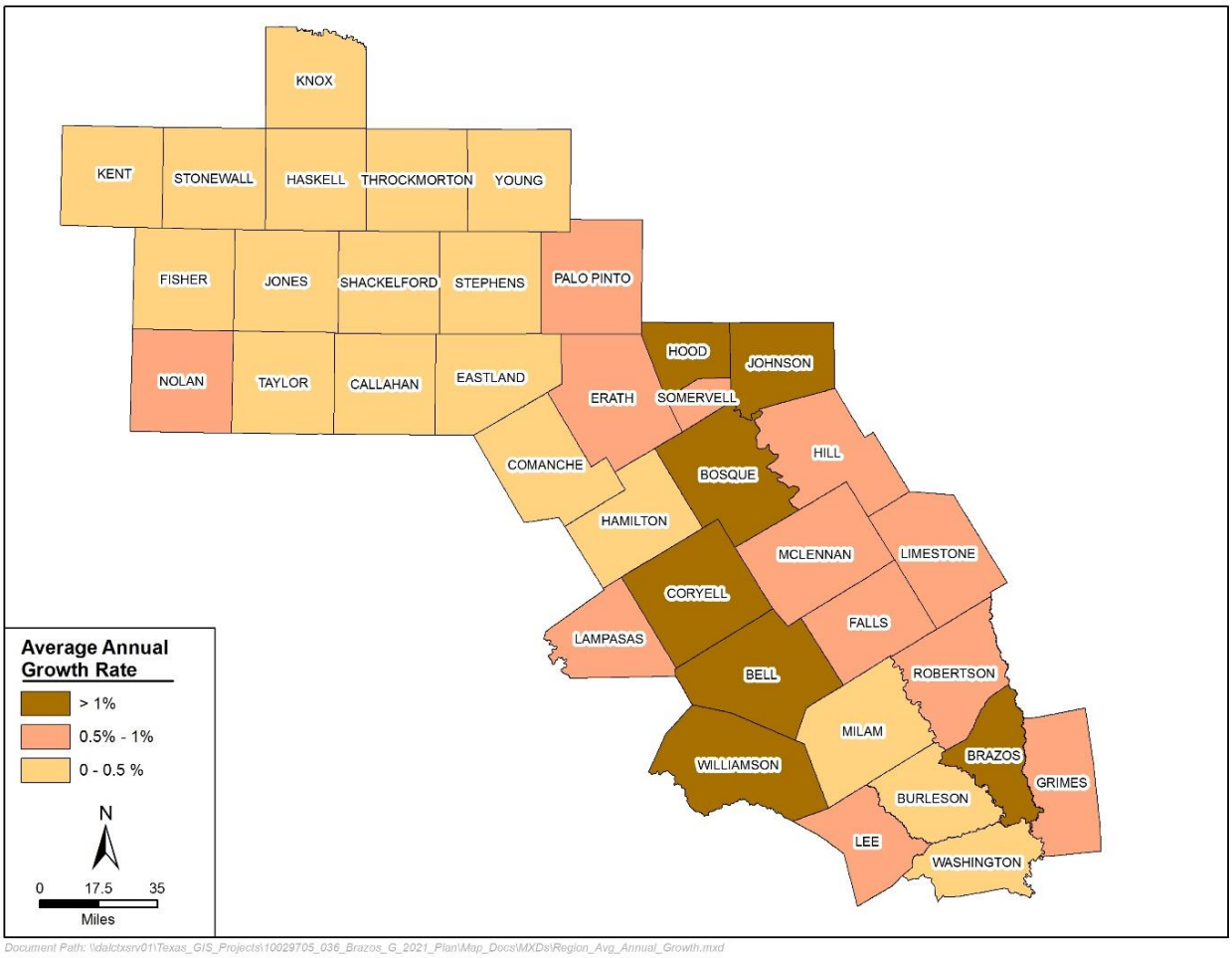
WUG/County	Historical		Projections[1]						Annual Percent Growth	
	2000	2010	2020	2030	2040	2050	2060	2070	2000- 2010	2010-2070
Taylor	13,575	15,191	17,233	18,728	20,589	22,594	24,868	27,220	1.13%	0.97%
Thorndale (P)	0	2	3	3	4	5	7	8	-	2.34%
Walsh Ranch MUD	-	-	714	714	714	714	714	714	-	-
Williamson County MUD 10	4	3,047	3,402	3,402	3,402	3,402	3,402	3,402	94.17%	2.40%
Williamson County MUD 11	65	1,872	4,074	4,084	4,094	4,104	4,114	4,124	39.94%	2.40%
Williamson County MUD 9	2,058	2,709	2,724	2,724	2,724	2,724	2,724	2,724	2.79%	2.40%
Williamson County WSID 3	-	-	6,828	7,128	7,428	7,728	8,028	8,328	-	-
Williamson-Travis County MUD 1 (P)	4,179	4,617	4,596	4,596	4,596	4,596	4,596	4,596	1.00%	-0.01%
Williamson County Total	198,780	349,190	560,419	683,047	839,261	1,023,897	1,260,180	1,490,951	5.66%	2.40%
Young County										
Baylor SUD (P)	-	-	123	125	126	128	128	129	-	-
County-Other	1,349	1,686	1,718	1,816	1,890	1,961	2,038	2,107	2.26%	0.40%
Fort Belknapp WSC (P)	3,349	3,630	3,883	4,098	4,250	4,414	4,571	4,725	0.81%	0.40%
Graham	8,716	8,903	9,708	10,242	10,626	11,032	11,426	11,809	0.21%	0.40%
Young County Total	13,414	14,219	15,432	16,281	16,892	17,535	18,163	18,770	0.57%	0.40%
Brazos G Total	1,565,359	1,901,650	2,371,064	2,720,696	3,097,007	3,494,544	3,918,197	4,351,042	1.99%	1.33%

Notes:

[1] Projections from Texas Water Development Board

(P) Partial

Figure 2-2. Projected Annual County Growth Rates in the Brazos G Regional Water Planning Area



2.2.1 New Municipal WUGs

Multiple new water systems are identified as municipal WUGs for the 2021 Brazos G Plan based on the WUG definition being revised from the 2016 planning cycle. Those new WUGs and their respective counties are listed in Table 2-2.

Table 2-2. New Municipal Water User Groups

New Water User Group (WUG)	COUNTY
AXTELL WSC	MCLENNAN
BAYLOR SUD	KNOX, THROCKMORTON, YOUNG
BELL COUNTY WCID 2	BELL
BELL COUNTY WCID 3	BELL
BETHANY HEARNE WSC	ROBERTSON
BIROME WSC	HILL

Table 2-2. New Municipal Water User Groups

New Water User Group (WUG)	COUNTY
BIROME WSC	LIMESTONE
BIROME WSC	MCLENNAN
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	LIMESTONE
BOLD SPRINGS WSC	HILL
BOLD SPRINGS WSC	MCLENNAN
CALLAHAN COUNTY WSC	CALLAHAN
CALLAHAN COUNTY WSC	SHACKELFORD
CEGO-DURANGO WSC	FALLS
CENTRAL BOSQUE WSC	MCLENNAN
CENTRAL TEXAS COLLEGE DISTRICT	BELL
CENTRAL TEXAS COLLEGE DISTRICT	CORYELL
CENTRAL WASHINGTON COUNTY WSC	WASHINGTON
CHAPPELL HILL WSC	WASHINGTON
CHATT WSC	HILL
CORIX UTILITIES TEXAS INC	LAMPASAS
CORIX UTILITIES TEXAS INC	WASHINGTON
DOUBLE DIAMOND UTILITIES	HILL
DOUBLE DIAMOND UTILITIES	JOHNSON
EAST CRAWFORD WSC	MCLENNAN
EOL WSC	MCLENNAN
EULA WSC	CALLAHAN
FLAT WSC	CORYELL
FORT GATES WSC	CORYELL
FORT GRIFFIN SUD	EASTLAND
FORT GRIFFIN SUD	SHACKELFORD
FORT GRIFFIN SUD	STEPHENS
FORT GRIFFIN SUD	THROCKMORTON
GORDON	PALO PINTO
H & H WSC	MCLENNAN
HAMBY WSC	CALLAHAN

Table 2-2. New Municipal Water User Groups

New Water User Group (WUG)	COUNTY
HAMBY WSC	JONES
HAMBY WSC	SHACKELFORD
HAMBY WSC	TAYLOR
HIGHLAND PARK WSC	BOSQUE
HIGHLAND PARK WSC	MCLENNAN
HILCO UNITED SERVICES	BOSQUE
HILCO UNITED SERVICES	HILL
HILLTOP WSC	MCLENNAN
LAKE PALO PINTO AREA WSC	PALO PINTO
LAWN	TAYLOR
LEROY TOURS GERALD WSC	MCLENNAN
LEVI WSC	MCLENNAN
LIPAN	HOOD
LITTLE ELM VALLEY WSC	BELL
LITTLE ELM VALLEY WSC	FALLS
MCLENNAN COUNTY WCID 2	MCLENNAN
MOUNTAIN WSC	CORYELL
MUSTANG VALLEY WSC	BOSQUE
MUSTANG VALLEY WSC	CORYELL
NORTH MILAM WSC	FALLS
NORTH MILAM WSC	MILAM
NORTH RUNNELS WSC	TAYLOR
NORTH RURAL WSC	PALO PINTO
OGLESBY	CORYELL
PALO PINTO WSC	PALO PINTO
PALOMA LAKE MUD 1	WILLIAMSON
PALOMA LAKE MUD 2	WILLIAMSON
PARKER COUNTY SUD	PALO PINTO
POINT ENTERPRISE WSC	LIMESTONE

Table 2-2. New Municipal Water User Groups

New Water User Group (WUG)	COUNTY
POST OAK SUD	HILL
POST OAK SUD	LIMESTONE
PRAIRIE HILL WSC	LIMESTONE
PRAIRIE HILL WSC	MCLENNAN
RED RIVER AUTHORITY OF TEXAS	KNOX
ROSS WSC	MCLENNAN
SALEM ELM RIDGE WSC	MILAM
SANTO SUD	HOOD
SANTO SUD	PALO PINTO
SLC WSC	LIMESTONE
SMITH BEND WSC	BOSQUE
SOMERVELL COUNTY WATER DISTRICT	SOMERVELL
SONTERRA MUD	WILLIAMSON
SPORTSMANS WORLD MUD	PALO PINTO
SPRING VALLEY WSC	MCLENNAN
STAFF WSC	EASTLAND
STAFF WSC	STEPHENS
STURDIVANT PROGRESS WSC	PALO PINTO
TDCJ LUTHER UNITS	GRIMES
TDCJ W PACK UNIT	GRIMES
TEXAS STATE TECHNICAL COLLEGE	MCLENNAN
THE GROVE WSC	BELL
THE GROVE WSC	CORYELL
TWIN CREEK WSC	ROBERTSON
VIEW CAPS WSC	TAYLOR
WALSH RANCH MUD	WILLIAMSON
WEST END WSC	WASHINGTON
WHITE ROCK WSC	LIMESTONE
WILLIAMSON COUNTY WSID 3	WILLIAMSON
WINDSOR WATER	MCLENNAN

2.2.2 Revisions to Population Projections

The TWDB and the Brazos G RWPG developed revisions to the draft population projections for specific municipal WUGs in the Brazos G Area for the 2021 Plan, based on coordination with multiple water systems in the planning area, as shown in Table 2-3.

Table 2-3. TWDB-Approved Revisions to the Draft 2021 Population Projections

Version	County	WUG	Draft and Revised (2016) Population Projection					
			2020	2030	2040	2050	2060	2070
Draft	BELL	BELL COUNTY WCID NO. 3	4,639	5,454	6,295	7,130	7,951	8,758
Revised	BELL	BELL COUNTY WCID NO. 3	7,403	10,072	13,930	16,468	18,362	20,216
Draft	BELL	GEORGETOWN	0	0	0	0	0	0
Revised	BELL	GEORGETOWN	2,967	3,488	4,027	4,562	5,086	5,602
Draft	BELL	COUNTY - OTHER	5,458	4,618	7,635	12,863	17,816	22,565
Revised	BELL	COUNTY - OTHER	2,694	2,971	3,248	3,525	7,405	11,107
Draft	BRAZOS	WELLBORN SUD	10,866	12,597	14,389	16,582	18,931	21,521
Revised	BRAZOS	WELLBORN SUD	16,864	25,740	29,094	32,870	37,074	41,402
Draft	BRAZOS	BRYAN	88,475	93,588	119,466	139,045	159,663	181,882
Revised	BRAZOS	BRYAN	84,196	99,959	118,714	140,827	167,176	211,266
Draft	BRAZOS	COLLEGE STATION	100,537	130,606	139,724	161,911	185,756	212,162
Revised	BRAZOS	COLLEGE STATION	100,854	129,102	165,261	195,852	195,852	195,852
Draft	BRAZOS	COUNTY - OTHER	4,723	2,909	2,687	3,541	4,793	6,625
Revised	BRAZOS	COUNTY - OTHER	2,687	2,687	2,687	2,687	2,687	2,687
Draft	JOHNSON	CLEBURNE	38,220	42,564	47,045	51,960	57,261	62,934
Revised	JOHNSON	CLEBURNE	38,220	42,564	51,236	60,121	70,546	78,919
Draft	JOHNSON	JOHNSON COUNTY SUD	39,437	45,811	52,381	59,562	67,296	75,558
Revised	JOHNSON	JOHNSON COUNTY SUD	42,033	45,973	51,300	56,628	61,955	67,282
Draft	JOHNSON	COUNTY - OTHER	11,470	10,919	11,145	9,624	9,334	9,209
Revised	JOHNSON	COUNTY - OTHER	8,874	10,757	8,035	4,397	1,390	1,500
Draft	HILL	JOHNSON COUNTY SUD	127	147	168	191	216	243
Revised	HILL	JOHNSON COUNTY SUD	135	148	165	182	199	216
Draft	HILL	COUNTY - OTHER	1,982	2,167	2,138	2,093	1,919	1,854
Revised	HILL	COUNTY - OTHER	1,974	2,166	2,141	2,102	1,936	1,881
Draft	ROBERTSON	FRANKLIN	1,851	2,031	2,199	2,373	2,539	2,699
Revised	ROBERTSON	FRANKLIN	1,851	2,031	2,357	2,735	3,175	3,684
Draft	ROBERTSON	HEARNE	4,474	4,474	4,474	4,474	4,474	4,474
Revised	ROBERTSON	HEARNE	4,474	5,454	6,648	6,648	6,648	6,648
Draft	ROBERTSON	ROBERTSON COUNTY WSC	2,957	3,245	3,510	3,789	4,054	4,311
Revised	ROBERTSON	ROBERTSON COUNTY WSC	2,849	3,458	4,072	4,806	5,541	6,208
Draft	ROBERTSON	WELLBORN SUD	3,300	3,635	3,983	4,407	4,864	5,366

Table 2-3. TWDB-Approved Revisions to the Draft 2021 Population Projections

Version	County	WUG	Draft and Revised (2016) Population Projection					
			2020	2030	2040	2050	2060	2070
Revised	ROBERTSON	WELLBORN SUD	4,744	4,981	5,230	5,492	5,766	6,055
Draft	ROBERTSON	COUNTY - OTHER	1,353	2,007	2,564	3,075	3,509	3,860
Revised	ROBERTSON	COUNTY - OTHER	1,353	1,353	1,353	1,353	1,353	1,353
Draft	WILLIAMSON	BRUSHY CREEK MUD	25,350	27,595	27,595	27,595	27,595	27,595
Revised	WILLIAMSON	BRUSHY CREEK MUD	20,248	20,248	20,248	20,248	20,248	20,248
Draft	WILLIAMSON	GEORGETOWN	78,297	98,358	123,342	150,248	180,757	212,304
Revised	WILLIAMSON	GEORGETOWN	118,763	157,075	196,912	244,043	296,697	358,109
Draft	WILLIAMSON	HUTTO	31,492	43,919	59,394	76,060	94,959	114,500
Revised	WILLIAMSON	HUTTO	17,326	35,646	37,963	56,194	83,181	101,202
Draft	WILLIAMSON	JARRELL-SCHWERTNER	4,106	5,049	6,202	7,436	8,810	10,224
Revised	WILLIAMSON	JARRELL-SCHWERTNER	4,786	5,838	7,118	8,499	10,044	11,656
Draft	WILLIAMSON	LEANDER	41,071	69,551	115,635	188,502	238,648	293,630
Revised	WILLIAMSON	LEANDER	48,575	74,150	97,757	121,365	150,905	185,879
Draft	WILLIAMSON	ROUND ROCK	157,819	198,258	248,614	302,845	364,345	427,932
Revised	WILLIAMSON	ROUND ROCK	123,598	154,326	193,827	239,565	239,565	239,565
Draft	WILLIAMSON	PALOMA LAKE MUD NO. 1	1,468	1,846	2,293	2,776	3,322	3,891
Revised	WILLIAMSON	PALOMA LAKE MUD NO. 1	2,339	3,210	3,210	3,210	3,210	3,210
Draft	WILLIAMSON	PALOMA LAKE MUD NO. 2	1,647	2,067	2,570	3,110	3,723	4,360
Revised	WILLIAMSON	PALOMA LAKE MUD NO. 2	2,058	2,469	2,469	2,469	2,469	2,469
Draft	WILLIAMSON	SONTERRA MUD	2,450	3,829	4,811	5,979	7,237	8,664
Revised	WILLIAMSON	SONTERRA MUD	5,895	6,195	6,495	6,795	7,095	7,395
Draft	WILLIAMSON	WALSH RANCH	1,073	1,348	1,676	2,028	2,428	2,844
Revised	WILLIAMSON	WALSH RANCH	714	714	714	714	714	714
Draft	WILLIAMSON	WILLIAMSON COUNTY MUD NO. 9	4,247	5,336	6,691	8,151	9,806	11,518
Revised	WILLIAMSON	WILLIAMSON COUNTY MUD NO. 9	2,724	2,724	2,724	2,724	2,724	2,724
Draft	WILLIAMSON	WILLIAMSON COUNTY MUD NO. 10	4,487	5,638	7,070	8,612	10,361	12,169
Revised	WILLIAMSON	WILLIAMSON COUNTY MUD NO. 10	3,402	3,402	3,402	3,402	3,402	3,402
Draft	WILLIAMSON	WILLIAMSON COUNTY MUD NO. 11	2,809	3,530	4,426	5,392	6,486	7,619
Revised	WILLIAMSON	WILLIAMSON COUNTY MUD NO. 11	4,074	4,084	4,094	4,104	4,114	4,124
Draft	WILLIAMSON	WILLIAMSON COUNTY WSID NO. 3	2,323	2,917	3,626	4,389	5,255	6,154
Revised	WILLIAMSON	WILLIAMSON COUNTY WSID NO. 3	6,828	7,128	7,428	7,728	8,028	8,328
Draft	WILLIAMSON	JONAH WATER SUD	15,254	19,163	24,031	29,273	35,217	41,364
Revised	WILLIAMSON	JONAH WATER SUD	23,500	29,522	37,022	45,097	54,255	63,275
Draft	WILLIAMSON	MANVILLE WSC	10,728	13,476	16,900	20,586	24,767	29,089
Revised	WILLIAMSON	MANVILLE WSC	12,107	14,528	17,434	20,920	25,105	30,126

Table 2-3. TWDB-Approved Revisions to the Draft 2021 Population Projections

Version	County	WUG	Draft and Revised (2016) Population Projection					
			2020	2030	2040	2050	2060	2070
Draft	WILLIAMSON	COUNTY - OTHER	28,684	37,315	52,198	44,899	69,190	91,040
Revised	WILLIAMSON	COUNTY - OTHER	39,226	25,684	60,702	93,158	200,315	295,818

2.3 Water Demand Projections

Water demand projections have been compiled for each type of consumptive water use (municipal, manufacturing, steam-electric, mining, irrigation, and livestock); projections for non-consumptive water uses, such as navigation, hydroelectric generation, environmental flows, and recreation, are not presented. Demands are totaled for those WUGs for which the primary planning area is Brazos G and for only the portion within Brazos G. As shown in Table 2-4, total water use for the area is projected to increase from 853,170 acft in 2010 to 1,408,066 acft in 2070, a 65 percent increase. The trend in total water use is shown in Figure 2-3. The six types of water use as percentages of total water use are shown for 2010 and 2070 in Figure 2-4. The projections indicate that municipal and steam-electric water use as percentages of the total water use will increase from 2010 to 2070, while irrigation, manufacturing, mining, and livestock water use are projected to decrease as percentages of the total.

2.3.1 Revisions to Municipal Demand Projections

The TWDB and the Brazos G RWPG developed revisions to municipal demand projections for specific municipal WUGs in the Brazos G Area for the 2021 Plan. Any WUG with a population revision detailed in Table 2-3 would result in a demand revision as well. TWDB requested that water use in the 2021 regional water plans be based on estimates for gpcd from the 2011 Water Use Surveys, unless evidence suggested that another year or set of years (averaged) would be more appropriate.

2.3.2 Municipal Water Demand

Municipal water use is defined as water that is used by households (e.g., drinking, bathing, food preparation, dishwashing, laundry, flushing toilets, lawn watering and landscaping, swimming pools), commercial establishments, (e.g., restaurants, car washes, hotels, laundromats, and office buildings) and for fire protection, public recreation and sanitation. This type of water must meet safe-drinking water standards as specified by federal and state laws and regulations.

Table 2-4. Brazos G Area Total Water Demand by Type of Use (acre-feet/year)

Water Use	Historical		Projections[1]					
	2000	2010	2020	2030	2040	2050	2060	2070
Municipal	311,291	326,414	401,393	449,056	502,943	561,736	626,523	694,285
Manufacturing	60,522	46,131	12,695	16,175	16,175	16,175	16,175	16,175
Steam-Electric	97,921	76,545	232,894	232,894	232,894	232,894	232,894	232,894
Mining	4,382	53,383	61,586	66,272	59,340	58,423	58,917	60,838
Irrigation	232,911	298,754	359,497	359,497	353,696	352,526	355,955	355,955
Livestock	53,222	51,943	47,939	47,939	47,939	47,939	47,939	47,939
Brazos G Total	760,249	853,170	1,116,004	1,171,833	1,212,987	1,269,693	1,338,403	1,408,086

[1] Projections from Texas Water Development Board
acft/yr = acre-feet per year

Figure 2-3. Projected Total Water Demand

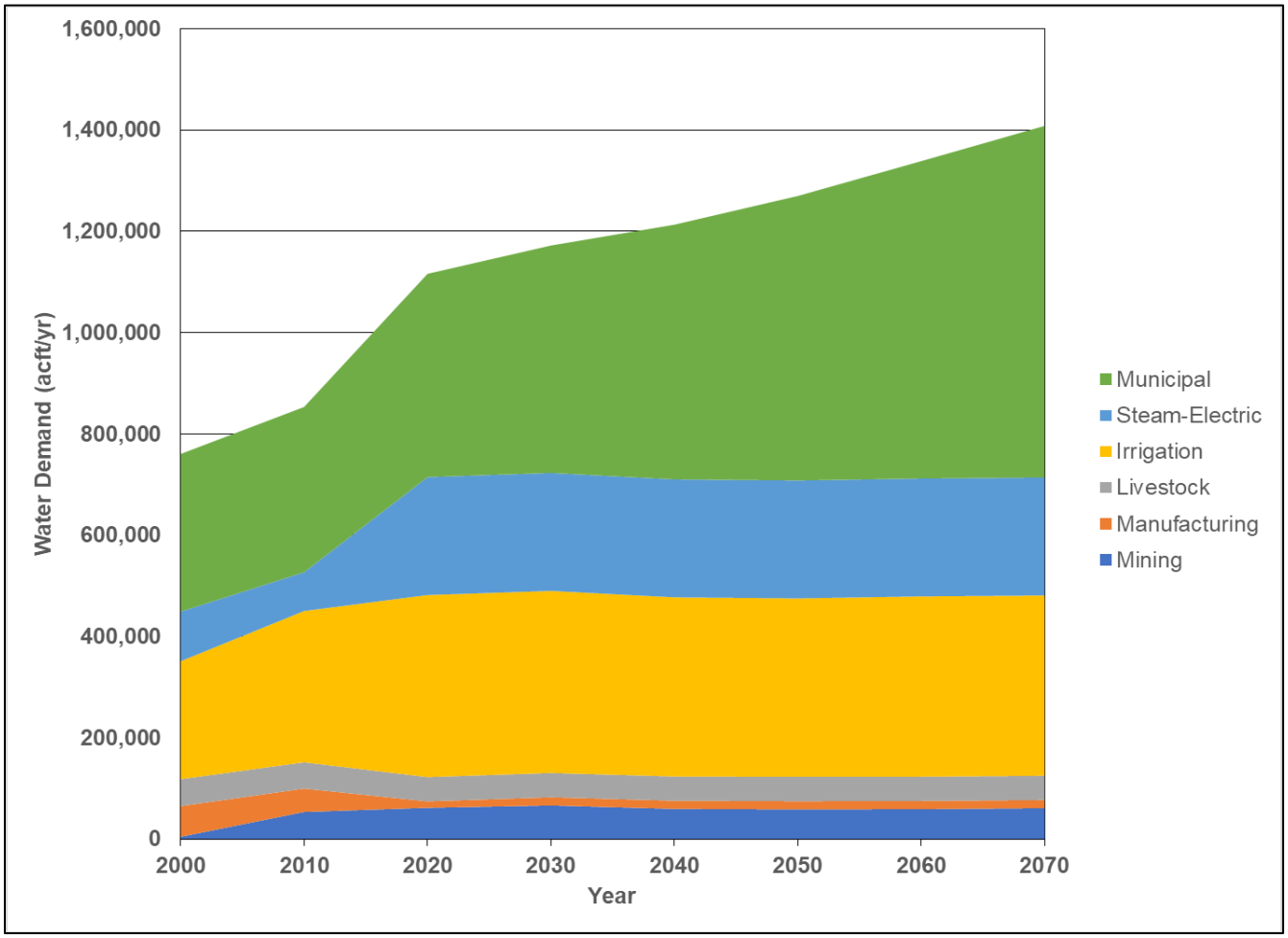
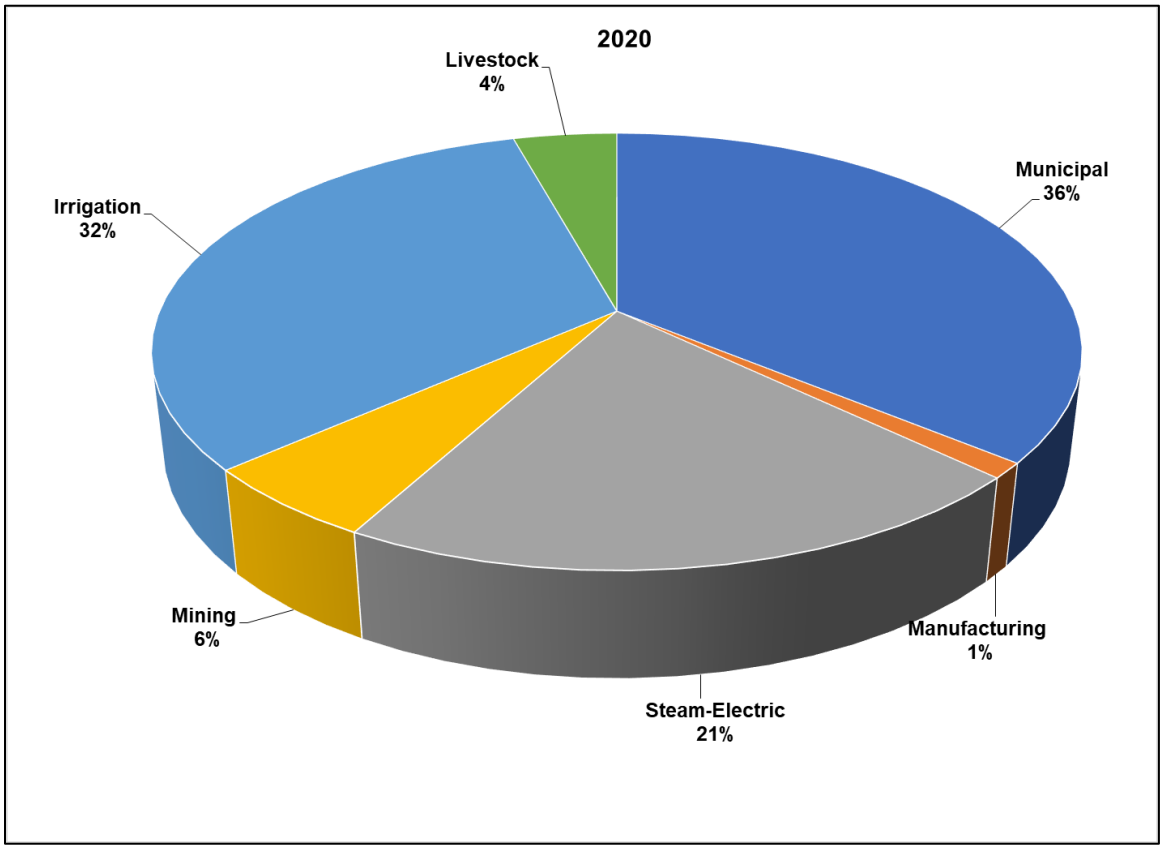
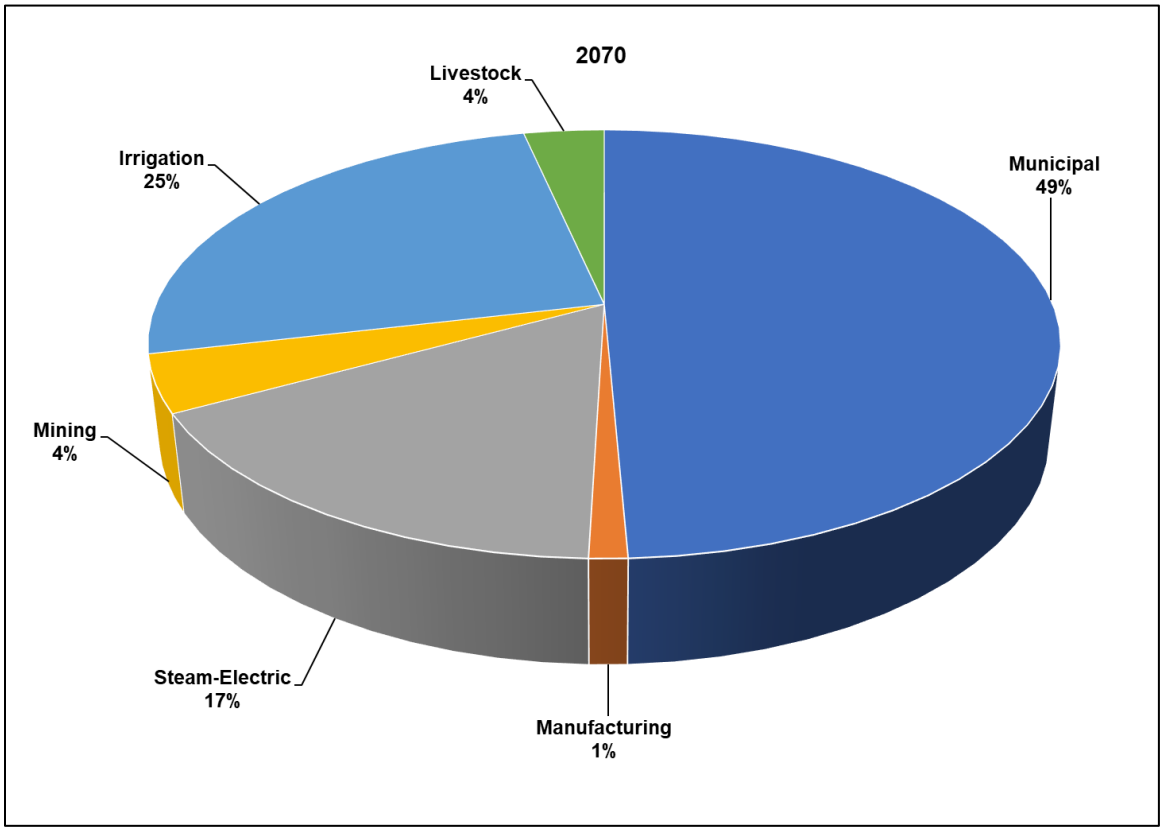


Figure 2-4. Total Water Demand by Type of Use in 2020 and 2070





Municipal water demand projections are computed by multiplying the projected population of an entity by the entity's projected per capita water use, adjusted downward for expected conservation savings due primarily to continued implementation of the 1991 State Water-Efficient Plumbing Act. Full implementation of the Act – retrofit of all existing fixtures with water-efficient fixtures and water-efficient fixtures installed in all new construction – was assumed to occur by Year 2045.

Table 2-5 presents projected per capita water use for water user groups in the Brazos G Area. These per capita water use rates reflect reductions due to implementation of the 1991 State Water-Efficient Plumbing Act. These reductions vary depending on the rural/urban nature of each WUG and projected growth, which typically range from 0 to 20 gpcd. However, in some cases revisions in gpcd were made to make the value consistent with similar WUGs. As a result, individual WUGs may have reductions well outside this typical range. Per capita water use varies widely in the Brazos G Area and generally ranges between 60 gpcd to 487 gpcd. Two WUGs within the region have per capita water use in excess of 800 gpcd. The base year (2011) average gpcd for Brazos G was 154 gpcd and the median is 137 gpcd. Lower per capita water uses are typically associated with smaller, rural water utilities where outside water use for lawns or landscaping is limited or is supplemented with individual residential wells and/or stock tanks. Larger per capita water use is typically associated with areas having large suburban residential growth or established urban areas having significant commercial water use, or locations with high seasonal use but smaller year-round population (e.g., Texas A&M University). The Conservation Task Force formed by the 78th Texas Legislature recommended a statewide target per capita water use of 140 gpcd.[1]

Annual municipal water demand for the area is projected to increase by 301,305 acre-feet (acft) between 2020 and 2070, from 406,477 acft to 707,782 acft, a 74 percent increase. As can be seen in Figure 2-5, seven counties - Bell, Brazos, Coryell, Johnson, McLennan, Taylor, and Williamson - are projected to account for 86 percent of the total municipal water demand in 2070. Municipal water demand projections for all WUGs, with county totals, are presented in Table 2-6.

The 74 percent projected increase in municipal water demand over the 2020–2070 planning horizon is less than the projected population increase of 84 percent due to expected savings in per capita water use resulting from continued implementation of the 1991 State Water-Efficient Plumbing Fixtures Act.

[1] Water Conservation Implementation Task Force, Report to the 79th Texas Legislature, Texas Water Development Board, Special Report, Austin, Texas, November 2004.

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
439 WSC	133	123	120	118	117	117	117	6
ABILENE	172	162	158	155	153	153	153	9
ACTON MUD	139	130	125	123	123	122	122	7
ALBANY	258	248	244	241	240	239	239	9
ALVARADO	105	95	91	89	88	87	87	8
ANSON	137	127	123	119	118	118	118	9
AQUA WSC	156	147	143	141	140	140	140	7
ARMSTRONG WSC	168	158	154	151	149	149	149	9
ASPERMONT	250	240	236	232	232	231	231	9
AXTELL WSC	117	108	103	101	99	99	99	8
BAIRD	153	143	139	135	134	134	134	9
BARTLETT	181	171	166	163	162	161	161	9
BAYLOR SUD	206	197	194	187	184	183	182	15
BELL COUNTY WCID 2	131	122	118	116	115	114	114	7
BELL COUNTY WCID 3	155	146	142	139	138	138	138	8
BELL MILAM FALLS WSC	142	133	130	127	126	126	126	8
BELLMEAD	115	106	102	99	98	97	97	9
BELTON	165	156	152	150	149	148	148	7
BETHANY HEARNE WSC	127	119	113	112	110	109	110	9
BETHANY WSC	93	84	80	77	76	76	76	8
BETHESDA WSC	197	187	183	181	179	179	179	8
BIROME WSC	135	125	121	120	118	117	118	7
BISTONE MUNICIPAL WATER SUPPLY DISTRICT	364	355	350	347	346	345	346	9
BLOCK HOUSE MUD	126	118	115	114	113	113	113	5
BOLD SPRINGS WSC	135	126	122	120	119	118	118	8
BRANDON IRENE WSC	128	118	113	110	109	109	109	9
BRECKENRIDGE	161	152	147	144	142	142	142	10
BREMOND	174	163	159	156	155	155	155	9
BRENHAM	219	210	206	203	202	202	202	8
BRUCEVILLE EDDY	174	165	161	158	156	156	156	9
BRUSHY CREEK MUD	146	136	133	132	131	130	130	6

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
BRYAN	168	158	155	152	151	151	151	8
BURLESON	143	135	132	130	129	129	129	6
CALDWELL	197	187	184	181	180	180	180	7
CALLAHAN COUNTY WSC	86	76	72	69	68	68	68	9
CALVERT	152	142	137	135	135	134	134	8
CAMERON	216	206	202	198	197	197	197	10
CEDAR PARK	193	184	183	182	182	182	182	3
CEGO-DURANGO WSC	159	149	145	142	141	141	141	8
CENTRAL BOSQUE WSC	143	133	130	127	126	126	126	8
CENTRAL TEXAS COLLEGE DISTRICT	160	151	147	144	143	143	143	8
CENTRAL WASHINGTON COUNTY WSC	123	114	111	109	107	107	107	7
CHALK BLUFF WSC	99	90	87	84	82	82	82	8
CHAPPELL HILL WSC	146	137	134	131	130	130	130	6
CHATT WSC	127	117	113	111	110	110	109	8
CHILDRESS CREEK WSC	147	138	134	131	130	130	130	8
CISCO	168	158	154	151	149	149	149	10
CLEBURNE	172	163	159	156	155	155	155	8
CLIFTON	173	163	158	155	154	154	154	9
CLYDE	82	73	69	66	64	64	64	9
COLEMAN COUNTY SUD	120	111	107	103	101	101	100	11
COLLEGE STATION	155	146	142	140	139	138	138	7
COMANCHE	113	103	99	96	94	94	94	10
COOLIDGE	156	146	143	140	139	139	139	7
COPPERAS COVE	116	106	102	99	98	98	98	8
CORIX UTILITIES TEXAS INC	149	140	136	134	133	132	132	7
CORYELL CITY WATER SUPPLY DISTRICT	154	146	143	141	140	140	140	6
COUNTY-OTHER, BELL	162	150	145	144	144	144	143	7
COUNTY-OTHER, BOSQUE	132	124	121	119	118	118	118	6
COUNTY-OTHER, BRAZOS	142	131	130	130	129	128	128	3
COUNTY-OTHER, BURLESON	114	103	97	97	97	96	96	6
COUNTY-OTHER, CALLAHAN	80	71	67	64	63	62	62	8

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
COUNTY-OTHER, COMANCHE	103	94	89	86	84	84	84	9
COUNTY-OTHER, CORYELL	114	105	103	103	102	102	102	3
COUNTY-OTHER, EASTLAND	90	81	76	73	72	71	71	9
COUNTY-OTHER, ERATH	134	125	121	119	118	117	117	8
COUNTY-OTHER, FALLS	123	113	109	105	104	104	104	9
COUNTY-OTHER, FISHER	113	104	99	95	95	94	94	10
COUNTY-OTHER, GRIMES	136	126	122	118	117	117	117	9
COUNTY-OTHER, HAMILTON	121	111	107	103	103	102	102	9
COUNTY-OTHER, HASKELL	129	119	114	112	111	111	111	8
COUNTY-OTHER, HILL	106	99	98	96	96	95	95	4
COUNTY-OTHER, HOOD	102	93	88	88	88	87	87	6
COUNTY-OTHER, JOHNSON	103	95	92	90	89	89	89	6
COUNTY-OTHER, JONES	119	112	110	108	107	107	107	5
COUNTY-OTHER, KENT	118	108	100	100	100	100	100	8
COUNTY-OTHER, KNOX	102	92	87	84	84	84	84	8
COUNTY-OTHER, LAMPASAS	131	120	119	118	117	117	117	3
COUNTY-OTHER, LEE	104	92	88	86	87	86	86	6
COUNTY-OTHER, LIMESTONE	94	85	81	78	76	76	76	9
COUNTY-OTHER, MCLENNAN	123	114	110	107	105	105	105	9
COUNTY-OTHER, MILAM	122	110	108	107	108	107	107	3
COUNTY-OTHER, NOLAN	114	105	100	97	95	95	95	10
COUNTY-OTHER, PALO PINTO	93	83	78	75	74	74	74	9
COUNTY-OTHER, ROBERTSON	111	100	96	96	95	95	95	5
COUNTY-OTHER, SHACKELFORD	99	90	85	80	77	77	83	7
COUNTY-OTHER, SOMERVELL	117	109	105	103	102	102	102	7
COUNTY-OTHER, STEPHENS	105	97	92	90	88	87	88	9
COUNTY-OTHER, STONEWALL	116	105	101	99	99	99	99	6
COUNTY-OTHER, TAYLOR	113	103	99	95	95	95	95	8
COUNTY-OTHER, THROCKMORTON	96	84	80	80	80	81	78	6
COUNTY-OTHER, WASHINGTON	124	115	111	108	106	106	106	9
COUNTY-OTHER, WILLIAMSON	148	139	135	134	133	133	133	6

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
COUNTY-OTHER, YOUNG	119	108	104	102	101	101	101	8
CRAWFORD	191	182	178	174	173	172	172	10
CROSS COUNTRY WSC	158	150	146	144	142	142	142	8
CROSS PLAINS	162	152	147	144	143	143	143	9
CROWLEY	141	132	130	128	126	126	125	7
DE LEON	95	85	81	78	76	76	76	9
DEANVILLE WSC	121	115	114	114	114	114	114	1
DOBBIN PLANTERSVILLE WSC	76	69	67	66	65	65	65	4
DOG RIDGE WSC	135	124	120	117	115	115	115	9
DOUBLE DIAMOND UTILITIES	215	206	202	199	198	198	198	8
DUBLIN	94	84	79	76	75	75	75	9
EAST BELL WSC	118	108	104	102	101	101	101	8
EAST CRAWFORD WSC	312	303	299	296	295	295	295	8
EASTLAND	150	141	137	133	132	131	131	9
ELM CREEK WSC	104	95	92	91	89	89	89	6
EOL WSC	118	109	105	102	101	101	101	8
EULA WSC	60	60	60	60	60	60	60	0
FERN BLUFF MUD	190	183	181	180	179	179	179	4
FILES VALLEY WSC	146	137	133	130	129	129	129	8
FLAT WSC	201	191	189	186	185	184	185	7
FLORENCE	95	86	82	79	78	77	78	8
FORT BELKNAP WSC	107	99	96	93	92	92	92	7
FORT GATES WSC	187	177	174	172	171	170	170	7
FORT GRIFFIN SUD	144	134	130	127	126	125	125	9
FORT HOOD	215	204	200	197	197	197	196	8
FORT WORTH	185	-	-	-	170	170	169	0
FRANKLIN	142	132	128	125	124	123	123	9
G & W WSC	112	103	101	99	99	99	99	5
GATESVILLE	229	220	216	213	212	212	212	8
GEORGETOWN	205	196	194	193	192	192	192	4
GHOLSON WSC	127	118	114	111	110	110	110	8

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
GIDDINGS	188	178	174	171	170	170	170	8
GLEN ROSE	200	190	187	184	183	183	182	8
GODLEY	99	90	87	85	84	84	84	6
GORDON	206	197	193	190	189	189	189	8
GORMAN	88	78	73	70	70	69	69	8
GRAHAM	266	256	252	249	247	247	247	10
GRANBURY	115	106	103	101	100	100	100	6
GRANDVIEW	102	93	89	86	85	84	84	8
GRANGER	130	120	117	114	112	112	112	8
GROESBECK	149	140	137	134	132	132	132	8
H & H WSC	113	104	100	98	97	96	96	8
HAMBY WSC	116	107	103	101	100	99	99	8
HAMILTON	162	153	149	146	144	143	143	10
HAMLIN	178	168	163	160	160	159	159	8
HARKER HEIGHTS	182	174	170	169	168	167	167	6
HASKELL	148	139	135	131	130	129	129	10
HAWLEY WSC	78	69	65	62	61	60	60	8
HEARNE	161	151	147	143	143	142	142	9
HEWITT	165	156	152	149	148	148	148	8
HICO	125	116	112	109	107	106	106	10
HIGHLAND PARK WSC	264	253	250	248	247	246	245	8
HILCO UNITED SERVICES	134	125	121	118	117	117	117	8
HILL COUNTY WSC	128	121	118	117	116	116	116	5
HILLSBORO	200	190	186	183	182	182	182	9
HILLTOP WSC	116	107	103	101	99	99	99	8
HOLLAND	97	88	84	80	78	78	78	10
HUBBARD	98	88	83	80	79	79	79	9
HUTTO	113	107	105	105	105	105	105	2
ITASCA	88	79	74	71	70	70	69	9
JARRELL-SCHWERTNER	133	121	117	115	114	114	114	7
JAYTON	164	154	151	147	145	145	145	9

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
JOHNSON COUNTY SUD	124	115	111	109	108	108	108	7
JONAH WATER SUD	137	126	123	121	120	120	120	6
KEENE	70	61	60	60	60	60	60	1
KEMPNER WSC	164	156	153	151	150	150	150	6
KILLEEN	122	113	110	108	107	107	107	6
KNOX CITY	195	184	179	177	178	177	177	7
LACY LAKEVIEW	106	97	94	92	91	90	90	7
LAKE PALO PINTO AREA WSC	103	94	90	88	87	86	86	8
LAMPASAS	154	144	139	136	135	135	134	9
LAWN	186	177	174	170	169	168	168	9
LEANDER	128	121	119	118	118	118	118	3
LEE COUNTY WSC	122	113	110	108	107	107	107	7
LEROY TOURS GERALD WSC	100	91	87	84	83	82	82	8
LEVI WSC	114	105	101	98	97	97	97	8
LEXINGTON	169	159	155	152	151	151	151	8
LIBERTY HILL	106	95	92	90	90	90	89	6
LIPAN	118	109	106	104	103	103	103	6
LITTLE ELM VALLEY WSC	171	161	158	156	154	154	154	7
LORENA	154	145	141	139	137	137	137	8
MANSFIELD	252	245	242	241	240	240	240	5
MANVILLE WSC	148	139	136	135	134	134	134	5
MARLIN	254	244	239	236	235	235	235	9
MART	142	132	128	125	124	123	123	9
MCGREGOR	146	137	132	129	128	127	127	9
MCLENNAN COUNTY WCID 2	147	138	134	132	130	130	130	8
MERIDIAN	129	119	114	112	110	110	110	9
MERKEL	120	110	106	103	101	101	101	9
MEXIA	70	60	60	60	60	60	60	0
MILANO WSC	110	101	98	95	94	94	94	8
MINERAL WELLS	155	146	142	139	137	137	137	9
MOFFAT WSC	113	104	101	98	96	96	96	8

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
MOODY	124	114	110	107	105	104	104	10
MORGANS POINT RESORT	111	102	99	98	97	97	97	6
MOUNTAIN PEAK SUD	290	280	276	275	274	274	273	7
MOUNTAIN WSC	149	140	136	134	133	133	133	7
MULTI COUNTY WSC	95	86	83	80	79	79	79	7
MUNDAY	180	170	165	162	162	162	162	9
MUSTANG VALLEY WSC	206	197	193	191	189	189	189	8
NAVASOTA	184	175	171	168	166	166	166	9
NORTH BOSQUE WSC	235	227	224	222	221	221	221	6
NORTH MILAM WSC	167	158	154	151	149	149	149	8
NORTH RUNNELS WSC	104	93	90	86	86	85	85	8
NORTH RURAL WSC	96	87	83	80	79	79	79	8
OGLESBY	83	73	71	68	67	67	67	7
PALO PINTO WSC	128	119	115	113	111	111	111	8
PALOMA LAKE MUD 1	125	116	114	112	111	111	111	5
PALOMA LAKE MUD 2	115	106	104	102	101	101	101	5
PARKER COUNTY SUD	103	89	89	88	91	90	88	1
PARKER WSC	104	95	91	89	89	88	88	7
PENDLETON WSC	116	106	101	100	99	99	99	7
PFLUGERVILLE	155	148	147	146	146	145	145	3
POINT ENTERPRISE WSC	107	97	94	91	89	89	89	8
POSSUM KINGDOM WSC	392	382	379	376	375	375	374	8
POST OAK SUD	76	66	62	69	69	69	69	-3
POTOSI WSC	146	138	135	133	131	131	131	7
PRAIRIE HILL WSC	157	148	144	141	139	139	139	9
RANGER	171	161	157	153	153	152	152	9
RED RIVER AUTHORITY OF TEXAS	229	217	216	214	209	209	208	10
RIESEL	126	117	113	110	109	108	108	9
RIO VISTA	133	123	120	118	117	116	116	7
RISING STAR	112	102	98	95	94	93	93	9
ROBERTSON COUNTY WSC	142	133	129	127	125	125	125	8

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
ROBINSON	181	172	168	166	165	165	165	7
ROBY	175	166	162	160	157	157	157	9
ROCKDALE	184	174	170	167	165	165	165	9
ROGERS	127	118	113	111	109	109	108	9
ROSCOE	137	127	122	119	118	118	118	9
ROSEBUD	111	101	96	93	93	92	92	9
ROSS WSC	135	126	122	119	118	118	118	8
ROTAN	114	104	99	96	96	96	96	8
ROUND ROCK	152	143	141	139	139	139	138	5
SALADO WSC	292	282	279	277	276	276	276	7
SALEM ELM RIDGE WSC	148	139	135	132	130	131	130	8
SANTO SUD	121	112	108	105	104	104	104	8
SLC WSC	87	78	74	71	69	69	69	9
SMITH BEND WSC	127	118	114	112	110	110	110	8
SNOOK	307	297	293	289	288	288	287	10
SOMERVELL COUNTY WATER DISTRICT	120	111	107	104	103	103	103	8
SOMERVILLE	170	159	155	152	152	152	151	8
SONTERRA MUD	76	67	65	63	62	62	62	5
SOUTHWEST MILAM WSC	152	143	139	137	136	135	135	8
SPORTSMANS WORLD MUD	898	885	886	880	880	881	881	4
SPRING VALLEY WSC	132	122	119	116	115	114	114	8
STAFF WSC	99	90	86	82	81	80	80	10
STAMFORD	237	227	222	219	218	218	218	9
STEAMBOAT MOUNTAIN WSC	84	76	73	71	70	70	70	6
STEPHENS REGIONAL SUD	107	98	93	91	88	88	88	10
STEPHENVILLE	134	125	121	118	117	116	116	8
STRAWN	182	172	168	165	162	163	163	9
STURDIVANT PROGRESS WSC	91	82	79	76	75	74	74	8
SWEETWATER	153	143	138	135	134	134	134	9
TAYLOR	157	147	143	141	139	139	139	8
TDCJ LUTHER UNITS	183	175	172	171	170	170	170	5

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
TDCJ W PACK UNIT	218	210	208	206	205	205	205	5
TEMPLE	229	219	216	214	212	212	212	7
TEXAS A&M UNIVERSITY	487	476	472	469	468	468	468	8
TEXAS STATE TECHNICAL COLLEGE	1,378	1,369	1,365	1,362	1,361	1,360	1,360	9
THE BITTER CREEK WSC	128	118	114	110	110	109	109	9
THE GROVE WSC	139	130	126	123	123	122	123	7
THORNDALE	125	115	112	109	107	107	107	8
THROCKMORTON	205	195	191	187	187	187	187	8
TOLAR	134	124	120	119	118	117	117	7
TRI COUNTY SUD	119	109	105	102	101	101	100	9
TROY	90	81	77	74	72	72	72	8
TWIN CREEK WSC	167	158	154	152	151	150	150	8
TYE	134	125	120	117	116	116	116	9
VALLEY MILLS	184	174	170	167	166	165	165	8
VENUS	174	167	165	163	163	162	162	4
VIEW CAPS WSC	118	109	106	103	102	101	101	8
WACO	220	211	207	204	202	202	202	9
WALSH RANCH MUD	257	249	245	244	244	243	243	6
WELLBORN SUD	170	160	157	155	154	154	154	6
WEST	160	151	147	144	142	141	141	9
WEST BELL COUNTY WSC	149	138	133	131	131	130	130	8
WEST BRAZOS WSC	138	128	123	120	120	119	119	8
WEST END WSC	107	97	93	90	88	88	89	9
WHITE ROCK WSC	101	92	88	85	84	83	83	8
WHITNEY	180	171	167	165	163	163	163	8
WICKSON CREEK SUD	99	91	88	86	85	85	85	6
WILLIAMSON COUNTY MUD 10	196	191	189	189	189	189	188	2
WILLIAMSON COUNTY MUD 11	185	180	178	178	178	177	177	2
WILLIAMSON COUNTY MUD 9	188	180	177	176	176	176	176	4
WILLIAMSON COUNTY WSID 3	126	117	115	113	112	112	112	5
WILLIAMSON TRAVIS COUNTIES MUD 1	126	116	113	112	111	111	111	5

Table 2-5. Per Capita Water Use for Water User Groups in the Brazos G Regional Water Planning Area (gallons per capita daily)

Water User Group	Per Capita Use Rates (GPCD)							Reduction due to Plumbing Fixtures Act (2020 to 2070)
	Base (2011)	2020	2030	2040	2050	2060	2070	
WINDSOR WATER	156	146	143	139	138	138	138	8
WOODROW OSCEOLA WSC	92	82	77	74	74	73	74	8
WOODWAY	352	342	337	334	333	333	333	9
Minimum		**60**	**60**	**60**	**60**	**60**	**60**	**-3**
Maximum		**1,369**	**1,365**	**1,362**	**1,361**	**1,360**	**1,360**	**15**
Mean		**145**	**141**	**139**	**138**	**138**	**138**	**7.4**

Figure 2-5. Municipal Water Demand Projections

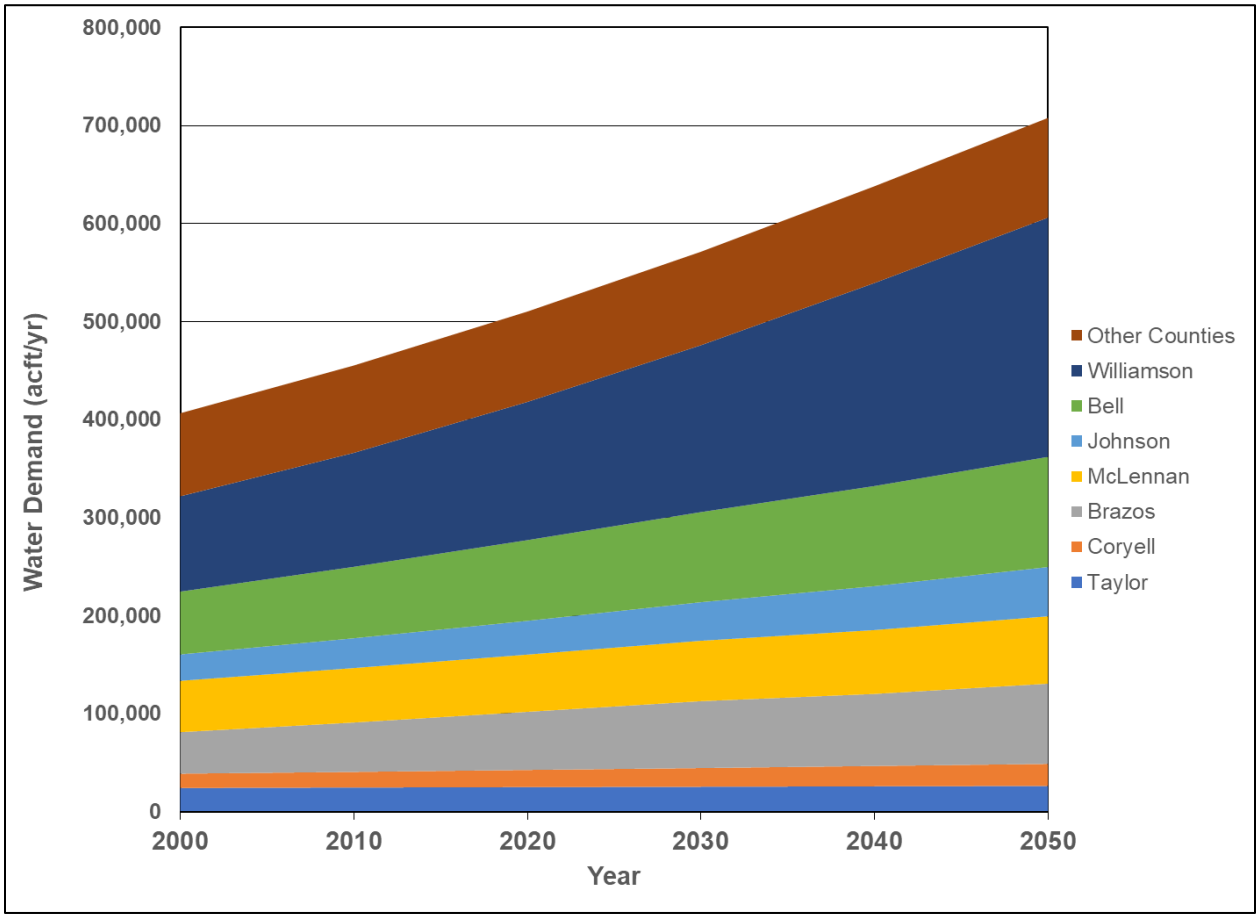


Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Bell County						
439 WSC	1,407	1,656	1,917	2,191	2,483	2,785
Armstrong WSC	464	486	507	530	558	586
Bartlett (P)	158	181	205	230	256	282
Bell County WCID 2	305	335	367	402	438	474
Bell County WCID 3	1,207	1,601	2,176	2,552	2,840	3,125
Bell-Milam-Falls WSC (P)	337	354	371	389	410	432
Belton	3,791	4,353	4,951	5,568	6,198	6,824
Central Texas College District	12	12	11	11	11	11
County-Other	453	483	523	567	1,191	1,785
Dog Ridge WSC	724	821	924	1,036	1,152	1,268
East Bell County WSC (P)	423	482	547	615	686	756
Elm Creek WSC (P)	241	277	317	358	400	442
Fort Hood CDP (P)	3,874	3,850	3,815	3,809	3,804	3,804
Georgetown	652	758	870	982	1,094	1,204
Harker Heights	6,099	7,043	8,042	9,060	10,087	11,106
Holland	108	106	103	103	104	105
Jarrell-Schwertner WSC (P)	308	372	450	535	633	734
Kempner WSC (P)	332	371	405	437	470	501
Killeen	18,308	20,913	23,716	26,629	29,619	32,599
Little Elm Valley WSC (P)	272	313	356	400	445	490
Moffat WSC	469	478	487	499	517	535
Morgans Point Resort	582	681	787	897	1,009	1,121
Pendleton WSC	270	275	286	299	311	324
Rodgers	177	184	192	201	212	223
Salado WSC	1,899	2,081	2,265	2,449	2,636	2,822
Temple	20,095	23,231	26,532	29,903	33,301	36,666
The Grove WSC (P)	177	184	209	235	261	288
Troy	185	199	215	233	254	275
West Bell County WSC	758	795	784	782	781	780
Bell County Total	64,087	72,875	82,330	91,902	102,161	112,347
Bosque County						
Childress Creek WSC	343	365	373	379	384	388
Clifton	704	748	766	779	790	797

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
County-Other	782	838	860	869	873	899
Cross Country WSC (P)	127	135	138	141	143	144
Highland Park WSC (P)	118	127	132	136	139	142
Hilco United Services (P)	198	207	213	222	232	244
Meridian	235	247	252	255	258	261
Mustand Valley WSC	464	497	512	521	529	534
Smith Bend WSC	99	105	107	108	110	85
Valley Mills (P)	267	285	292	297	301	304
Bosque County Total	3,337	3,554	3,645	3,707	3,759	3,798
Brazos County						
Bryan	14,944	17,356	20,223	23,804	28,205	35,620
College Station	16,451	20,480	25,877	30,439	30,382	30,363
County-Other	393	392	390	387	385	384
Texas A&M University	6,322	6,349	6,308	6,292	6,288	6,288
Wellborn SUD	3,025	4,531	5,064	5,688	6,405	7,148
Wickson Creek SUD (P)	1,138	1,277	1,424	1,610	1,813	2,035
Brazos County Total	42,273	50,385	59,286	68,220	73,478	81,838
Burleson County						
Caldwell	1,027	1,043	1,072	1,072	1,091	1,108
County-Other	633	684	705	759	783	798
Deanville WSC	411	416	433	430	436	441
Milano WSC (P)	201	209	213	219	225	231
Snook	288	305	314	327	337	345
Somerville	273	292	315	346	378	412
Southwest Milam WSC (P)	126	132	135	140	144	148
Burleson County Total	2,959	3,081	3,187	3,293	3,394	3,483
Callahan County						
Baird	257	249	242	241	241	241
Callahan County WSC (P)	179	182	180	180	182	183
Clyde	309	312	310	308	311	313
Coleman County WSC (P)	30	31	31	31	31	31
County-Other	229	240	243	244	247	250
Cross Plains	193	200	203	205	208	209
EULA WSC	168	180	186	190	192	194

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Hamby WSC (P)	18	18	18	19	19	19
Potosi WSC (P)	12	13	13	13	13	14
Callahan County Total	1,395	1,425	1,426	1,431	1,444	1,454
Comanche County						
Comanche	520	518	513	521	533	546
County-Other	809	804	795	804	823	843
De Leon	219	216	213	215	220	226
Comanche County Total	1,548	1,538	1,521	1,540	1,576	1,615
Coryell County						
Central Texas College District	120	117	115	114	114	114
Copperas Cove (P)	4,181	4,562	5,030	5,474	5,999	6,533
Coryell City Water Supply District	808	898	1,005	1,101	1,207	1,315
County-Other	290	562	873	1,139	1,429	1,721
Elm Creek WSC (P)	42	46	52	56	62	67
Flat WSC	100	112	125	137	150	164
Fort Gates WSC	380	423	473	519	569	620
Fort Hood CDP (P)	3,206	3,138	3,094	3,089	3,085	3,084
Gatesville	4,301	4,801	5,377	5,897	6,472	7,050
Kempner WSC	618	681	739	799	858	916
Mountain WSC	257	284	317	347	380	414
Multi-County WSC (P)	236	257	283	308	337	367
Mustang Valley WSC	6	6	7	7	7	7
Oglesby	53	58	63	69	75	82
The Grove WSC (P)	26	27	30	34	38	42
Coryell County Total	14,624	15,972	17,583	19,090	20,782	22,496
Eastland County						
Cisco	729	726	711	703	701	701
County-Other	470	456	438	427	425	425
Eastland	622	617	603	595	594	594
Fort Griffin SUD (P)	2	2	2	2	2	2
Gorman	94	91	87	87	86	86
Ranger	479	476	466	464	463	463
Rising Star	99	97	94	93	92	92
Staff WSC	128	124	119	118	117	117

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Stephens Regional SUD (P)	15	15	15	14	14	14
Eastland County Total	2,638	2,604	2,535	2,503	2,494	2,494
Erath County						
County-Other	2,605	2,833	3,022	3,269	3,479	3,678
Dublin	418	430	445	436	464	490
Gordon	7	7	7	8	8	8
Stephenville	2,659	2,867	3,047	3,241	3,448	3,645
Erath County Total	5,689	6,137	6,521	6,954	7,399	7,821
Falls County						
Bell-Milam-Falls WSC (P)	172	176	174	168	173	178
Burceville-Eddy (P)	196	206	267	280	296	312
Cego-Durango WSC	176	180	178	173	178	183
County-Other	773	776	717	678	690	705
East Bell County WSC (P)	39	39	39	37	38	39
Little Elm Valley WSC (P)	14	16	18	20	23	25
Marlin	1,849	1,908	1,901	1,850	1,904	1,961
North Milam WSC (P)	3	3	3	3	3	4
Rosebud	175	176	171	167	171	176
West Brazos WSC (P)	186	189	186	181	186	191
Falls County Total	3,583	3,669	3,654	3,557	3,662	3,774
Fisher County						
Bitter Creek WSC (P)	134	129	125	124	124	124
County-Other	76	73	70	70	69	69
Roby	124	121	119	117	117	117
Rotan	194	185	180	179	179	179
Fisher County Total	528	508	494	490	489	489
Grimes County						
County-Other	1,248	1,230	1,198	1,188	1,164	1,129
Dobbin-Plantersville WSC	138	155	169	184	197	209
G&W WSC	409	533	627	730	817	893
Navasota	1474	1486	1493	1514	1541	1567
TDCJ Luther Units	289	311	329	348	365	380
TDCJ W Pack Units	397	429	453	480	504	524
Wickson Creek SUD (P)	467	503	545	598	658	723

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Grimes County Total	4422	4647	4814	5042	5246	5425
Hamilton County						
County-Other	450	437	422	421	420	420
Hamilton	512	508	497	490	489	489
Hico	180	176	171	168	167	167
Multi-County WSC (P)	55	55	53	52	52	52
Hamilton County Total	1,197	1,176	1,143	1,131	1,128	1,128
Haskell County						
County-Other	351	340	336	338	342	349
Haskell	504	494	484	482	488	499
Stamford (P)	9	8	8	8	9	9
Haskell County Total	864	842	828	828	839	857
Hill County						
Birome WSC (P)	104	107	110	113	116	119
Bold Springs WSC (P)	22	23	24	25	26	28
Brandon-Irene WSC (P)	231	237	239	246	253	259
Chatt WSC	95	98	100	103	106	108
County-Other	220	237	231	226	207	201
Double Diamond Utilities (P)	429	439	451	462	472	491
Files Valley WSC (P)	389	402	410	423	434	441
Gholson WSC	89	96	102	109	117	125
Hilco United Services (P)	565	589	607	633	661	681
Hill County WSC	466	487	501	518	532	544
Hillsboro	1,987	2,070	2,122	2,189	2,251	2,283
Hubbard	156	157	157	162	167	169
Itasca	152	153	153	156	160	163
Johnson County SUD (P)	17	18	20	22	24	26
Parker WSC (P)	30	31	32	33	33	34
Post Oak SUD	66	67	86	94	105	116
Whitney	492	492	504	520	534	547
Woodrow-Osceola WSC	311	311	314	325	333	341
Hill County Total	5,821	6,014	6,163	6,359	6,531	6,676
Hood County						
Acton MUD (P)	2,808	4,365	5,384	5,915	6,524	7,204

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
County-Other	2,643	1,952	1,619	1,591	1,435	1,169
Granbury	1,738	2,046	2,267	2,466	2,627	2,753
Lipan	115	130	140	150	158	164
Santo SUD (P)	7	7	7	8	8	9
Tolar	143	166	183	198	210	220
Hood County Total	7,454	8,666	9,600	10,328	10,962	11,519
Johnson County						
Acton MUD (P)	37	57	71	78	86	95
Alvarado	446	483	525	577	639	708
Bethany WSC	363	392	426	468	520	576
Bethesda WSC (P)	3,811	4,304	4,826	5,428	6,104	6,833
Burleson (P)	5191	6185	7128	7736	8,578	9,626
Cleburne	6,969	7,580	8,977	10,446	12,234	13,678
County-Other	945	1110	809	439	138	149
Crowley	9	14	19	24	30	36
Double Diamond Utilities (P)	28	29	29	30	31	55
Fort Worth	0	0	0	957	1,530	1,912
Godley	102	111	121	134	148	164
Grandview	182	197	213	234	259	287
Johnson County SUD (P)	5413	5740	6280	6865	7,490	8,127
Keene	497	575	662	757	859	969
Mansfield (P)	706	1003	1310	1647	2,013	2,405
Mountain Peak SUD (P)	1,123	1,351	1,591	1,857	2,149	2,461
Parker WSC (P)	319	385	455	535	625	721
Rio Vista	154	183	214	249	288	330
Venus (P)	623	709	801	903	1,015	1,137
Johnson County Total	26,918	30,408	34,457	39,364	44,736	50,269
Jones County						
Abilene (P)	945	975	992	1,012	1,036	1,057
Anson	365	373	376	386	394	402
County-Other	358	372	382	392	402	411
Hamby WSC (P)	54	55	55	55	55	56
Hamlin	423	435	444	458	468	478
Hawley WSC (P)	369	369	367	369	377	384

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Stamford (P)	840	872	892	917	939	958
Jones County Total	3,354	3,451	3,508	3,589	3,671	3,746
Kent County						
County-Other	14	15	15	15	15	15
Jayton	118	115	112	111	111	111
Kent County Total	132	130	127	126	126	126
Knox County						
Baylor SUD (P)	2	2	1	1	1	1
County-Other	129	126	125	128	130	132
Knox City	237	240	242	248	252	256
Munday	253	255	256	262	266	270
Red River Authority of Texas	27	30	30	30	30	30
Knox County Total	648	653	654	669	679	689
Lampasas County						
Copperas Cove (P)	123	160	195	233	268	300
Corix Utilities Texas Inc. (P)	348	347	362	381	395	411
County-Other	150	155	136	116	102	88
Kempner WSC (P)	1,669	1,809	1,919	2,040	2,155	2,260
Lampasas	1,265	1,356	1,424	1,506	1,590	1,668
Lampasas County Total	3,555	3,827	4,036	4,276	4,510	4,727
Lee County						
Aqua WSC (P)	465	510	535	543	550	554
County-Other	133	142	149	152	154	155
Giddings	1,154	1,268	1,328	1,347	1,364	1,374
Lee County WSC (P)	959	1,046	1,093	1,106	1,119	1,127
Lexington	244	268	280	284	288	290
Southwest Milam WSC (P)	47	51	53	54	55	55
Lee County Total	3,002	3,285	3,438	3,486	3,530	3,555
Limestone County						
Birome WSC (P)	14	14	15	15	15	16
Bistone Municipal Water Supply District	233	241	247	258	267	273
Coolidge	176	191	202	217	230	239
County-Other	311	287	275	273	266	282
Groesbeck	688	677	667	665	668	665

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Mart (P)	1	1	1	2	2	2
Mexia	568	634	687	745	793	826
Point Enterprise WSC	85	87	87	89	91	93
Point Oak SUD	11	11	15	16	17	18
Prairie Hill WSC (P)	140	145	150	156	163	168
SLC WSC	107	108	108	111	115	117
Tri-County SUD (P)	261	264	259	249	256	261
White Rock WSC	219	222	225	231	239	244
Limestone County Total	2,814	2,882	2,938	3,027	3,122	3,204
McLennan County						
Axtell WSC	166	172	179	187	198	208
Bellmead	1,233	1,261	1,288	1,331	1,388	1,448
Birome WSC (P)	66	68	70	72	74	76
Bold Springs WSC (P)	252	263	273	287	302	317
Bruceville-Eddy (P)	834	878	868	913	963	1,014
Central Bosque WSC	128	135	140	147	156	164
Chalk Bluff WSC	268	258	249	244	243	243
Coryell City Water Supply District (P)	125	146	166	186	206	227
County-Other	1,268	1,035	880	708	551	400
Crawford	148	147	146	147	148	150
Cross County WSC (P)	419	416	414	415	419	424
East Crawford	328	350	369	390	412	434
Elm Creek WSC (P)	193	214	233	254	276	299
EOL WSC	231	240	249	261	276	290
Gholson	232	250	265	284	304	325
H&H WSC	188	195	202	212	223	235
Hewitt	3,029	3,393	3,721	4,071	4,442	4,811
Highland Park WSC (P)	48	52	54	56	57	58
Hilltop WSC	98	102	106	111	117	123
Lacy-Lakeview	745	788	828	877	932	989
Leroy Tours Gerald WSC	139	144	148	155	163	172
Levi WSC	107	111	115	121	128	134
Lorena	319	351	379	410	443	476
Mart (P)	351	367	382	401	422	445

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
McGregor	801	813	825	846	874	905
Mclennan County WCID 2	273	286	299	314	331	349
Moody	200	208	215	224	236	249
North Bosque WSC	566	687	795	905	1,017	1,127
Prairie Hill WSC (P)	101	105	108	113	118	122
Riesel	163	162	162	164	167	172
Robinson	2,472	2,896	3,275	3,671	4,078	4,482
Ross WSC	329	344	359	377	397	418
Spring Valley WSC	265	278	289	303	320	337
Texas State Technical College	888	954	1,013	1,073	1,132	1,193
Valley Mills (P)	4	6	8	10	11	13
Waco	31,279	33,063	34,676	36,494	38,495	40,503
West	457	461	466	474	487	501
West Brazos WSC (P)	163	169	176	186	196	207
Windsor Water	104	110	114	120	127	134
Woodway	3,465	3,690	3,892	4,114	4,347	4,579
McLennan County Total	52,445	55,568	58,396	61,628	65,176	68,753
Milam County						
Bell-Milam-Falls WSC (P)	225	232	237	246	255	264
Cameron	1,363	1,413	1,446	1,504	1,561	1,617
County-Other	129	134	139	146	151	156
Milano WSC (P)	209	214	216	224	232	240
North Milam WSC (P)	249	257	263	273	283	293
Rockdale	1,173	1,213	1,237	1,285	1,333	1,380
Salem Elm Ridge WSC	131	135	137	142	148	153
Southwest Milam WSC (P)	1,002	1,036	1,058	1,100	1,141	1,181
Thorndale	183	188	190	196	203	211
Milam County Total	4,664	4,822	4,923	5,116	5,307	5,495
Nolan County						
County-Other	126	127	128	130	134	137
Roscoe	199	203	205	211	216	222
Sweetwater	1,953	1,996	2,017	2,084	2,140	2,192
The Bitter Creek WSC	193	196	197	204	209	214
Nolan County Total	2,471	2,522	2,547	2,629	2,699	2,765

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Palo Pinto County						
County-Other	281	280	277	277	274	267
Gordon	140	148	153	158	163	167
Lake Palo Pinto Area WSC	106	109	111	114	117	119
Mineral Wells (P)	2579	2692	2759	2840	2919	2985
North Rural WSC	158	163	165	168	173	177
Palo Pinto WSC	115	120	123	126	129	132
Parker County SUD	6	8	10	13	16	19
Possum Kingdom WSC	834	886	921	954	982	1004
Santo SUD (P)	254	267	275	288	304	322
Sportsmans World MUD	122	131	136	142	146	150
Stephens Regional SUD (P)	5	5	5	5	5	5
Strawn	145	152	156	160	165	169
Sturdivant Progress WSC	240	247	250	257	265	274
Palo Pinto County Total	4,985	5,208	5,341	5,502	5,658	5,790
Robertson County						
Bethany Hearne WSC	43	45	48	51	54	58
Bremond	181	193	205	220	235	250
Calvert	190	183	180	180	179	179
County-Other	152	146	145	144	144	144
Franklin	274	291	330	379	439	509
Hearne	759	898	1,065	1,062	1,060	1,060
Robertson County WSC	424	500	578	675	776	869
Twin Creek WSC	265	284	302	324	345	367
Wellborn SUD (P)	851	877	910	950	996	1,045
Wickson Creek SUD (P)	43	48	53	59	66	74
Robertson County Total	3,182	3,465	3,816	4,044	4,294	4,555
Shackelford County						
Albany	604	635	624	625	624	624
Callahan County WSC (P)	5	5	5	5	5	5
County-Other	25	15	13	11	10	10
Fort Griffin SUD (P)	96	95	94	93	93	93
Hamby WSC (P)	52	52	52	53	53	54
Stephens Regional SUD (P)	2	2	2	2	2	2

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Shackelford County Total	784	804	790	789	787	788
Somervell County						
County-Other	644	698	736	769	800	827
Glen Rose	605	663	703	736	767	792
Somervell County Water District	168	181	190	198	206	213
Somervell County Total	1,417	1,542	1,629	1,703	1,773	1,832
Stephens County						
Breckenridge	1,002	1,012	1,006	1,004	1,005	1,015
County-Other	49	48	48	48	51	49
Fort Belknapp WSC (P)	6	6	6	5	6	6
Fort Griffin SUD (P)	102	103	101	101	101	101
Possum Kingdom WSC (P)	34	35	35	36	36	36
Staff WSC	42	41	39	39	38	38
Stephens Regional SUD (P)	257	254	250	247	248	249
Stephens County Total	1,492	1,499	1,485	1,480	1,485	1,494
Stonewall County						
Aspermont	249	245	241	241	240	240
County-Other	68	65	64	64	64	64
Stonewall County Total	317	310	305	305	304	304
Taylor County						
Abilene (P)	21,316	21,723	22,058	22,428	22,838	23,181
Coleman County WSC (P)	19	19	19	19	20	20
County-Other	666	666	669	686	698	708
Hamby WSC (P)	34	35	35	35	35	36
Hawley WSC (P)	48	48	48	48	49	50
Lawn	128	131	133	136	138	140
Merkel	373	376	378	382	388	394
North Runnels WSC	34	34	33	33	33	33
Potosi WSC (P)	801	819	836	851	866	879
Steamboat Mountain WSC	376	379	383	387	393	399
Tye	184	186	188	191	195	197
View Caps WSC	195	197	199	202	205	208
Taylor County Total	24,174	24,613	24,979	25,398	25,858	26,245
Throckmorton County						

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Baylor SUD (P)	3	3	3	3	3	3
County-Other	30	28	28	28	28	27
Fort Belknapp WSC (P)	20	20	19	19	19	19
Fort Griffin SUD (P)	19	19	19	19	19	19
Stephens Regional SUD (P)	17	16	16	15	15	15
Throckmorton	185	181	177	177	177	177
Throckmorton County Total	274	267	262	261	261	260
Washington County						
Brenham	4,329	4,627	4,821	5,038	5,225	5,382
Central Washington County WSC	254	262	268	275	283	289
Chappell Hill WSC	141	147	150	155	159	163
Corix Utilities Texas Inc. (P)	577	598	612	631	648	663
County-Other	1,374	1,352	1,330	1,324	1,329	1,333
West End WSC	53	58	62	68	74	82
Washington County Total	6,728	7,044	7,243	7,491	7,718	7,912
Williamson County						
Bartlett (P)	200	208	221	236	255	275
Bell-Milam-Falls WSC (P)	43	53	65	78	94	110
Block House MUD	846	828	818	814	812	811
Brushy Creek MUD	3,084	3,022	2,985	2,965	2,960	2,959
Cedar Park (P)	16,857	18,582	18,490	18,457	18,441	18,434
County-Other	6,089	3,894	9,107	13,912	29,849	44,044
Fern Bluff MUD	1,187	1,175	1,168	1,163	1,161	1,161
Florence	130	132	137	144	154	166
Georgetown	26,115	34,121	42,521	52,549	63,820	76,998
Granger	209	217	229	244	264	286
Hutto	2,072	4,211	4,469	6,602	9,761	11,868
Jarrell-Schwertner WSC (P)	650	768	919	1,088	1,283	1,488
Jonah Water SUD	3,312	4,052	5,008	6,062	7,281	8,485
Leander	6,562	9,846	12,920	16,012	19,897	24,500
Liberty Hill	220	267	329	398	478	560
Manville WSC (P)	1,886	2,219	2,636	3,147	3,771	4,523
Paloma Lake MUD 1	305	409	403	400	399	399
Paloma Lake MUD 2	245	287	282	280	279	279

Table 2-6. Projected Municipal Water Demand by WUG/County in the Brazos G Area (acre-feet/year)

WUG/County	Projections[1, 2]					
	2020	2030	2040	2050	2060	2070
Pflugerville	62	77	96	117	140	165
Round Rock (P)	19,804	24,297	30,246	37,228	37,174	37,153
Sonterra MUD	445	449	459	474	493	513
Southwest Milam (P)	291	356	439	530	637	747
Taylor	2,844	3,010	3,245	3,527	3,873	4,237
Thorndale (P)	0	0	0	1	1	1
Walsh Ranch MUD	199	196	195	195	194	194
Williamson County MUD 10	727	722	721	720	719	718
Williamson County MUD 11	820	816	816	817	818	820
Williamson County MUD 9	548	541	538	536	536	536
Williamson County WSID 3	898	916	941	972	1,008	1,045
Williamson-Travis County MUD 1 (P)	598	584	576	572	571	570
Williamson County Total	97,248	116,255	140,979	170,240	207,123	244,045
Young County						
Baylor SUD (P)	27	27	27	27	27	27
County-Other	209	211	215	222	230	238
Fort Belknapp WSC (P)	430	440	445	457	471	487
Graham	2,788	2,891	2,959	3,052	3,157	3,262
Young County Total	3,454	3,569	3,646	3,758	3,885	4,014
Brazos G Total	406,477	455,217	510,229	571,256	638,046	707,782

Notes:

[1] Projections from Texas Water Development Board.
[2] Projections do not include contractual water demands.

(P) Partial

2.3.3 Manufacturing Water Demand

Manufacturing is an integral part of the economy of the Brazos G Area, and water is critical to the manufacturing process for many industries. It can be used in a variety of ways, including as a component of the final product, as a cooling agent during the manufacturing process, or for cleaning/wash-down of parts and/or products. In the Brazos G Area, industries that are major water users include food and kindred products, apparel, fabricated metal, machinery, stone and concrete production, and micro-chip production.

Manufacturing water demand was projected by the TWDB by taking industry-specific water demand coefficients, adjusted for water-use efficiencies (recycling/reuse), and applying them to growth trends for each industry. These growth trends assume expansion of existing capacity and building of new facilities, continuation of historical trends of

interaction between oil price changes and industrial activity, and that the makeup of each county's manufacturing base remains constant throughout the 60-year planning horizon.

Manufacturing use is projected to increase 60 percent, from 12,695 acft in 2020 to 16,175 acft in 2030, and then remain constant through the remainder of the planning horizon (Table 2-7). The trend in manufacturing use by county is shown in Figure 2-6. Bosque, Johnson, McLennan, Brazos, and Williamson Counties account for 71 percent of the total use in 2070.

Table 2-7. Projected Manufacturing Water Demand in the Brazos G Area (acre-feet/year)

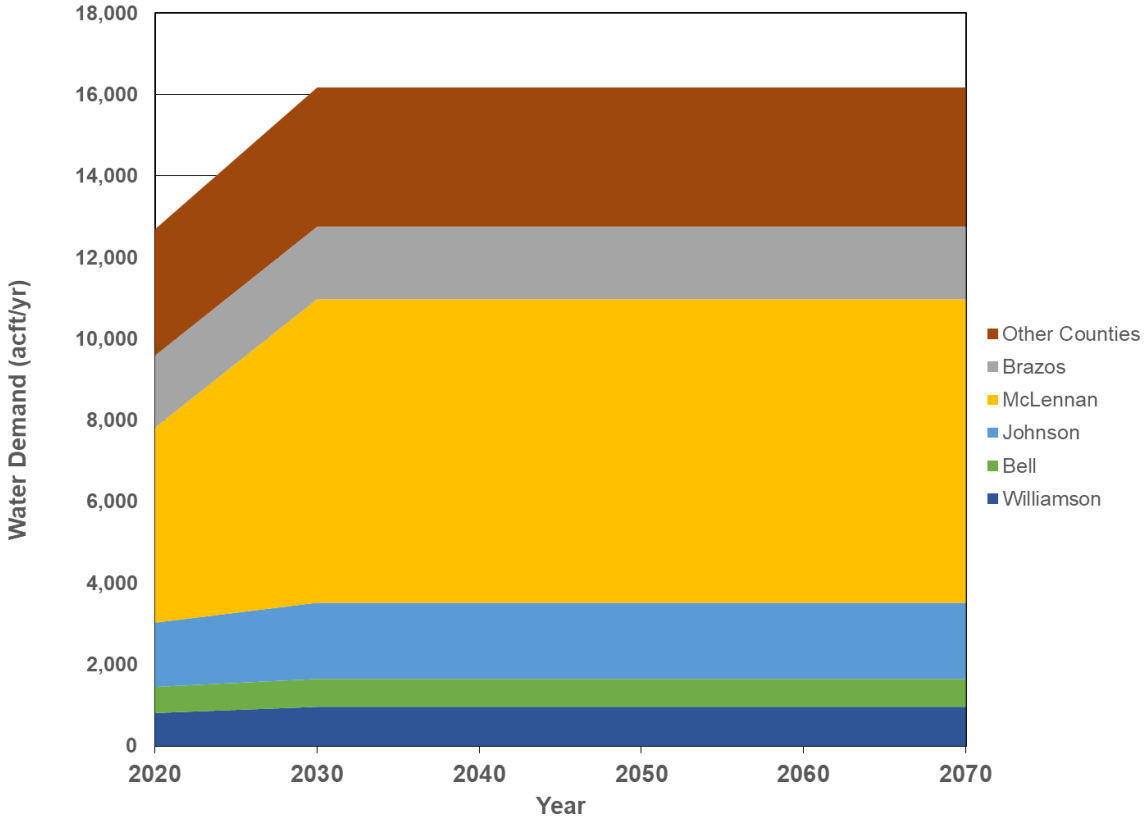
County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Bell	641	685	685	685	685	685
Bosque	9	11	11	11	11	11
Brazos	1,770	1,780	1,780	1,780	1,780	1,780
Burleson	117	117	117	117	117	117
Callahan	0	0	0	0	0	0
Comanche	18	20	20	20	20	20
Coryell	4	4	4	4	4	4
Eastland	48	56	56	56	56	56
Erath	74	85	85	85	85	85
Falls	0	0	0	0	0	0
Fisher	157	185	185	185	185	185
Grimes	327	327	327	327	327	327
Hamilton	3	3	3	3	3	3
Haskell	0	0	0	0	0	0
Hill	1	1	1	1	1	1
Hood	14	17	17	17	17	17
Johnson	1,577	1,872	1,872	1,872	1,872	1,872
Jones	0	0	0	0	0	0
Kent	0	0	0	0	0	0
Knox	4	4	4	4	4	4
Lampasas	198	216	216	216	216	216
Lee	7	8	8	8	8	8
Limestone	321	377	377	377	377	377
McLennan	4,792	7,458	7,458	7,458	7,458	7,458
Milam	12	13	13	13	13	13
Nolan	448	528	528	528	528	528
Palo Pinto	11	13	13	13	13	13

Table 2-7. Projected Manufacturing Water Demand in the Brazos G Area (acre-feet/year)

County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Robertson	51	51	51	51	51	51
Shackelford	13	13	13	13	13	13
Somervell	3	4	4	4	4	4
Stephens	7	8	8	8	8	8
Stonewall	58	58	58	58	58	58
Taylor	585	671	671	671	671	671
Throckmorton	0	0	0	0	0	0
Washington	577	583	583	583	583	583
Williamson	812	963	963	963	963	963
Young	36	44	44	44	44	44
Brazos G Total	**12,695**	**16,175**	**16,175**	**16,175**	**16,175**	**16,175**

[1] Projections from Texas Water Development Board

Figure 2-6. Manufacturing Water Demand Projections



2.3.4 Steam-Electric Water Demand

The steam-electric generation process uses water in boilers and for cooling. The projections for steam-electric water demand were developed by the TWDB and are based on power generation projections—determined by population and manufacturing growth—and on power generation capacity and fresh water use for that projected capacity. Grimes, Hood Limestone, McLennan, Milam, Robertson, and Somervell counties account for 92 percent of total steam-electric water use in 2070. Steam-Electric water use is projected to remain constant at 232,894 acft from 2020 to 2070 (Table 2-8 and Figure 2-7).

Table 2-8. Projected Steam-Electric Water Demand in the Brazos G Area (acre-feet/year)

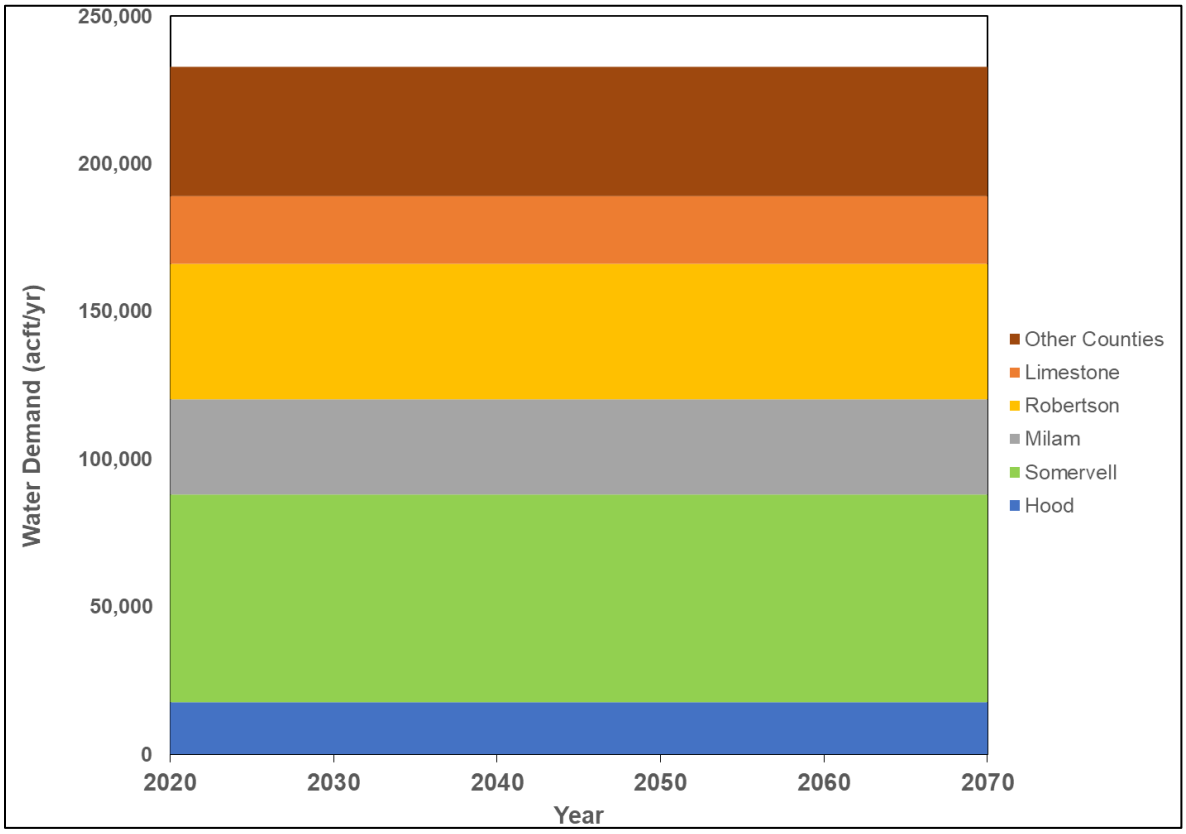
County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Bell	4,714	4,714	4,714	4,714	4714	4,714
Bosque	2,880	2,880	2,880	2,880	2880	2,880
Brazos	421	421	421	421	421	421
Burleson	0	0	0	0	0	0
Callahan	0	0	0	0	0	0
Comanche	0	0	0	0	0	0
Coryell	0	0	0	0	0	0
Eastland	0	0	0	0	0	0
Erath	0	0	0	0	0	0
Falls	0	0	0	0	0	0
Fisher	0	0	0	0	0	0
Grimes	15,016	15,016	15,016	15,016	15016	15,016
Hamilton	0	0	0	0	0	0
Haskell	0	0	0	0	0	0
Hill	4120	4120	4120	4120	4120	4,120
Hood	17,709	17,709	17,709	17,709	17709	17,709
Johnson	1,915	1,915	1,915	1,915	1915	1,915
Jones	0	0	0	0	0	0
Kent	0	0	0	0	0	0
Knox	0	0	0	0	0	0
Lampasas	0	0	0	0	0	0
Lee	0	0	0	0	0	0
Limestone	22,936	22,936	22,936	22,936	22936	22,936
McLennan	13,520	13,520	13,520	13,520	13520	13,520
Milam	32,254	32,254	32,254	32,254	32254	32,254
Nolan	0	0	0	0	0	0

Table 2-8. Projected Steam-Electric Water Demand in the Brazos G Area (acre-feet/year)

County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Palo Pinto	501	501	501	501	501	501
Robertson	45,866	45,866	45,866	45,866	45866	45,866
Shackelford	0	0	0	0	0	0
Somervell	70,362	70,362	70,362	70,362	70362	70,362
Stephens	0	0	0	0	0	0
Stonewall	0	0	0	0	0	0
Taylor	0	0	0	0	0	0
Throckmorton	0	0	0	0	0	0
Washington	0	0	0	0	0	0
Williamson	0	0	0	0	0	0
Young	680	680	680	680	680	680
Brazos G Total	**232,894**	**232,894**	**232,894**	**232,894**	**232,894**	**232,894**

1 Projections adopted by the Texas Water Development Board, as requested by the BGRWPG (Appendix Q).

Figure 2-7. Steam-Electric Water Demand Projections



2.3.5 Mining Water Demand

Projections for mining water demand were developed by the TWDB and are based on projected production of mineral commodities, and historic rates of water use, moderated by water requirements of technological processes used in mining.

Mining use in the Brazos G Area is expected to decrease 1.2 percent between 2020 and 2070, from 61,586 acft to 60,838 acft (Table 2-9). Robertson, Limestone, Williamson, Bell, and McLennan counties account for 75 percent of total mining water use in 2070 (Figure 2-8).

Table 2-9. Projected Mining Water Demand in the Brazos G Area (acre-feet/year)

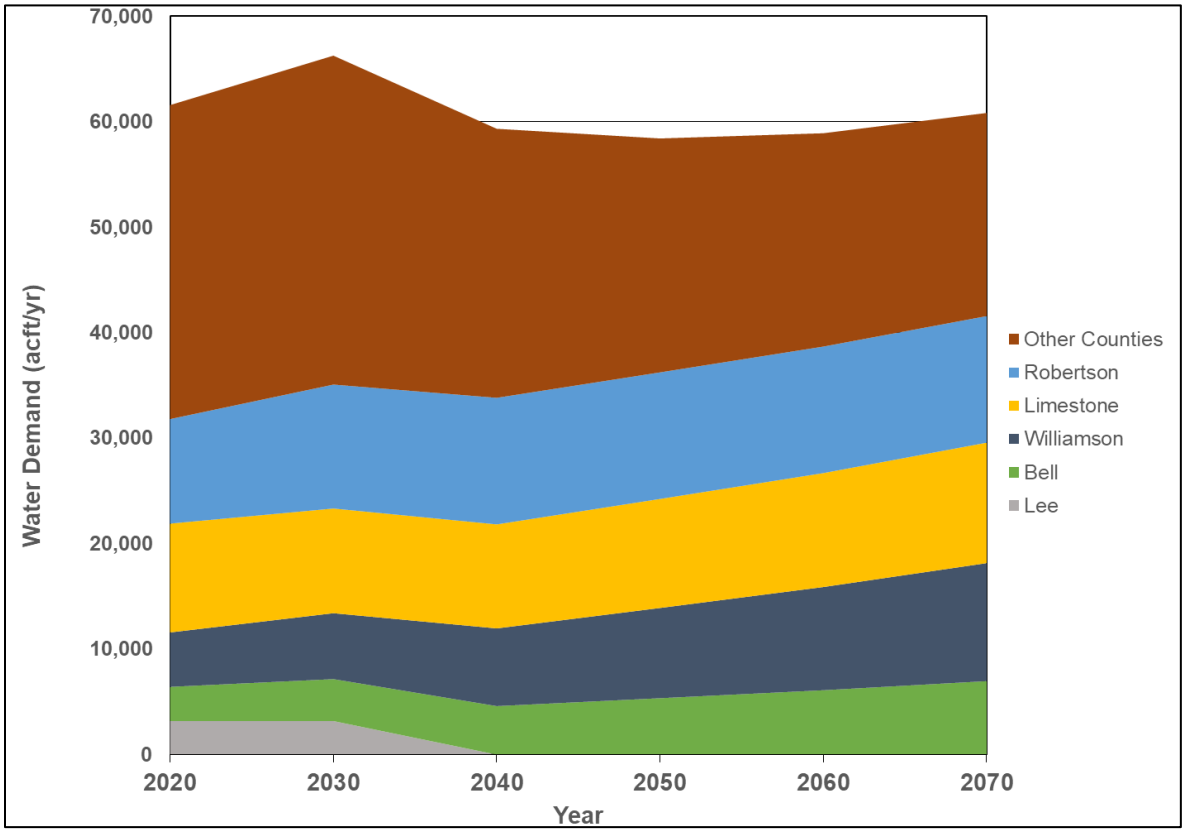
County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Bell	3,242	3,980	4,599	5,349	6,105	6,968
Bosque	1,972	2,071	1,892	1,872	1,833	1,821
Brazos	1,088	1,610	1,433	1,144	923	814
Burleson	995	1,923	1,512	1,100	686	428
Callahan	228	227	214	201	190	180
Comanche	444	525	363	276	188	128
Coryell	1,510	1,072	491	363	398	437
Eastland	1,164	1,173	929	714	518	432
Erath	505	536	376	304	232	177
Falls	225	246	259	286	307	331
Fisher	407	402	359	313	273	238
Grimes	323	602	471	340	209	128
Hamilton	393	236	101	0	0	0
Haskell	93	92	83	74	66	59
Hill	1,634	1,190	775	403	436	472
Hood	2,078	2,436	2,222	2,133	2,043	2,057
Johnson	4,126	2,788	1,515	1,013	1,161	1,336
Jones	239	234	218	199	183	169
Kent	38	38	35	32	29	26
Knox	15	15	14	14	14	14
Lampasas	198	221	241	261	286	313
Lee	3,180	3,180	0	0	0	0
Limestone	10,317	9,925	9,865	10,339	10,805	11,425
McLennan	2,538	3,000	3,060	3,508	3,832	4,216
Milam	14	14	14	14	14	14
Nolan	225	222	200	178	158	141

Table 2-9. Projected Mining Water Demand in the Brazos G Area (acre-feet/year)

County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Palo Pinto	656	847	625	480	336	235
Robertson	9,913	11,753	12,000	12,000	12,000	12,000
Shackelford	562	747	558	442	328	243
Somervell	1,112	1,279	1,146	1,060	998	971
Stephens	5,064	5,141	4,458	3,825	3,257	2,773
Stonewall	584	576	512	446	388	338
Taylor	391	391	366	346	329	315
Throckmorton	194	191	171	150	132	116
Washington	569	866	703	538	373	264
Williamson	5,163	6,247	7,364	8,555	9,782	11,186
Young	187	276	196	151	105	73
Brazos G Total	**61,586**	**66,272**	**59,340**	**58,423**	**58,917**	**60,838**

[1] Projections from Texas Water Development Board

Figure 2-8. Mining Water Demand Projections



2.3.6 Irrigation Water Demand

The irrigation water demand projections were developed by the TWDB and are based on specific assumptions regarding resource constraints, crop prices, crop yields, agricultural policy, and technological advances in irrigation systems.

Major crops grown in the region include feed grains, small grains, cotton, pecans, and peanuts. Table 2-10 shows that irrigation water demand will decrease 1.0 percent from 2020 to 2070, mostly attributable to technological advances in irrigation techniques as well as projected reductions in irrigated acreage. Figure 2-9 shows the trend in irrigation use, with Robertson, Haskell, Knox, Brazos, and Comanche counties accounting for 70 percent of total irrigation water use in 2070.

Table 2-10. Projected Irrigation Water Demand in the Brazos G Area (acre-feet/year)

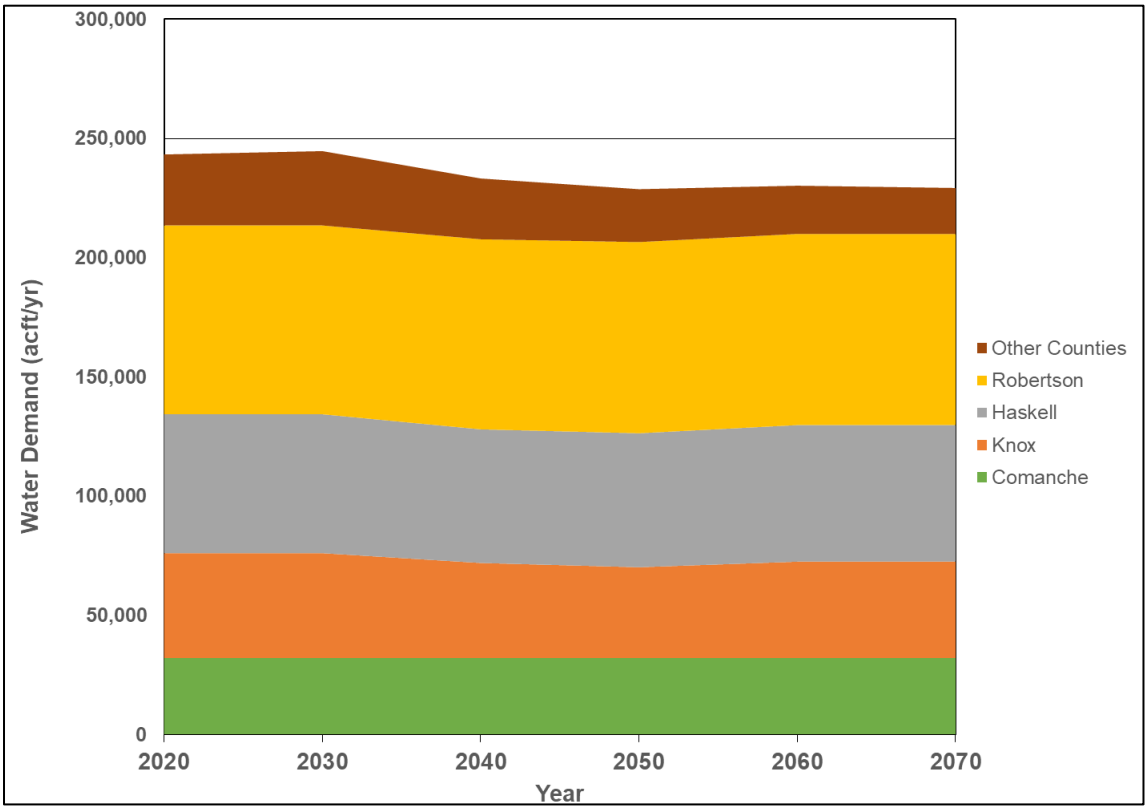
County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Bell	2,843	2,843	2,843	2,843	2,843	2,843
Bosque	3,577	3,577	3,577	3,577	3,577	3,577
Brazos	39,243	39,243	39,243	39,243	39,243	39,243
Burleson	26,804	26,804	26,804	26,804	26,804	26,804
Callahan	781	781	781	781	781	781
Comanche	32,117	32,117	32,117	32,117	32,117	32,117
Coryell	310	310	310	310	310	310
Eastland	5,031	5,031	5,031	5,031	5,031	5,031
Erath	7,026	7,026	7,026	7,026	7,026	7,026
Falls	7,448	7,448	7,448	7,448	7,448	7,448
Fisher	4,680	4,680	4,680	4,680	4,680	4,680
Grimes	668	668	668	668	668	668
Hamilton	694	694	694	694	694	694
Haskell	58,239	58,239	56,022	56,188	57,281	57,281
Hill	1750	1750	1750	1750	1750	1750
Hood	9,049	9,049	9,049	9,049	9,049	9,049
Johnson	566	566	566	566	566	566
Jones	2,829	2,829	2,829	2,829	2,829	2,829
Kent	1,081	1,081	1,081	1,081	1,081	1,081
Knox	43,982	43,982	39,874	38,078	40,413	40,413
Lampasas	538	538	538	538	538	538
Lee	1168	1168	1168	1168	1168	1168
Limestone	7	7	7	7	7	7
McLennan	4,962	4,962	4,962	4,962	4,962	4,962

Table 2-10. Projected Irrigation Water Demand in the Brazos G Area (acre-feet/year)

County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Milam	6,502	6,502	6,502	6,502	6,502	6,502
Nolan	11,564	11,564	11,564	11,564	11,564	11,564
Palo Pinto	3,011	3,011	3,011	3,011	3,011	3,011
Robertson	79,182	79,182	79,706	80,166	80,167	80,167
Shackelford	250	250	250	250	250	250
Somervell	410	410	410	410	410	410
Stephens	152	152	152	152	152	152
Stonewall	106	106	106	106	106	106
Taylor	1,635	1,635	1,635	1,635	1,635	1,635
Throckmorton	157	157	157	157	157	157
Washington	309	309	309	309	309	309
Williamson	333	333	333	333	333	333
Young	493	493	493	493	493	493
Brazos G Total	**359,497**	**359,497**	**353,696**	**352,526**	**355,955**	**355,955**

[1] Projections from Texas Water Development Board

Figure 2-9. Irrigation Water Demand Projections



2.3.7 Livestock Water Demand

In the 37-county Brazos G Area, the principal livestock type is dairy, with some beef cattle. The Brazos G Area contains widespread cow-calf operators, with concentrated dairy production in Comanche and Erath counties. The livestock water demand projections developed by the TWDB are based upon estimates of the maximum carrying capacity of the rangeland of the area and the estimated number of gallons of water per head of livestock per day. Additionally, economics of milk production and environmental impacts of the operations are major factors in the projections of the water demands for this category of livestock.

Livestock drinking water is obtained from wells, stock watering ponds, and streams. As can be seen in Table 2-11, it is projected that the annual livestock water demand will remain constant at 47,939 acft between 2020 and 2070.

Table 2-11shows the trend in livestock use, with Erath, Comanche, Robertson, Milam, and Grimes counties accounting for 35 percent of total livestock water use in 2070.

2.3.8 Wholesale Water Providers

A wholesale water provider (WWP) in the 2021 Brazos G Plan is any entity that delivers or sells water wholesale, whether treated or raw, or that the Brazos G RWPG expects to sell water during the planning period. Seventy-seven WUGs are also WWPs in the Brazos G Area, e.g., they sell wholesale water to neighboring water systems in addition to meeting their own municipal demands. In additional to those water systems, 13 WWPs provide only wholesale water to entities in the Brazos G Area. The total contractual demands in Brazos G for those 13 WWPs are shown in Table 2.12. Note that two additional WWPs are identified in Brazos G (FHLM WSC and the Salt Fork Water Quality Corporation), but do not have current contracts to sell water.

Table 2-11. Projected Livestock Water Demand in the Brazos G Area (acre-feet/year)

County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Bell	1,172	1,172	1,172	1,172	1,172	1,172
Bosque	979	979	979	979	979	979
Brazos	1,243	1,243	1,243	1,243	1,243	1,243
Burleson	1,390	1,390	1,390	1,390	1,390	1,390
Callahan	897	897	897	897	897	897
Comanche	3,243	3,243	3,243	3,243	3,243	3,243
Coryell	1,133	1,133	1,133	1,133	1,133	1,133
Eastland	1,117	1,117	1,117	1,117	1,117	1,117
Erath	5,739	5,739	5,739	5,739	5,739	5,739
Falls	1,833	1,833	1,833	1,833	1,833	1,833
Fisher	620	620	620	620	620	620

Table 2-11. Projected Livestock Water Demand in the Brazos G Area (acre-feet/year)

County	Projected Demands[1]					
	2020	2030	2040	2050	2060	2070
Grimes	2,123	2,123	2,123	2,123	2,123	2,123
Hamilton	1,393	1,393	1,393	1,393	1,393	1,393
Haskell	444	444	444	444	444	444
Hill	1,337	1,337	1,337	1,337	1,337	1,337
Hood	513	513	513	513	513	513
Johnson	1,452	1,452	1,452	1,452	1,452	1,452
Jones	581	581	581	581	581	581
Kent	260	260	260	260	260	260
Knox	509	509	509	509	509	509
Lampasas	625	625	625	625	625	625
Lee	1,216	1,216	1,216	1,216	1,216	1,216
Limestone	1,670	1,670	1,670	1,670	1,670	1,670
McLennan	1,953	1,953	1,953	1,953	1,953	1,953
Milam	2,761	2,761	2,761	2,761	2,761	2,761
Nolan	296	296	296	296	296	296
Palo Pinto	1929	1929	1929	1929	1929	1929
Robertson	3,048	3,048	3,048	3,048	3,048	3,048
Shackelford	580	580	580	580	580	580
Somervell	165	165	165	165	165	165
Stephens	460	460	460	460	460	460
Stonewall	336	336	336	336	336	336
Taylor	834	834	834	834	834	834
Throckmorton	493	493	493	493	493	493
Washington	1,348	1,348	1,348	1,348	1,348	1,348
Williamson	1,656	1,656	1,656	1,656	1,656	1,656
Young	591	591	591	591	591	591
Brazos G Total	**47,939**	**47,939**	**47,939**	**47,939**	**47,939**	**47,939**

[1] Projections from Texas Water Development Board

Figure 2-10. Livestock Water Demand Projections

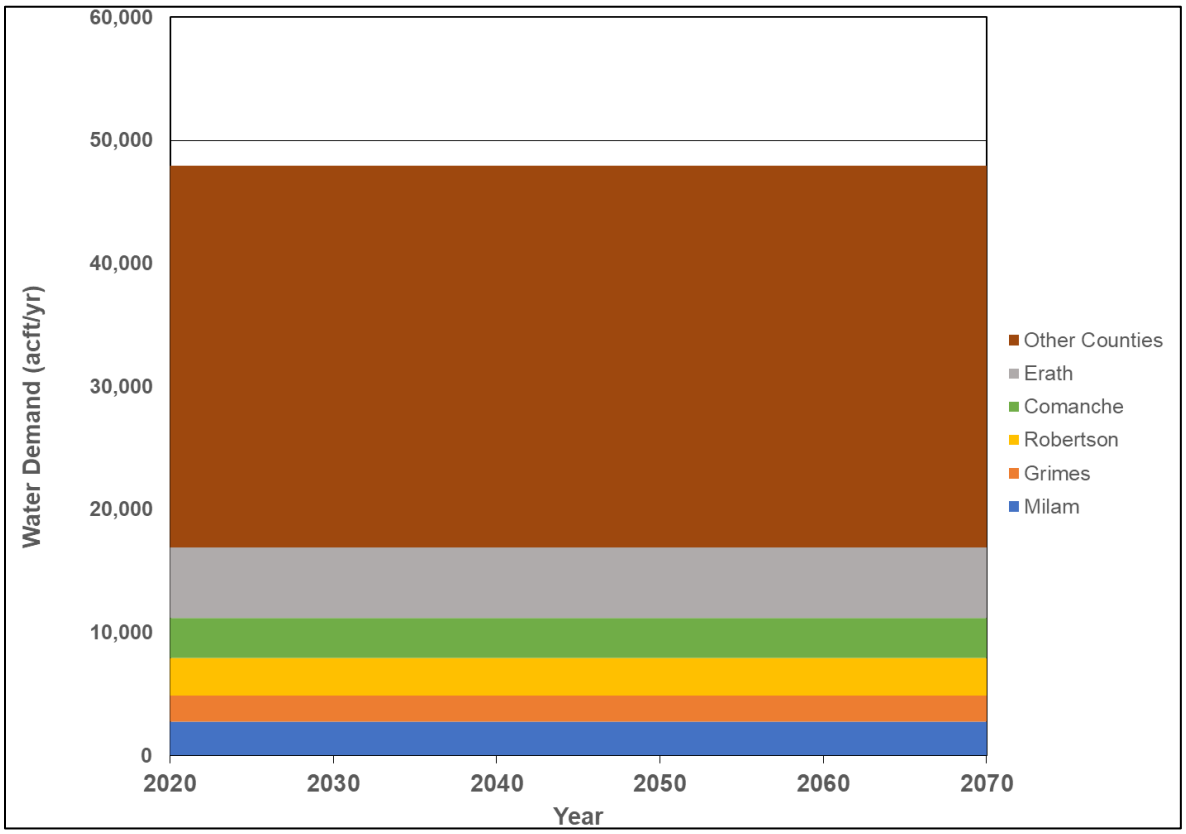


Table 2-12. Brazos G Related Contractual Demands for non-WUG Wholesale Water Providers (acre-feet/year)

Wholesale Water Provider	2020	2030	2040	2050	2060	2070
AQUILLA WSD	6,512	5,952	5,952	5,952	5,952	5,952
BELL COUNTY WCID #1	25,455	25,879	26,494	26,914	27,826	28,705
BLUEBONNET WSC	7,125	7,125	7,125	7,125	7,125	7,125
BRAZOS RIVER AUTHORITY[1]	347,929	344,344	340,760	337,176	333,591	329,798
CENTRAL TEXAS WSC	10,537	10,537	10,537	10,537	10,537	10,537
COLORADO RIVER MWD	5,020	4,850	4,679	4,509	4,338	4,168
EASTLAND COUNTY WSD	5,387	5,395	5,395	5,395	5,395	5,395
LOWER COLORADO RIVER AUTHORITY[2]	57,640	57,640	57,640	57,640	57,640	57,640
NORTH CENTRAL TEXAS MUNICIPAL WATER AUTHORITY	1,650	1,650	1,650	1,650	1,650	1,650
PALO PINTO COUNTY MWD #1	9,414	9,515	9,570	9,641	9,712	9,771
TARRANT REGIONAL WD[3]	308,840	376,950	443,703	495,609	539,887	585,823
UPPER LEON MWD	4,572	4,572	4,572	4,572	4,572	4,572
WEST CENTRAL TEXAS MWD	17,977	15,620	13,260	10,900	8,540	6,200

[1] Includes contractual demands for Region C portion of Parker County SUD located in both Brazos G and Region C.
[2] Includes contractual demands for Region K portion of Pflugerville located both Brazos G and Region K.
[3] Includes contractual demands for Region C portion of Fort Worth and Mansfield located both in Brazos G and Region C.

2.3.9 Major Water Providers

Projected retail and wholesale demands by category of use for the major water providers (MWPs) identified by the Brazos G RWPG are shown in Appendix O.

3

Evaluation of Current Water Supplies

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3 Evaluation of Current Water Supplies

3.1 Surface Water Supplies

Streamflow in the Brazos River and its tributaries, along with reservoirs in the Brazos River Basin, comprise a vast supply of surface water in the Brazos G Area. Diversions and use of this surface water occur throughout the entire region with over 1,000 water rights currently issued. These water rights provide authorization for an owner to divert, store, and use the water; however, they do not guarantee that a dependable supply will be available from the water source. The availability of water to a water right is dependent on several factors, including hydrologic conditions (i.e., rainfall, runoff, springflow), priority date of the water right, quantity of authorized storage, and any special conditions associated with the water right (i.e., instream flow requirements, maximum diversion rate).

3.1.1 Texas Water Right System

The State of Texas owns the surface water within the state watercourses and is responsible for the appropriation of these waters. Surface water is currently allocated by the Texas Commission on Environmental Quality (TCEQ) for the use and benefit of all people of the state. Historically, Texas water law is based on a combination of the riparian and prior appropriation doctrines. The riparian doctrine extends from the Spanish and Mexican governments that ruled Texas prior to 1836. After 1840, the riparian doctrine provided landowners the rights to make reasonable use of water for irrigation or for other consumptive uses. In 1889, the prior appropriation doctrine was first adopted by Texas, which is based on the concept of “first in time is first in right.” Over the years, the combination of riparian and prior appropriation doctrines resulted in an essentially unmanageable system. Various types of water rights existed simultaneously, and many rights were unrecorded. In 1967, the Texas Legislature passed the Water Rights Adjudication Act to merge the riparian water rights into the prior appropriation system, creating a unified water rights system. The adjudication process has taken many years and is essentially complete. In the end, Certificates of Adjudication have been issued for entities recognized as having legitimate water rights. Today, individuals or groups seeking a new water right must submit an application to the TCEQ. The TCEQ determines if the water right will be issued and under what conditions. The water rights grant a certain quantity of water to be diverted and/or stored, a priority date, and often come with some restrictions on when and how the right may be used. Restrictions may include a maximum diversion rate and/or an instream flow restriction to protect existing water rights and environmental resources.

The priority date of a water right is essential to the operation of the water rights system. Each right is issued a priority date based on the date of first capture, or the appropriation date. The established priority system must be adhered to by all water right holders when diverting or storing water for use. A right holder must pass all water to downstream senior water rights when conditions are such that the senior water rights would not be satisfied otherwise.

3.1.2 Types of Water Rights

There are various types of water rights: Certificates of Adjudication, permits, term permits, and temporary permits. Certificates of Adjudication were issued in perpetuity for approved claims during the adjudication process. This type of water right was issued based on historical use rather than water availability. As a consequence, the amount of water to which rights exist exceeds the amount of water available during a drought for some streams. The TCEQ issues new permits only where drought flows are sufficient to meet the requested amount. Permits, like Certificates of Adjudication, are issued in perpetuity and may be bought and sold like other property interests. Term permits may be issued by the TCEQ in areas where waters are fully appropriated, but not yet being fully used. Term permits are usually issued for 10 years and may be renewed if, after 10 years, other water right holders are still not fully using the water in the basin. Temporary permits are issued for up to 3 years. Temporary permits are issued mainly for road construction projects, where water is used to suppress dust, to compact soils, and to start the growth of new vegetation. As term and temporary permits are not permanent water rights, they are not considered in the process of determining available water supplies.

Water rights can include the right to divert and/or store the appropriated water. A run-of-the-river water right provides for the diversion of streamflow and does not include storage of water for use during dry periods. These rights have no authorization to store water, only the right to take water from the stream. Availability of water to a run-of-the-river right may be limited by streamflow, pumping rate, or diversion location.

Water rights that include provisions for storage of water allow a water right holder to impound streamflows for use at a later time. The storage provides water for use during dry periods, when water may not be available due to hydrologic conditions or because existing flows are required to be passed to downstream senior water rights.

While most water rights are diverted and used within the river basin of origin, water rights that divert from one river basin to another basin require an interbasin transfer authorization. Several types of transfers that receive special consideration include emergency transfers, transfers of water from a river basin for use in an adjoining coastal basin (such as from the Brazos River Basin to the San Jacinto-Brazos Coastal Basin), diversions of less than 3,000 acre-feet per year (acft/yr), and diversions within any city or county that has any portion in the basin of origin.

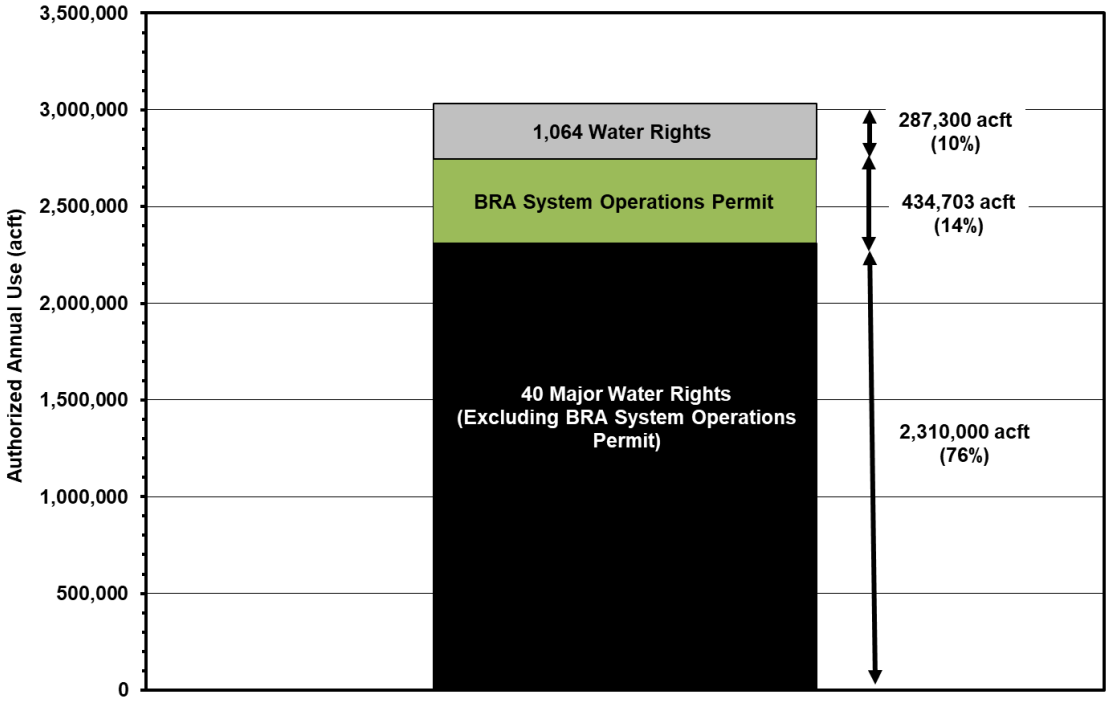
3.1.3 Water Rights in the Brazos River Basin

The TCEQ maintains a database of all active water rights referred to as WRactive, which is available for download from the TCEQ website. The November 2019 version of this database was obtained from the TCEQ and the summary statistics that follow are based on the information contained in that particular version of the database. At the time of the 2016 Brazos G Plan development, a total of 1,090 active water rights existed in the Brazos River Basin, with a total authorized diversion of 2,584,000 acft/yr. Since the 2016 Plan, the TCEQ has issued 15 new water rights or amendments to existing rights, increasing the total authorized diversion amount by 447,500 acft/yr to 3,032,000 acft/yr. The most notable new water right issued in the Brazos River Basin since the 2016 Plan is the Brazos River Authority (BRA) System Operations Permit (Permit 5851), authorizing a combined

diversion amount of up to 434,703 acft/yr at numerous locations within the Brazos G and Region H areas.

It is important to note that a small percentage of the water rights represent a large percentage of the total authorized diversion volume in the Brazos River Basin. The BRA System Operation Permit alone makes up 14 percent of the total authorized diversion volume. Forty other major water rights make up 2,310,000 acft/yr (76 percent) of the authorized diversion volume. The BRA, Gulf Coast Water Authority, and Dow Chemical Company are the three largest water right holders and own approximately 66 percent of the total authorized diversion amount in the basin. The remaining 1,064 water rights primarily consist of small irrigation rights distributed throughout the river basin. Figure 3-1 shows a comparison of significant water rights in the Brazos River Basin by number of rights and diversion volume.

Figure 3-1. Distribution of Water Rights in the Brazos River Basin



The Brazos G Area includes the majority of the water rights in the Brazos River Basin. A total of 963 water rights exist in the Brazos G portion of the Brazos River Basin, with a total authorized diversion of 1,276,000 acft/yr. In the Brazos G portion of the Brazos River Basin, 28 water rights (2.9 percent) make up 1,040,000 acft/yr (81.9 percent) of the authorized diversion volume. The remaining 935 water rights primarily consist of small irrigation rights distributed throughout the area.

Region H, located downstream of the Brazos G Area, has a total of only 39 water rights (3.5 percent) in the Brazos River Basin, but these include some very large rights and make up 1,164,000 acft/yr (38 percent) of the total authorized diversions. Other planning areas

make up a small percentage of the remaining water rights and total authorized diversions in the basin, as shown in Figure 3-2 and Figure 3-3.

Figure 3-2. Comparison of Water Rights in the Brazos River Basin by Planning Area

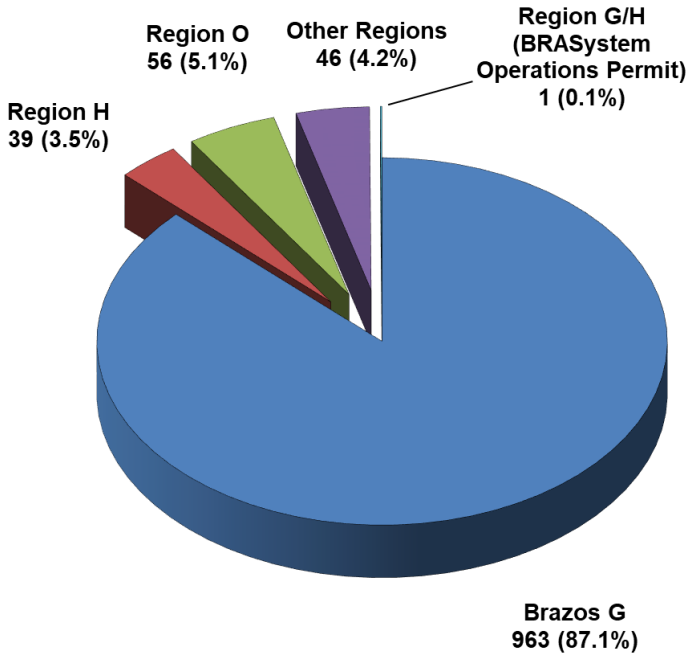
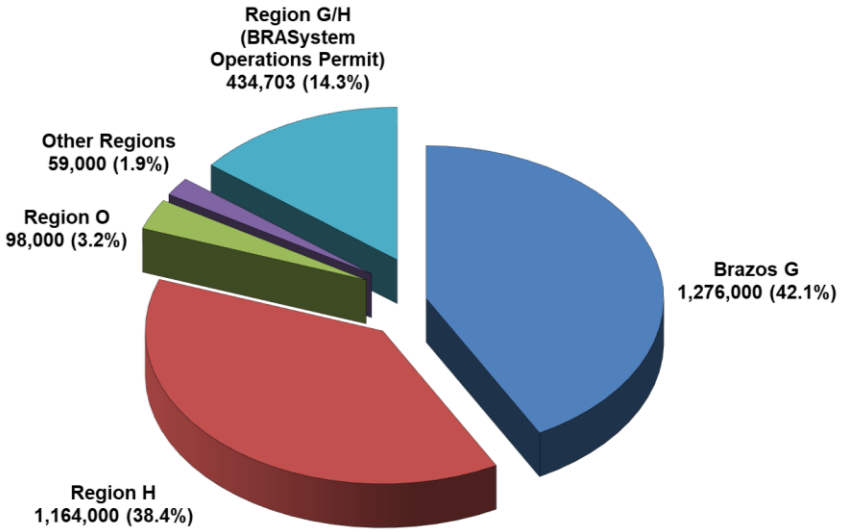
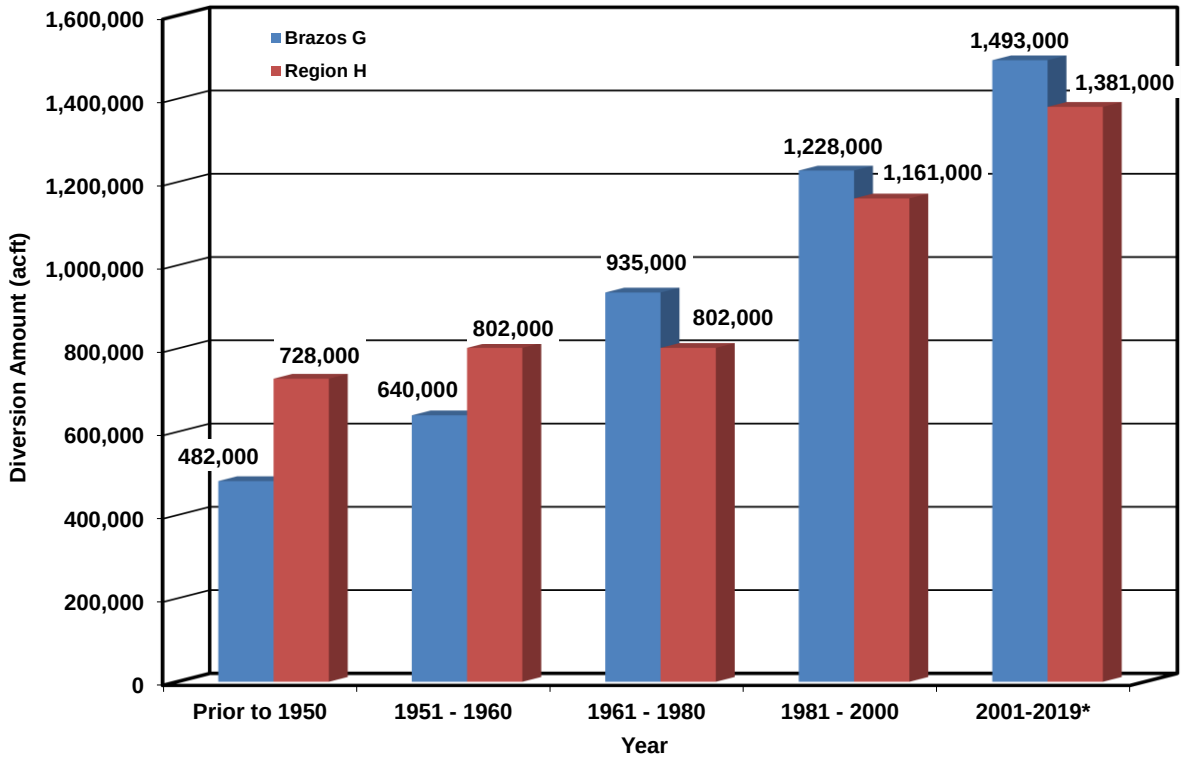


Figure 3-3. Comparison of Authorized Diversion Volume (acre-feet/year) in the Brazos River Basin by Planning Area



The authorized diversions in Region H generally consist of very large, senior priority, run-of-the-river water rights. In comparison, water rights in the Brazos G Area are larger in number and diversion volume; however, the water rights are generally junior in priority to those downstream in Region H. Therefore, in times of drought, when streamflows are low, diversions of water from streams in the Brazos G Area may be restricted for several of the water right holders. A comparison of the quantity of authorized diversions relative to the priority date of the water rights in Brazos G and Region H is presented in Figure 3-4. Major water rights are defined as having an authorized diversion greater than 10,000 acft/yr and/or 5,000 acft of authorized storage. Figure 3-5 shows the location of major water rights in the Brazos River Basin. A list of all water rights, summarized from the TCEQ water right database for all rights in the Brazos G Area, is provided in Appendix F.

Figure 3-4. Comparison of Cumulative Diversion Volume and Priority Date for the Brazos G Area and Region H



*Assumes BRA System Operations Permit authorized diversion volume is split evenly between Region G and Region H.

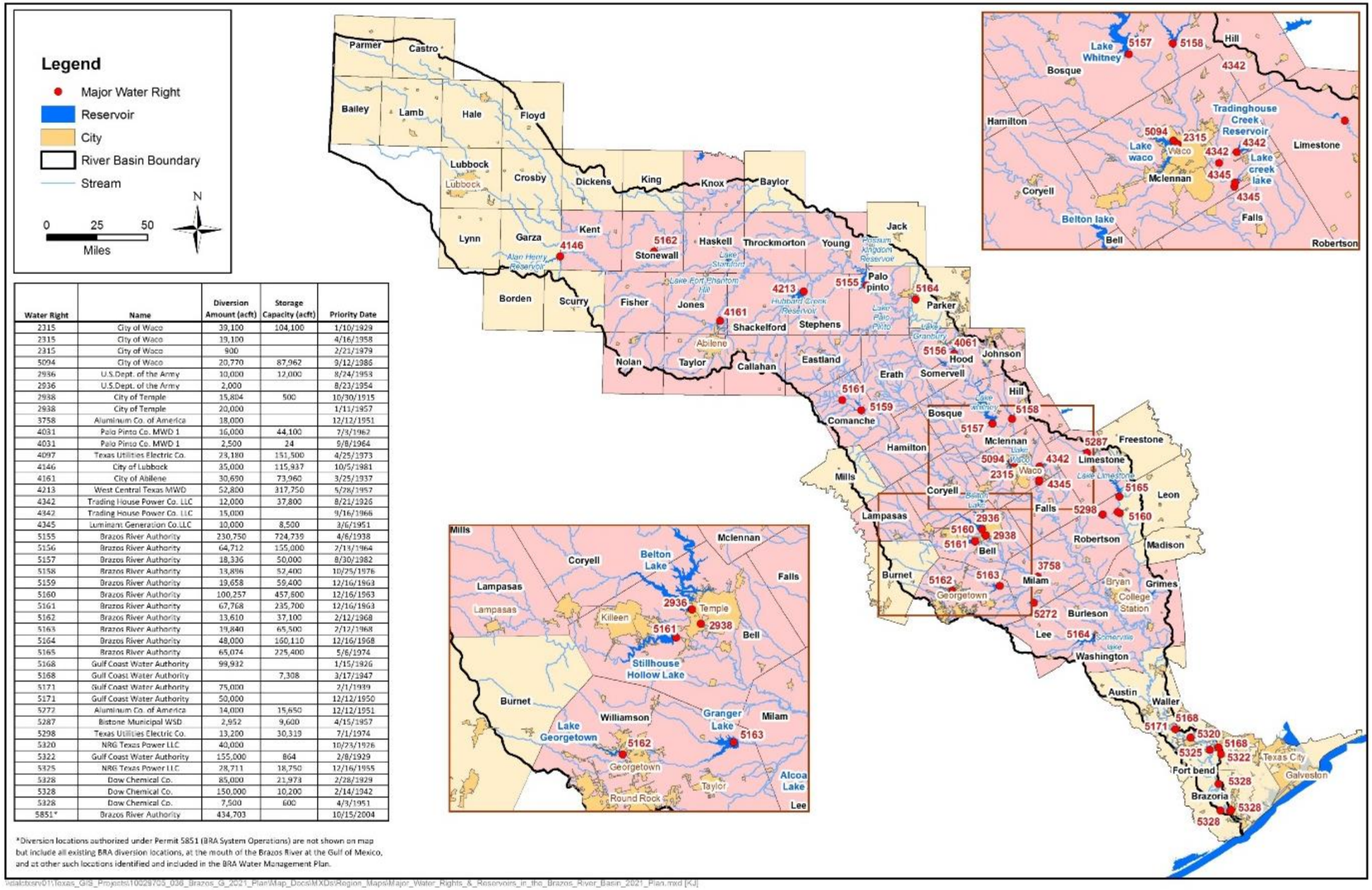
While Region H includes a large quantity of senior priority water rights, most of these water rights have very little storage associated with them and, therefore, may be described primarily as run-of-the-river water rights. The water rights in Brazos G are generally junior to those water rights in Region H; however, there is a substantial volume of reservoir storage associated with the water rights in Brazos G to provide a firm supply. The total authorized storage in the Brazos River Basin is approximately 4,116,000 acre-feet (acft), with 3,609,000 acft (87.7 percent) located in Brazos G. In Region H, the quantity of reservoir storage is 231,000 acft (5.6 percent) of the total authorized storage volume in the

river basin. Since the development of the 2016 Brazos G Plan, less than 600 acft of new storage has been permitted in Brazos G and Region H.

The large quantity of reservoir storage in Brazos G provides for a firm supply of water during drought conditions, when streamflows are low. Figure 3-6 presents a comparison of the total authorized storage and annual diversion volume for the Brazos G Area and Region H.

A total of 48 major reservoirs, defined as authorizes storage capacities greater than 5,000 acft, exist in the Brazos River Basin. The U.S. Army Corps of Engineers (USACE) owns several of these reservoirs, including Lake Georgetown, Lake Aquilla, Lake Granger, Lake Proctor, Lake Somerville, Lake Waco, Lake Belton, Lake Stillhouse Hollow, and Lake Whitney. These reservoirs were built for the primary purpose of flood control; however, they also included other benefits such as water supply and recreation. For purposes of water supply, the USACE has contracted conservation storage in each reservoir to the BRA. The BRA owns the water right for each reservoir and manages the water supply conservation storage in each reservoir, except for Lake Waco, which is controlled by the City of Waco. Other major reservoirs in the basin that provide municipal, industrial, and irrigation water supply are owned by the BRA, City of Abilene, City of Mineral Wells, Palo Pinto County Municipal Water District (MWD) No. 1, West Central Texas MWD, City of Cisco, City of Breckenridge, City of Sweetwater, City of Cleburne, and City of Stamford. A summary of major reservoirs in the Brazos River Basin is presented in Table 3-1 and the locations of the reservoirs are shown in Figure 3-5.

Figure 3-5. Major Water Rights and Reservoirs in the Brazos River Basin



Water Right	Name	Diversion Amount (acft)	Storage Capacity (acft)	Priority Date
2315	City of Waco	39,100	104,100	1/10/1929
2315	City of Waco	19,100		4/16/1958
2315	City of Waco	900		2/23/1979
5094	City of Waco	20,770	87,962	9/12/1986
2936	U.S.Dept. of the Army	10,000	12,000	8/24/1953
2936	U.S.Dept. of the Army	2,000		8/23/1954
2938	City of Temple	15,804	500	10/30/1915
2938	City of Temple	20,000		1/11/1957
3758	Aluminum Co. of America	18,000		12/12/1951
4031	Palo Pinto Co. MWD 1	16,000	44,100	7/3/1962
4031	Palo Pinto Co. MWD 1	2,500	24	9/8/1964
4097	Texas Utilities Electric Co.	23,180	151,500	4/25/1973
4146	City of Lubbock	35,000	115,937	10/5/1981
4161	City of Abilene	30,690	73,960	3/25/1937
4213	West Central Texas MWD	52,800	317,750	5/28/1957
4342	Trading House Power Co. LLC	12,000	37,800	8/21/1926
4342	Trading House Power Co. LLC	15,000		9/16/1966
4345	Luminant Generation Co.LLC	10,000	8,500	3/6/1951
5155	Brazos River Authority	230,750	724,739	4/6/1938
5156	Brazos River Authority	64,712	155,000	7/13/1964
5157	Brazos River Authority	18,336	50,000	8/30/1982
5158	Brazos River Authority	13,896	52,400	10/25/1976
5159	Brazos River Authority	19,658	59,400	12/16/1963
5160	Brazos River Authority	100,257	457,600	12/16/1963
5161	Brazos River Authority	67,768	235,700	12/16/1963
5162	Brazos River Authority	13,610	37,100	2/12/1968
5163	Brazos River Authority	19,840	65,500	2/12/1968
5164	Brazos River Authority	48,000	160,110	12/16/1968
5165	Brazos River Authority	65,074	225,400	5/6/1974
5168	Gulf Coast Water Authority	99,932		1/15/1926
5168	Gulf Coast Water Authority		7,308	3/17/1947
5171	Gulf Coast Water Authority	75,000		7/1/1939
5171	Gulf Coast Water Authority	50,000		12/12/1950
5272	Aluminum Co. of America	14,000	15,650	12/12/1951
5287	Bistone Municipal WSD	2,952	9,600	4/15/1957
5298	Texas Utilities Electric Co.	13,200	30,319	7/1/1974
5320	NRG Texas Power LLC	40,000		10/23/1926
5322	Gulf Coast Water Authority	155,000	864	2/8/1929
5325	NRG Texas Power LLC	28,711	18,750	12/16/1955
5328	Dow Chemical Co.	85,000	21,973	2/28/1929
5328	Dow Chemical Co.	150,000	10,200	2/14/1942
5328	Dow Chemical Co.	7,500	600	4/3/1951
5851*	Brazos River Authority	434,703		10/15/2004

*Diversion locations authorized under Permit 5851 (BRA System Operations) are not shown on map but include all existing BRA diversion locations, at the mouth of the Brazos River at the Gulf of Mexico, and at other such locations identified and included in the BRA Water Management Plan.

\\dalctxsrv01\Texas_GIS_Projects\10029705_036_Brazos_G_2021_Plan\Map_Docs\MXDs\Region_Maps\Major_Water_Rights_&_Reservoirs_in_the_Brazos_River_Basin_2021_Plan.mxd [KJ]

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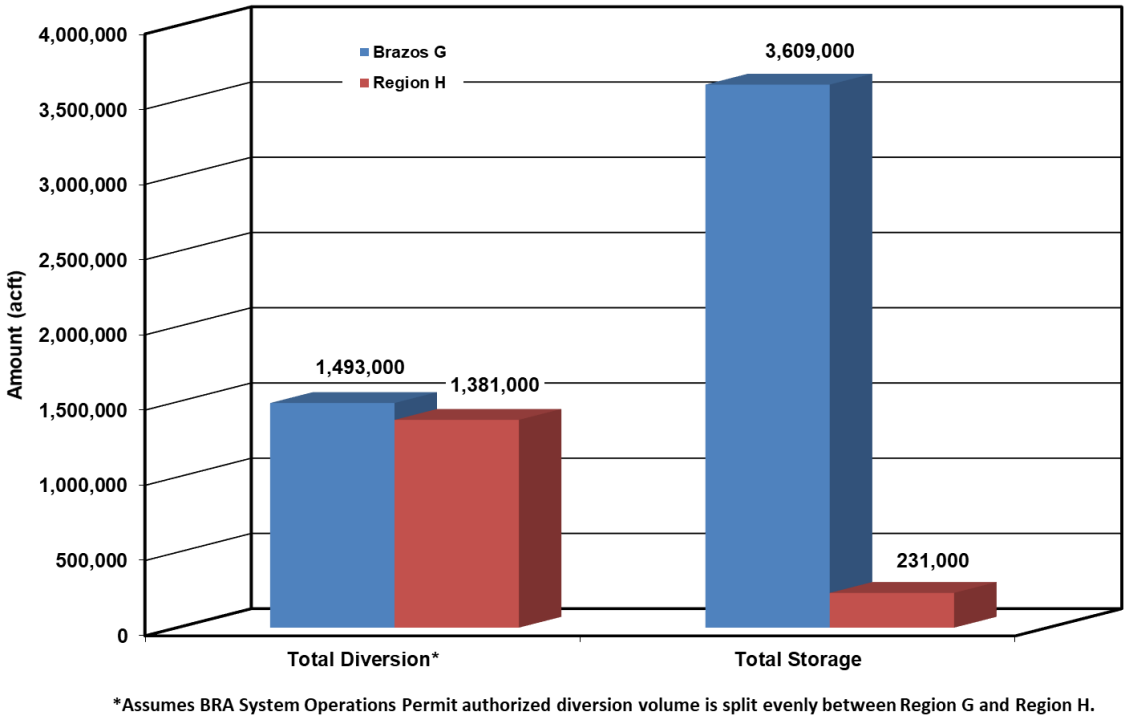
Figure 3-6. Comparison of Storage and Diversion Volumes for Brazos G and Region H



*Assumes BRA System Operations Permit authorized diversion volume is split evenly between Region G and Region H.

Table 3-1. Major Reservoirs[1] of the Brazos River Basin

Reservoir	Water Right Owner	Authorized Storage (acft)	Authorized Diversion (acft)	Priority Date	County	Planning Region
Abilene	City of Abilene	11,868	1,675	1/23/1918	Taylor	G
Alcoa Lake	Aluminum Company of America	15,650	14,000	12/12/1951	Milam	G
Alan Henry	City of Lubbock	115,937	35,200	10/5/1981	Garza	O
Allens Creek	Brazos River Authority/City of Houston	145,553	202,000	9/1/1999	Austin	H
Aquilla	Brazos River Authority	52,400	13,896	10/25/1976	Hill	G
Belton	Brazos River Authority	457,600	100,257	12/16/1963	Bell	G
Belton	U.S. Dept. of the Army[2]	12,000	10,000 2,000	8/24/1953 8/23/1954	Bell	G

Table 3-1. Major Reservoirs[1] of the Brazos River Basin

Reservoir	Water Right Owner	Authorized Storage (acft)	Authorized Diversion (acft)	Priority Date	County	Planning Region
Dow - Brazoria Reservoir	Dow Chemical[3]	21,973	--	4/7/1952	Brazoria	H
Dow - Harris Reservoir	Dow Chemical[3]	10,200	--	2/14/1942	Brazoria	H
Cisco	City of Cisco	45,110	1,971 1,000	4/16/1920 11/8/1954	Eastland	G
Daniel	City of Breckenridge	11,400	2,100	4/26/1946	Stephens	G
Dansby Power Plant	City of Bryan	15,227	850	5/30/1972	Brazos	G
Eagle Nest Lake	U.S. Dept. of the Interior	11,315	1,800	1/15/1948	Brazoria	H
Fort Phantom Hill	City of Abilene	73,960	30,690	3/25/1937	Jones	G
Georgetown	Brazos River Authority	37,100	13,610	2/12/1968	Williamson	G
Gibbons Creek Power	Texas Municipal Power Agency	26,824 5,260	9,740	2/22/1977 3/9/1989	Grimes	G
Graham/Eddleman	City of Graham	4,503 39,000 8,883	5,000 15,000	11/21/1927 11/15/1954 9/16/1957	Young	G
Granbury	Brazos River Authority	155,000	64,712	2/13/1964	Hood	G
Granger	Brazos River Authority	65,500	19,840	2/12/1968	Williamson	G
Hubbard Creek Lake	West Central Texas MWD	317,750	52,800 3,200	5/28/1957 8/14/1972	Stephens	G
Leon	Eastland Co WSD	28,000	1,265 2,438 2,597	5/17/1931 3/21/1952 3/25/1986		
Limestone	Brazos River Authority	225,400	65,074	5/6/1974	Robertson	G
Miller's Creek	North Central Texas MWA	30,696	5,000	10/1/1958	Baylor	B
Palo Pinto	Palo Pinto County MWD No. 1	44,100 24	16,000 2,500	7/3/1962 9/8/1964	Palo Pinto	G
Pat Cleburne Reservoir	City of Cleburne	25,600	5,760 240	8/6/1962 3/29/1976	Johnson	G

Table 3-1. Major Reservoirs[1] of the Brazos River Basin

Reservoir	Water Right Owner	Authorized Storage (acft)	Authorized Diversion (acft)	Priority Date	County	Planning Region
Possum Kingdom	Brazos River Authority	724,739	230,750	4/6/1938	Palo Pinto	G
Proctor	Brazos River Authority	59,400	19,658	12/16/1963	Comanche	G
Smithers Lake	Houston L&P	18,750	28,711	12/16/1955	Fort Bend	H
Somerville	Brazos River Authority	160,110	48,000	12/16/1963	Washington	G
Squaw Creek Reservoir	Luminant	151,500	23,180	4/25/1973	Somervell	G
Stamford	City of Stamford	60,000	10,000	6/8/1949	Haskell	G
Stillhouse Hollow	Brazos River Authority	235,700	67,768	12/16/1963	Bell	G
Sweetwater	City of Sweetwater	10,000	3,740	10/17/1927	Nolan	G
Tradinghouse Steam	Luminant	37,800	12,000 15,000	8/21/1926 9/16/1966	McLennan	G
Twin Oak Steam Electric	Luminant	30,319	13,200	7/1/1974	Robertson	G
Waco	City of Waco	104,100 87,962	39,100 19,100 900 20,770	1/10/1929 4/16/1985 2/21/1979 9/12/1986	McLennan	G
Whitney	Brazos River Authority	50,000	18,336	8/30/1982	Hill	G
White River Reservoir	White River MWD	33,160 5,072 6,665	6,000	9/22/1958 11/21/1960 8/16/1971	Crosby	O

1 – A major reservoir is defined as one with an authorized capacity equal to or greater than 5,000 acft

2 – The Dept. of the Army (Fort Hood) owns water rights in Lake Belton alongside the BRA.

3 – The Dow Chemical Company holds diversion rights from the Brazos River totaling 238,156 acft/yr with priority dates ranging from 1929 to 1976, which are used in conjunction with the two off-channel reservoirs.

acft = acre-feet; MWD = municipal water district; WSD = water supply district

A number of interbasin transfer permits exist in the Brazos River Basin. These permits include both authorizations for diversions from the Brazos River Basin to adjacent river basins and from adjacent river basins to the Brazos River Basin. Most of the interbasin transfer permits are obviously located near the basin divide. Examples of interbasin transfers that authorize diversions from an adjacent river basin to the Brazos River Basin include: Lake Meredith (Canadian River Basin) to the Lubbock and Plainview areas in Lubbock and Hale County; Oak Creek Reservoir (Colorado River Basin) to the City of

Sweetwater in Nolan County; and Lake Travis (Colorado River Basin) to the City of Cedar Park in Williamson County. Interbasin transfers authorized for diversion from the Brazos River Basin to other river basins include: Lake Mexia in Limestone County to part of the City of Mexia that lies in the Trinity River Basin; Teague City Lake in Freestone County to part of the City of Teague that lies in the Trinity River Basin; and Lake Granbury in Hood County to part of Johnson County that lies in the Trinity River Basin. A summary of interbasin transfers (excluding transfers authorized to adjacent coastal basins) associated with the Brazos River Basin is presented in Table 3-2.

Table 3-2. Interbasin Transfers Associated with the Brazos River Basin[1]

River Basin of Origin	Location of Use			Description	Authorized Diversion (acft/yr)	Priority Date
	River Basin	Planning Region	County			
Brazos	Trinity	G	Johnson	Lake Granbury to Johnson County	2,600	11/7/86
Brazos	Trinity	G	Limestone	Lake Mexia to part of Mexia	N/A	N/A
Brazos	Trinity	C	Freestone	Teague City Lake to part of Teague	N/A	N/A
Brazos	Colorado	G	Lampasas	Brazos River to City of Lampasas	180	6/23/14
Brazos	Trinity	C	Multiple	Lake Possum Kingdom to Trinity Basin	5,240	4/6/38
Canadian	Brazos	O	Lubbock	Lake Meredith to Lubbock Co. Area	151,200	1/30/56
Colorado	Brazos	G	Fisher	Lake J B Thomas to Fisher Co.	N/A	N/A
Colorado	Brazos	G	Nolan	Oak Creek Res. to Lake Trammel/Sweetwater	3,000	N/A
Colorado	Brazos	G	Callahan	Lake Clyde to Clyde	200	2/2/65
Colorado	Brazos	G	Taylor	Lake O. H. Ivie to Abilene	15,000	2/2/78
Colorado	Brazos	G	Williamson	Lake Austin to Williamson Co.	N/A	N/A
Colorado	Brazos	G	Williamson	Lake Travis to Cedar Park	16,500	N/A
Colorado	Brazos	G	Williamson	Lake Travis to Leander	6,400	N/A
Colorado	Brazos	F	Fisher	Snyder to City of Rotan	N/A	N/A
Red	Brazos	B	Archer	Small Lakes to Megargel	N/A	N/A
Red	Brazos	B	Archer	Lake Cooper & Olney to Olney	35	8/11/80
Red	Brazos	O	Floyd	Lake MacKenzie to Floydada & Lockney	N/A	N/A
Trinity	Brazos	G	Grimes	Lake Livingston to Grimes County SE	N/A	6/27/98
Trinity	Brazos	C	Parker	Lake Weatherford to part of Weatherford	N/A	N/A

1 – Excludes transfers authorized to adjacent coastal basins.
acft/yr = acre-feet per year

3.1.4 Water Supply Contracts

Many entities within Brazos G obtain surface water through water supply contracts. These supplies are usually obtained from entities that own surface water rights, and the contracts specify the quantity of water each year to a buyer for an established unit price. The BRA is the largest provider of water supply contracts in Brazos G, and has contracted to sell 696,719 acft/yr from its system of reservoirs in the Brazos River Basin. The BRA contracts raw water to various entities for long-term supply as well as short-term supply for municipal, industrial, and irrigation uses. Other water right holders that contract large quantities of raw water supply to other entities include the West Central Texas MWD and the Palo Pinto County MWD No. 1. The West Central Texas MWD contracts raw water from Hubbard Creek Reservoir for municipal use to the cities of Abilene, Albany, Anson, and Breckenridge. The City of Abilene provides water to several other surrounding cities and water supply corporations. The Palo Pinto County MWD No. 1 contracts raw water from Lake Palo Pinto for industrial use to Brazos Electric Co-op as well as for municipal use for the City of Mineral Wells and several smaller water supply corporations.

Table 3-3 summarizes water supply contracts and other current demands held by the identified wholesale water providers (WWPs) and water user groups (WUGs) within Brazos G, and includes other demands that those entities meet currently, such as a portion of county-aggregated manufacturing demands, etc. Note that some of the supplies shown change between decades. These changes reflect either anticipated changes in contracted amounts (through cancellation or amendment) or “meets” contracts where a WWP agrees to meet the water supply needs of the customer without a fixed annual contractual amount. The contracts shown make up the bulk of the water contracts in the planning area; however, there are numerous smaller entities which often contract between each other for emergency supplies or various other reasons which are not summarized here. Certain WUGs and WWPs may be located within multiple planning areas. All WUGs and WWPs listed are identified by their primary planning area. The contract and WUG municipal demands shown are not split by primary and secondary planning areas. Contract demands assigned to municipal WUGS supply to portion of both primary and other region.

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
BRA (LAKE AQUILLA)						
Aquilla WSD	5,953	5,953	5,953	5,953	5,953	5,953
City of Cleburne	5,300	5,300	5,300	5,300	5,300	5,300
Hilco United Services	150	150	150	150	150	150
Total Contracts and WUG Demands	**11,403**	**11,403**	**11,403**	**11,403**	**11,403**	**11,403**
BRA (LITTLE RIVER SYSTEM)						
439 WSC	1,409	1,409	1,409	1,409	1,409	1,409
Milam County, Steam Electric (ALCOA)	5,000	5,000	5,000	5,000	5,000	5,000

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Bell County WCID #1	62,509	62,509	62,509	62,509	62,509	62,509
Bluebonnet WSC	8,301	8,301	8,301	8,301	8,301	8,301
Brushy Creek MUD	4,000	4,000	4,000	4,000	4,000	4,000
Central Texas WSC	12,045	12,045	12,045	12,045	12,045	12,045
City of Belton	2,500	2,500	2,500	2,500	2,500	2,500
City of Gatesville	5,898	5,898	5,898	5,898	5,898	5,898
City of Georgetown	45,707	45,707	45,707	45,707	45,707	45,707
City of Harker Heights	3,535	3,535	3,535	3,535	3,535	3,535
City of Lampasas	3,500	3,500	3,500	3,500	3,500	3,500
City of McGregor	810	810	810	810	810	810
City of Round Rock	24,854	24,854	24,854	24,854	24,854	24,854
City of Temple	30,453	30,453	30,453	30,453	30,453	30,453
Coryell City WSD	300	300	300	300	300	300
Bell County, Irrigation (Country Harvest)	8	8	8	8	8	8
Dog Ridge WSC	1,500	1,500	1,500	1,500	1,500	1,500
East Williamson Co Water (City of Taylor, Jarrell-Schwertner WSC, Sonterra MUD)	13,000	13,000	13,000	13,000	13,000	13,000
Fort Gates WSC	200	200	200	200	200	200
Williamson County-Other (High Gabriel WSC)	310	310	310	310	310	310
Jarrell-Schwertner WSC	1,000	1,000	1,000	1,000	1,000	1,000
Bell County, Irrigation (Jerry Glaze)	100	100	100	100	100	100
Kempner WSC	8,900	8,900	8,900	8,900	8,900	8,900
Comanche County, Irrigation (Lake Proctor Irrigation Authority)	3,743	3,743	3,743	3,743	3,743	3,743
Moffat WSC	500	500	500	500	500	500
Comanche County, Irrigation (North Leon River Irrigation Corporation)	2,909	2,909	2,909	2,909	2,909	2,909
Salado WSC	1,600	1,600	1,600	1,600	1,600	1,600
Williamson County, Irrigation (Sun City Georgetown)	15	15	15	15	15	15
The Grove WSC	400	400	400	400	400	400
Upper Leon River MWD	6,437	6,437	6,437	6,437	6,437	6,437
Bell County, Irrigation (Wildflower County Club)	200	200	200	200	200	200
Total Contracts and WUG Demands	**251,643**	**251,643**	**251,643**	**251,643**	**251,643**	**251,643**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
BRA (MAIN STEM)						
Acton MUD (WUG + Decordova Bend States Owners)	7,400	7,400	7,400	7,400	7,400	7,400
Stephens County, Mining (Basa Resources)	1,000	1,000	1,000	1,000	1,000	1,000
Bosque County, Steam Electric (Bosque Generating, L.P.)	6,500	6,500	6,500	6,500	6,500	6,500
Palo Pinto County, Steam Electric (Brazos Electric Power Coop.)	11,600	11,600	11,600	11,600	11,600	11,600
Palo Pinto County, Irrigation (Carr-Thomas Ranch)	50	50	50	50	50	50
City of Abilene	11,681	11,681	11,681	11,681	11,681	11,681
City of Brenham	4,200	4,200	4,200	4,200	4,200	4,200
City of Cleburne	9,700	9,700	9,700	9,700	9,700	9,700
City of Graham	1,000	1,000	1,000	1,000	1,000	1,000
City of Granbury	10,800	10,800	10,800	10,800	10,800	10,800
City of Lorena	1,000	1,000	1,000	1,000	1,000	1,000
City of Lubbock[1] (*Region O*)	961	961	961	961	961	961
City of Marlin	1,200	1,200	1,200	1,200	1,200	1,200
City of Richmond (*Region H*)	2,932	2,932	2,932	2,932	2,932	2,932
City of Rosebud	100	100	100	100	100	100
City of Rosenberg (*Region H*)	4,500	4,500	4,500	4,500	4,500	4,500
City of Sugarland (*Region H*)	6,388	6,388	6,388	6,388	6,388	6,388
City of Stamford[1]	1,820	1,820	1,820	1,820	1,820	1,820
City of Whitney	750	750	750	750	750	750
Double Diamond, Inc.	1,000	1,000	1,000	1,000	1,000	1,000
Hood County, Manufacturing (Exelon Generating)	10,000	10,000	10,000	10,000	10,000	10,000
Fort Griffin SUD	353	353	353	353	353	353
Gulf Coast Water Authority (*Region H*)(includes South Texas Water Company contract)	46,780	46,780	46,780	46,780	46,780	46,780
Hood County, Irrigation (Granbury Recreational Association)	50	50	50	50	50	50
Palo Pinto County, Irrigation (Hill Country Harbor Village)	250	250	250	250	250	250
Brazos County, Irrigation (Horizon Turf Grass)	350	350	350	350	350	350
Johnson County SUD	9,210	9,210	9,210	9,210	9,210	9,210

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Hood County, Irrigation (King Ranch Turfgrass)	1,300	1,300	1,300	1,300	1,300	1,300
Hood County, Irrigation (Lenmo Inc.)	2,000	2,000	2,000	2,000	2,000	2,000
Hood County-Other (LSF Development Corp)	90	90	90	90	90	90
Hood County-Other (Monarch Utilities I, L.P.)	600	600	600	600	600	600
Palo Pinto County, Irrigation (MM Terry Ranch, Ltd.)	125	125	125	125	125	125
Hood County, Irrigation (Mt Lakes Ranch)	200	200	200	200	200	200
NRG Texas, LLC (*Region H*)	83,000	83,000	83,000	83,000	83,000	83,000
Limestone County, Steam Electric (NRG Texas, LLC)	21,837	21,837	21,837	21,837	21,837	21,837
Robertson County, Steam-Electric (Oak Grove Management)	3,838	3,838	3,838	3,838	3,838	3,838
Robertson County, Steam Electric (TXU Electric)	26,639	26,639	26,639	26,639	26,639	26,639
Parker County SUD (*Region C)*	1,100	1,100	1,100	1,100	1,100	1,100
Pecan Grove MUD 1 (*Region H)*	3,800	3,800	3,800	3,800	3,800	3,800
Hood County, Irrigation (Pecan Plantation Owners Association)	750	750	750	750	750	750
Possum Kingdom WSC	750	750	750	750	750	750
Palo Pinto County, Irrigation (Ranch Owner's Association)	250	250	250	250	250	250
Hood County, Irrigation (Rex R. Worrell)	240	240	240	240	240	240
SLC Water Supply Company	200	200	200	200	200	200
Sportsmans World MUD	125	125	125	125	125	125
Stephens Regional SUD (Stephens County RWSC)	800	800	800	800	800	800
Somervell County, Steam Electric (TXU Electric)	41,094	41,094	41,094	41,094	41,094	41,094
Parker County, Irrigation (Sugar Tree, Inc.-*Region C*)	500	500	500	500	500	500
Grimes County, Steam Electric (Texas Municipal Power Agency)	3,600	3,600	3,600	3,600	3,600	3,600
Palo Pinto County, Manufacturing (TPWD)	1,200	1,200	1,200	1,200	1,200	1,200
Hood County, Steam Electric (TXU Electric)	10,185	10,185	10,185	10,185	10,185	10,185
Palo Pinto County, Mining (Vulcan Construction Materials)	1,000	1,000	1,000	1,000	1,000	1,000
Wellborn SUD	4,000	4,000	4,000	4,000	4,000	4,000
West Central Texas MWD	235	235	235	235	235	235

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Hill County, Mining (Western Company of Texas)	1,000	1,000	1,000	1,000	1,000	1,000
Hill County, Irrigation (White Bluff Property Owners)	1,000	1,000	1,000	1,000	1,000	1,000
Young County, Steam Electric Power (TXU Electric)	432	432	432	432	432	432
DOW Chemical USA (DOW Pipeline Company- *Region H*)	16,000	16,000	16,000	16,000	16,000	16,000
Waller County, Irrigation (All Seasons Turf Grass- *Region H*)	50	50	50	50	50	50
Total Contracts and WUG Demands	**379,515**	**379,515**	**379,515**	**379,515**	**379,515**	**379,515**
1 – Contract represents a priority calls commitment						
BRA (PURCHASED FROM LOWER COLORADO RIVER AUTHORITY)						
Liberty Hill	1,200	1,200	1,200	1,200	1,200	1,200
Round Rock	20,928	20,928	20,928	20,928	20,928	20,928
Total Contracts and WUG Demands	**22,128**	**22,128**	**22,128**	**22,128**	**22,128**	**22,128**
BRA (SYSTEM OPERATIONS)[1]						
Double Diamond (Retreat)	619	619	619	619	619	619
West Central Texas MWD	774	774	774	774	774	774
LENMO	774	774	774	774	774	774
TPWD Possum Kingdom State Park	15	15	15	15	15	15
Sportsman's World MUD	290	290	290	290	290	290
City of Abilene	7,737	7,737	7,737	7,737	7,737	7,737
Parker County SUD	774	774	774	774	774	774
Possum Kingdom WSC	1,934	1,934	1,934	1,934	1,934	1,934
Corky Underwood	54	54	54	54	54	54
Neuhaus Trust Partnership	309	309	309	309	309	309
FHLM WSC	1,934	1,934	1,934	1,934	1,934	1,934
Horizon Turfgrass	348	348	348	348	348	348
City of Brenham	774	774	774	774	774	774
Vulcan Materials	387	387	387	387	387	387
Total Brazos G	16,723	16,723	16,723	16,723	16,723	16,723
All Seasons Turfgrass, Inc.	90	90	90	90	90	90
City of Sugar Land	10,279	10,279	10,279	10,279	10,279	10,279
City of Richmond	2,773	2,773	2,773	2,773	2,773	2,773
City of Manvel	3,731	3,731	3,731	3,731	3,731	3,731

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Dow	15,473	15,473	15,473	15,473	15,473	15,473
BASF	3,868	3,868	3,868	3,868	3,868	3,868
Marathon-GBR	5,700	5,700	5,700	5,700	5,700	5,700
GCWA	36,362	36,362	36,362	36,362	36,362	36,362
Total Region H	78,276	78,276	78,276	78,276	78,276	78,276
TPWD Water Trust	6,035	6,035	6,035	6,035	6,035	6,035
GM Reserve	4,997	4,997	4,997	4,997	4,997	4,997
Total Other	11,032	11,032	11,032	11,032	11,032	11,032
Total Contract (Region H)	78,276	78,276	78,276	78,276	78,276	78,276
Total Contract (Region G)	16,723	16,723	16,723	16,723	16,723	16,723
Total Other	11,032	11,032	11,032	11,032	11,032	11,032
Total Contracts and Other Demands	**106,031**	**106,031**	**106,031**	**106,031**	**106,031**	**106,031**
1-Contracts for BRA Sys Ops supplies will considered as recommended water management strategies for the 2021 Brazos G Plan, and are not considered to be current supplies.						
AQUILLA WATER SUPPLY DISTRICT						
Brandon-Irene WSC	287	287	287	287	287	287
Chatt WSC	86	86	86	86	86	86
Files Valley WSC	1,709	1,709	1,709	1,709	1,709	1,709
Hill County WSC	230	230	230	230	230	230
Hillsboro	4,200	3,640	3,640	3,640	3,640	3,640
Total Contracts and WUG Demands	**6,512**	**5,952**	**5,952**	**5,952**	**5,952**	**5,952**
BELL COUNTY WCID #1						
439 Water Supply Corp	750	750	750	750	750	750
Bell County WCID 3	1,207	1,601	2,176	2,552	2,840	3,125
City of Belton	5,966	5,966	5,966	5,966	5,966	5,966
City of Copperas Cove	8,824	8,824	8,824	8,824	8,824	8,824
City of Harker Heights	5,265	5,265	5,265	5,265	5,265	5,265
City of Killeen	2,240	2,240	2,240	2,240	2,240	2,240
Bell County-Other	750	750	750	750	750	750
Total Contracts and WUG Demands	**25,002**	**25,396**	**25,971**	**26,347**	**26,635**	**26,920**
BLUEBONNET WSC						
City of Bruceville-Eddy	938	938	938	938	938	938
Elm Creek WSC	654	654	654	654	654	654
City of McGregor	2,139	2,139	2,139	2,139	2,139	2,139
Moffat WSC	869	869	869	869	869	869

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
City of Moody	401	401	401	401	401	401
Pendleton WSC	461	461	461	461	461	461
Spring Valley WSC	301	301	301	301	301	301
City of Woodway	1,362	1,362	1,362	1,362	1,362	1,362
Total Contracts and WUG Demands	**7,125**	**7,125**	**7,125**	**7,125**	**7,125**	**7,125**
CENTRAL TEXAS WSC						
Armstrong WSC	783	783	783	783	783	783
Bell County-Other	702	702	702	702	702	702
Bell-Milam-Falls WSC	2,327	2,327	2,327	2,327	2,327	2,327
City of Belton	100	100	100	100	100	100
Dog Ridge WSC	840	840	840	840	840	840
EAST BELL WSC	847	847	847	847	847	847
City of Holland	331	331	331	331	331	331
Jarrell-Schwertner WSC	1,000	1,000	1,000	1,000	1,000	1,000
Little Elm Valley WSC	547	547	547	547	547	547
City of Rodgers	486	486	486	486	486	486
City of Rosebud	525	525	525	525	525	525
Salem-Elm Ridge WSC	297	297	297	297	297	297
West Bell County WSC	1,660	1,660	1,660	1,660	1,660	1,660
Falls County- Other (Westphalia WSC)	67	67	67	67	67	67
Falls County-Other (Town of Mooreville)	25	25	25	25	25	25
Total Contracts and WUG Demands	**10,537**	**10,537**	**10,537**	**10,537**	**10,537**	**10,537**
EASTLAND COUNTY WSD						
City of Eastland	3,314	3,314	3,314	3,314	3,314	3,314
City of Ranger	2,025	2,025	2,025	2,025	2,025	2,025
Eastland County, Manufacturing	48	56	56	56	56	56
Total Contracts and WUG Demands	**5,387**	**5,395**	**5,395**	**5,395**	**5,395**	**5,395**
NORTH CENTRAL TEXAS MWA						
City of Aspermont	118	118	118	118	118	118
Baylor SUD (*Region B*)	147	147	119	89	60	28
Haskell County-Other	236	236	236	236	236	236
Knox County-Other (City of Benjamin)	13	13	13	13	13	13

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Knox County-Other (City of Goree)	63	63	63	63	63	63
Knox County-Other (Knox County Rural WSC)	55	55	55	55	55	55
City of Haskell	637	637	637	637	637	637
City of Knox City	260	260	260	260	260	260
City of Munday	268	268	268	268	268	268
Total Contracts and WUG Demands	**1,797**	**1,797**	**1,797**	**1,797**	**1,797**	**1,797**
PALO PINTO CO MWD No. 1						
City of Mineral Wells[1]	5,164	5,265	5,320	5,391	5,462	5,521
Lake Palo Pinto Area WSC	250	250	250	250	250	250
Palo Pinto County, Steam-Electric	4,000	4,000	4,000	4,000	4,000	4,000
Total Contracts and WUG Demands	**9,414**	**9,515**	**9,570**	**9,641**	**9,712**	**9,771**
1- Includes municipal supply to portion of Mineral Wells located in Region C.						
UPPER LEON MWD						
City of Comanche	706	706	706	706	706	706
Comanche County-Other	9	9	9	9	9	9
City of De Leon	307	307	307	307	307	307
City of Dublin	598	598	598	598	598	598
City of Gorman	169	169	169	169	169	169
City of Hamilton	921	921	921	921	921	921
City of Stephenville	1,862	1,862	1,862	1,862	1,862	1,862
Total Contracts and WUG Demands	**4,572**	**4,572**	**4,572**	**4,572**	**4,572**	**4,572**
WEST CENTRAL TEXAS MWD						
City of Abilene	13,077	10,720	8,360	6,000	3,640	1,300
City of Albany	1,400	1,400	1,400	1,400	1,400	1,400
City of Anson	1,600	1,600	1,600	1,600	1,600	1,600
City of Breckenridge	1,900	1,900	1,900	1,900	1,900	1,900
Total Contracts and WUG Demands	**17,977**	**15,620**	**13,260**	**10,900**	**8,540**	**6,200**
ABILENE						
City of Abilene (municipal WUG demands)	22,261	22,698	23,050	23,440	23,874	24,238
City of Baird	77	77	77	77	77	77
City of Clyde	8,554	12,144	12,144	12,144	12,144	12,144
Taylor County-Other (Blair WSC)	77	77	77	77	77	77

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Taylor County-Other (S.U.N. WSC)	230	230	230	230	230	230
Eula WSC	61	61	61	61	61	61
Hamby WSC	308	308	308	308	308	308
Hawley WSC	307	307	307	307	307	307
City of Lawn	153	153	153	153	153	153
Taylor County, Manufacturing	1,248	1,395	1,537	1,658	1,831	2,019
City of Merke;	353	353	353	353	353	353
Potosi WSC	307	307	307	307	307	307
Steamboat Mountain WSC	307	307	307	307	307	307
City of Tye	184	184	184	184	184	184
View Caps WSC	199	199	199	199	199	199
Total Contracts and WUG Demands	**34,626**	**38,800**	**39,294**	**39,805**	**40,412**	**40,964**
ACTON MUD						
Acton MUD (municipal WUG demands)	2,845	4,422	5,455	5,993	6,610	7,299
Hood County-Other	782	801	844	888	1,496	2,077
Total Contracts and WUG Demands	**3,627**	**5,223**	**6,299**	**6,881**	**8,106**	**9,376**
ALBANY						
City of Albany (municipal WUG demands)	604	635	624	625	624	624
Fort Griffin SUD	219	219	216	215	215	215
Total Contracts and WUG Demands	**823**	**854**	**840**	**840**	**839**	**839**
ANSON						
City of Anson (municipal WUG demands)	365	373	376	386	394	402
Hawley WSC	221	221	221	221	221	221
City of Hamlin	534	526	523	513	505	497
Total Contracts and WUG Demands	**1,120**	**1,120**	**1,120**	**1,120**	**1,120**	**1,120**
BISTONE MUNICIPAL WATER SUPPLY DISTRICT						
Bistone Municipal Water Supply District (municipal WUG demands)	233	241	247	258	267	273
City of Mexia	2,067	2,047	1,941	1,830	1,721	1,615
Limestone County-Other (Mexia State School)	280	280	280	280	280	280
City of Coolidge	225	225	225	225	225	225

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Whiterock WSC	274	274	274	274	274	274
Total Contracts and WUG Demands	**3,079**	**3,067**	**2,967**	**2,867**	**2,767**	**2,667**
BRANDON IRENE WSC						
Brandon Irene WSC (municipal WUG demands)	265	275	282	295	309	322
Hill County-Other	29	31	32	33	34	35
Total Contracts and WUG Demands	**294**	**306**	**314**	**328**	**343**	**357**
BRECKENRIDGE						
City of Breckenridge (municipal WUG demands)	1,002	1,012	1,006	1,004	1,005	1,015
Stephens County, Manufacturing	7	8	8	8	8	8
Total Contracts and WUG Demands	**1,009**	**1,020**	**1,014**	**1,012**	**1,013**	**1,023**
BRENHAM						
City of Brenham (municipal WUG demands)	4,329	4,627	4,821	5,038	5,225	5,382
Washington County, Manufacturing	208	208	208	208	208	208
Total Contracts and WUG Demands	**4,537**	**4,835**	**5,029**	**5,246**	**5,433**	**5,590**
BRUSHY CREEK MUD						
Brushy Creek MUD (municipal WUG demands)	3,084	3,022	2,985	2,965	2,960	2,959
Williamson County-Other	518	518	518	518	518	518
Total Contracts and WUG Demands	**3,602**	**3,540**	**3,503**	**3,483**	**3,478**	**3,477**
BRYAN						
City of Bryan (municipal WUG demands)	14,944	17,356	20,223	23,804	28,205	35,620
Wellborn SUD	3,360	3,360	3,360	3,360	3,360	3,360
Wickson Creek SUD	1,115	939	771	646	534	446
Brazos County, Manufacturing	95	95	95	95	95	95
Brazos County, Steam Electric	1	1	1	1	1	1
Total Contracts and WUG Demands	**19,515**	**21,751**	**24,450**	**27,906**	**32,195**	**39,522**
BURLESON						
City of Burleson (municipal WUG demands)	6,466	7,484	8,553	9,718	10,980	12,309
Johnson County, Manufacturing	2	2	2	2	2	2
Total Contracts and WUG Demands	**6,468**	**7,486**	**8,555**	**9,720**	**10,982**	**12,311**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
CAMERON						
City of Cameron (municipal WUG demands)	1,363	1,413	1,446	1,504	1,561	1,617
Milam County, Manufacturing	14	14	14	14	14	14
North Milam WSC	38	38	38	38	38	38
Salem Elm Ridge WSC	125	125	125	125	125	125
Total Contracts and WUG Demands	**1,540**	**1,590**	**1,623**	**1,681**	**1,738**	**1,794**
CEDAR PARK						
City of Cedar Park (municipal WUG demands)	19,108	20,969	21,044	21,007	20,988	20,980
Block House MUD	1,098	1,098	1,098	1,098	1,098	1,098
Williamson County-Other (Indian Springs Subdivision)	13	13	13	13	13	13
Williamson County, Manufacturing	292	347	347	347	347	347
Williamson Travis County MUD 1	989	989	989	989	989	989
Total Contracts and WUG Demands	**21,500**	**23,416**	**23,491**	**23,454**	**23,435**	**23,427**
CHATT WSC						
Chatt WSC (municipal WUG demands)	95	98	100	103	106	108
Hill County, Manufacturing	45	50	55	60	65	70
Total Contracts and WUG Demands	**140**	**148**	**155**	**163**	**171**	**178**
CHILDRESS CREEK WSC						
Childress Creek WSC (municipal WUG demands)	343	365	373	379	384	388
Bosque County, Manufacturing	1	1	1	1	1	1
Total Contracts and WUG Demands	**344**	**366**	**374**	**380**	**385**	**389**
CISCO						
City of Cisco (municipal WUG demands)	729	726	711	703	701	701
Eastland County-Other	147	147	147	147	147	147
Total Contracts and WUG Demands	**876**	**873**	**858**	**850**	**848**	**848**
CLEBURNE						
City of Cleburne (municipal WUG demands)	6,969	7,580	8,977	10,446	12,234	13,678
Johnson County, Steam Electric	1,344	1,344	1,344	1,344	1,344	1,344
Johnson County, Manufacturing	2,329	2,714	3,105	3,455	3,801	4,182
Total Contracts and WUG Demands	**10,642**	**11,638**	**13,426**	**15,245**	**17,379**	**19,204**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
CLIFTON						
City of Clifton (municipal WUG demands)	704	748	766	779	790	797
Bosque County, Manufacturing	1	1	1	1	1	1
City of Meridian	112	112	105	88	70	53
Total Contracts and WUG Demands	**817**	**861**	**872**	**868**	**861**	**851**
CLYDE						
City of Clyde (municipal WUG demands)	309	312	310	308	311	313
Callahan County WSC	184	187	185	185	187	188
Eula WSC	221	221	221	221	221	221
Total Contracts and WUG Demands	**714**	**720**	**716**	**714**	**719**	**722**
COLLEGE STATION						
City of College Station (municipal WUG demands)	16,451	20,480	25,877	30,439	30,382	30,363
Brazos County, Manufacturing	6	6	6	6	6	6
Total Contracts and WUG Demands	**16,457**	**20,486**	**25,883**	**30,445**	**30,388**	**30,369**
COMANCHE						
City of Comanche (municipal WUG demands)	520	518	513	521	533	546
Comanche County, Manufacturing	20	20	20	20	20	20
Total Contracts and WUG Demands	**540**	**538**	**533**	**541**	**553**	**566**
COOLIDGE						
City of Coolidge (municipal WUG demands)	176	191	202	217	230	239
Limestone County, Manufacturing	19	19	19	19	19	19
Total Contracts and WUG Demands	**195**	**210**	**221**	**236**	**249**	**258**
COPPERAS COVE						
City of Copperas Cove (municipal WUG demands)	4,304	4,722	5,225	5,707	6,267	6,833
Central Texas College District	132	129	126	125	125	125
Total Contracts and WUG Demands	**4,436**	**4,851**	**5,351**	**5,832**	**6,392**	**6,958**
ERATH COUNTY-OTHER						
Erath County-Other (municipal WUG demands)	2,605	2,833	3,022	3,269	3,479	3,678
Erath County, Manufacturing	1	1	1	1	2	2
Total Contracts and WUG Demands	**2,606**	**2,834**	**3,023**	**3,270**	**3,481**	**3,680**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
LIMESTONE COUNTY-OTHER						
Limestone County-Other (municipal WUG demands)	311	287	275	273	266	282
Limestone County, Irrigation	14	14	14	14	14	14
Limestone County, Mining	7	7	7	7	7	7
Total Contracts and WUG Demands	**332**	**308**	**296**	**294**	**287**	**303**
MCLENNAN COUNTY-OTHER						
Mclennan County-Other (municipal WUG demands)	1,268	1,035	880	708	551	400
Mclennan County, Manufacturing	3	3	3	3	3	3
City of Riesel (from RMS WSC)	125	125	125	125	125	125
Mclennan County, Steam Electric	1	1	1	1	1	1
Total Contracts and WUG Demands	**1,397**	**1,164**	**1,009**	**837**	**680**	**529**
NOLAN COUNTY-OTHER						
Nolan County-Other (municipal WUG demands)	126	127	128	130	134	137
Nolan County, Manufacturing	1	1	1	1	1	1
Total Contracts and WUG Demands	**127**	**128**	**129**	**131**	**135**	**138**
PALO PINTO COUNTY-OTHER						
Palo Pinto County-Other (municipal WUG demands)	281	280	277	277	274	267
Palo Pinto County, Mining	1	1	1	1	1	1
Palo Pinto County, Steam Electric	1	1	1	1	1	1
Total Contracts and WUG Demands	**283**	**282**	**279**	**279**	**276**	**269**
YOUNG COUNTY-OTHER						
Young County-Other (municipal WUG demands)	250	262	273	288	304	320
Young County, Manufacturing	57	62	67	70	77	85
Total Contracts and WUG Demands	**307**	**324**	**340**	**358**	**381**	**405**
CRAWFORD						
City of Crawford (municipal WUG demands)	148	147	146	147	148	150
McLennan County, Mining	3	3	3	3	3	3
Total Contracts and WUG Demands	**151**	**150**	**149**	**150**	**151**	**153**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
DUBLIN						
City of Dublin (municipal WUG demands)	418	430	445	436	464	490
Erath County-Other	72	72	72	72	72	72
Erath County, Manufacturing	5	7	8	9	10	12
Total Contracts and WUG Demands	**495**	**509**	**525**	**517**	**546**	**574**
EASTLAND						
City of Eastland (municipal WUG demands)	622	617	603	595	594	594
Eastland County-Other	120	120	120	120	120	120
Staff WSC	30	30	30	30	30	30
Total Contracts and WUG Demands	**772**	**767**	**753**	**745**	**744**	**744**
FILES VALLEY WSC						
Files Valley WSC (municipal WUG demands)	505	545	585	646	707	773
Ellis County-Other (*Region C*)	84	84	84	84	84	84
Parker WSC	336	336	336	336	336	336
Total Contracts and WUG Demands	**925**	**965**	**1,005**	**1,066**	**1,127**	**1,193**
FORT GRIFFIN SUD						
Fort Griffin SUD (municipal WUG demands)	219	219	216	215	215	215
Shackelford County, Mining	2	2	2	2	2	2
Total Contracts and WUG Demands	**221**	**221**	**218**	**217**	**217**	**217**
GATESVILLE						
City of Gatesville (municipal WUG demands)	4,301	4,801	5,377	5,897	6,472	7,050
Coryell City Water Supply District	933	1,044	1,171	1,287	1,413	1,542
Fort Gates WSC	120	120	120	120	120	120
Mountain WSC	280	280	280	280	280	280
Flat WSC	102	102	102	102	102	102
Coryell County, Manufacturing	4	4	4	4	4	4
The Grove WSC	203	211	239	269	299	330
Total Contracts and WUG Demands	**5,943**	**6,562**	**7,293**	**7,959**	**8,690**	**9,428**
GEORGETOWN						
City of Georgetown (municipal WUG demands)	26,851	34,979	43,505	53,659	65,054	78,352
Jonah Water SUD	3,312	4,052	5,008	6,062	7,281	8,485

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
City of Liberty Hill	25	72	134	203	283	365
Williamson County, Manufacturing	137	163	163	163	163	163
Total Contracts and WUG Demands	**30,325**	**39,266**	**48,810**	**60,087**	**72,781**	**87,365**
GIDDINGS						
City of Giddings (municipal WUG demands)	1,154	1,268	1,328	1,347	1,364	1,374
Lee County, Manufacturing	13	14	15	16	17	18
Total Contracts and WUG Demands	**1,167**	**1,282**	**1,343**	**1,363**	**1,381**	**1,392**
GORDON						
City of Gordon (municipal WUG demands)	147	155	160	166	171	175
Erath County-Other	50	50	50	50	50	50
Total Contracts and WUG Demands	**197**	**205**	**210**	**216**	**221**	**225**
GRAHAM						
City of Graham (municipal WUG demands)	2,788	2,891	2,959	3,052	3,157	3,262
Jack County-Other (*Region C*)	545	560	566	568	574	580
Young County-Other	134	131	130	130	131	132
Fort Belknap WSC	419	419	419	419	419	419
Young County, Manufacturing	2	2	2	2	2	2
Young County, Steam Electric	248	248	248	248	248	248
Total Contracts and WUG Demands	4,136	4,251	4,324	4,419	4,531	4,643
H & H WSC						
H & H WSC (municipal WUG demands)	188	195	202	212	223	235
McLennan County-Other	81	84	87	92	97	102
Total Contracts and WUG Demands	**269**	**279**	**289**	**304**	**320**	**337**
HAMILTON						
City of Hamilton (municipal WUG demands)	512	508	497	490	489	489
Bosque County, Manufacturing	5	5	5	5	5	5
Hamilton County, Manufacturing	1	1	1	1	1	1
Multi County WSC	245	245	245	245	245	245
Total Contracts and WUG Demands	**763**	**759**	**748**	**741**	**740**	**740**
HAMLIN						
City of Hamlin (municipal WUG demands)	423	435	444	458	468	478

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Fisher County, Manufacturing	2	2	2	2	2	2
Total Contracts and WUG Demands	**425**	**437**	**446**	**460**	**470**	**480**
HEARNE						
City of Hearne (municipal WUG demands)	759	898	1,065	1,062	1,060	1,060
Bethany Hearne WSC	43	45	48	51	54	58
Robertson County, Manufacturing	1	1	1	1	1	1
Total Contracts and WUG Demands	**803**	**944**	**1,114**	**1,114**	**1,115**	**1,119**
HILLSBORO						
City of Hillsboro (municipal WUG demands)	1,987	2,070	2,122	2,189	2,251	2,283
Johnson County, Manufacturing	6	7	9	10	11	12
Total Contracts and WUG Demands	**1,993**	**2,077**	**2,131**	**2,199**	**2,262**	**2,295**
JARRELL-SCHWERTNER						
Jarrell-Schwertner (municipal WUG demands)	958	1,140	1,369	1,623	1,916	2,222
Williamson County-Other	560	560	560	560	560	560
Total Contracts and WUG Demands	**1,518**	**1,700**	**1,929**	**2,183**	**2,476**	**2,782**
JOHNSON COUNTY SUD						
Johnson County SUD (municipal WUG demands)	5,771	6,120	6,696	7,320	7,986	8,665
City of Alvarado	2,241	2,241	2,241	2,241	2,241	2,241
Bethany WSC	1,120	1,120	1,120	1,120	1,120	1,120
Johnson County-Other (City of Joshua)	2,643	1,952	1,619	1,591	1,435	1,169
Johnson County-Other (Monarch Utilities)	282	282	282	282	282	282
Johnson County-Other (Sundance)	56	56	56	56	56	56
Johnson County-Other (Blue Water Oaks)	0	0	0	0	0	0
Johnson County-Other (Walnut Creek MHP)	0	0	0	0	0	0
City of Keene	1,120	1,120	1,120	1,120	1,120	1,120
Johnson County, Mining	20	20	20	20	20	20
Total Contracts and WUG Demands	**13,253**	**12,911**	**13,154**	**13,750**	**14,260**	**14,673**
KEMPNER WSC						
Kempner WSC (municipal WUG demands)	2,751	3,007	3,221	3,447	3,667	3,873
Lampasas County-Other	195	209	225	240	254	267
City of Lampasas	1,281	1,281	1,281	1,281	1,281	1,281

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Lampasas County, Mining	25	25	25	25	25	25
Salado WSC	183	183	183	183	183	183
Total Contracts and WUG Demands	**4,435**	**4,705**	**4,935**	**5,176**	**5,410**	**5,629**
KILLEEN						
City of Killeen (municipal WUG demands)	18,308	20,913	23,716	26,629	29,619	32,599
Bell County, Manufacturing	7	7	7	7	7	7
Total Contracts and WUG Demands	**18,315**	**20,920**	**23,723**	**26,636**	**29,626**	**32,606**
LAMPASAS						
City of Lampasas (municipal WUG demands)	1,265	1,356	1,424	1,506	1,590	1,668
Lampasas County, Manufacturing	137	151	165	178	195	213
Total Contracts and WUG Demands	**1,402**	**1,507**	**1,589**	**1,684**	**1,785**	**1,881**
MCGREGOR						
City of McGregor (municipal WUG demands)	801	813	825	846	874	905
Central Bosque WSC	128	135	140	147	156	164
McLennan County, Manufacturing	4	4	4	4	4	4
Total Contracts and WUG Demands	**933**	**952**	**969**	**997**	**1,034**	**1,073**
MEXIA						
City of Mexia (municipal WUG demands)	568	634	687	745	793	826
City of Wortham (*Region C*)	157	157	157	157	157	157
Bistone Municipal Water Supply District	28	28	28	28	28	28
Limestone County-Other	254	254	254	254	254	254
Limestone County, Manufacturing	43	44	44	44	45	45
Whiterock WSC	487	487	487	487	487	487
Total Contracts and WUG Demands	**1,537**	**1,604**	**1,657**	**1,715**	**1,764**	**1,797**
MINERAL WELLS						
City of Mineral Wells (municipal WUG demands)	2,922	3,022	3,077	3,148	3,219	3,277
Parker County-Other (*Region C*)	663	663	663	663	663	663
Parker County Manufacturing (*Region C*)	25	25	25	25	25	25
Parker County SUD (*Region C*)	448	448	448	448	448	448
Palo Pinto County-Other (City of Graford)	92	92	92	92	92	92
Palo Pinto County, Manufacturing	10	10	10	10	10	10

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
North Rural WSC	324	324	324	324	324	324
Palo Pinto WSC	179	179	179	179	179	179
Santo SUD	331	331	331	331	331	331
Sturdivant Progress WSC	307	307	307	307	307	307
Total Contracts and WUG Demands	**5,301**	**5,401**	**5,456**	**5,527**	**5,598**	**5,656**
NAVASOTA						
City of Navasota (municipal WUG demands)	1,474	1,486	1,493	1,514	1,541	1,567
Grimes County, Manufacturing	114	114	114	114	138	183
Total Contracts and WUG Demands	**1,588**	**1,600**	**1,607**	**1,628**	**1,679**	**1,750**
POST OAK SUD						
Post Oak SUD (municipal WUG demands)	129	131	155	169	187	208
Birome WSC	184	189	195	200	205	211
City of Coolidge	176	191	202	217	230	239
City of Hubbard	156	157	157	162	167	169
Total Contracts and WUG Demands	**645**	**668**	**709**	**748**	**789**	**827**
RANGER						
City of Ranger (municipal WUG demands)	479	476	466	464	463	463
Staff WSC	232	232	232	232	232	232
Total Contracts and WUG Demands	**711**	**708**	**698**	**696**	**695**	**695**
ROBERTSON COUNTY WSC						
Robertson County WSC (municipal WUG demands)	424	500	578	675	776	869
Robertson County, Steam-Electric	6	6	6	6	6	6
Total Contracts and WUG Demands	**430**	**506**	**584**	**681**	**782**	**875**
ROBINSON						
City of Robinson (municipal WUG demands)	2,472	2,896	3,275	3,671	4,078	4,482
City of Lorena	560	560	560	560	560	560
Total Contracts and WUG Demands	**3,032**	**3,456**	**3,835**	**4,231**	**4,638**	**5,042**
ROTAN						
City of Rotan (municipal WUG demands)	194	185	180	179	179	179
Fisher County, Manufacturing	4	4	4	4	4	4
Total Contracts and WUG Demands	**198**	**189**	**184**	**183**	**183**	**183**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
ROUND ROCK						
City of Round Rock (municipal WUG demands)	20,082	24,612	30,598	37,623	37,608	37,623
Williamson County, Other (Paloma Lake MUD)	0	0	0	0	0	0
Williamson County, Other (Round Rock Ranch PUD)	0	0	0	0	0	0
Williamson County, Other (Williamson County)	110	132	164	221	299	379
Williamson County, Other (Blessing MHP)	96	116	143	194	262	332
Williamson County, Other (Tal Tex)	164	198	244	331	447	567
Fern Bluff MUD	1,187	1,175	1,168	1,163	1,161	1,161
Williamson County, Manufacturing	569	674	674	674	674	674
Williamson County, Mining	6	6	6	6	6	6
Paloma Lake MUD 1	137	166	205	277	374	475
Paloma Lake MUD 2	245	287	282	280	279	279
Walsh Ranch MUD	199	196	195	195	194	194
Williamson County MUD 10	727	722	721	720	719	718
Williamson County MUD 11	820	816	816	817	818	820
Williamson County MUD 9 (Vista oaks MUD)	548	541	538	536	536	536
Total Contracts and WUG Demands	**24,890**	**29,641**	**35,754**	**43,037**	**43,377**	**43,764**
SALADO WSC						
Salado WSC (municipal WUG demands)	1,899	2,081	2,265	2,449	2,636	2,822
Jarrell-Schwertner	55	55	55	55	55	55
Total Contracts and WUG Demands	**1,954**	**2,136**	**2,320**	**2,504**	**2,691**	**2,877**
SOUTHWEST MILAM WSC						
Southwest Milam WSC (municipal WUG demands)	1,466	1,575	1,685	1,824	1,977	2,131
City of Thorndale	202	202	202	202	202	202
Total Contracts and WUG Demands	**1,668**	**1,777**	**1,887**	**2,026**	**2,179**	**2,333**
STAMFORD						
City of Stamford (municipal WUG demands)	849	880	900	925	948	967
Jones County-Other (City of Leuders)	52	52	52	52	52	52
Jones County-Other (Ericksdahl WSC)	37	37	37	37	37	37
Haskell County-Other (Paint Creek WSC)	87	87	87	87	87	87

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Haskell County-Other (Sagerton WSC)	73	73	73	73	73	73
Total Contracts and WUG Demands	**1,098**	**1,129**	**1,149**	**1,174**	**1,197**	**1,216**
STEAMBOAT MOUNTAIN WSC						
Steamboat Mountain WSC (municipal WUG demands)	376	379	383	387	393	399
Taylor County-Other	79	79	79	79	79	79
Total Contracts and WUG Demands	**455**	**458**	**462**	**466**	**472**	**478**
STEPHENS REGIONAL SUD						
Stephens Regional SUD (municipal WUG demands)	296	292	288	283	284	285
Throckmorton County-Other	99	99	99	99	99	99
Total Contracts and WUG Demands	**395**	**391**	**387**	**382**	**383**	**384**
STEPHENVILLE						
City of Stephenville (municipal WUG demands)	2,659	2,867	3,047	3,241	3,448	3,645
Erath County, Manufacturing	29	35	42	48	55	64
Total Contracts and WUG Demands	**2,688**	**2,902**	**3,089**	**3,289**	**3,503**	**3,709**
STRAWN						
City of Strawn (municipal WUG demands)	145	152	156	160	165	169
City of Gordon	50	50	50	50	50	50
Total Contracts and WUG Demands	**195**	**202**	**206**	**210**	**215**	**219**
SWEETWATER						
City of Sweetwater (municipal WUG demands)	1,953	1,996	2,017	2,084	2,140	2,192
City of Bronte (*Region F*)	0	0	0	0	0	0
Taylor County-Other	187	187	187	187	187	187
Nolan County, Manufacturing	361	358	356	354	354	354
City of Roby	1,074	1,074	1,074	1,074	1,074	1,074
Total Contracts and WUG Demands	**3,575**	**3,615**	**3,634**	**3,699**	**3,755**	**3,807**
TAYLOR						
City of Taylor (municipal WUG demands)	2,844	3,010	3,245	3,527	3,873	4,237
Williamson County-Other	95	101	111	122	136	151
City of Hutto	336	336	336	336	336	336
Williamson County, Manufacturing	4	5	5	5	5	5

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
Total Contracts and WUG Demands	**3,279**	**3,452**	**3,697**	**3,990**	**4,350**	**4,729**
TEMPLE						
City of Temple (municipal WUG demands)	20,095	23,231	26,532	29,903	33,301	36,666
Bell County WCID 2	323	323	323	323	323	323
Bell County-Other (Arrowhead Hill)	26	26	26	26	26	26
Bell County, Manufacturing	481	481	481	481	481	481
Morgans Point Resort	1,935	1,935	1,935	1,935	1,935	1,935
City of Troy	968	968	968	968	968	968
Total Contracts and WUG Demands	**23,828**	**26,964**	**30,265**	**33,636**	**37,034**	**40,399**
TROY						
City of Troy (municipal WUG demands)	185	199	215	233	254	275
Bell County, Manufacturing	9	9	9	9	9	9
Total Contracts and WUG Demands	**194**	**208**	**224**	**242**	**263**	**284**
WACO						
City of Waco (municipal WUG demands)	31,279	33,063	34,676	36,494	38,495	40,503
City of Bellmead	1,344	1,344	1,344	1,344	1,344	1,344
Bold Springs WSC	560	560	560	560	560	560
Central Bosqque WSC	359	359	359	359	359	359
City of Hewitt	1,120	1,120	1,120	1,120	1,120	1,120
Hilltop WSC	101	101	101	101	101	101
City of Lacy Lakeview	1,120	1,120	1,120	1,120	1,120	1,120
Leroy Tours Gerard WSC	196	196	196	196	196	196
McLennan County, Manufacturing	2,503	2,888	3,249	3,618	3,948	4,403
City of Robinson	560	560	560	560	560	560
Ross WSC	280	280	280	280	280	280
Mclennan County, Steam Electric	15,000	15,000	15,000	15,000	15,000	15,000
Texas State Technical College	888	954	1,013	1,073	1,132	1,193
City of West	1,120	1,120	1,120	1,120	1,120	1,120
City of Woodway	0	4	219	478	728	989
Total Contracts and WUG Demands	**56,430**	**58,669**	**60,917**	**63,423**	**66,063**	**68,848**

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
WICKSON CREEK SUD						
Wickson Creek SUD (municipal WUG demands)	1,648	1,828	2,022	2,267	2,537	2,832
Brazos County, Manufacturing	5	5	5	5	5	5
Grimes County, Manufacturing	3	3	3	3	4	5
Total Contracts and WUG Demands	**1,656**	**1,836**	**2,030**	**2,275**	**2,546**	**2,842**
WOODWAY						
City of Woodway (municipal WUG demands)	3,465	3,690	3,892	4,114	4,347	4,579
McLennan County, Manufacturing	2	2	2	2	2	2
Total Contracts and WUG Demands	**3,467**	**3,692**	**3,894**	**4,116**	**4,349**	**4,581**
OLNEY (REGION B)[1]						
Young County, Manufacturing	25	25	25	25	25	25
Total Contracts and WUG Demands	**25**	**25**	**25**	**25**	**25**	**25**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
ARLINGTON (REGION C)[1]						
Bethesda WSC	1,234	1,473	1,724	2,003	2,312	2,637
Total Contracts and WUG Demands	**1,234**	**1,473**	**1,724**	**2,003**	**2,312**	**2,637**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
CORSICANA (REGION C)[1]						
Hill County-Other	110	119	116	113	104	101
Post Oak SUD	461	479	514	548	584	616
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
FORTWORTH (REGION C)[1]						
Bethesda WSC	2,469	2,946	3,447	4,006	4,623	5,275
City of Burleson	6,468	7,486	8,555	9,720	10,982	12,311
Total Contracts and WUG Demands	**8,937**	**10,432**	**12,002**	**13,726**	**15,605**	**17,586**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
GRAND PRAIRIE (REGION C)[1]						
Johnson County-Other	673	1,345	1,345	1,345	1,345	1,345
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
MANSFIELD (REGION C)[1]						
Johnson County SUD	4,000	7,215	8,845	8,845	8,845	8,845
Total Contracts and WUG Demands	**4,000**	**7,215**	**8,845**	**8,845**	**8,845**	**8,845**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
MIDLOTHIAN (REGION C)[1]						
City of Venus	535	625	721	830	949	1,079
Total Contracts and WUG Demands	**535**	**625**	**721**	**830**	**949**	**1,079**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
WAXAHACHIE (REGION C)[1]						
Files Valley WSC	0	0	0	0	0	0
Total Contracts and WUG Demands	**0**	**0**	**0**	**0**	**0**	**0**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
COLORADO RIVER MWD (REGION F)[1]						
City of Abilene[2]	5,020	4,850	4,679	4,509	4,338	4,168
Total Contracts and WUG Demands	**5,020**	**4,850**	**4,679**	**4,509**	**4,338**	**4,168**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand. 2- Values represent supplies assigned to Abilene by Region F based on available yield from O.H. Ivie Reservoir, not actual contractual volume.						
SNYDER (REGION F)[1]						
City of Rotan	178	170	165	164	163	163
Total Contracts and WUG Demands	**178**	**170**	**165**	**164**	**163**	**163**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
HUNTSVILLE (REGION H)[1]						
Grimes County, Steam Electric	6,720	6,720	6,720	6,720	6,720	6,720
Total Contracts and WUG Demands	**6,720**	**6,720**	**6,720**	**6,720**	**6,720**	**6,720**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
AUSTIN (REGION K)[1]						
Williamson County-Other	87	87	87	87	87	87
Total Contracts and WUG Demands	**87**	**87**	**87**	**87**	**87**	**87**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
LOWER COLORADO RIVER AUTHORITY (REGION K)[1]						
Brazos River Authority	25,000	25,000	25,000	25,000	25,000	25,000
City of Cedar Park	20,500	20,500	20,500	20,500	20,500	20,500
Corix Utilities Texas Inc	1,140	1,140	1,140	1,140	1,140	1,140

Table 3-3. Water Supply Contracts and Other Current Demands Supplied by Water User Groups (WUGs) and Wholesale Water Providers (WWPs) (acre-feet/year)

Water User Group/Wholesale Water Supplier	Year					
	2020	2030	2040	2050	2060	2070
City of Leander	24,000	24,000	24,000	24,000	24,000	24,000
Total Contracts and WUG Demands	**70,640**	**70,640**	**70,640**	**70,640**	**70,640**	**70,640**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
MANVILLE WSC (REGION K)[1]						
City of Hutto	560	560	560	560	560	560
Williamson County WSID 3	1,189	1,189	1,189	1,189	1,189	1,189
Total Contracts and WUG Demands	**1,749**	**1,749**	**1,749**	**1,749**	**1,749**	**1,749**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						
SAN ANTONIO WATER SYSTEM (REGION L)[1]						
Williamson County-Other	5,700	5,700	5,700	5,700	5,700	5,700
Total Contracts and WUG Demands	**5,700**	**5,700**	**5,700**	**5,700**	**5,700**	**5,700**
1- Only listing Entity's contracts with Region G. Does not list Entity's other contract demands and Entity Demand.						

3.2 Determination of Surface Water Availability

3.2.1 Modified TCEQ Water Availability Model of the Brazos River Basin (Brazos G WAM)

Determination of water availability for existing water rights is based on a rather complex function of location, hydrologic conditions, diversion volume, reservoir storage, and priority date. Computer models that are capable of analyzing these complex inter-relationships are typically employed to determine water availability for water rights. Water availability estimates for the Brazos G Area were developed using a computer model of the Brazos River Basin. The Water Rights Analysis Package (WRAP) computer model was developed at Texas A&M University for use as a water resources management tool. The model can be used to evaluate the reliability of existing water rights and to determine unappropriated streamflow potentially available for new water right permits. WRAP simulates the management and use of streamflow and reservoirs over a historical period of record, adhering to the prior appropriation doctrine governing water rights in Texas.

The TCEQ maintains a Water Availability Model (TCEQ WAM) for the Brazos River Basin that contains information on all water rights in the basin. The TCEQ WAM is the fundamental tool used to determine surface water availability throughout the Brazos River Basin for water rights permitting. Embedded within this model are certain assumptions that the TCEQ specifies when analyzing water right reliabilities. These assumptions are not necessarily the most appropriate to apply to the regional water planning process. For example, the TCEQ WAM uses permitted storage capacities for all reservoirs, whereas,

water supply planning should be based upon current and future sedimentation conditions in the reservoirs.

The Brazos G RWPG has approved (and the TWDB has authorized) several assumptions to be incorporated into the TCEQ WAM for purposes of determining surface water availability. With these modifications, the TCEQ WAM is hereinafter referred to as the "Brazos G WAM." These assumptions include the following items.

- Utilization of naturalized flow and evaporation data developed by the BRA for its adopted management plan, which extends the hydrologic period of record through 2015.
- Inclusion of a certain level of current and future return flows by entities located throughout the basin. These return flows are based on historical return flow information as well as projected future rates assuming an aggressive plan for future reuse. Table 3-4 lists the entities and the annual amount of return flows approved for use in the Brazos G WAM. Multiple entries for the same entity indicate multiple discharge locations. Entities operating wastewater treatment plants in the Brazos Basin not shown in the table are excluded for one of two reasons. One, is the entity requested during the development of the 2016 Plan that zero effluent be made available in the WAM because they plan to reuse all future effluent. These same entities are assumed to fully use all future effluent in the 2021 Plan unless otherwise notified by the entity. Two, return flows are included only for those facilities currently permitted to discharge 0.9 million gallons per day (MGD) or greater.
- Inclusion of BRA current contractual demand amounts and locations as provided by the BRA consistent with the BRA adopted management plan.
- Incorporation of reservoir system operations rules provided by the BRA to more accurately reflect current operations of BRA reservoirs to meet contract demands.
- The Brazos G WAM uses Year 2020, or the most up to date reservoir survey as available, and estimated Year 2070 elevation-area-capacity information for all reservoirs authorized for greater than 5,000 acft storage capacity.
- The Brazos G WAM includes five subordination agreements as agreed to by the Texas Water Development Board (TWDB):
    - Possum Kingdom Reservoir is subordinated to Lake Alan Henry,
    - Possum Kingdom Reservoir is subordinated to the Fort Phantom Hill Reservoir Scalping water right located on the Clear Fork of the Brazos River,
    - Possum Kingdom Reservoir is subordinated to Hubbard Creek Reservoir,
    - Possum Kingdom Reservoir is subordinated to the City of Stamford's California Creek pump-back operation into Lake Stamford, and
    - Lake Waco is subordinated to the City of Clifton's 1996 priority date water right.
- Exclusion of the following permitted but not constructed reservoirs:
    - Allens Creek Reservoir

- Post Reservoir
- Turkey Peak Reservoir (Lake Palo Pinto expansion)

These assumptions were used in the analyses to determine surface water availability for existing surface water supply sources. Different assumptions will be used, per TWDB requirements, for determining surface water availability for new water management strategies.

Table 3-4. Return Flows included in the Brazos G WAM (millions of gallons per day [MGD])

Entity[1]	County	Current Discharge [2]	Estimated 2070 Discharge[3]
Bell County WCID No. 1	Bell	0.52	0.35
Bell County WCID No. 1	Bell	2.17	7.72
Bell County WCID No. 1	Bell	11.44	1.46
BRA SLRSS	Fort Bend	4.17	5.60
BRA/LCRA BCRWSS West	Williamson	15.28	16.74
BRA/LCRA BCRWSS East	Williamson	1.35	1.48
City of Angleton	Brazoria	1.77	1.69
City of Bellville	Austin	0.39	0.34
City of Breckenridge	Stephens	0.32	0.09
City of Brenham	Washington	1.85	0.66
City of Cameron	Milam	0.67	0.25
City of Copperas Cove	Coryell	0.80	0.48
City of Copperas Cove	Coryell	1.51	0.90
City of Copperas Cove	Coryell	0.57	0.34
City of Eastland	Eastland	0.10	0.03
City of Freeport	Brazoria	0.91	0.87
City of Gatesville	Coryell	0.73	0.44
City of Gatesville	Coryell	1.80	1.08
City of Georgetown	Williamson	1.45	1.59
City of Georgetown	Williamson	1.37	1.50
City of Graham	Young	0.67	0.24
City of Granbury	Hood	0.62	0.31
City of Harker Heights	Bell	1.98	1.34
City of Hearne	Robertson	0.51	0.25
City of Hillsboro	Hood	1.07	0.54
City of Hutto	Williamson	0.99	1.09
City of Lampasas	Lampasas	0.60	0.27

Table 3-4. Return Flows included in the Brazos G WAM (millions of gallons per day [MGD])

Entity[1]	County	Current Discharge [2]	Estimated 2070 Discharge[3]
City of Leander	Williamson	0.96	1.05
City of Marlin	Falls	1.01	0.30
City of McGregor	McLennan	0.41	0.18
City of Mineral Wells	Parker	0.10	0.04
City of Mineral Wells	Palo Pinto	1.06	0.39
City of Navasota	Grimes	0.62	0.26
City of Richmond	Fort Bend	0.30	0.40
City of Rosenberg	Fort Bend	1.19	1.60
City of Rosenberg	Fort Bend	1.79	2.40
City of Stephenville	Erath	1.26	0.61
City of Sugarland	Fort Bend	2.16	2.90
City of Sugarland	Fort Bend	2.16	2.90
City of Taylor	Williamson	1.66	1.82
City of West Columbia	Brazoria	0.74	0.71
Fort Bend MUD 106	Fort Bend	1.00	1.34
Fort Bend MUD 112	Fort Bend	1.42	1.90
Pecan Grove MUD	Fort Bend	0.83	1.11
Prairie View A&M University	Waller	0.45	0.48
Texas A&M University	Brazos	0.36	0.27
	Total:	**75.13**	**68.33**
	Total (acft/yr):	**84,143**	**76,530**

1. Entities operating WWTPs but are not shown are assumed to have zero effluent made available because they plan to reuse all future effluent, or are permitted to discharge less than 0.9 MGD.
2. Current return flow estimates are based on the minimum annual discharge during 2015-2017 period.
3. Future estimates assume 25% of Year 2020 discharges will continue and 50% of any growth in wastewater volume will be discharged.

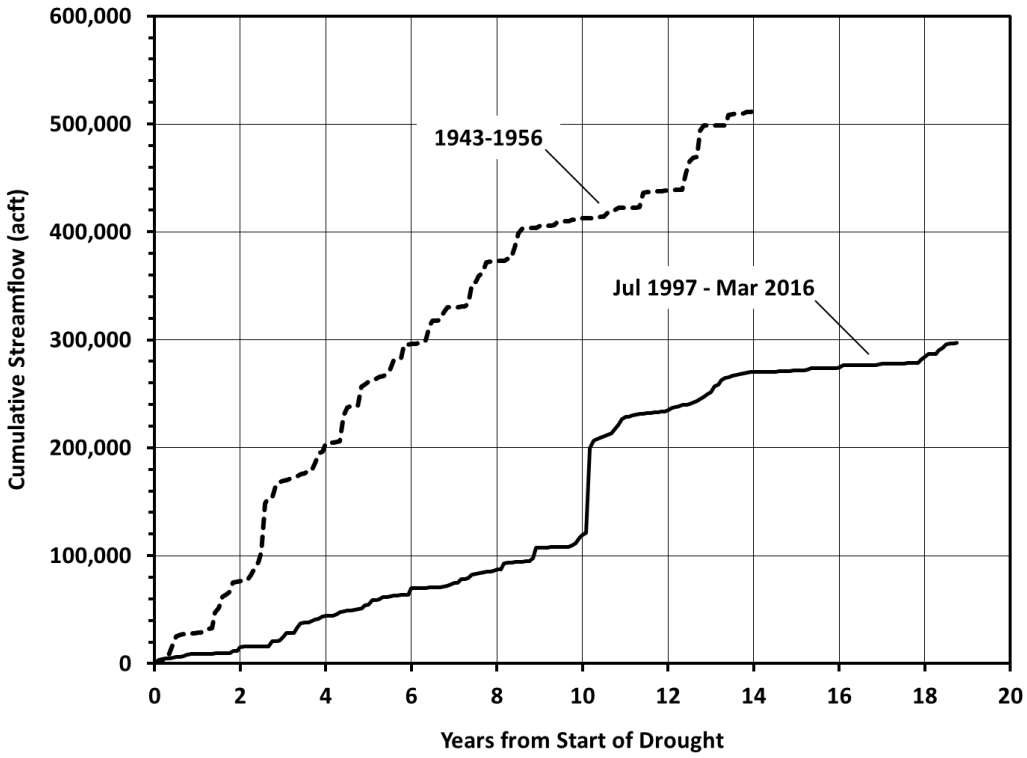
The Brazos G WAM contains 77 primary control points that contain naturalized flow information, and 67 evaporation data sets used to calculate evaporation for the 650 reservoirs included in the model. The period of record for the Brazos G WAM is 1940-2015. Water availability computations are performed at over 3,800 control points located throughout the river basin in the process of analyzing more than 1,700 water right records. The Brazos G WAM contains water right data available from the TCEQ for all water rights in the Brazos Basin as of November 2016. Water right applications submitted or approved after this date are not reflected in the model. A summary of yield data for major reservoirs analyzed in the Brazos G WAM is presented in Section 3.2.3.

3.2.2 Reliability of Surface Water Supplies and New Upper Basin Drought of Record

Hydrologic conditions are a primary factor that affects the reliability of water rights. Severe drought periods have been experienced in all areas of the Brazos River Basin. The drought of record for most areas of Brazos G occurred in the 1950s with other less severe drought periods occurring in the 1960s, 1970s, 1980s, and even recently in the 1990s. In some parts of the upper Brazos Basin, the recent drought of the 1990s has continued past the turn of the century, and in many places streamflow data indicate that its severity is greater than that of the drought that occurred in the 1950s. The region of Texas near Abilene has experienced drought conditions in almost all years from the early 1990s until 2016. Streamflows in the Clear Fork of the Brazos River (Clear Fork) during this period were substantially less compared to the previous drought of record which occurred from 1943 through 1956.

Figure 3-7 illustrates this with a comparison of cumulative gaged flows at the Clear Fork at Nugent gage during the drought of the 1950s and the drought beginning in the summer of 1997 and ending in the spring of 2016. When the recent drought cumulative streamflows are compared to the 1950s droughts at the 14 years mark from the beginning of the drought, total streamflow is 53 percent of the total streamflow for the 1950s. Additionally, the duration of the recent drought is more than 4 years longer than the 1950s drought. The comparison shows that the current drought was much more severe in the Clear Fork watershed. Additional information and comparisons of historic droughts in the Brazos River Basin are included in Chapter 7.

Figure 3-7. Comparison of Cumulative Streamflows for Two Drought Periods for the Clear Fork at Nugent, TX Streamgage (08084000)



3.2.3 Yield Analysis for Large Reservoirs

Water availability estimates for reservoirs were determined using the Brazos G WAM. For each reservoir greater than 5,000 acft yield estimates were determined using the updated 2020 (current) and 2070 (future) elevation-area-capacity information based on projected reservoir sedimentation. For reservoirs with less than 5,000 acft of storage, as-permitted capacities were used to estimate yields. Future reservoir sediment conditions were estimated using available reservoir sedimentation data. Sedimentation conditions used for the 2021 Plan are identical to those used for the 2016 Plan, except for those reservoirs for which updated reservoir sedimentation data exist, as summarized in Table 3-5.

Table 3-5. Summary of Current and Future Sediment Estimates for Reservoirs with Recent Surveys (available as of May 1, 2018)

Reservoir	Year of New Survey	Sedimentation Rate (acft/yr)	2021 Plan Conservation Storage Capacity (acft)		2016 Plan Conservation Storage Capacity (acft)	
			2020	2070	2020	2070
Lake Aquilla[1]	2014	209	42,025	31,575	43,174	37,374
Lake Belton[1]	2015	336	430,951	414,151	430,976	411,325
Lake Georgetown[1]	2016	21	37,984	36,934	36,799	36,449
Lake Granbury[1]	2015	278	132,468	118,568	116,703	80,503
Lake Granger[1]	2013	152	50,758	43,158	47,971	36,271
Lake Limestone[1]	2012	481	199,932	175,882	196,965	166,265
Lake Proctor[1]	2012	161	53,474	45,424	53,639	48,589
Lake Somerville[1]	2012	379	147,261	128,311	141,069	123,319
Lake Stillhouse Hollow[1]	2015	119	229,286	223,336	224,645	214,045
Possum Kingdom Reservoir[1]	2016	298	536,947	522,047	501,520	372,120
Lake Alan Henry (Region O) [2]	2017	118.5	95,883	89,959	79,719	29,418
Lake Leon[3]	2015	12.6	26,458	25,828	26,458	25,828
Lake Mineral Wells[4]	2015	6	5,324	5,024	5,752	4,744

1. Sedimentation rate provided by Brazos River Authority.
2. Sedimentation rate calculated using 2017 Draft TWDB survey.
3. Due to differences in survey methodologies, the 2015 survey was not comparable to previous surveys and cannot be used to determine a new sedimentation rate. Therefore, the 2021 Plan sedimentation rate was maintained at the same level as that used in the 2016 Plan to estimate current and future sediment conditions.
4. Sedimentation rate provided in TWDB survey report.

Yields were limited to authorized diversions. Yields also were determined for smaller reservoirs that serve as the sole water supply for a municipal entity. Yield estimates for BRA reservoirs were estimated as a stand-alone yield without system operations. The stand-alone yields for the BRA reservoirs assume all diversions from BRA reservoirs are made lakeside.

Firm yield estimates were determined for all reservoirs and safe yield estimates were also determined for reservoirs located upstream of Possum Kingdom Reservoir and for Lake Palo Pinto. Utilization of safe yield in lieu of firm yield is a common practice in west Texas where droughts are frequent and severe, and water managers are acutely aware that a drought more severe than recent recorded history could occur. Safe yield provides additional assurance of supply in an area where water resource alternatives are limited. All reservoirs upstream of Possum Kingdom Reservoir (Upper Basin Reservoirs) were evaluated on a 1-year safe yield basis. A 1-year safe yield is defined as the amount of water that can be diverted from a reservoir during a repeat of the worst drought of record while still maintaining a reserve storage equal to a 1-year supply volume. Two-year safe yields were calculated for Hubbard Creek Reservoir as approved by the TWDB. A 2-year safe yield is used to provide a greater assurance to reservoir owners that supplies are not over-estimated when considering droughts worse than the drought of record. A 6-month safe yield is used for Lake Palo Pinto and is the only reservoir located in a watershed downstream of Possum Kingdom Reservoir for which a safe yield is used.

A summary of firm and safe yield estimates for major reservoirs and minor reservoirs used for municipal supply is presented in Table 3-6.

Table 3-6. Yields for Reservoirs in the Brazos G Area (acre-feet/year)

Water Right ID	Reservoir Name	Firm Yield		Safe Yield	
		2020	2070	2020	2070
BRA Reservoirs[1]					
C5155	Possum Kingdom	152,100	147,700		
C5156	Granbury	59,400	54,300		
C5157	Whitney	18,336	18,336		
C5158	Aquilla	13,400	10,900		
C5159	Proctor	13,300	10,100		
C5160	Belton	112,257	112,257		
C5161	Stillhouse Hollow	66,400	65,000		
C5162	Georgetown	11,600	11,500		
C5163	Granger	17,600	15,400		
C5164	Somerville	42,200	38,900		
C5165	Limestone	64,000	56,200		
Large Non-BRA Reservoirs					
C3758, C5272	Alcoa	14,000	14,000		
C5268	Dansbury (Bryan Utilities)	195	195		
C5311, C5307	Gibbons Creek	9,740	9,740		
C4345	Lake Creek	9,900	9,900		
C34403	Davis	0	0		

Table 3-6. Yields for Reservoirs in the Brazos G Area (acre-feet/year)

Water Right ID	Reservoir Name	Firm Yield		Safe Yield	
		2020	2070	2020	2070
C3470	Leon	4,000	3,850		
C40391	Mineral Wells	1,550	1,500		
C4031	Palo Pinto[2]	9,800	8,950	7,800	7,100
C4106	Pat Cleburne	5,040	4,680		
C4097	Squaw Creek	8,050	7,710		
C4342	Tradinghouse	4,970	4,890		
C5298	Twin Oaks	2,900	2,760		
P5551, P5899	Waco	75,800	75,300		
C3693	White River	0	0		
Minor Reservoirs					
P4135	Crawford	0	0		
C3465	Eastland	500	500		
C4024	Gordon	0	0		
C4355	New Marlin City Lake	2,250	2,000		
P5000	Mart	0	0		
P5085	Robinson	0	0		
P5744	Wheeler Branch	1,960	1,960		
C4019	Strawn	160	160		
C3450	Throckmorton	50	0		
C5301	Camp Creek	2,575	2,000		
C5287	Mexia	1,100	600		
C4340	Lake Brazos	5,600	5,600		
P5551	Clifton	400	150		
Upper Basin Reservoirs					
C4142	Abilene[3]	800	750	450	325
C4211	Cisco	1,300	1,300	1,075	1,075
C4214	Daniel	250	225	175	150
C4151, C4161, C4139, C4165	Fort Phantom Hill[5]	7,500	6,900	4,800	4,300
C3458	Graham-Eddleman	1,800	1,125	1,275	675
C4213	Hubbard Creek[6]	26,900	26,300	20,000	19,500
C4150	Kirby[7]	300	300	150	150
C4179	Stamford	4,400	4,050	2,600	2,200

Table 3-6. Yields for Reservoirs in the Brazos G Area (acre-feet/year)

Water Right ID	Reservoir Name	Firm Yield		Safe Yield	
		2020	2070	2020	2070
C4130	Sweetwater[3]	650	650	500	500
C4128	Sweetwater_Trammel_RC4128[3]	300	0	225	0
C4152	Lytle Lake	230	0	230	0
C4180	City of Hamlin Lake	50	0	0	0
C4181	Anson North	25	0	0	0
C4194	Woodson	0	0	0	0
C4202	Baird	25	0	0	0
C4208	McCarty	100	0	75	0
C4207	Moran	125	0	50	0
C3462	Bryson	0	0	0	0
C3444	Millers Creek Reservoir	125	0	75	0

1. BRA reservoir firm yield estimates are considered a stand-alone yield and do not include system operations.
2. Safe yield estimate for Lake Palo Pinto is based on a 6-month safe yield calculation.
3. Reservoir not used for supply by owning entity or is not considered a reliable supply.
4. Lake Belton yield includes 12,000 acft/yr of water rights held by Department of the Army.
5. Safe yield estimate for Fort Phantom Hill Reservoir is based on a 2-year safe yield calculation. The City of Abilene plans to manage current and future supplies from Fort Phantom Hill Reservoir using the minimum of 1) the 2-year safe yield estimates, and 2) the yield estimates included in the purpose and need analysis of the Abilene water system as part of the 404 permitting process for the Cedar Ridge Reservoir project.
6. Safe yield estimate for Hubbard Creek Reservoir is based on a 2-year safe yield calculation.
7. Lake Kirby is used as part of the City of Abilene's reuse system and not for raw water supply. Yield estimates for Lake Kirby do not include effluent inflows.

3.2.4 Reliability of Run-of-the-River and Small Reservoir Water Rights

The results of the Brazos G WAM simulations include water availability estimates for each water right located in the Brazos Basin. Summaries of water available to run-of-the-river water rights (including rights with small reservoirs) are presented in Appendix F. If the supply for a water right was determined by a firm or safe yield analysis then this number is shown in the appendix. Water availability for other rights is expressed in terms of the minimum annual supply, which is defined as the water available during the most severe drought year over the 76-year simulation period of 1940 to 2015. Water right reliabilities were calculated simulating both current and future reservoir sedimentation conditions. The minimum annual supplies for run-of-river water rights (based on minimum monthly diversions) were used to determine the supplies available by type of use and county for comparison with demands.

3.2.5 Reliability of BRA System Operations Permit

The BRA has been granted water right permit No. 12-5851 authorizing the additional appropriation of water made available through system operation of the BRA's existing

water rights and reservoirs. The system operations permit allows the BRA to appropriate available run-of-river streamflow in the middle and lower Brazos Basin (downstream of Possum Kingdom Reservoir) in amounts greater than the diversion amounts authorized in existing certificates and permits held by the BRA, and use these supplies in coordination with water stored in BRA reservoirs to meet future customer needs.

The Brazos G WAM prioritizes meeting the demands of the existing BRA contracts from the BRA system of reservoirs (BRA System) before making any system operations water available to meet future demands. The remaining water available from the BRA System is then determined at the Brazos River near Rosharon control point, at the lower end of the Brazos Basin. Under this hypothetical operation (diverting all additional "system" supply from the lowest reach of the Brazos Basin), unregulated flows originating downstream of the BRA reservoirs are diverted during wet times and firmed up by releases from storage in the upstream BRA reservoirs during dry times. In this fashion, a total "system" yield can be developed in addition to the sum of the individual reservoir firm yields. For this analysis, the system yield was determined to be the sum of the minimum annual volume of water delivered to the existing contracts and remaining available water near the Rosharon control point. The difference between the system yield and the sum of the individual reservoir firm yields is considered to be the additional system operations reliable supply. Table 3-7 summarizes the BRA reservoir firm yields, system yield and system operations reliable supply.

The BRA currently holds multiple contracts to supply water to cities, districts, irrigators and industry throughout the Brazos River Basin. Many of these contracts are supplied proximate to the BRA's reservoirs, or through lakeside diversions. Because the additional System supply is dependent upon unregulated flows below the existing BRA reservoirs, the additional supply from system operations is considered to be available for diversion only at locations along the main stem of the Brazos River.

Table 3-7. Summary of BRA Reservoir Firm Yields and System Operations Reliable Supply

BRA Reservoir	Stand-Alone Firm Yield (acft/yr)	
	2020	2070
Possum Kingdom	152,100	147,700
Granbury	59,400	54,300
Whitney	18,336	18,336
Aquilla	13,400	10,900
Proctor	13,300	10,100
Belton[1]	100,257	100,257
Stillhouse	66,400	65,000
Georgetown	11,600	11,500
Granger	17,600	15,400
Somerville	42,200	38,900
Limestone	64,000	56,200

Table 3-7. Summary of BRA Reservoir Firm Yields and System Operations Reliable Supply

BRA Reservoir	Stand-Alone Firm Yield (acft/yr)	
	2020	2070
Total Reservoir Firm Yields	**558,593**	**528,593**
System Yield	**669,003**	**624,507**
System Operations Reliable Supply[2]	**110,410**	**95,914**

1. BRA portion of Lake Belton stand-alone yield excludes 12,000 acft/yr of water rights held by the Department of the Army.
2. The system operations reliable supply is assumed to be available to meet demands located on the main-stem of the Brazos River as infrastructure does not exist to transport the supply to the demands located in the Little River or Lake Aquilla systems.

acft/yr = acre-feet per year

3.2.6 Unappropriated Flows in the Brazos River Basin

The Brazos G WAM calculates unappropriated flow each month for the 1940 – 2015 period at each modeled location in the basin. Unappropriated flow is the excess flow that is not used by existing water rights and instream flow restrictions in the model simulation. This unappropriated flow is computed assuming SB3 instream flow restrictions and full use of all existing water rights. The quantity of unappropriated flow varies throughout the river basin depending on location. Summaries of unappropriated flows from the Brazos G WAM were developed at the following locations:

- Brazos River at South Bend (BRSB23),
- Brazos River near Glen Rose (BRGR30),
- Brazos River near Aquilla (BRAQ33),
- Bosque River near Waco (BOWA40),
- Little River at Cameron (LRCA58),
- Brazos River near Bryan (BRBR59),
- Brazos River near Hempstead (BRHE68), and
- Brazos River at Richmond (BRRI70).

These locations effectively summarize flow conditions throughout the river basin and are located at current or discontinued U.S. Geological Survey (USGS streamflow gaging stations, which are also primary control points in the Brazos G WAM. Table 3-8 summarizes the monthly and annual unappropriated flows at these selected locations for the current conditions run.

Table 3-8. Summary of Unappropriated Flow at Selected Brazos G WAM Locations

Control Point	Unappropriated Flow Estimates								Max. No. of Consecutive Months with Zero Unappropriated Flow
	Monthly Unappropriated Flows (acft)				Annual Unappropriated Flows (acft)				
	Maximum	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	
BRSB23	1,260,731	0	14,494	0	2,233,716	0	173,928	27,716	53
BRGR30	2,489,576	0	26,817	0	3,141,017	0	321,804	75,131	37
BRAQ33	2,655,348	0	42,304	0	3,477,421	0	507,643	243,907	33
BOWA40	525,202	0	18,831	0	950,067	0	225,968	135,985	35
LRCA58	1,377,318	0	62,131	0	3,870,405	0	745,574	407,749	32
BRBR59	4,090,902	0	162,877	0	9,213,368	0	1,954,521	1,501,324	28
BRHE68	4,759,396	0	213,888	0	11,381,815	0	2,566,662	1,945,257	28
BRRI70	5,119,260	0	227,372	0	11,997,705	0	2,728,458	2,110,123	22

acft = acre-feet

Figure 3-8 provides a comparison of median annual unappropriated flows at the selected location to those calculated in the 2016 Brazos G Plan. The comparison shows that the median unappropriated flow at all of the selected location has decreased since the 2016 Plan. This reduction in unappropriated flow can largely be attributed to the new appropriation of water under the BRA System Operations Permit.

Figure 3-8. Comparison of Simulated Median Annual Unappropriated Flow to 2016 Brazos G Plan

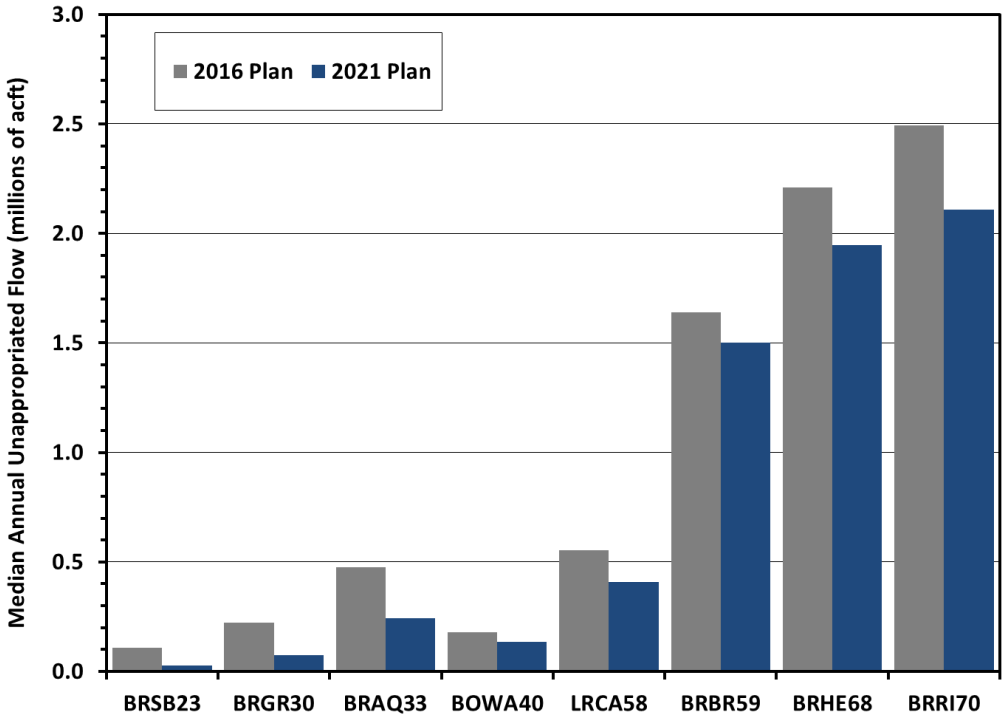


Figure 3-9 through Figure 3-16 illustrate the annual time series of unappropriated flows at each location. As Table 3-8 and Figure 3-9 through Figure 3-16 demonstrate, locations further downstream on major streams tend to have more unappropriated flow than those upstream with less contributing drainage area. As shown in these figures, unappropriated flow is present at the South Bend gage location in 30 out of 76 years of the model simulation. Conversely, unappropriated flow is present in all but 8 years at Richmond in the lower basin, and often in large quantities. Unappropriated flow is not available at Richmond for three years during the severe drought of the 1950s, which is the lowest flow period during the 1940 to 2015 simulation period at this gage.

Figure 3-9. Simulated Annual Unappropriated Flow at Brazos River at South Bend

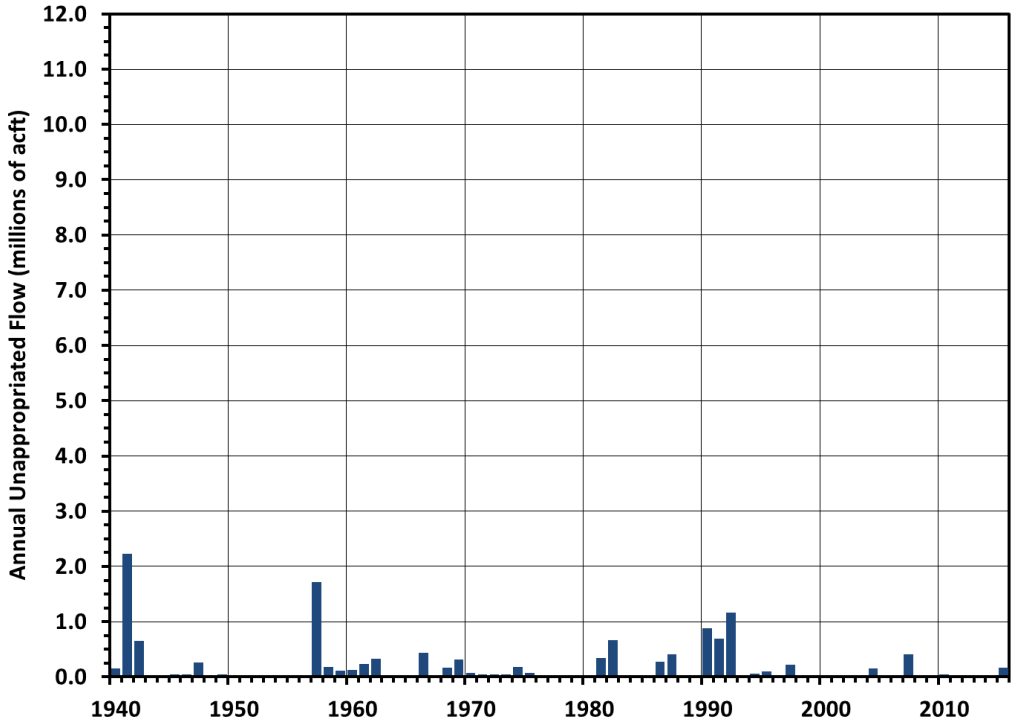


Figure 3-10. Simulated Annual Unappropriated Flow at Brazos River near Glen Rose

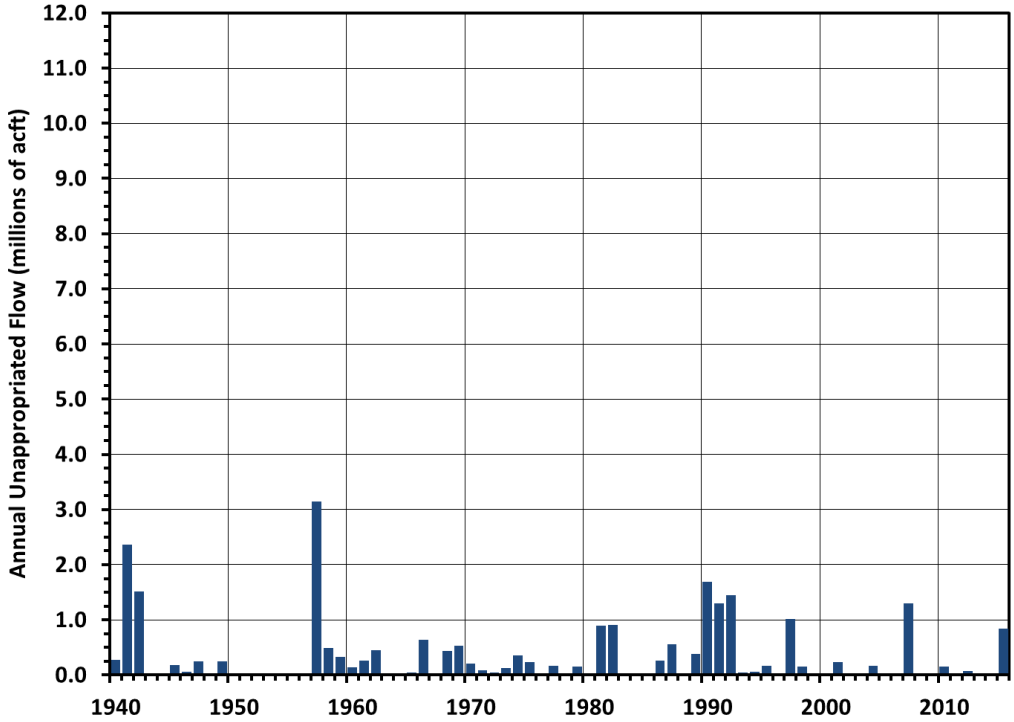


Figure 3-11. Simulated Annual Unappropriated Flow at Brazos River near Aquilla

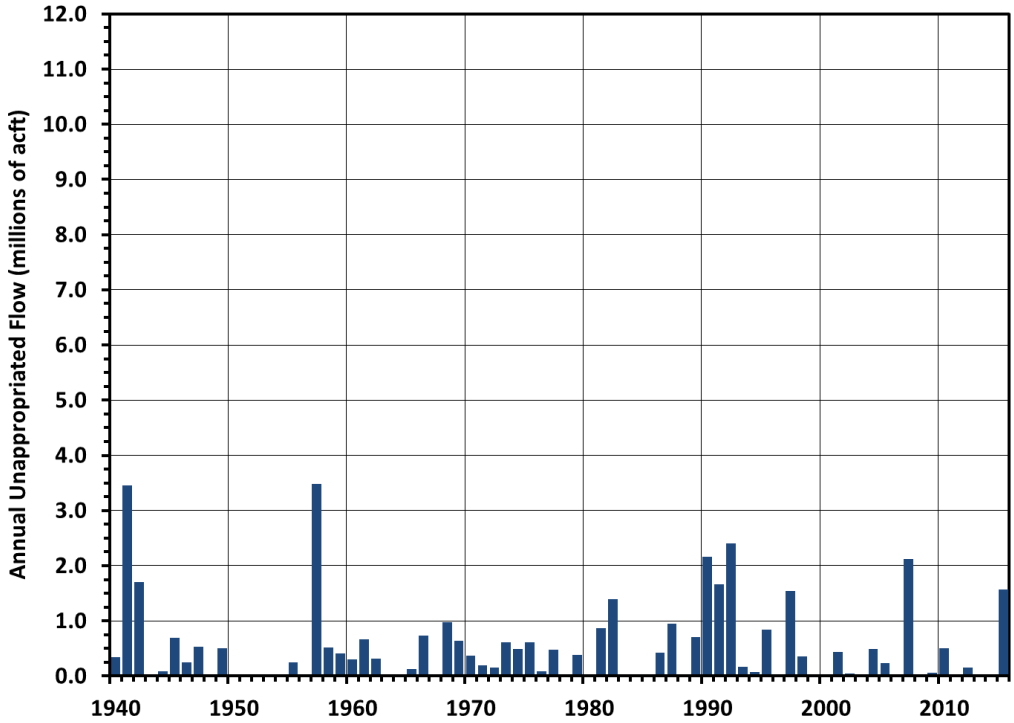


Figure 3-12. Simulated Annual Unappropriated Flow at Brazos River near Waco

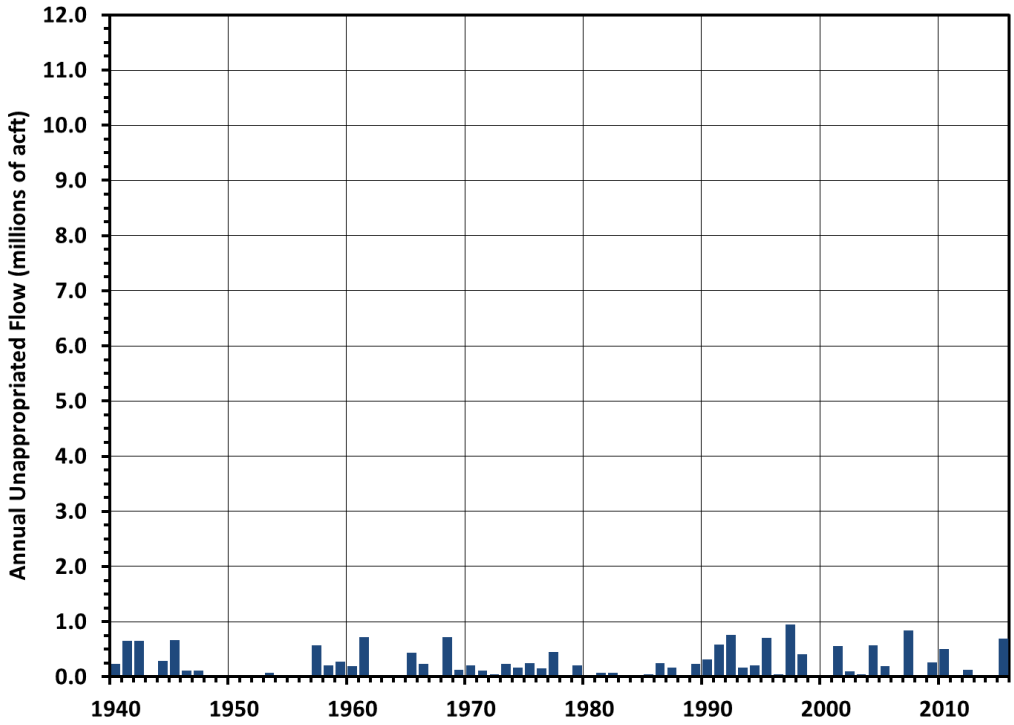


Figure 3-13. Simulated Annual Unappropriated Flow at Little River at Cameron

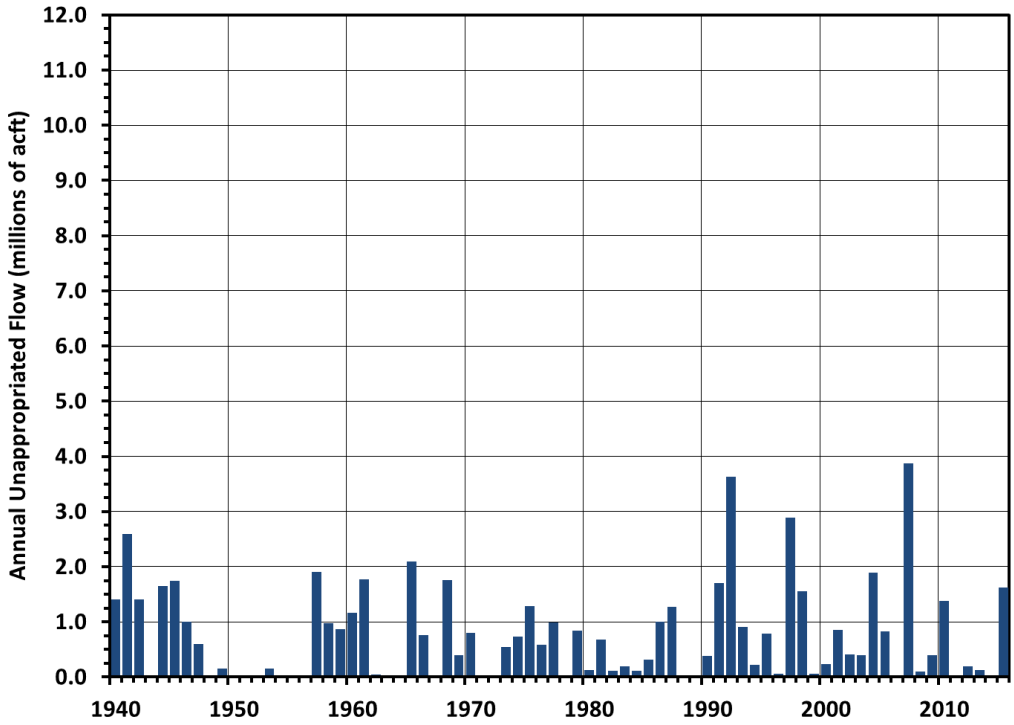


Figure 3-14. Simulated Annual Unappropriated Flow at Brazos River near Bryan

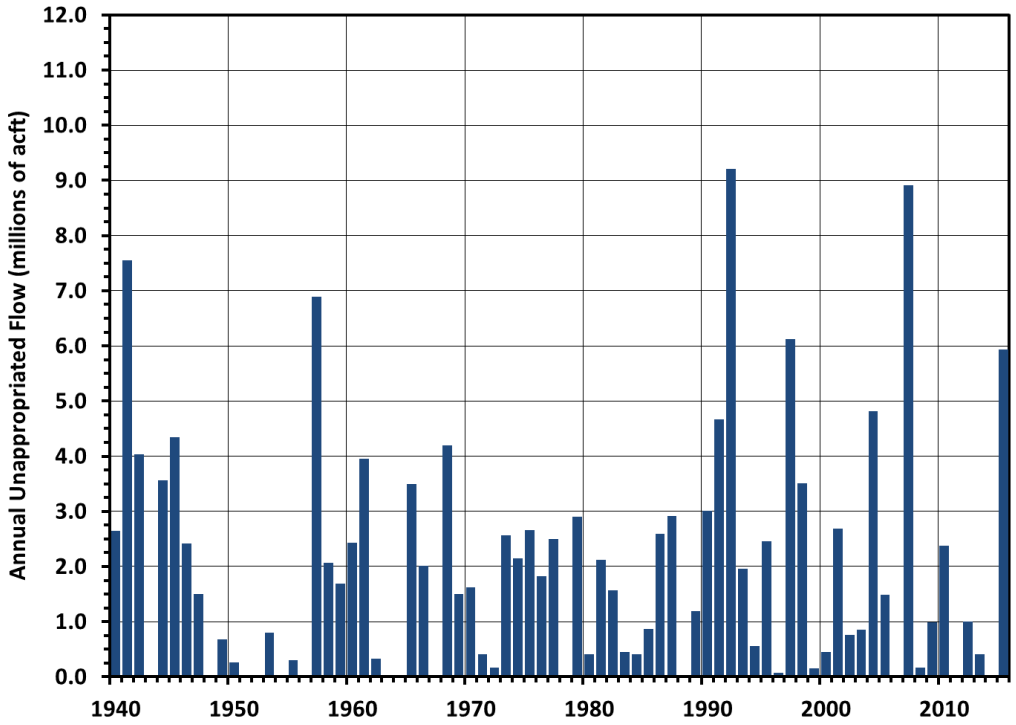


Figure 3-15. Simulated Annual Unappropriated Flow at Brazos River near Hempstead

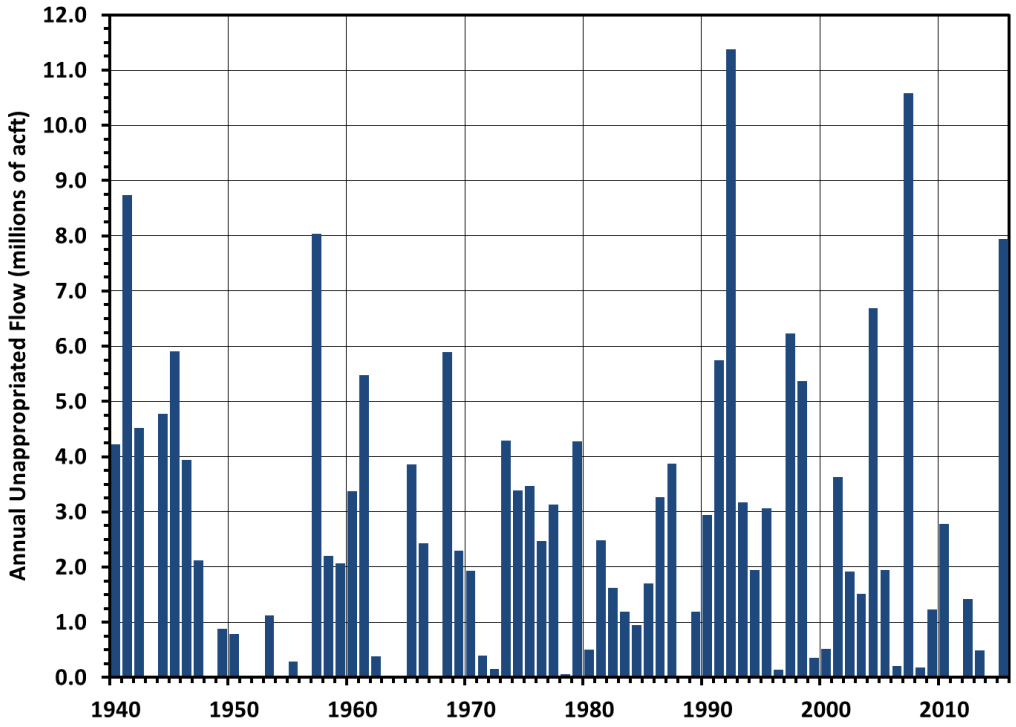
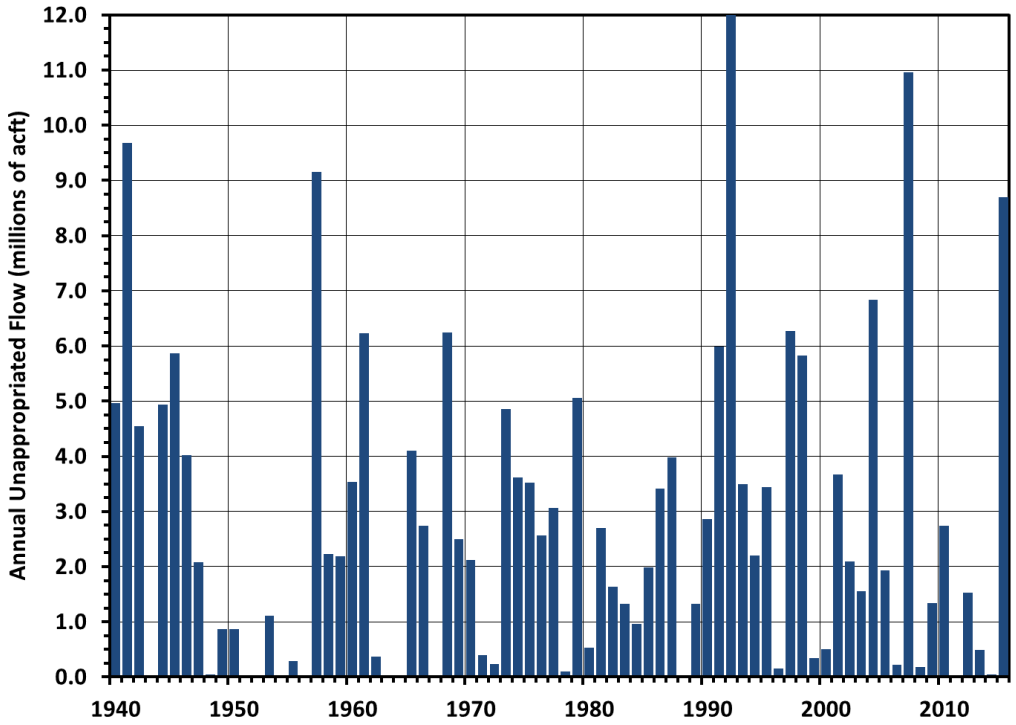


Figure 3-16. Simulated Annual Unappropriated Flow at Brazos River at Richmond



3.2.7 Local Surface Water Supplies

The local surface water supplies are used for livestock supplies in the Brazos G area. These supplies are firm and would be available through a drought of record given that they are reflected in the State's water availability models through the underlying streamflow gage data upon which the naturalized streamflows are based.

3.3 Water Quality Considerations Affecting Supply

The Brazos G WAM addresses the quantity of water available to existing water rights. However, water quality from some sources of water for existing water rights and contracts may limit the availability of water for certain beneficial uses. Water quality that does not meet criteria for designated uses such as public water supply, contact recreation, and aquatic life support is important to water supply considerations.

3.3.1 Point and Non-Point Source Pollution Water Quality

A number of stream segments and lakes in the Brazos G Area do not meet water quality standards due to point and/or nonpoint source pollution. The total maximum daily loads (TMDL) and individual water quality-based effluent limitations defined in 40 CFR 130.7 give TCEQ and U.S. Environmental Protection Agency (USEPA) the responsibility to identify water bodies that do not meet or are not expected to meet applicable water quality standards for designated uses.

As required under Sections 303(d) and 304(a) of the federal Clean Water Act, the 303(d) list identifies the water bodies in or bordering Texas for which effluent limitations are not

stringent enough to implement water quality standards, and for which the associated pollutants are suitable for measurement by maximum daily load. Texas' 303(d) list is included as part of the Texas Integrated Report of Surface Water Quality[1].

One of three subcategories is assigned to each impaired parameter to provide information about water quality status and management activities on that water body. The categories are defined as:

- Category 5: The water body does not meet applicable water quality standards or is threatened for one or more designated uses by one or more pollutants.
- Category 5a - TMDLs are underway, scheduled, or will be scheduled for one or more parameters.
- Category 5b - A review of the standards for one or more parameters will be conducted before a management strategy is selected, including the possible revision to the water quality standards.
- Category 5c - Additional data or information will be collected and/or evaluated for one or more parameters before a management strategy is selected.

The Brazos G Area stream segments and lakes identified in Texas' 303(d) list are summarized in Table 3-9[2].

Table 3-9. 2012 Draft Texas 303(d) List (November 8, 2019) Brazos G Regional Planning Area

Segment Number	Segment Name	County	Category	Parameter of Concern	Year First Listed
1202	Brazos River Below Navasota River	Grimes	5c	Bacteria	2018
1204A	Camp Creek	Johnson	5c	Bacteria	2010
1208	Brazos River Above Possum Kingdom Lake	Young / Stonewall	5c	Bacteria	2008
1209	Navasota River Below Lake Limestone	Grimes/ Robertson	5a	Bacteria	2002
1209A	Country Club Lake	Brazos	5c	Toxicity in sediment	1999
1209B	Fin Feather Lake	Brazos	5c	Toxicity in sediment	2000
1209E	Wickson Creek	Brazos	5b	Bacteria	2006
1209H	Duck Creek	Robertson	5c	Bacteria	2006
			5b	Depressed dissolved oxygen	2012

[1] 2018, TCEQ. 2018 Draft Texas Integrated Report of Surface Water Quality.

[2] Texas Commission on Environmental Quality, 2018 Texas 303(d) List (November 8, 2018).

Table 3-9. 2012 Draft Texas 303(d) List (November 8, 2019) Brazos G Regional Planning Area

Segment Number	Segment Name	County	Category	Parameter of Concern	Year First Listed
1209I	Gibbons Creek	Grimes	5b	Bacteria	2002
			5c	Depressed dissolved oxygen	2016
1209J	Shepherd Creek	Madison	5c	Bacteria	2002
1209K	Steele Creek	Limestone	5b	Bacteria	2002
1210A	Navasota River above Lake Mexia	Hill	5c	Bacteria	2002
1211A	Davidson Creek	Burleson	5c	Bacteria	2002
			5c	Depressed dissolved oxygen	2010
1212	Lake Somerville	Burleson / Washington	5c	pH	2002
1212A	Middle Yegua Creek	Lee / Williamson	5c	Bacteria	2010
1213	Little River	Milam / Bell	5c	Bacteria	2006
1213A	Big Elm Creek	Milam	5c	Bacteria	2010
1217B	Sulphur Creek	Lampasas	5c	Bacteria	2016
1218	Nolan Creek / South Nolan Creek	Bell	5b	Bacteria	1996
1218C	Little Nolan Creek	Bell	5b	Bacteria	2010
1221	Leon River below Proctor Lake	Comanche/ Coryell	5c	Bacteria	1996
1221A	Resley Creek	Comanche	5b	Bacteria	2004
			5b	Depressed dissolved oxygen	2006
1221D	Indian Creek	Comanche	5b	Bacteria	2006
1222A	Duncan Creek	Comanche	5c	Bacteria	1999
1222B	Rush-Copperas Creek	Comanche	5c	Bacteria	2006
1222C	Sabana River	Comanche / Eastland	5b	Bacteria	2006
1222E	Sweetwater Creek	Comanche	5c	Bacteria	2006

Table 3-9. 2012 Draft Texas 303(d) List (November 8, 2019) Brazos G Regional Planning Area

Segment Number	Segment Name	County	Category	Parameter of Concern	Year First Listed
1223	Leon River Below Leon Reservoir	Comanche / Eastland	5c	Bacteria	2006
			5c	Depressed dissolved oxygen	2008
1226B	Green Creek	Erath	5c	Depressed dissolved oxygen	2006
1226G	Spring Creek	Hamilton	5c	Bacteria	2018
1226K	Little Duffau Creek	Erath	5c	Bacteria	2006
1227	Nolan River	Hill / Johnson	5b	Sulfate	2002
			5c	Bacteria	2018
			5b	TDS	2006
1232	Clear Fork Brazos River	Fisher	5c	Bacteria	2018
			5c	pH	2016
1232A	California Creek	Haskell / Jones	5b	Bacteria	2010
			5c	Impaired fish community	2016
1238	Salt Fork Brazos River	Kent/Crosby	5c	Chloride	2016
1241	Double Mountain Fork Brazos River	Stonewall / Kent	5b	Bacteria	2010
1242B	Cottonwood Branch	Brazos	5c	Bacteria	2006
1242C	Still Creek	Brazos	5c	Bacteria	2006
1242D	Thompsons Creek	Brazos	5b	Bacteria	2002
			5b	Depressed dissolved oxygen	2006
1242F	Pond Creek	Falls	5c	Bacteria	2010
1242I	Campbells Creek	Falls	5c	Bacteria	2002
1242J	Deer Creek	Falls	5c	Bacteria	2006
1242K	Mud Creek	Robertson	5b	Bacteria	2002
1242L	Pin Oak Creek	Robertson	5b	Bacteria	2002
1242M	Spring Creek	Robertson	5b	Bacteria	2002
1242O	Walnut Creek	Robertson	5b	Bacteria	2006

Table 3-9. 2012 Draft Texas 303(d) List (November 8, 2019) Brazos G Regional Planning Area

Segment Number	Segment Name	County	Category	Parameter of Concern	Year First Listed
1242P	Big Creek	Falls	5b	Bacteria	2002
1244	Brushy Creek	Milam / Williamson	5c	Bacteria	2006
1246E	Wasp Creek	McLennan / Coryell	5b	Bacteria	2002
1247A	Willis Creek	Williamson	5c	Bacteria	2002
1248C	Mankins Branch	Williamson	5c	Bacteria	2004
1252	Lake Limestone	Limestone/ Robertson	5c	pH	2016
1255	Upper North Bosque River	Erath	5c	Bacteria	1996
			5c	Depressed dissolved oxygen	2008
1255A	Goose Branch	Erath	5c	Bacteria	2002
1255C	Scarborough Creek	Erath	5c	Bacteria	2002
1255D	South Fork North Bosque River	Erath	5b	Bacteria	2010
1255E	Unnamed tributary of Goose Branch	Erath	5c	Bacteria	2002
1255G	Woodhollow Branch	Erath	5c	Bacteria	2002
1259	Leon River above Belton Lake	Coryell	5c	Bacteria	1996

The TCEQ has the responsibility to identify and prioritize water bodies that may require a TMDL allocation to address the cause and source of water quality impairment. Navasota River below Lake Limestone (Segment 1209) for bacteria, are categorized as 5a, meaning TMDLs are underway, scheduled, or will be scheduled for one or more parameters.

These water quality issues are beyond the scope of regional water planning activities. The Brazos G RWPG encourages TCEQ and USEPA to take responsibility and pursue their obligation to restore water quality to meet intended uses.

A substantial part of the salt load in the Brazos River is contributed by Croton Creek and Salt Croton Creek. The natural salt pollution producing area is a semi-arid region of salt and gypsum encrusted hills and canyon-like stream valleys. The area is studded with salt springs and seeps. Wherever there is a joint or fracture in the stream bedrock material, the highly mineralized water seeps to the surface under artesian pressure. Massive salt flats, often 400 to 500 acres in size, are formed by this process. Salt and other minerals

are also leached out of the adjacent floodplain material that surrounds the salt flats and streams. The Brazos River receives a tremendous salt load when local rainfall is sufficient to dissolve the deposited salt and wash it out of the salt flats. Naturally occurring salinity, commonly measured as total dissolved solids (TDS), has long been recognized as an issue in the Brazos Basin.

The TCEQ has issued a secondary standard for TDS of 1,000 milligrams per liter (mg/L). Water sources with TDS concentrations exceeding this standard are generally considered as low quality and may require higher cost advanced treatment methods for use as a municipal or industrial supply. This concentration is routinely exceeded in the upper Brazos Basin, but tributary inflows of relatively low TDS water gradually reduces TDS concentrations in a downstream direction. TDS concentrations at the Seymour gage equal or exceed the TDS limit in 99.7 percent of the period of record, with a mean concentration of 3,356 mg/L. Further downstream, TDS concentrations average 1,512 mg/L at Possum Kingdom Lake and 928 mg/L at Lake Whitney, exceeding the secondary standard in 93.6 percent of the months and in 40.0 percent of the months, respectively. At College Station, concentrations equal or exceed the TDS limit in 2.2 percent of the months, with an average concentration of 438 mg/L. Finally, at the Richmond gage, the downstream-most gage with available data (92 river miles above the Gulf of Mexico), TDS concentrations do not exceed the secondary standard and have an average concentration of 339 mg/L.

3.3.2 Comparison of Supplies with Water Quality Standards

Numerous stream segments within the Brazos G Area are listed on the State's 303(d) list for bacteria levels that exceed the standards for contact recreation; however, bacteria, unlike salts, are easily managed through required conventional water treatment to meet drinking water standards.

3.3.3 Special Water Quality Studies and Activities in the Brazos River Basin

There are several special water quality studies that are on-going in the Brazos River Basin as described in the Brazos River Authority's 2019 Basin Highlights Report. A brief summary of these projects is described below.

Little River, San Gabriel River, and Big Elm Creek Watershed Inventory

The BRA is working on the Little River watershed to lower elevated levels of E. Coli. The watershed inventory was developed with data and information on water quality impairment and issues in the watershed. In April 2017 the Texas Water Resources Institute competed a report to address the water quality issues using a GIS tool that was developed to integrate numerous existing information resources. Big Elm Creek is developing a Watershed Protection Plan, which will hopefully be adopted Fall of 2020.

Watershed Protection Plan for Lake Granger and San Gabriel River

The BRA and the Little River–San Gabriel Soil and Water Conservation District are developing a Watershed Protection Plan for Lake Granger and the San Gabriel River to address water quality issues of stream erosion, sedimentation and bacteria

concentrations. This plan was developed in 2011 by the BRA. The district has received funding to aid participants implementing best management practices on agricultural lands. This plan is currently being implemented.[3]

Watershed Protection Plan for Leon River

TCEQ began developing a TMDL for the river segment between Lake Procter and Hamilton in 2002 for bacteria concentrations. The BRA is working with stakeholders and the Texas State Soil and Water Conservation Board to develop a Watershed Protection Plan to assist TCEQ in selecting implementation strategies for the TMDL. The USEPA approved the plan in early 2015 and the Leon River Watershed Protection Plan (WPP) is currently being implemented[4].

Watershed Protection Plan for Lampasas River

The Lampasas River was flagged by the TCEQ to implement a watershed protection plan due to elevated levels of bacteria in 2002. The Lampasas River Watershed Partnership and local residents worked to create a WWP. They made recommendations for voluntary pollutant load reductions. The WWP was submitted to the USEPA in 2013 and it is now being implemented[5].

Watershed Protection Plan for Nolan Creek and South Nolan Creek

The TCEQ listed Nolan Creek and South Nolan Creek on the 303(d) impaired for elevated bacteria concentrations in 1996. The Nolan Creek Partnership has provided local input for the development of a WWP, which is almost complete. The goal is to provide education programs and practices to improve the water quality. The WWP will hopefully be accepted in spring of 2019 by the USEPA.

Watershed Protection Plan for the Navasota River below Lake Limestone

The Navasota River and several tributaries were listed as imparted by the TCEQ in 2002 for elevated E. coli concentrations, low dissolved oxygen, elevated nutrients, and chlorophyll-a. The watershed stakeholders created a Navasota River below Lake Limestone Watershed Protection Plan. This plan included management strategies to retain landscape, removing feral hogs, livestock, on-site sewage facilities, pets and wastewater. All management recommendation were voluntary. The WWP was approved by the USEPA in 2017 and is currently being implemented[6]. The watershed stakeholders are also pursuing a TMDL that is in review with the TCEQ.

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[3] BRA, 2011. Lake Granger and San Gabriel River Water Protection Plan. https://www.tsswcb.texas.gov/sites/default/files/files/programs/nonpoint-source-managment/Completed%20Projects/Lake_Granger_and_San_Gabriel_River_WPP.pdf

[4] Parsons Water & Infrastructure Inc. and the Brazos River Authority. Watershed Protection Plan for the Leon River Below Proctor Lake and Above Belton Lake. http://leonriver.tamu.edu/media/1110/final-leon-wpp.pdf

[5] Lampasas River Watershed Protection Plan. http://www.lampasasriver.org/.

[6] Navasota River Below Lake Limestone Watershed Protection Plan. http://twri.tamu.edu/media/661581/tr-497.pdf

3.4 Groundwater Availability

Seventeen aquifers underlie parts of the Brazos G Area, including six of the major and eleven of the minor aquifers in Texas[7]. The locations of the major and minor aquifers are shown in Chapter 1 of this report.

3.4.1 Method of Determination

When available, the amount of groundwater available for development is based on the TWDB's determination of modeled available groundwater (MAG), which is based on desired future conditions (DFC), as established by members of Groundwater Conservation Districts within a Groundwater Management Area (GMA). If a groundwater availability model (GAM) is available for an aquifer, it is to be used by the TWDB in making the MAG determination. Otherwise, the TWDB uses analytical methods.

In the Brazos G Area, an official MAG has been determined by the TWDB at the county and river basin level for each of the delineated aquifers. The GMAs are shown in Figure 3-17.

In general terms, the MAG represents the annual volume of groundwater available which may be developed and, according to modeling, will still maintain aquifer parameters within the criteria established in the aquifer DFCs. When evaluating proposed pumping for regulatory approval, the MAG serves as a guideline and may be one of multiple guidelines referenced. However, for planning purposes, the MAGs are considered hard caps of which annual groundwater production cannot exceed.

The MAG determination is based upon drought-of-record conditions which would occur simultaneously with increased, dry-year demands. For groundwater systems sensitive to annual hydrologic variability, this this is a ration approach. However, supplies from some aquifer systems, such as the Carrizo-Wilcox Aquifer, are not sensitive to annual or short-term fluctuations in hydrology. For these systems, simply applying the MAG has been found to be an overly conservative estimate of availability. With the realization that demands in many years will be substantially less than the dry-year demands, the Brazos G Regional Water Planning Group has adopted a MAG Peak Factor to increase planning supplies, which is based on developing an annual pumping pattern that reflects annual variation in pumping from an aquifer over a period while not exceeding the cumulative volume that would be pumped by the MAG in that same period. Any adjustments to the MAG, such as the MAG Peak Factor, must still honor the established DFCs for a given aquifer. A MAG Peak Factor is incorporated for the Carrizo-Wilcox Aquifer in Brazos County for this planning cycle. This peak factor is a composite factor representing the cumulative availability for the Carrizo-Wilcox Aquifer system from both the Carrizo and Simsboro Formations and represents an annual available groundwater supply which is 15 percent to 20 percent greater across the planning horizon than the MAG. The process for developing the MAG Peak Factors is presented in Appendix K.

For aquifers without an adopted MAG, the TWDB provided "total availability" estimates that are based on results from groundwater modeling during the development of the MAGs

[7] Texas Water Development Board, Water for Texas, 2019.

for other aquifers. For other aquifers, Brazos G utilized the groundwater availability estimate carried forward from the 2016 Brazos G Regional Water Plan; these were determined based on a variety of sources, predominately information from historical TWDB groundwater reports and the TWDB groundwater database. The Brazos G technical consultant requested specific groundwater availability estimates based on the above information and coordinated closely with TWDB staff to finalize the non-MAG groundwater availability estimates for aquifers in counties and river basins for which an official MAG has not been adopted.

Table 3-10 summarizes groundwater availability by county and aquifer. The sources of the estimates are described in Appendix B. The distribution of groundwater availability is summarized into western, central and eastern areas. As tabulated in Table 3-11 and shown in Figure 3-18, the groundwater in the Brazos G Area is not uniformly distributed, with about 15 percent occurring in the western area, about 33 percent in the central area, and about 52 percent in the eastern area.

Figure 3-17. Groundwater Management Areas in Brazos G

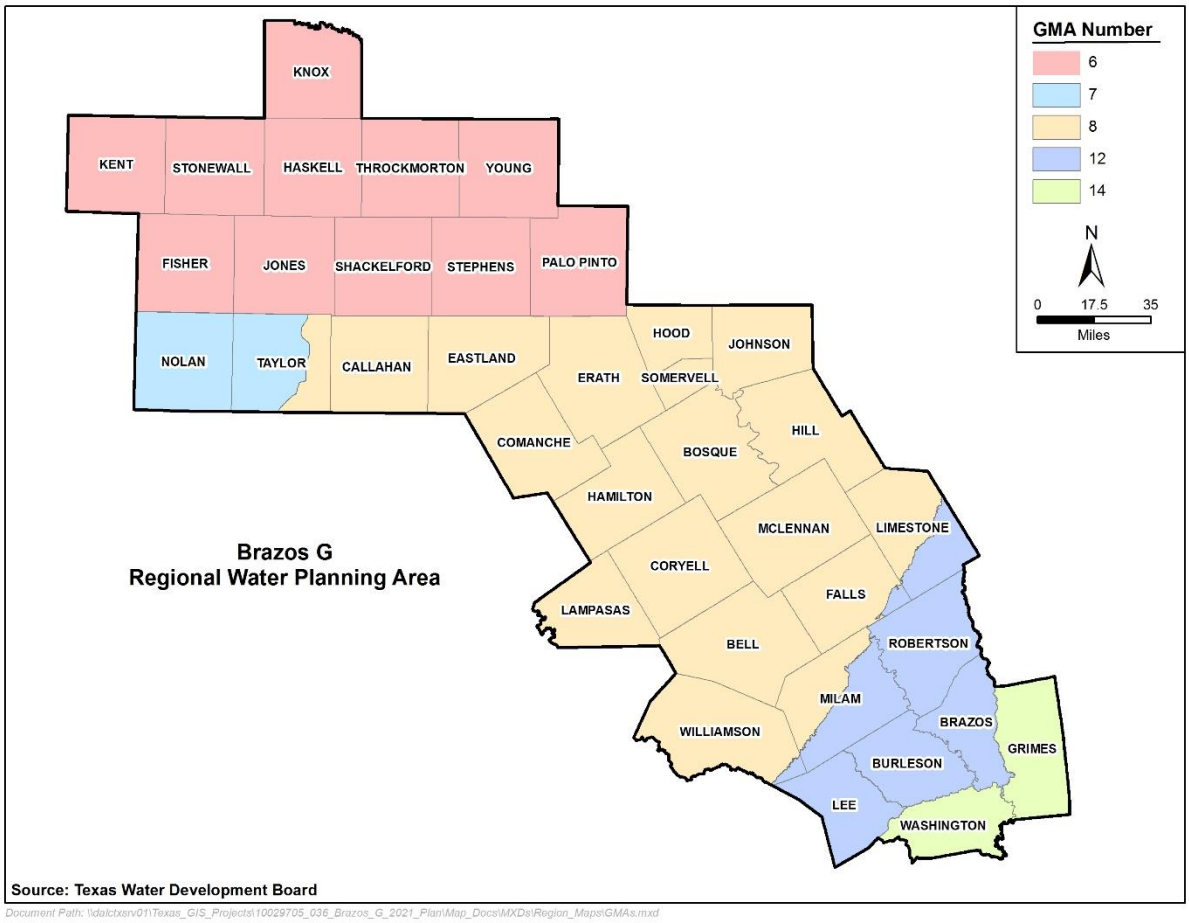


Table 3-10. Groundwater Availability Used in the 2021 Brazos G Regional Water Plan

County	Aquifer	Availability (acre-feet/year)					
		2020	2030	2040	2050	2060	2070
Bell	Edwards-BFZ (N. Segment)	6,469	6,469	6,469	6,469	6,469	6,469
	Trinity	9,267	9,241	9,267	9,241	9,267	9,241
	Subtotal	15,736	15,710	15,736	15,710	15,736	15,710
Bosque	Brazos River Alluvium [A]	830	830	830	830	830	830
	Trinity	8,788	8,762	8,788	8,762	8,788	8,762
	Subtotal	9,618	9,592	9,618	9,592	9,618	9,592
Brazos	Brazos River Alluvium	81,581	80,311	80,081	79,976	79,913	79,872
	Carrizo-Wilcox	44,832	47,844	49,418	53,969	57,167	57,167
	Carrizo-Wilcox (MAG Peak Factor)	53,350	55,977	59,302	63,683	65,742	65,742
	Gulf Coast [A]	1,189	1,189	1,189	1,189	1,189	1,189
	Queen City	836	883	887	891	891	891
	Sparta	5,404	6,505	7,507	8,509	8,509	8,509
	Yegua-Jackson	6,856	6,854	6,854	6,854	6,854	6,854
	Subtotal [B]	149,216	151,719	155,820	161,102	163,098	163,057
Burleson	Brazos River Alluvium	28,472	28,418	28,414	28,414	28,414	28,413
	Carrizo-Wilcox	23,242	28,039	32,511	36,485	38,694	38,694
	Queen City	416	447	447	447	447	447
	Sparta	2,246	4,042	5,613	6,735	6,735	6,735
	Yegua-Jackson	14,544	12,576	12,564	12,478	12,326	12,326
	Subtotal	68,920	73,522	79,549	84,559	86,616	86,615
Callahan	Trinity	1,729	1,725	1,729	1,725	1,729	1,725
	Subtotal	1,729	1,725	1,729	1,725	1,729	1,725
Comanche	Trinity	12,072	12,039	12,072	12,039	12,072	12,039
	Subtotal	12,072	12,039	12,072	12,039	12,072	12,039
Coryell	Trinity	4,503	4,491	4,503	4,491	4,503	4,491
	Subtotal	4,503	4,491	4,503	4,491	4,503	4,491

Table 3-10. Groundwater Availability Used in the 2021 Brazos G Regional Water Plan

County	Aquifer	Availability (acre-feet/year)					
		2020	2030	2040	2050	2060	2070
Eastland	Trinity	5,747	5,732	5,747	5,732	5,747	5,732
	Subtotal	5,747	5,732	5,747	5,732	5,747	5,732
Erath	Trinity	20,658	20,599	20,658	20,599	20,658	20,599
	Subtotal	20,658	20,599	20,658	20,599	20,658	20,599
Falls	Brazos River Alluvium [A]	16,684	16,684	16,684	16,684	16,684	16,684
	Carrizo-Wilcox	867	875	884	895	895	895
	Trinity	1,438	1,434	1,438	1,434	1,438	1,434
	Subtotal	18,989	18,993	19,006	19,013	19,017	19,013
Fisher	Blaine	12,855	12,820	12,855	12,820	12,855	12,820
	Dockum	79	79	79	79	79	79
	Seymour	6,718	6,132	6,149	6,472	6,490	6,131
	Subtotal	19,652	19,031	19,083	19,371	19,424	19,030
Grimes	Brazos River Alluvium [A]	5,112	5,112	5,112	5,112	5,112	5,112
	Carrizo-Wilcox [A]	8,274	8,274	8,274	8,274	8,274	8,274
	Gulf Coast	13,996	13,996	13,996	13,996	13,996	13,996
	Navasota River Alluvium [A]	2,216	2,216	2,216	2,216	2,216	2,216
	Queen City [A]	637	637	637	637	637	637
	Sparta [A]	2,571	2,571	2,571	2,571	2,571	2,571
	Yegua-Jackson [A]	3,278	3,278	3,278	3,278	3,278	3,278
	Subtotal	36,084	36,084	36,084	36,084	36,084	36,084
Hamilton	Trinity	2,431	2,425	2,431	2,425	2,431	2,425
	Subtotal	2,431	2,425	2,431	2,425	2,431	2,425
Haskell	Seymour	41,750	41,636	41,750	41,636	41,750	41,636
	Subtotal	41,750	41,636	41,750	41,636	41,750	41,636
Hill	Brazos River Alluvium [A]	632	632	632	632	632	632
	Trinity	4,029	4,017	4,029	4,017	4,029	4,017
	Woodbine	588	586	588	586	588	586
	Subtotal	5,249	5,235	5,249	5,235	5,249	5,235

Table 3-10. Groundwater Availability Used in the 2021 Brazos G Regional Water Plan

County	Aquifer	Availability (acre-feet/year)					
		2020	2030	2040	2050	2060	2070
Hood	Trinity	12,458	12,424	12,458	12,424	12,458	12,424
	Subtotal	12,458	12,424	12,458	12,424	12,458	12,424
Johnson	Trinity	9,422	9,396	9,422	9,396	9,422	9,396
	Woodbine	1,985	1,980	1,985	1,980	1,985	1,980
	Subtotal	11,407	11,376	11,407	11,376	11,407	11,376
Jones	Seymour [A]	2,918	2,918	2,918	2,918	2,918	2,918
	Subtotal	2,918	2,918	2,918	2,918	2,918	2,918
Kent	Dockum [A]	6,250	6,250	6,250	6,250	6,250	6,250
	Seymour [A]	1,181	1,180	1,180	1,179	1,179	1,179
	Subtotal	7,431	7,430	7,430	7,429	7,429	7,429
Knox	Blaine [A]	700	700	700	700	700	700
	Seymour	29,036	26,640	26,224	26,530	29,166	26,973
	Subtotal	29,736	27,340	26,924	27,230	29,866	27,673
Lampasas	Ellenburger-San Saba	2,601	2,593	2,601	2,593	2,601	2,593
	Hickory	114	113	114	113	114	113
	Marble Falls	2,845	2,837	2,845	2,837	2,845	2,837
	Trinity	1,672	1,666	1,672	1,666	1,672	1,666
	Subtotal	7,232	7,209	7,232	7,209	7,232	7,209
Lee	Carrizo-Wilcox	21,142	20,516	20,558	21,466	19,069	19,069
	Queen City	757	774	791	810	829	829
	Sparta	1,483	1,487	1,490	1,493	1,494	1,494
	Trinity	0	0	0	0	0	0
	Yegua-Jackson [A]	635	635	635	635	635	635
	Subtotal	24,017	23,412	23,474	24,404	22,027	22,027
Limestone	Carrizo-Wilcox	11,353	11,483	11,664	11,966	11,966	11,966
	Trinity	0	0	0	0	0	0
	Subtotal	11,353	11,483	11,664	11,966	11,966	11,966
McLennan	Brazos River Alluvium [A]	15,023	15,023	15,023	15,023	15,023	15,023
	Trinity	20,691	20,635	20,691	20,635	20,691	20,635
	Woodbine	0	0	0	0	0	0

Table 3-10. Groundwater Availability Used in the 2021 Brazos G Regional Water Plan

County	Aquifer	Availability (acre-feet/year)					
		2020	2030	2040	2050	2060	2070
	Subtotal	35,714	35,658	35,714	35,658	35,714	35,658
Milam	Brazos River Alluvium	47,818	47,785	47,779	47,775	47,773	47,771
	Carrizo-Wilcox	23,928	20,211	19,119	21,366	22,327	22,327
	Queen City	53	56	56	56	56	56
	Trinity	0	0	0	0	0	0
	Subtotal	71,799	68,052	66,954	69,197	70,156	70,154
Nolan	Blaine [A]	100	100	100	100	100	100
	Dockum [A]	5,750	5,750	5,750	5,750	5,750	5,750
	Edwards-Trinity (Plateau) [A]	693	693	693	693	693	693
	Subtotal	6,543	6,543	6,543	6,543	6,543	6,543
Palo Pinto	Trinity [A]	12	12	12	12	12	12
	Subtotal	12	12	12	12	12	12
Robertson	Brazos River Alluvium	61,161	57,959	57,633	57,544	57,503	57,480
	Carrizo-Wilcox	46,590	47,400	47,881	48,281	48,282	48,282
	Queen City	368	309	309	309	309	309
	Sparta	510	510	510	510	510	510
	Subtotal	108,629	106,178	106,333	106,644	106,604	106,581
Shackelford	Cross Timbers [A]	712	712	712	712	712	712
	Other (Local) Aquifer [A]	97	97	97	97	97	97
	Subtotal	809	809	809	809	809	809
Somervell	Trinity	3,188	3,181	3,188	3,181	3,188	3,181
	Subtotal	3,188	3,181	3,188	3,181	3,188	3,181
Stephens	Cross Timbers [A]	620	620	620	620	620	620
	Other (Local) Aquifer [A]	85	85	85	85	85	85
	Subtotal	705	705	705	705	705	705
Stonewall	Blaine [A]	8,700	8,700	8,700	8,700	8,700	8,700
	Seymour [A]	233	230	224	215	214	214

Table 3-10. Groundwater Availability Used in the 2021 Brazos G Regional Water Plan

County	Aquifer	Availability (acre-feet/year)					
		2020	2030	2040	2050	2060	2070
	Subtotal	8,933	8,930	8,924	8,915	8,914	8,914
Taylor	Edwards-Trinity (Plateau) [A]	489	489	489	489	489	489
	Trinity	14	14	14	14	14	14
	Subtotal	503	503	503	503	503	503
Throckmorton	Seymour [A]	115	115	115	115	115	115
	Other (Local) Aquifer [A]	364	364	364	364	364	364
	Subtotal	479	479	479	479	479	479
Washington	Brazos River Alluvium [A]	5,770	5,770	5,770	5,770	5,770	5,770
	Gulf Coast	13,031	13,031	13,031	13,031	13,031	13,031
	Yegua-Jackson [A]	291	291	291	291	291	291
	Subtotal	19,092	19,092	19,092	19,092	19,092	19,092
Williamson	Carrizo-Wilcox	9	9	9	10	9	9
	Edwards-BFZ	3,452	3,452	3,452	3,452	3,452	3,452
	Hickory	0	0	0	0	0	0
	Trinity	3,513	3,503	3,513	3,503	3,513	3,503
	Other (Local) Aquifer [A]	665	665	665	665	665	665
	Subtotal	7,639	7,629	7,639	7,630	7,639	7,629
Young	Seymour [A]	309	258	258	258	258	258
	Other (Local) Aquifer [A]	1,018	1,018	1,018	1,018	1,018	1,018
	Subtotal	1,327	1,276	1,276	1,276	1,276	1,276

BFZ – Balcones Fault Zone
[A] – Indicates Non-MAG availability estimate.
[B] – Values calculated using MAG Peak Factor for the Carrizo-Wilcox Aquifer in Brazos County.

Table 3-11. Groundwater Availability from the Brazos G Area Aquifers

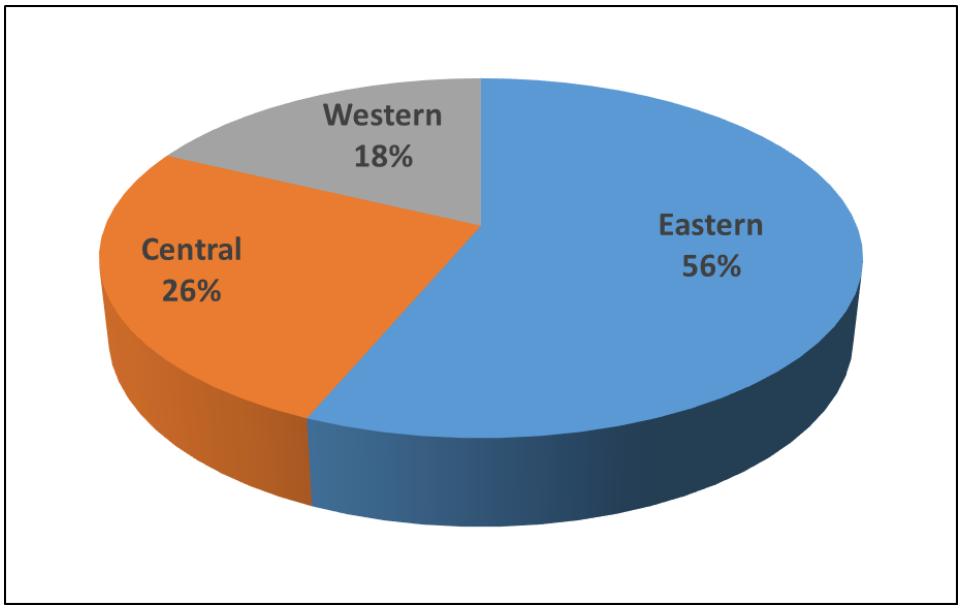
Aquifer	2070 Groundwater Availability (acft/yr)	Typical Range in Well Yields (gpm)
Western Area		
Blaine	4,400	less than 25
Cross Timbers	1,495	5 to 300
Dockum	7,388	100 to 400
Edwards-Trinity (Plateau)	1,029	5 to 300
Ogallala and Edwards Trinity- High Plains	3	
Other (Local) Aquifers	80	5 to 300
Seymour	74,848	100 to 1,000
Trinity	26	50 to 500
Subtotal:	**89,269**	
Central Area		
Brazos River Alluvium	15,333	250 to 500
Carrizo-Wilcox	5,620	100 to 3,000
Edwards-BFZ (Northern Segment)	7,269	200 to 2,000
Ellenburger-San Saba	129	Unknown
Gulf Coast	201	300 to 800
Marble Falls	23	less than 100
Other (Local) Aquifers	524	5 to 300
Trinity	99,163	50 to 500
Woodbine	948	50 to 150
Subtotal:	**129,210**	
Eastern Area		
Brazos River Alluvium	129,906	250 to 500
Carrizo-Wilcox	123,808	100 to 3,000
Gulf Coast	10,097	300 to 800
Queen City	1,689	200 to 500
Sparta	8,810	200 to 600
Navasota River Alluvium	58	Unknown

Table 3-11. Groundwater Availability from the Brazos G Area Aquifers

Aquifer	2070 Groundwater Availability (acft/yr)	Typical Range in Well Yields (gpm)
Yegua-Jackson	6,497	50 to 300
Trinity	758	50 to 500
Subtotal:	**281,623**	
Total:	**500,102**	

BFZ – Balcones Fault Zone.
ND indicates not determined.

Figure 3-18. Distribution of Groundwater by Area within Brazos G



3.4.2 Western Area

Only part of the western area is underlain by a major or minor aquifer, as shown in Figure 3-19. Together, the five aquifers, Blaine, Dockum, Cross Timbers, Edwards-Trinity (Plateau), and Seymour and the other (Local) aquifers, can supply up to 89,269 acft/yr. Of the five aquifers, the Seymour Aquifer has about 84 percent of the supplies and is scattered in six counties; however, about 90 percent of the supply is in Knox and Haskell counties. The Dockum Aquifer exists only on the western fringe and can contribute about 8 percent of the groundwater supply in the area (Figure 3-21).The Cross Timbers minor aquifer contributes 2 percent of the groundwater supply in the area. Undifferentiated aquifers underlie some of the area, including all of Shackelford, Stephens, Throckmorton, and Young counties. At best, the undifferentiated aquifers can provide only meager supplies for livestock and domestic uses.

Figure 3-19. Major Aquifers in the Western Area

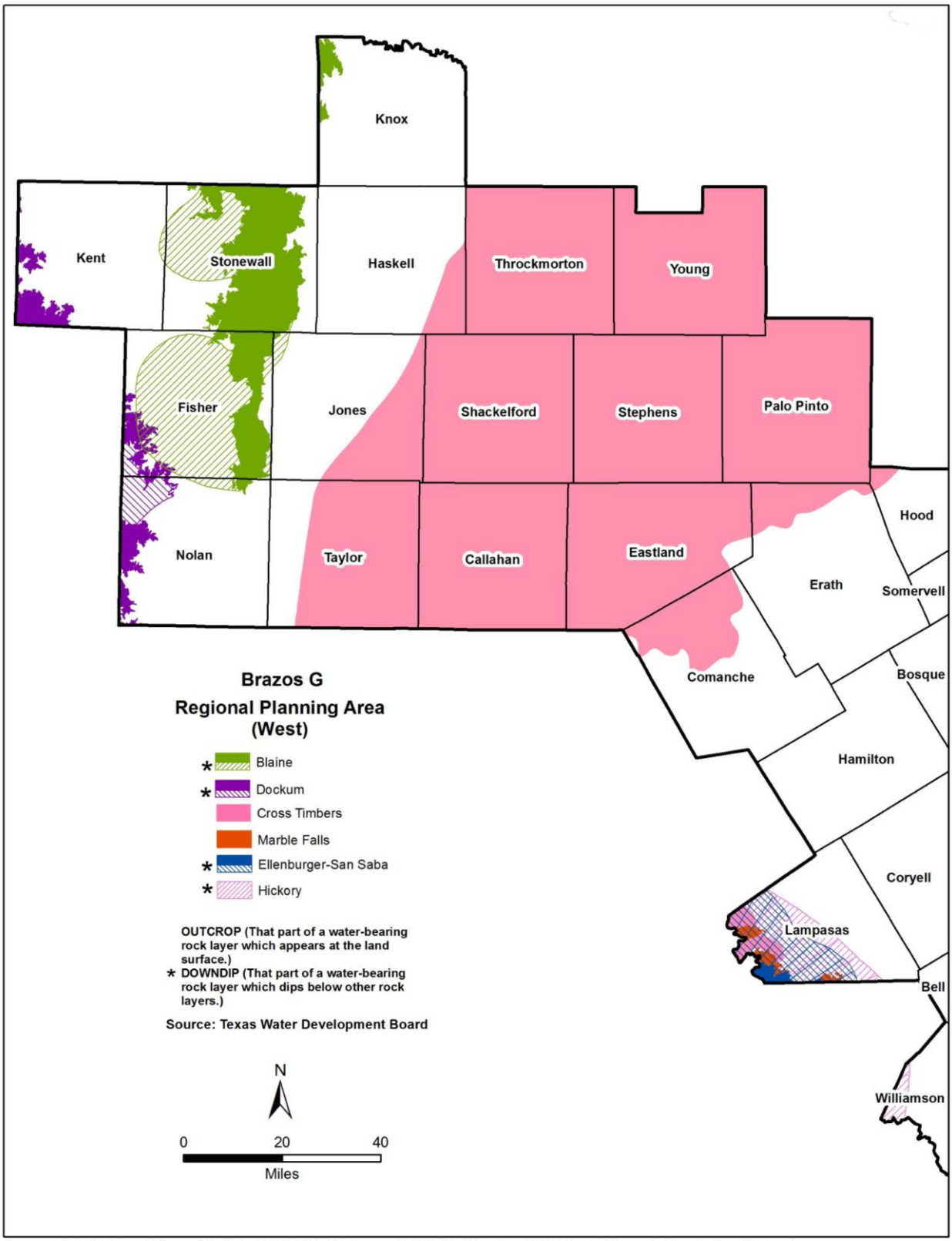


Figure 3-20. Minor Aquifers in the Western Area

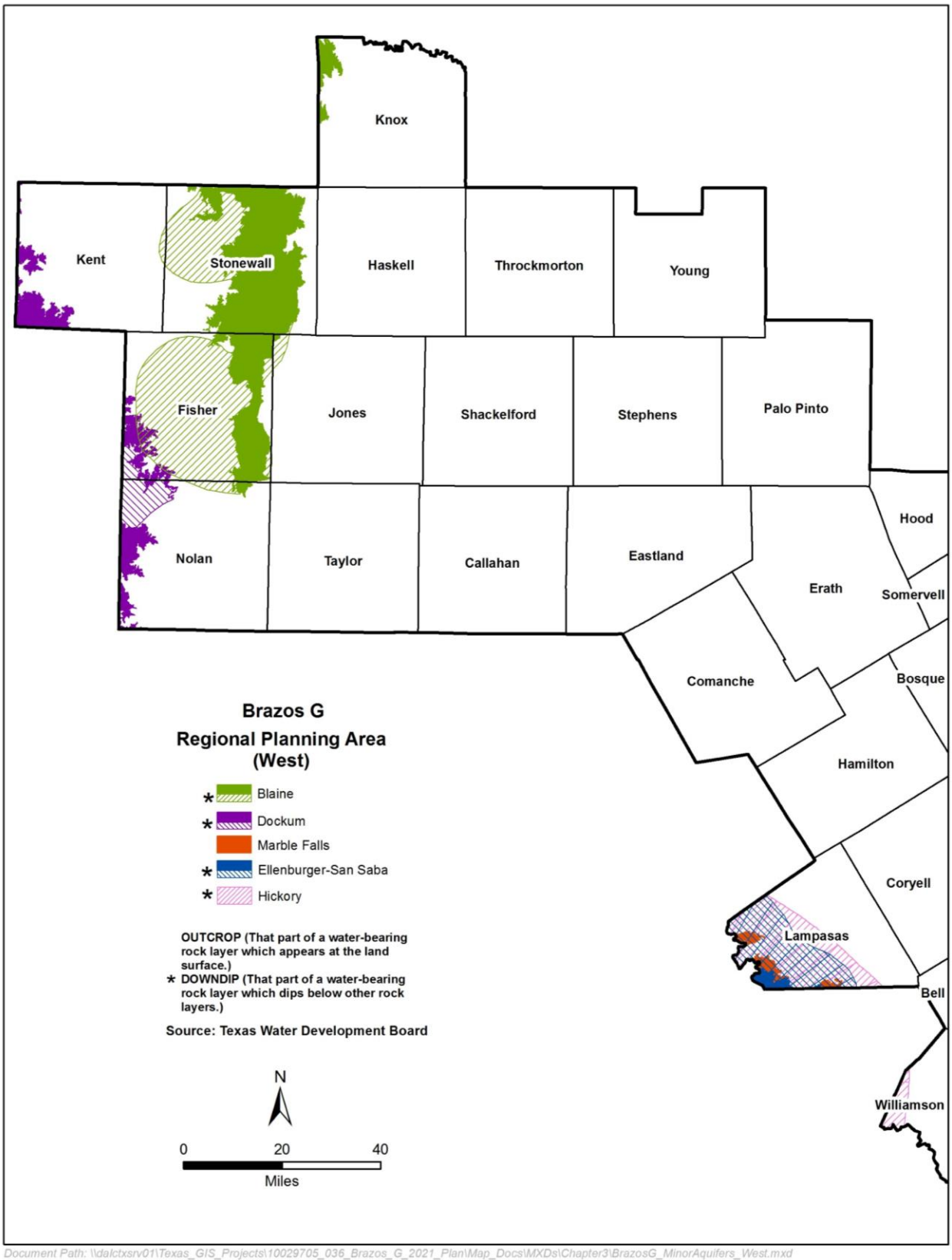


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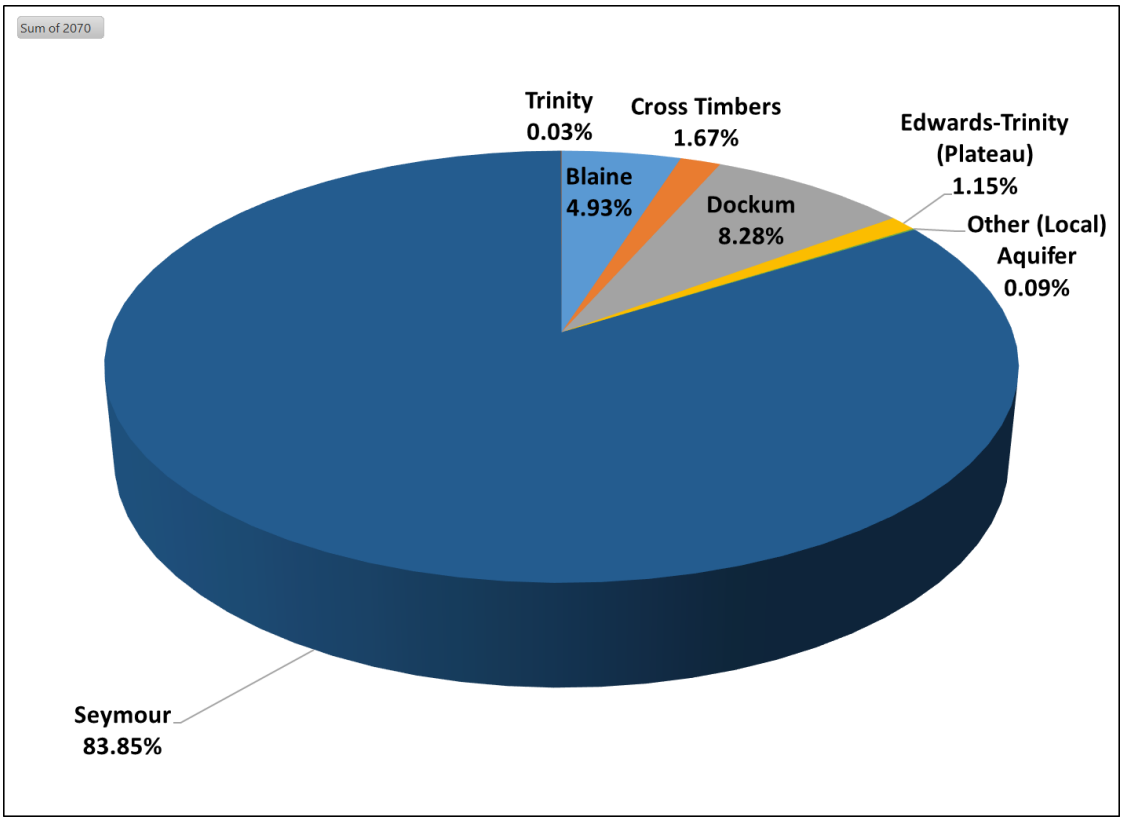
Figure 3-21. Groundwater Availability in the Western Area



3.4.3 Central Area

Major or minor aquifers exist in the southeastern two-thirds of the central area, as shown in Figure 3-22. Together, the nine aquifers (Brazos River Alluvium, Carrizo-Wilcox, Edwards-BFZ (Northern Segment), Ellenburger-San Saba, Gulf Coast, Marble Falls, Trinity, Woodbine, and Other (Local) Aquifers) can provide up to 129,210acft/yr. Of these aquifers, the Trinity Aquifer is most extensive and has about 77 percent of the supplies (Figure 3-24). Although the Trinity Aquifer as a whole can provide 99,163acft/yr, local areas have experienced very substantial drawdowns and probably will require many wells to be replaced with larger and deeper ones. The Edwards-BFZ (Northern Segment) exists only in parts of Bell and Williamson counties and has about five percent of the area's groundwater supply.

Figure 3-22. Major Aquifers in the Central Area

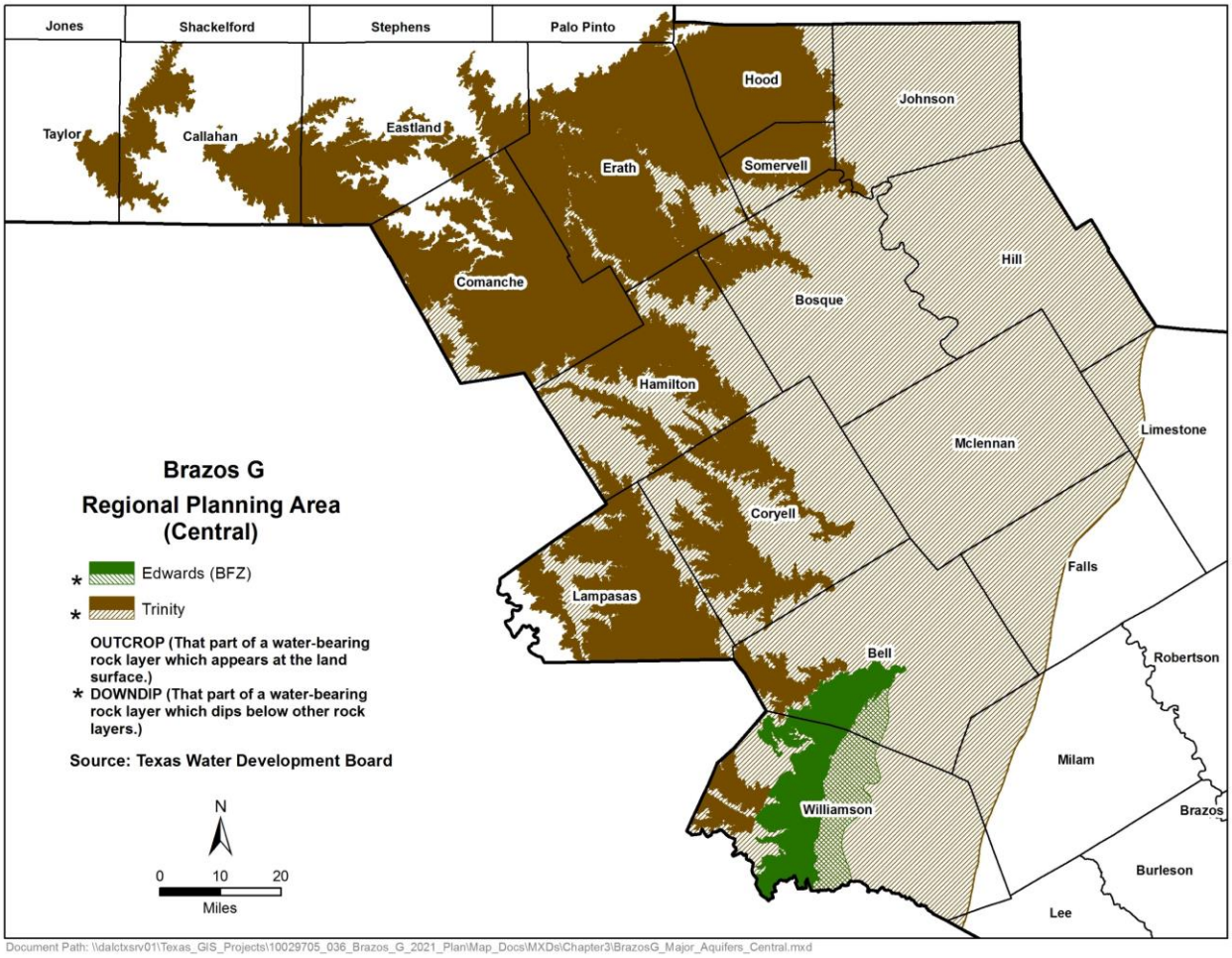


Figure 3-23. Minor Aquifers in the Central Area

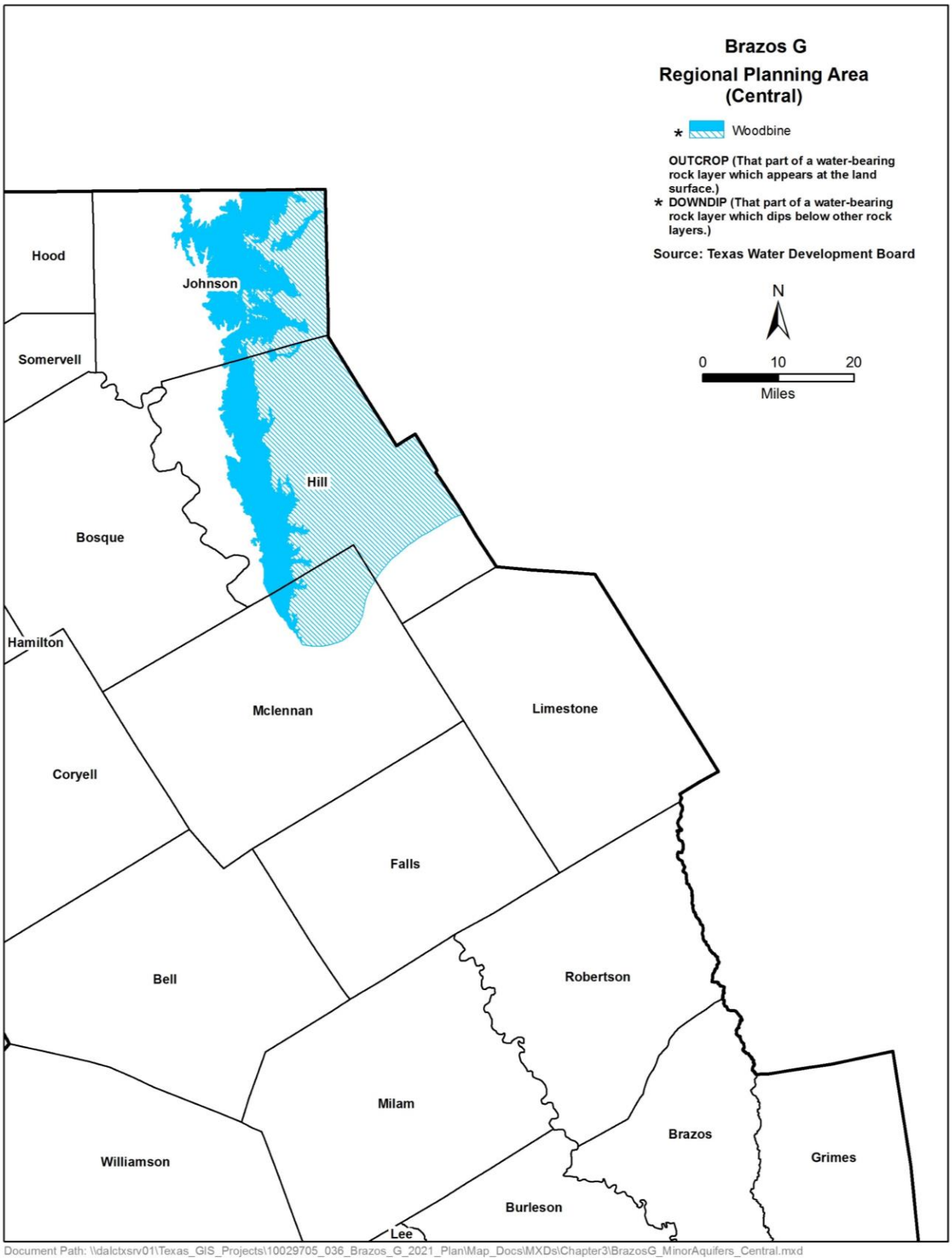
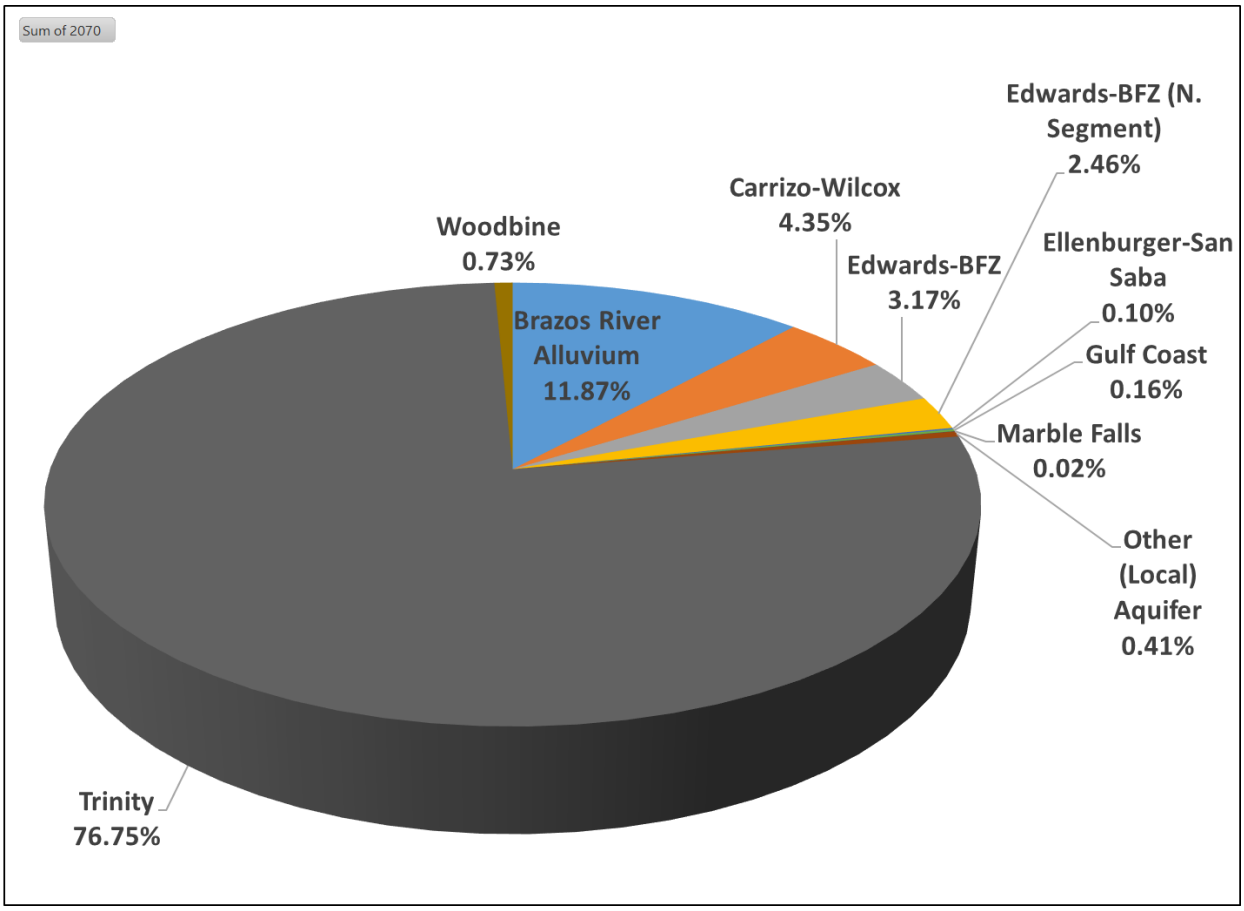


Figure 3-24. Groundwater Availability in the Central Area



3.4.4 Eastern Area

Major or minor aquifers exist throughout the eastern area except in the western fringe, as shown in Figure 3-25. Together, the eight aquifers (Brazos River Alluvium, Carrizo-Wilcox, Gulf Coast, Queen City, Sparta, Trinity, Navasota River Alluvium and Yegua-Jackson) can provide up to 281,623 acft/yr. Of these aquifers, the Carrizo-Wilcox Aquifer and Brazos River Alluvium Aquifers are most extensive and represents about 44 to 46 percent of the supplies, respectively (Figure 3-26 and Figure 3-27).

3.5 Supplies from Other Regions

Multiple entities within the Brazos G Area obtain water from sources owned by entities located outside of the region. These other sources include the Edwards Trinity Plateau Aquifer, Benbrook Reservoir, Navarro Mills Reservoir, the Colorado River MWD System, Lake Livingston (Trinity River Authority), Lake Clyde, Lake Joe Pool (TRA), Richland Chambers and/or Cedar Creek Reservoirs (TRWD), and the Highland Lakes System (LCRA). Table 3-12 summarizes the current supplies from other regions to the Brazos G Area.

Figure 3-25. Major Aquifers in the Eastern Area

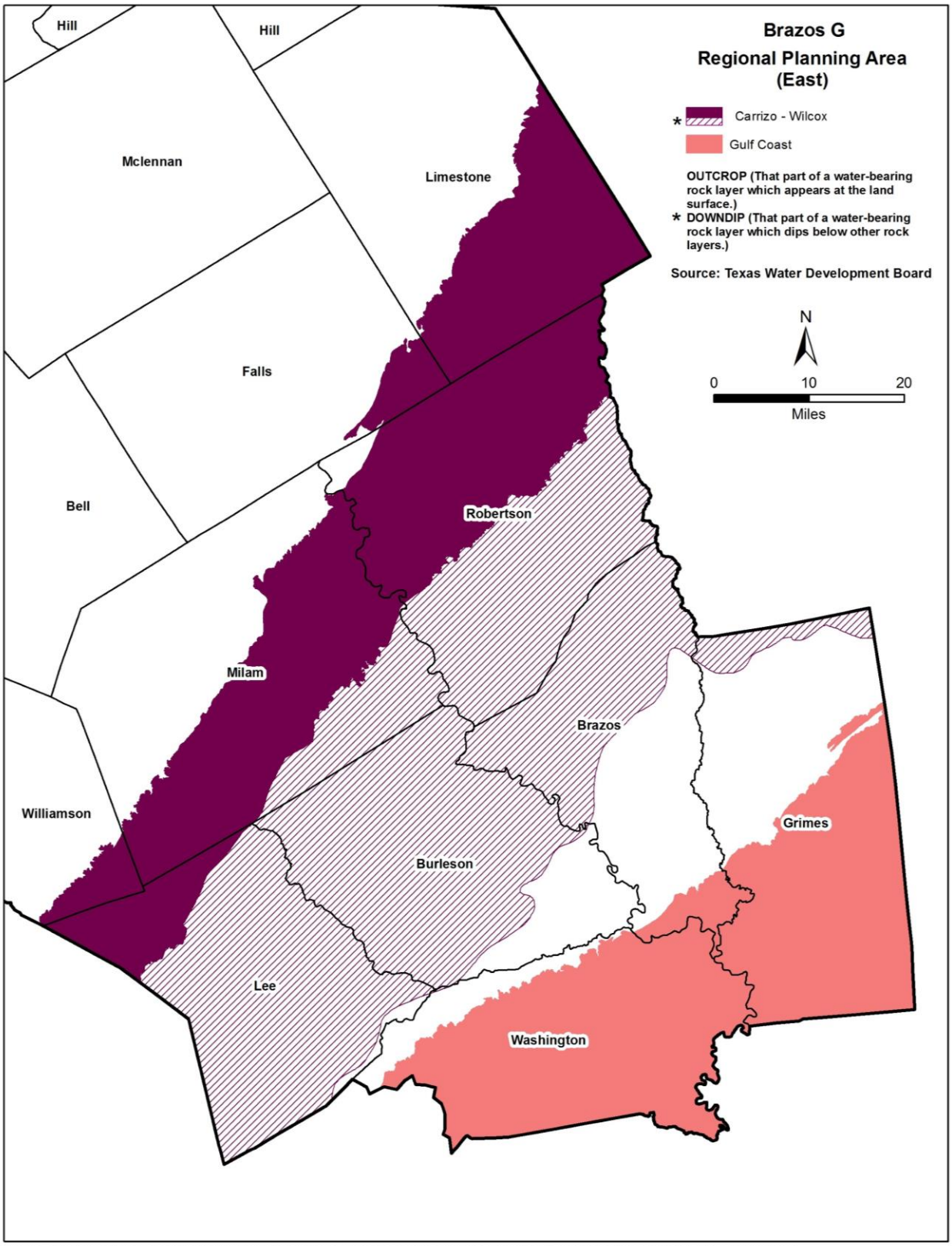


Figure 3-26. Minor Aquifers in the Eastern Area

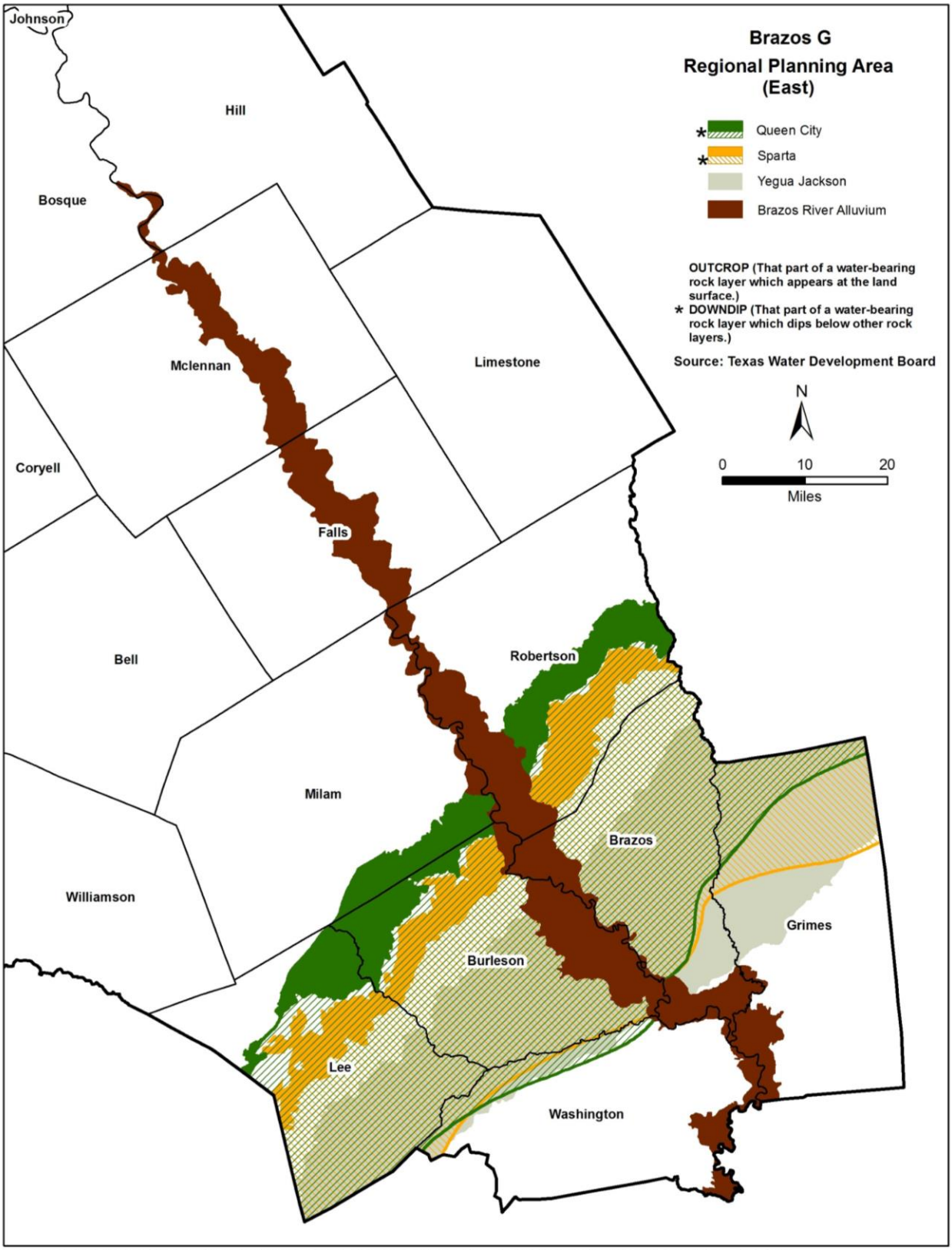


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Figure 3-27. Groundwater Availability in the Eastern Area

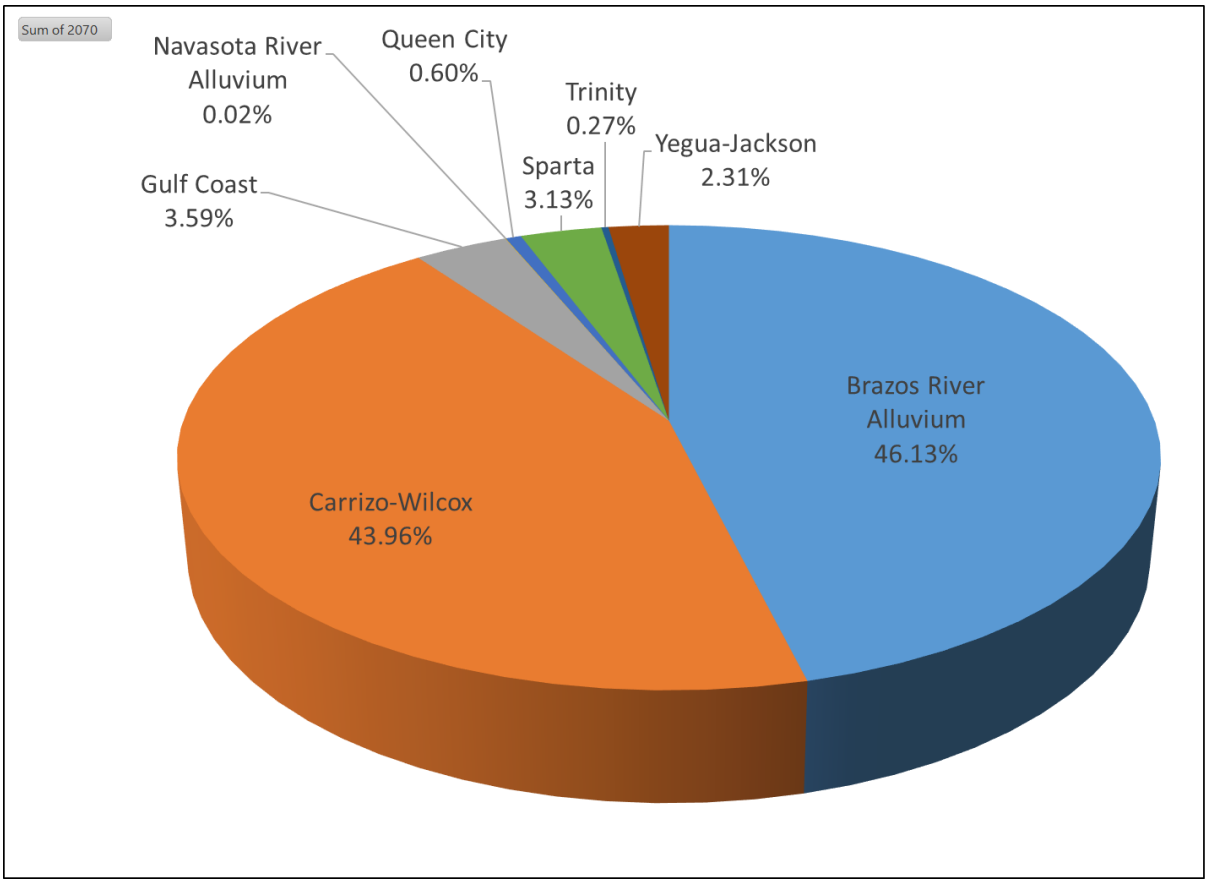

Table 3-12. Water Supplies from Other Regions

Receiving Entity	Supplier	Source[1]	Source Region	Contract Amount or Amount Supplied (acft/yr)
Eula WSC	Abilene (from CRMWD)	OH Ivie Lake/Reservoir Non-System Portion	F	61
Eula WSC	Clyde	Lake Clyde	F	221
Rotan	Snyder (from CRMWD)	Edwards-Trinity-Plateau And Pecos Valley Aquifers | Ward County, and Ogallala And Edwards-Trinity-High Plains Aquifers | Martin County	F	Meets Contract
Fisher-Manufacturing	Rotan (from Snyder)	Edwards-Trinity-Plateau And Pecos Valley Aquifers | Ward County	F	4

Table 3-12. Water Supplies from Other Regions

Receiving Entity	Supplier	Source[1]	Source Region	Contract Amount or Amount Supplied (acft/yr)
Bethesda WSC	Fort Worth	TRWD System	C	Meets Contract
Bethesda WSC	Arlington	TRWD System	C	5,601
Bethesda WSC	Bethesda WSC	Trinity Aquifer | Tarrant County	C	1,753
Crowley	Fort Worth	Trinity Aquifer | Tarrant County	C	Meets Contract
Abilene	CRMWD	OH Ivie Lake/Reservoir Non-System Portion[2]	F	5,320
Hamby WSC	Abilene (from CRMWD)	OH Ivie Lake/Reservoir Non-System Portion	F	308
Baylor SUD		Seymour Aquifer | Baylor County	B	32
Aqua WSC		Carrizo-Wilcox Aquifer | Bastrop County	K	550
Point Enterprise WSC		Carrizo-Wilcox Aquifer | Freestone County	C	94
Merkel	Abilene (from CRMWD)	OH Ivie Lake/Reservoir Non-System Portion	F	350
Taylor-Manufacturing	Abilene (from CRMWD)	OH Ivie Lake/Reservoir Non-System Portion	F	Meets Contract
North Runnels WSC	Abilene (from CRMWD)	OH Ivie Lake/Reservoir Non-System Portion	F	2
Taylor-County-Other	Abilene (from CRMWD)	OH Ivie Lake/Reservoir Non-System Portion	F	8
West End WSC		Gulf Coast Aquifer System | Austin County	H	53-82
Hutto	Manville WSC	Edwards-Bfz Aquifer | Travis County	K	560
Manville WSC		Edwards-Bfz Aquifer | Travis County	K	99-116
Manville WSC		Trinity Aquifer | Travis County	K	150-176

Table 3-12. Water Supplies from Other Regions

Receiving Entity	Supplier	Source[1]	Source Region	Contract Amount or Amount Supplied (acft/yr)
Pflugerville	Pflugerville and LCRA	Edwards-Bfz Aquifer | Travis County and Highland Lakes System	K	15-20
Cedar Park	LCRA	Highland Lakes System	K	20,500
Leander	LCRA	Highland Lakes System	K	24,000
Liberty Hill	LCRA/BRA	Highland Lakes System	K	1,200
Round Rock	LCRA/BRA	Highland Lakes System	K	20,928
Venus	TRWD	TRWD System	C	Meets Contract
Grimes County, Steam Electric	Huntsville (from Trinity River Authority)	Lake Livingston	H	6,720
Williamson County WCID 3	Manville WSC	Trinity Aquifer | Travis County	K	215-221

1 – Supplies available from out-of-region sources are as inputted into DB22 by the source planning area.
2 – Current contract allows 16.54% of the one-year safe yield of O.H. Ivie Reservoir. Supply shown is 2020 supply available.
acft/yr = acre-feet per year

3.6 Methods to Estimate Available Water Supplies in the Brazos G Area

3.6.1 Surface Water Supplies

Surface water in the region available to meet projected demands consists of firm yield of reservoirs, dependable supply of run-of-river water rights through drought of record conditions, and other local sources. Contracts and/or rights to reservoir yields and supplies from run-of-river rights were allocated as supplies to their stated type of use: municipal, industrial (manufacturing, steam-electric, and mining), and irrigation. Additionally, municipal supply was further allocated among cities and other municipal water supply entities. This allocation was done by obtaining water seller information (i.e., which contract/right holders – a wholesaler – are reselling water to other water supply entities) and water purchase contract limits between buyers and sellers. This information was obtained from TWDB files and follow-up queries to water supply entities. All water supply contracts were assumed to be renewed at their existing levels unless otherwise directed by local entities.

It was assumed that all livestock demands would be met from local water sources (e.g., shallow groundwater, stock ponds and riparian use of streams by livestock). These supplies are firm and would be available through a drought of record given that they are supported by local, shallow groundwater sources when groundwate- based, and when surface water-based are reflected in the State's water availability models through the underlying streamflow gage data upon which the naturalized streamflows are based.

In certain instances, the entity's available water supply is constrained by lack of infrastructure. For example, an entity may hold a contract to divert water from a reservoir; however, the required pipeline has not been built. In this instance, the contract amount would not be included in the entity's available water supply or would be identified as a constrained supply.

In some instances, specific operational, contractual, or legal constraints required modifications to the general surface water allocation procedure. For example, provisions in the current contract between the City of Abilene and the West Central Texas Municipal Water District for supplies to the City from Hubbard Creek Reservoir preclude the City from receiving its normal pro-rata share of the reservoir's allocated safe yield during times when the reservoir is significantly drawn down. However, the other member cities of the district (Anson, Albany, and Breckenridge) do not have similar provisions in their contracts with the district.

3.6.2 Groundwater Allocation

For each county, total available groundwater was allocated among the six user groups—municipal, manufacturing, steam-electric, mining, irrigation, and livestock—as described below. In some specific instances, these general procedures were modified to more accurately reflect the interactions between water demands, supplies, and needs.

Municipal Allocation

Municipal supplies were allocated to users from each aquifer as follows:

a. Municipal supply is based upon well capacities. For cases in which the total demand on that portion (i.e., county and river basin) of the aquifer exceeds the total modeled available groundwater (MAG), the supply is prorated downward for every entity using that particular source.

b. For county-other municipal supplies, it is assumed that the rural household (municipal type) demand would be met from aquifers underlying that river basin portion of the county. The rural supply is generally calculated as 125 percent of the year 2010 use from each particular aquifer. For cases in which the total demand on that portion (i.e., county and river basin) of the aquifer exceeds the MAG, supply is prorated downward for every entity using that particular source.

Industrial (Steam-Electric and Manufacturing) Allocation

Industrial supply from groundwater sources is associated with aquifers underlying the river basin portion of the county. The industrial supply is generally calculated as 125 percent of the year 2010 use from each particular aquifer. For cases in which the total demand on

that portion (i.e., county and river basin) of the aquifer exceeds the MAG, supply is prorated downwards for every entity using that particular source.

Irrigation Allocation

Irrigation supply from groundwater sources is associated with aquifers underlying the river basin portion of the county. The irrigation supply is calculated as being equal to the projected demand in each decade. For cases in which the total demand on that portion (i.e., county and river basin) of the aquifer exceeds the MAG, supply is prorated downward for every entity using that particular source.

Mining Allocation

Mining supply from groundwater sources is associated with aquifers underlying the river basin portion of the county. The mining supply is calculated as being equal to the projected demand in each decade. For cases in which the total demand on that portion (i.e., county and river basin) of the aquifer exceeds the MAG, supply is prorated downward for every entity using that particular source.

3.6.3 Constraints on Surface Water Supplies

In determining needs (shortages), an emphasis has been placed not only on a water user group's (WUG's) total raw water supply availability, but also on their infrastructure available to deliver and treat this supply.

Based on Texas Commission on Environmental Quality (TCEQ) records, the normal-rated design (NRD) of each surface water treatment plant of public water suppliers located in the Brazos G Area was used to determine the existing peaking capacities to treat and deliver surface water supplies. The average annual capacity (AAC) for the water treatment plant (WTP) was calculated as 50 percent of the NRD to account for peaking. For each WUG for which these data were available in the TCEQ database, the AAC was used to constrain the supply available from surface water sources and was incorporated into the needs analysis for each WUG by using a term referred to as "constrained supply." Constrained supply is defined as the amount of water available to a WUG considering the limiting effects of existing infrastructure. This methodology allows for water management strategies to be identified and developed that specifically address these constraints caused by limited infrastructure capacity. These strategies could include pipelines to existing reservoirs, treatment plant expansions, or other infrastructure required to deliver and treat water for the end user of the WUG. Generally, the only infrastructure constraint data that will be taken into account for the 2021 Plan is treatment capacity, as data on other types of infrastructure constraints are not readily available. Other constraints may have been added where the planning group was made aware of particular infrastructure capacity or lack of infrastructure. These infrastructure constraints were applied to the supply available for the WUG and to any contractual demands using that supply. Twenty municipal WUGs have their available supply constrained by treatment capacity, resulting in supply shortages.

3.6.4 Constraints on Groundwater Supplies

Similar to surface water availability, the groundwater supplies assume that the wells will be able to continue producing the supply into the foreseeable future. However, some of the MAGs adopted for use would allow substantial drawdown of aquifer levels, which would require that well pumps be lowered or, in some cases, that deeper replacement wells be drilled in order to continue to use the assumed supply available from the aquifer. This has been identified as a potential issue in the Trinity Aquifer but supplies to WUGs were not adjusted to account for this potential limitation.

3.7 Existing Supplies Allocated to Water User Groups

A table summarizing the final allocation of existing supplies to WUGs is shown in the Executive Summary Appendix as “Region G Water User Group (WUG) Existing Water Supply.”

3.8 Existing Supplies for Major Water Providers

Existing supplies summarized for Major Water Providers by decade and category of use are shown in Appendix O.

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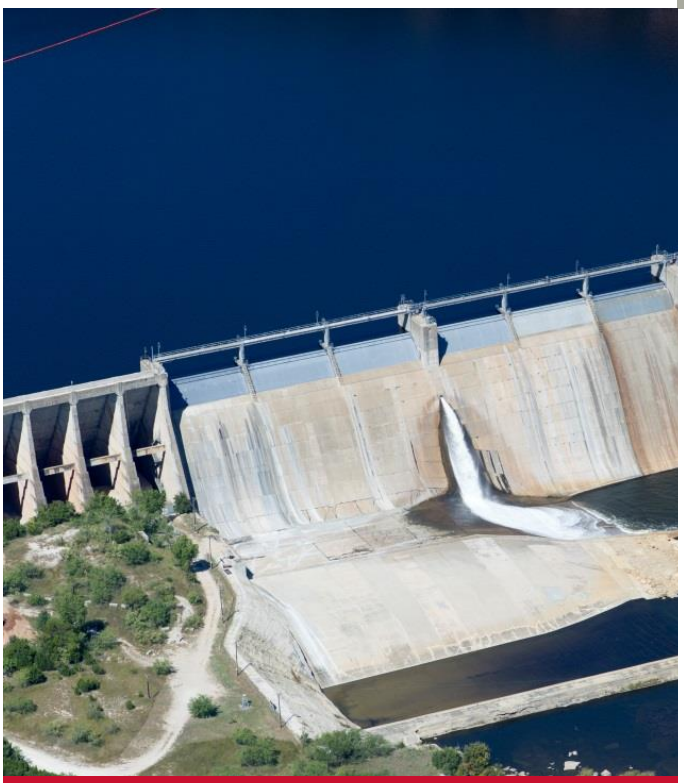

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Comparison of Water Demands with Water Supplies to Determine Needs

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4 Comparison of Water Demands with Water Supplies to Determine Needs

4.1 Introduction

In this section, the demand projections from Chapter 2 and the supply projections from Chapter 3 are brought together to estimate projected water needs in the Brazos G Area through year 2070.

4.2 Water Needs Projected for Water User Groups

If projected demands exceed projected supplies for a water user group, the difference or shortage, is identified as a "water need." This section contains a summary of the water needs (shortages) for WUGs located in the Brazos G Area. A table in the Executive Summary Appendix presents the water needs for each WUG by county as "Region G Water User Group (WUG) Needs/Surplus."

Secondary, or Second-Tier, water needs are those water needs that would remain after implementation of recommended water conservation and reuse strategies. Secondary water needs are presented in the Executive Summary Appendix as "Region G Water User Group (WUG) Second-Tier Identified Water Needs" and "Region G Water User Group (WUG) Second-Tier Identified Water Needs Summary."

4.2.1 Projected Municipal Needs

Water shortages projected for municipal WUGs are listed in Table 4-1, along with the projected year 2040 and 2070 shortages, and the approximate decade that shortages are expected to begin. WUGs located in multiple counties are indicated with (P) in Table 4-1, and the shortages identified are for the portion of the WUG located in the county identified. Shortages for portions of WUGs in counties outside of Brazos G for which Brazos G is the primary planning area are shown. For municipal WUGs that are also wholesale water providers (WWPs), supplies are first assigned to contractual customers and remaining supplies are then assigned to the WUGs' own municipal demands. The shortages shown are for the WUGs' internal municipal demands and not shortages for any wholesale customers. Additional contractual demands associated with strategies recommended for WUGs and WWPs that are recommended to purchase additional water are shown in Chapter 5.

Thirty-six of the 37 counties in the Brazos G Area are projected to have at least one municipal WUG shortage. The County-Other category includes water supply corporations, water districts, privately owned utilities, and small towns that generally supply less than 100 acft of water, in addition to private domestic water use that is not served by a water utility. The County-Other category is projected to experience shortages in 12 counties: Bell, Comanche, Coryell, Erath, Hill, Hood, Jones, McLennan, Palo Pinto, Somervell, Taylor, and Williamson.

Table 4-1. Municipal WUGs with Projected Water Needs (acre-feet/year)

WUG	County	Projected Shortages (acft/yr)		Decade of Need
		Year 2040	Year 2070	
439 WSC	BELL	(293)	(1,161)	2030
BARTLETT (P)	BELL	(121)	(193)	2020
BELL COUNTY WCID 2	BELL	44	(63)	2060
BELTON	BELL	2,448	(1,072)	2070
BELL COUNTY-OTHER	BELL	955	(307)	2070
ELM CREEK WSC (P)	BELL	12	(107)	2050
GEORGETOWN (P)	BELL	(510)	(1,015)	2020
HARKER HEIGHTS	BELL	122	(3,000)	2050
KEMPNER WSC (P)	BELL	(121)	(215)	2020
SALADO WSC	BELL	(29)	(586)	2040
TEMPLE	BELL	(6,969)	(17,103)	2020
CLIFTON	BOSQUE	59	(70)	2060
HIGHLAND PARK WSC (P)	BOSQUE	(72)	(82)	2020
MUSTANG VALLEY WSC (P)	BOSQUE	(30)	(52)	2030
BRYAN	BRAZOS	(4,578)	(19,650)	2030
COLLEGE STATION	BRAZOS	(8,874)	(13,360)	2030
TEXAS A&M UNIVERSITY	BRAZOS	104	124	2020
WELLBORN SUD	BRAZOS	1,513	(379)	2070
SOUTHWEST MILAM WSC (P)	BURLESON	(34)	(40)	2030
BAIRD	CALLAHAN	(150)	(164)	2020
CLYDE	CALLAHAN	91	85	2030
POTOSI WSC (P)	CALLAHAN	(8)	(9)	2020
CORIX UTILITIES TEXAS INC (P)	COLORADO	(8)	(13)	2020
COMANCHE COUNTY-OTHER	COMANCHE	(440)	(488)	2020
COPPERAS COVE	CORYELL	3,343	(1,723)	2060
CORYELL COUNTY-OTHER	CORYELL	(259)	(1,107)	2040
ELM CREEK WSC (P)	CORYELL	2	(16)	2050
FLAT WSC	CORYELL	(23)	(62)	2030
FORT GATES WSC	CORYELL	(353)	(500)	2020
GATESVILLE	CORYELL	(2,455)	(4,688)	2020
KEMPNER WSC (P)	CORYELL	(223)	(394)	2020

Table 4-1. Municipal WUGs with Projected Water Needs (acre-feet/year)

WUG	County	Projected Shortages (acft/yr)		Decade of Need
		Year 2040	Year 2070	
MULTI-COUNTY WSC (P)	CORYELL	(77)	(153)	2020
VENUS (P)	ELLIS	(15)	(35)	2020
ERATH COUNTY-OTHER	ERATH	310	(347)	2060
GORDAN	ERATH	(7)	(8)	2020
ROTAN	FISHER	(19)	(66)	2020
THE BITTER CREEK WSC (P)	FISHER	(83)	(84)	2020
MULTI-COUNTY WSC (P)	HAMILTON	(14)	(21)	2020
HASKELL	HASKELL	(468)	(499)	2020
CHATT WSC	HILL	15	(12)	2060
HILL COUNTY-OTHER	HILL	(59)	(70)	2020
DOUBLE DIAMOND UTILITIES (P)	HILL	(23)	(84)	2030
JOHNSON COUNTY SUD (P)2	HILL	4	(5)	2020
PARKER WSC (P)	HILL	6	(5)	2060
POST OAK SUD (P)	HILL	(1)	(102)	2040
WHITNEY	HILL	(49)	(77)	2030
ACTON MUD (P)	HOOD	(1,111)	(4,148)	2030
HOOD COUNTY-OTHER	HOOD	(759)	924	2020
GRANBURY	HOOD	144	(342)	2050
ACTON MUD (P)	JOHNSON	(15)	(55)	2040
BETHESDA WSC (P)	JOHNSON	(751)	(2,255)	2030
BURLESON (P)	JOHNSON	(1,651)	(4,062)	2030
CLEBURNE	JOHNSON	(1,097)	(7,324)	2040
DOUBLE DIAMOND UTILITIES (P)	JOHNSON	(2)	(9)	2030
GODLEY	JOHNSON	(22)	(65)	2020
JOHNSON COUNTY SUD (P)	JOHNSON	1,473	(1,486)	2020
PARKER WSC (P)	JOHNSON	115	(140)	2060
VENUS (P)	JOHNSON	(396)	(619)	2020
ABILENE (P)	JONES	(292)	(861)	2020
JONES COUNTY-OTHER	JONES	(92)	(121)	2020
JAYTON	KENT	(112)	(111)	2020
KNOX CITY	KNOX	(235)	(256)	2020

Table 4-1. Municipal WUGs with Projected Water Needs (acre-feet/year)

WUG	County	Projected Shortages (acft/yr)		Decade of Need
		Year 2040	Year 2070	
MUNDAY	KNOX	(249)	(270)	2020
COPPERAS COVE	LAMPASAS	130	(79)	2060
CORIX UTILITIES TEXAS INC (P)	LAMPASAS	(117)	(159)	2020
KEMPNER WSC (P)	LAMPASAS	(626)	(1,055)	2020
LAMPASAS	LAMPASAS	(308)	(600)	2020
SOUTHWEST MILAM WSC (P)	LEE	(13)	(12)	2030
GROESBECK	LIMESTONE	(667)	(665)	2020
MART (P)	LIMESTONE	0	(1)	2050
MEXIA	LIMESTONE	284	(182)	2060
POST OAK SUD (P)	LIMESTONE	0	(16)	2050
MCLENNAN COUNTY-OTHER	MCLENNAN	172	667	2020
EAST CRAWFORD WSC	MCLENNAN	(154)	(219)	2020
ELM CREEK WSC (P)	MCLENNAN	9	(73)	2050
HEWITT	MCLENNAN	(1,172)	(2,262)	2020
HIGHLAND PARK WSC (P)	MCLENNAN	(30)	(34)	2020
MART (P)	MCLENNAN	(180)	(243)	2020
NORTH BOSQUE WSC	MCLENNAN	(190)	(522)	2030
ROBINSON	MCLENNAN	(1,048)	(2,255)	2020
WACO	MCLENNAN	5,023	(2,908)	2060
ROCKDALE	MILAM	(613)	(609)	2020
SOUTHWEST MILAM WSC (P)	MILAM	(263)	(342)	2030
THORNDALE	MILAM	12	(10)	2060
POST OAK SUD (P)	NAVARRO	(3)	(66)	2040
ROSCOE	NOLAN	(90)	(107)	2020
SWEETWATER	NOLAN	(350)	(521)	2020
THE BITTER CREEK WSC (P)	NOLAN	(130)	(145)	2020
PALO PINTO COUNTY-OTHER	PALO PINTO	(187)	(177)	2020
GORDON	PALO PINTO	(153)	(167)	2020
MINERAL WELLS	PALO PINTO	(533)	(1,093)	2020
POSSUM KINGDOM WSC (P)	PALO PINTO	(200)	(281)	2020
SANTO SUD	PALO PINTO	34	(14)	2070

Table 4-1. Municipal WUGs with Projected Water Needs (acre-feet/year)

WUG	County	Projected Shortages (acft/yr)		Decade of Need
		Year 2040	Year 2070	
SPORTSMANS WORLD MUD	PALO PINTO	(47)	(61)	2020
STRAWN	PALO PINTO	(46)	(59)	2020
MINERAL WELLS	PARKER	(61)	(107)	2030
SANTO SUD	PARKER	1	(1)	2070
ROBERTSON COUNTY WSC	ROBERTSON	(235)	(526)	2020
WELLBORN SUD	ROBERTSON	272	(55)	2070
FORT GRIFFIN SUD (P)	SHACKELFORD	(1)	(1)	2020
SOMERVELL COUNTY-OTHER	SOMERVELL	(92)	(183)	2030
GLEN ROSE	SOMERVELL	(90)	(179)	2030
FORT BELKNAPP WSC (P)	STEPHENS	0	(1)	2030
FORT GRIFFIN SUD (P)	STEPHENS	(1)	(1)	2020
POSSUM KINGDOM WSC (P)	STEPHENS	(6)	(9)	2020
ASPERMONT	STONEWALL	(41)	(52)	2020
BETHESDA WSC (P)	TARRANT	(416)	(1,125)	2020
BURLESON (P)	TARRANT	(386)	(1,142)	2030
JOHNSON COUNTY SUD (P)	TARRANT	(4)	(190)	2020
ABILENE (P)	TAYLOR	(6,471)	(18,910)	2020
TAYLOR COUNTY-OTHER	TAYLOR	287	(197)	2070
MERKEL	TAYLOR	(25)	(41)	2020
POTOSI WSC (P)	TAYLOR	(534)	(577)	2020
STEAMBOAT MOUNTAIN WSC	TAYLOR	(155)	(171)	2020
TYE	TAYLOR	(4)	(13)	2030
VIEW CAPS WSC	TAYLOR	0	(9)	2050
FORT BELKNAPP WSC (P)	THROCKMORTON	(2)	(3)	2020
THROCKMORTON	THROCKMORTON	(147)	(177)	2020
CEDAR PARK (P)	TRAVIS	(732)	(659)	2020
LEANDER (P)	TRAVIS	(2,009)	(3,281)	2020
BRENHAM	WASHINGTON	(1,120)	(1,681)	2020
CORIX UTILITIES TEXAS INC (P)	WASHINGTON	(282)	(339)	2020
BARTLETT (P)	WILLIAMSON	(130)	(189)	2020
BRUSHY CREEK MUD	WILLIAMSON	(191)	(231)	2020

Table 4-1. Municipal WUGs with Projected Water Needs (acre-feet/year)

WUG	County	Projected Shortages (acft/yr)		Decade of Need
		Year 2040	Year 2070	
CEDAR PARK (P)	WILLIAMSON	(4,759)	(4,768)	2020
WILLIAMSON COUNTY-OTHER	WILLIAMSON	(3,631)	(37,814)	2020
FLORENCE	WILLIAMSON	(42)	(72)	2020
GEORGETOWN (P)	WILLIAMSON	(27,790)	(65,617)	2020
GRANGER	WILLIAMSON	2	(56)	2050
HUTTO	WILLIAMSON	(3,304)	(10,703)	2020
LEANDER (P)	WILLIAMSON	(8,258)	(19,041)	2020
LIBERTY HILL	WILLIAMSON	(90)	(90)	2020
ROUND ROCK	WILLIAMSON	(8,830)	(16,566)	2030
SOUTHWEST MILAM WSC (P)	WILLIAMSON	(109)	(225)	2030
FORT BELKNAPP WSC (P)	YOUNG	(49)	(89)	2020
GRAHAM	YOUNG	(1,769)	(2,434)	2020

(P) Indicates WUG is in multiple counties.

4.2.2 Projected Manufacturing Needs

Nine of the 37 counties in the Brazos G Area are projected to have manufacturing shortages. Table 4-2 lists the counties projected to have shortages in the Manufacturing Use category, projected year 2040 and 2070 shortages, and the approximate decade shortages are projected to begin.

Table 4-2. Counties with Projected Water Needs for Manufacturing Use (acre-feet per year)

County	Projected Shortages (acft/yr)		Decade of Need
	Year 2040	Year 2070	
BELL	(186)	(186)	2020
BURLESON	(6)	(6)	2020
ERATH[1]	2	29	2020
LAMPASAS	(22)	(3)	2020
LIMESTONE	(314)	(313)	2020
MCLENNAN	(2,463)	(1,309)	2020
NOLAN	(33)	(35)	2030
STONEWALL	(58)	(58)	2020
WASHINGTON	(6)	(6)	2030

1 - Projected shortage in 2020 and 2030. Surplus in all other decades.

4.2.3 Projected Steam-Electric Needs

Table 4-3 lists the six counties projected to have shortages in the Steam-Electric Use category, projected year 2040 and 2070 shortages, and the approximate decade shortages are projected begin.

Table 4-3. Counties with Projected Water Needs for Steam-Electric Use (acre-feet per year)

County	Projected Shortages (acft/yr)		Decade of Need
	Year 2040	Year 2070	
BRAZOS[1]	20	20	2020
HILL	(4,120)	(4,120)	2020
JOHNSON	(571)	(571)	2020
LIMESTONE	(388)	(388)	2020
MILAM[2]	(32,254)	(32,254)	2020
SOMERVELL	(35,579)	(35,867)	2020

1 - Projected shortage in 2020. Surplus in all other decades.
2 – Milam County needs based on reallocation of supply from Steam-Electric to water management strategies for municipal supply in Williamson County.

4.2.4 Projected Mining Needs

Shortages are projected for mining use in most of the counties. Table 4-4 lists the 31 counties projected to have shortages in the Mining Use category, projected year 2040 and 2070 shortages, and the approximate decade shortages are projected to begin. Mining water use in Williamson County is primarily associated with dewatering for quarry operations.

Table 4-4. Counties with Projected Water Needs for Mining Use (acre-feet per year)

County	Projected Shortages (acft/yr)		Decade of Need
	Year 2040	Year 2070	
BELL	(3,434)	(5,803)	2020
BOSQUE	(726)	(655)	2020
CALLAHAN	(134)	(100)	2020
COMANCHE	(151)	83	2020
CORYELL	(296)	(242)	2020
EASTLAND	(686)	(189)	2020
FALLS	(161)	(233)	2020
FISHER	(143)	(22)	2020

Table 4-4. Counties with Projected Water Needs for Mining Use (acre-feet per year)

County	Projected Shortages (acft/yr)		Decade of Need
	Year 2040	Year 2070	
GRIMES	(281)	62	2020
HAMILTON[1]	155	256	2020
HASKELL	(83)	(59)	2020
HILL[1]	623	926	2020
HOOD	(821)	(656)	2020
JOHNSON	(68)	107	2020
JONES	(139)	(90)	2020
KNOX	(9)	(8)	2020
LAMPASAS	(137)	(209)	2020
LEE[1]	3,115	3,324	2020
LIMESTONE	(6,707)	(8,267)	2020
MCLENNAN	(2,322)	(3,478)	2020
NOLAN	(53)	6	2020
PALO PINTO	(622)	(232)	2020
SHACKELFORD	(348)	(33)	2020
SOMERVELL	(455)	(280)	2020
STEPHENS	(2,869)	(1,184)	2020
STONEWALL	(318)	(144)	2020
TAYLOR	(232)	(181)	2020
THROCKMORTON	(67)	(12)	2020
WASHINGTON	(625)	(186)	2020
WILLIAMSON	(6,923)	(10,745)	2020
YOUNG	(115)	8	2020

1 - Projected shortage in 2020. Surplus in all other decades.

4.2.5 Projected Irrigation Needs

Table 4-5 lists the 20 counties projected to have shortages in the Irrigation Use category, projected year 2040 and 2070 shortages, and the approximate decade shortages are projected to begin.

Table 4-5. Counties with Projected Water Needs for Irrigation Use (acre-feet per year)

County	Projected Shortages (acft/yr)		Decade of Need
	Year 2040	Year 2070	
BELL	(690)	(719)	2020
BOSQUE	(1,366)	(1,366)	2020
BURLESON	(347)	(347)	2020
COMANCHE	(15,151)	(15,292)	2020
GRIMES	(151)	(151)	2020
HASKELL	(14,462)	(15,835)	2020
HILL	(210)	(211)	2020
JOHNSON	(269)	(269)	2020
JONES	(191)	(191)	2020
KNOX	(13,590)	(13,381)	2020
LAMPASAS	(233)	(242)	2020
MILAM	(205)	93	2030
NOLAN	(8,237)	(8,237	2020
PALO PINTO	(2,326)	(2,326)	2020
ROBERTSON	(17,100)	(17,921)	2020
STEPHENS	(121)	(121)	2020
TAYLOR	(1,266)	(1,266)	2020
THROCKMORTON	(157)	(157)	2020
WILLIAMSON	(172)	(172)	2020
YOUNG	(456)	(456)	2020

4.2.6 Projected Livestock Needs

There are no livestock shortages projected. As explained in Section 3, livestock demands were assumed to be met from stock tanks and locally occurring groundwater.

4.3 Water Needs Projected for Wholesale Water Providers

Needs projected for WWPs that are not also WUGs are shown in Table 4-6. The needs shown are for existing contractual commitments, regardless if the customers' water demands are different from the stated contractual supply. In the case of "needs met" contracts, the contractual demand is assumed to be the customer's water demands, less any other supplies the customer may have available. Additional contractual demands associated with strategies recommended for WUGs and WWPs are shown in Chapter 5.

Table 4-6. Water Needs Projected for Wholesale Water Providers

WWP	Projected Surpluses / (Shortages) (acft/yr)		Decade of Need
	Year 2040	Year 2070	
AQUILLA WSD	1	(262)	2020
BELL COUNTY WCID #1	6,056	(4,805)	none
BLUEBONNET WSC	(317)	(453)	2020
BRAZOS RIVER AUTHORITY			
Lake Aquilla System	*997*	*(503)*	*2060*
Little River System	*(45,246)*	*(49,386)*	*2020*
Main Stem/Lower Basin System[1]	*0*	*0*	*none*
Highland Lakes Supply (HB 1437)[2]	*2,872*	*2,872*	*none*
System Operations Permit[3]	*0*	*0*	*none*
CENTRAL TEXAS WSC	342	144	none
EASTLAND COUNTY WSD	(955)	(1,045)	2020
FHLM WSC	0	0	none
NORTH CENTRAL TEXAS MWA	(1,752)	(1,797)	2020
PALO PINTO COUNTY MWD #1	(2,186)	(2,806)	2020
SALT FORK WATER QUALITY CORPORATION	0	0	none
UPPER LEON MWD	708	602	none
WEST CENTRAL TEXAS MWD	6,775	13,535	none

1 – Includes contract demands in both Brazos G and Region H.
2 – 25,000 acft/yr is available per HB 1763, of which BRA has contracted 1,200 acft/yr (Liberty Hill) and 20,928 acft/yr (Round Rock). Surplus shown represents the remaining uncontracted supply.
3 – Assumes all current and pending contracts for sales of System Operations Supply are firm.

4.4 Water Needs Projected for Major Water Providers

Water needs for MWPs summarized by decade and category of use and secondary water needs are presented in Appendix O.

5

County and WWP Plans

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5 County and WWP Plans

5.1 Bell County Water Supply Plan

Table 5.1-1 lists each water user group in Bell County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.1-1. Bell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
439 WSC	(293)	(1,161)	Projected shortage - see plan below.
Armstrong WSC	448	369	Projected surplus
City of Bartlett			See Williamson County
Bell County WCID 2	44	(63)	Projected shortage - see plan below.
Bell County WCID 3	0	0	No projected surplus or shortage
Bell-Milam-Falls WSC	1,832	1,695	Projected surplus
City of Belton	2,448	(1,072)	Projected shortage - see plan below.
Central Texas College District			See Coryell County
Dog Ridge WSC	714	370	Projected surplus
East Bell WSC	675	466	Projected surplus
Elm Creek WSC	23	(196)	Projected shortage - see plan below.
Fort Hood	5,086	5,107	Projected surplus
City of Georgetown			See Williamson County
City of Harker Heights	122	(3,000)	Projected shortage - see plan below.
City of Holland	228	226	Projected surplus
Jarrell-Schwertner WSC			See Williamson County
Kempner WSC			See Lampasas County
City of Killeen	0	0	No projected surplus or shortage
Little Elm Valley WSC	265	124	Projected surplus
Moffat WSC	907	843	Projected surplus
Morgan's Point Resort	1,148	814	Projected surplus
Pendleton WSC	301	254	Projected surplus
City of Rogers	294	263	Projected surplus
Salado WSC	(29)	(586)	Projected shortage - see plan below.
City of Temple	(6,969)	(17,103)	Projected shortage - see plan below.
The Grove WSC	0	0	No projected surplus or shortage

Table 5.1-1. Bell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Troy	836	776	Projected surplus
West Bell County WSC	876	880	Projected surplus
County-Other	955	(307)	Projected shortage - see plan below.
Manufacturing	(186)	(186)	Projected shortage - see plan below.
Steam-Electric	5,366	5,366	Projected surplus
Mining	(3,434)	(5,803)	Projected shortage - see plan below.
Irrigation	(690)	(719)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.1.1 439 WSC

Description of Supply

439 WSC has contracted for 1,409 acft/yr of surface water supplies from the Brazos River Authority, which can supply 1,171 acft/yr in 2020 and 1,132 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. 439 WSC also obtains water supply through purchases of treated water under contract with the Bell County WCID No. 1 and through purchases of raw water under contract with the Brazos River Authority which is sourced from Lake Belton. Additionally, 439 WSC contracts with Bell County WCID No. 1 to divert, treat, and deliver the raw water purchased under contract with the Brazos River Authority. 439 WSC's available treated water supply is limited based on proportioned capacity of the Bell County WCID No. 1 water treatment plant.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for 439 WSC. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies
   - Cost Source: BRA to firm up water supply
   - Date to be Implemented: before 2030
   - Project Cost: Costs borne by BRA
   a. Unit Cost: Costs borne by BRA

b. Purchase Additional Diversion, Treatment, and Delivery of Supply from Bell County WCID No. 1.
   - Cost Source: Volume II
   - Date to be Implemented: by 2030

- Annual Cost: $1,161,000
- Unit Cost: $1,000/acft

c. Purchase Raw Water Supply from Fort Hood

- Cost Source: Volume II
- Date to be Implemented: before 2050
- Annual Cost: maximum of $642,276
- Unit Cost: $100/acft

Table 5.1-2. Recommended Plan Costs by Decade for 439 WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*217*	*(32)*	*(293)*	*(567)*	*(859)*	*(1,161)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*217*	*(32)*	*(293)*	*(567)*	*(859)*	*(1,161)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	246	253	261	269	277
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Additional Diversion, Treatment, and Delivery from Bell County WCID No. 1						
Supply From Plan Element (acft/yr)	—	1,161	1,161	1,161	1,161	1,161
Annual Cost ($/yr)	—	$1,161,000	$1,161,000	$1,161,000	$1,161,000	$1,161,000
Unit Cost ($/acft)	—	$1,000	$1,000	$1,000	$1,000	$1,000
Purchase Raw Water Supply from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	32	324	626
Annual Cost ($/yr)	—	—	—	$3,200	$32,400	$62,600
Unit Cost ($/acft)	—	—	—	$100	$100	$100
Reuse from Bell County WCID No. 1 – South						
Supply From Plan Element (acft/yr)	—	32	185	185	—	20
Annual Cost ($/yr)	—	$43,650	$252,340	$50,690	—	$5,480
Unit Cost ($/acft)	—	$1,364	$1,364	$274	—	$274

5.1.2 Armstrong WSC

Description of Supply

Armstrong WSC obtains its water supply from the Trinity Aquifer and surface water from Central Texas WSC. No shortages are projected and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Armstrong WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $20,720
- Unit Cost: $560/acft

Table 5.1-3. Recommended Plan Costs by Decade for Armstrong WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*491*	*469*	*448*	*425*	*397*	*369*
Conservation						
Supply From Plan Element (acft/yr)	0	35	37	33	35	36
Annual Cost ($/yr)	$0	$19,600	$20,720	$18,480	$19,600	$20,160
Projected Surplus/(Shortage) after Conservation (acft/yr)	*491*	*504*	*485*	*458*	*432*	*405*

5.1.3 Bell County WCID No. 2

Description of Supply

Bell County WCID No. 2 obtains its water supply from the Trinity Aquifer and treated surface water from the City of Temple. Shortages are projected for Bell County WCID No. 2 beginning in 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Armstrong WSC. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Groundwater Development – Trinity Aquifer

- Cost Source: Volume II

- Date to be Implemented: before 2060
- Project Cost: $979,000
- Unit Cost: maximum of $1,460/acft

Table 5.1-4. Recommended Plan Costs by Decade for Bell County WCID No. 2

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*106*	*76*	*44*	*9*	*(27)*	*(63)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*106*	*76*	*44*	*9*	*(27)*	*(63)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	63	63
Annual Cost ($/yr)	—	—	—	—	$92,000	$92,000
Unit Cost ($/acft)	—	—	—	—	$1,460	$1,460

5.1.4 Bell County WCID No. 3

Description of Supply

Bell County WCID No. 3 purchases its water supply from Bell County WCID No. 1. Supply is projected to meet demand and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Bell County WCID No. 3. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: $12,320
- Unit Cost: $560/acft

Table 5.1-5. Recommended Plan Costs by Decade for Bell County WCID No. 3

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	0	22	—	—	—	—
Annual Cost ($/yr)	—	$12,320	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*22*	*0*	*0*	*0*	*0*

5.1.5 Bell-Milam-Falls WSC

Description of Supply

Bell-Milam Falls WSC is located in multiple counties (Bell, Falls, Milam and Williamson) and obtains its water supply from the Trinity Aquifer through a contract for surface water from Lake Stillhouse Hollow from Central Texas WSC. Totals shown in Table 5.1-6 represent cumulative totals for Bell-Milam Falls WSC. No shortages are projected and no changes to water supply are recommended for Bell-Milam Falls WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $2,800
- Unit Cost: $560/acft

Table 5.1-6. Recommended Plan Costs by Decade for Bell-Milam-Falls WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,902*	*1,864*	*1,832*	*1,798*	*1,747*	*1,695*
Conservation						
Supply From Plan Element (acft/yr)	0	4	4	4	4	5
Annual Cost ($/yr)	$0	$2,240	$2,240	$2,240	$2,240	$2,800
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,902*	*1,868*	*1,836*	*1,802*	*1,751*	*1,700*

5.1.6 City of Belton

Description of Supply

The City of Belton has a contract to purchase water from the Brazos River Authority from Lake Belton. City of Belton has contracted for 2,500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 2,078 acft/yr in 2020 and 2,009 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Belton contracts with Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the City. The City also has a contract with Central Texas WSC. A shortage is projected for the City of Belton in 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Belton. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: maximum of $215,040 in 2070
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Water Treatment Plant Expansion
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Project Cost: $11,925,000
   - Unit Cost: maximum of $1,361/acft

Table 5.1-7. Recommended Plan Costs by Decade for City of Belton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*3,608*	*3,046*	*2,448*	*1,831*	*1,201*	*(1,072)*
Conservation						
Supply From Plan Element (acft/yr)	—	323	323	325	352	384
Annual Cost ($/yr)	—	$180,880	$180,880	$182,000	$197,120	$215,040

Table 5.1-7. Recommended Plan Costs by Decade for City of Belton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*3,608*	*3,046*	*2,448*	*1,831*	*1,201*	*(1,072)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)[A]	—	436	450	463	477	491
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Water Treatment Plant Expansion						
Supply From Plan Element (acft/yr)	—	—	—	—	—	676
Annual Cost ($/yr)	—	—	—	—	—	$740,900
Unit Cost ($/acft)	—	—	—	—	—	$1,096

1. Quantity represents increase in treatment capacity required to develop existing supplies currently constrained by treatment capacity.

5.1.7 Dog Ridge WSC

Description of Supply

Dog Ridge WSC has surface water contracts with BRA and Central Texas WSC. No shortages are projected for Dog Ridge WSC and no changes in water supply are recommended. Dog Ridge WSC has contracted for 1,500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 1,247 acft/yr in 2020 and 1,206 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Dog Ridge WSC. Conservation was considered; however the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2070
- Annual Cost: Costs from by BRA
- Unit Cost: Costs from by BRA

Table 5.1-8. Recommended Plan Costs by Decade for Dog Ridge WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*914*	*817*	*714*	*602*	*486*	*370*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*914*	*817*	*714*	*602*	*486*	*370*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	261	270	278	286	294
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.8 East Bell WSC

East Bell WSC is split between Bell and Falls counties, yet the majority of demand lies within Bell County. The WSC obtains its water supply from the Trinity Aquifer and treated surface water from Central Texas WSC. Supplies are projected to be adequate to meet future demands across the entire service area, and no change in water supply is recommended. Conservation was considered; however, the usage is below the selected goal of 140 gpcd.

5.1.9 Elm Creek WSC

Description of Supply

Elm Creek WSC service area includes portions of Bell, Coryell, and McLennan counties, yet the majority of demand lies within Bell County. Elm Creek WSC has a contract to purchase water from Bluebonnet WSC from Lake Belton. The surpluses and shortages shown in Table 5.1-9 represent the cumulative totals for Elm Creek WSC across all counties it serves.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Elm Creek WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Bluebonnet WSC to Firm Up Contracted Supply

   Bluebonnet WSC provides this supply under contract to entity. Bluebonnet WSC to develop any combinations of strategies as described in Section 5.38 to firm up this amount.

   - Cost Source: Volume II

- Date to be Implemented: before 2050
- Project Cost: associated project costs to be borne by Bluebonnet WSC
- Unit Cost: supply already under contract.

b. Reallocation of Supply from Moffat WSC

- Cost Source: Volume II
- Date to be Implemented: before 2050
- Annual Cost: maximum of $150,612
- Unit Cost: $978/acft (reimbursement of cost under Moffat's take-or-pay contract with Bluebonnet WSC)

Table 5.1-9. Recommended Plan Costs by Decade for Elm Creek WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*157*	*92*	*23*	*(47)*	*(121)*	*(196)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*157*	*92*	*23*	*(47)*	*(121)*	*(196)*
Bluebonnet WSC to Firm Up Contracted Supply						
Supply From Plan Element (acft/yr)	—	—	—	33	37	42
Annual Cost ($/yr)	—	—	—	$2,550	$2,850	$3,240
Unit Cost ($/acft)	—	—	—	$77	$77	$77
Reallocation of Supply from Moffat WSC						
Supply From Plan Element (acft/yr)	—	—	—	14	84	154
Annual Cost ($/yr)	—	—	—	$13,692	$82,152	$150,612
Unit Cost ($/acft)	—	—	—	$978	$978	$978

5.1.10 Fort Hood

Description of Supply

The U.S. Department of the Army (Fort Hood) has a water right to store and divert 12,000 acft/yr in Lake Belton. The Fort Hood service area includes portions of Bell and Coryell Counties. Bell County WCID No. 1 and City of Gatesville divert, treat and deliver its Lake Belton supply to the Army base. No shortages are projected for Fort Hood and no changes in water supply are recommended. The surplus shown in Table 5.1-10 represents the cumulative totals for Fort Hood in the counties it serves.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Fort Hood. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $1,109,448 in 2060

Table 5.1-10. Recommended Plan Costs by Decade for Fort Hood

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*4,915*	*5,007*	*5,086*	*5,097*	*5,106*	*5,107*
Conservation						
Supply From Plan Element (acft/yr)	0	531	1,053	1,602	1,981	1,980
Annual Cost ($/yr)	$0	$297,000	$590,000	$897,000	$1,109,000	$1,109,000
Projected Surplus/ (Shortage) after Conservation (acft/yr)	*4,915*	*5,007*	*5,086*	*5,097*	*5,106*	*5,107*
Additional Demands from Recommended Strategies from Others						
Provide raw supply to 439 WSC (acft/yr)	—	—	—	(32)	(324)	(626)
Provide raw supply to Harker Heights (acft/yr)	—	—	—	—	—	(487)
Provide raw supply to Copperas Cove (acft/yr)	—	—	—	—	(125)	(1,285)
Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)	*4,915*	*5,007*	*5,086*	*5,065*	*4,657*	*2,709*

5.1.11 City of Harker Heights

Description of Supply

The City of Harker Heights has a contract to purchase water from the Brazos River Authority Little River System from Lake Stillhouse Hollow and Lake Belton. City of Harker Heights has contracted for 3,535 acft/yr of surface water supplies from the Brazos River Authority, which can supply 2,938 acft/yr in 2020 and 2,841 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Harker Heights also contracts with Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the City.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Harker Heights. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $1,018,640
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Purchase Raw Water Supply from Fort Hood
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $48,700
   - Unit Cost: $100/acft

d. Purchase Additional Diversion, Treatment, and Delivery from Bell County WCID No. 1.
   - Cost Source: Volume II
   - Date to be Implemented: before 2060
   - Annual Cost: $1,232,000
   - Unit Cost: $1,000/acft

Table 5.1-11. Recommended Plan Costs by Decade for City of Harker Heights

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,104*	*1,141*	*122*	*(915)*	*(1,962)*	*(3,000)*
Conservation						
Supply From Plan Element (acft/yr)	—	559	1,274	1,498	1,656	1,819
Annual Cost ($/yr)	—	$313,040	$713,440	$838,880	$927,360	$1,018,640
Projected Surplus/(Shortage) after Conservation	*2,104*	*1,141*	*122*	*583*	*(306)*	*(1,181)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	616	636	655	674	694

Table 5.1-11. Recommended Plan Costs by Decade for City of Harker Heights

Plan Element	2020	2030	2040	2050	2060	2070
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Raw Water Supply from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	—	—	487
Annual Cost ($/yr)	—	—	—	—	—	$48,700
Unit Cost ($/acft)	—	—	—	—	—	$100
Purchase Additional Diversion, Treatment, and Delivery from Bell County WCID No. 1						
Supply From Plan Element (acft/yr)	—	—	—	—	185	185
Annual Cost ($/yr)	—	—	—	—	$252,340	$252,340
Unit Cost ($/acft)	—	—	—	—	$1,364	$1,364
Killeen Reduction to Harker Heights						
Supply From Plan Element (acft/yr)	—	—	—	—	—	302
Annual Cost ($/yr)	—	—	—	—	—	$541,000
Unit Cost ($/acft)	—	—	—	—	—	$1,791

5.1.12 City of Holland

The City of Holland has Trinity supplies and a contract to purchase water from the Central Texas WSC from Lake Stillhouse Hollow. No shortages are projected for the City of Holland and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.13 City of Killeen

The City of Killeen has a contract to purchase water from Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the City. Killeen provides supply for Bell County manufacturing entities.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Kileen. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Bell County WCID No. 1 North Reuse

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $1,018,640
- Unit Cost: $835/acft

b. Bell County WCID No. 1 South Reuse

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $1,018,640
- Unit Cost: $1,364/acft

Table 5.1-12. Recommended Plan Costs by Decade for the City of Killeen

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/ (Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*0*	*0*	*0*	*0*	*0*	*0*
Reuse from Bell County WCID No. 1 – North						
Supply From Plan Element (acft/yr)	—	1,773	1,773	1,773	1,773	1,773
Annual Cost ($/yr)	—	$3,899,000	$3,899,000	$984,000	$984,000	$984,000
Unit Cost ($/acft)	—	$2,199	$2,199	$555	$555	$555
Reuse from Bell County WCID No. 1 – South						
Supply From Plan Element (acft/yr)	—	716	563	563	563	543
Annual Cost ($/yr)	—	$1,574,000	$1,238,000	$312,000	$312,000	$301,000
Unit Cost ($/acft)	—	$2,199	$2,199	$555	$555	$555
Projected Surplus/(Shortage) after Reuse	—	*2,489*	*2,336*	*2,336*	*2,336*	*2,316*

5.1.14 Little Elm Valley WSC

Description of Supply

Little Elm Valley WSC obtains its water supply from the Trinity Aquifer and a contract for treated supplies from Central Texas WSC. Little River Academy is projected to have sufficient supply through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Little Elm Valley WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Annual Cost: maximum of $26,320 in 2070
- Unit Cost: $560/acft

Table 5.1-13. Recommended Plan Costs by Decade for Little Elm Valley WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/ (Shortage) (acft/yr)	*353*	*310*	*265*	*219*	*171*	*124*
Conservation						
Supply From Plan Element (acft/yr)	0	25	37	39	43	47
Annual Cost ($/yr)	0	$14,000	$20,720	$21,840	$24,080	$26,320
Projected Surplus/(Shortage) after Conservation	*353*	*335*	*302*	*258*	*214*	*171*

5.1.15 Moffat WSC

Description of Supply

Moffat WSC has a contract to purchase water from the Brazos River Authority and Bluebonnet WSC from Lake Belton, as well as supplemental wells in the Trinity Aquifer. Moffat WSC has contracted for 500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 416 acft/yr in 2020 and 402 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. No shortages are projected for Moffat WSC and no changes in water supply are recommended. Moffat WSC is slated to voluntarily redistribute 14, 84, and 154 acft/yr to Elm Creek WSC in 2050, 2060, and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Moffat WSC, Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2070
- Annual Cost: Costs borne by BRA.
- Unit Cost: Costs borne by BRA

Table 5.1-14. Recommended Plan Costs by Decade for Moffat WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*936*	*922*	*907*	*890*	*867*	*843*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*936*	*922*	*907*	*890*	*867*	*843*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	87	90	93	95	98
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.16 Morgan's Point Resort

Morgan's Point Resort contracts with the City of Temple for all of its water supply. No shortages are projected for Morgan's Point Resort and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.17 Pendleton WSC

Pendleton WSC has wells in the Trinity Aquifer and a contract to purchase water from Bluebonnet WSC from Lake Belton. No shortages are projected for Pendleton WSC and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.18 City of Rogers

The City of Rogers has wells in the Trinity Aquifer and purchases treated surface water from Central Texas WSC. No shortages are projected for the City of Rogers and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.19 Salado WSC

Description of Supply

Salado WSC currently obtains water from the Edwards Aquifer and through purchases of treated supply from Kempner WSC. The entity also has a contract with the BRA. Salado WSC has contracted for 1,600 acft/yr of surface water supplies from the Brazos River Authority, which can supply 1,330 acft/yr in 2020 and 1,286 acft/yr in 2070, based on water

availability analyses prescribed under water planning guidelines. A shortage is projected beginning in 2040 for Salado WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Salado WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum $601,440 in 2070
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Annual Cost: Costs borne by BRA.
   - Unit Cost: Costs borne by BRA

Table 5.1-15. Recommended Plan Costs by Decade for Salado WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*337*	*155*	*(29)*	*(213)*	*(400)*	*(586)*
Conservation						
Supply From Plan Element (acft/yr)	0	178	379	597	831	1,074
Annual Cost ($/yr)	$0	$99,680	$212,240	$334,320	$465,360	$601,440
Projected Surplus/ (Shortage) after Conservation	*337*	*333*	*350*	*384*	*431*	*488*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	279	288	296	305	314
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.20 City of Temple

Description of Supply

The City of Temple obtains its water supply from surface water from Lake Belton through the BRA and run-of-the river water rights. City of Temple has contracted for 30,453 acft/yr of surface water supplies from the Brazos River Authority, which can supply 25,311 acft/yr in 2020 and 24,476 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The City supplies several neighboring communities with treated water. The City is projected to have a shortage of supplies through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Temple. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum $6,982,640 in 2070
   - Unit Cost: $560/acft

b. Firm up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Expand Water Treatment Plant Capacity. Strategy includes two identical expansions. First treatment plant expansion will increase available supply to cover shortage for 2030.
   - Cost Source: Volume II
   - Date to be implemented: first expansion before 2030; second expansion before 2040.
   - Project Cost: $35,666,000
   - Unit Cost: maximum of $957

Table 5.1-16. Recommended Plan Costs by Decade for the City of Temple

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(532)*	*(3,668)*	*(6,969)*	*(10,340)*	*(13,738)*	*(17,103)*
Conservation						
Supply From Plan Element (acft/yr)	0	1,868	4,232	7,057	10,263	12,469
Annual Cost ($/yr)	$0	$1,046,080	$2,369,920	$3,951,920	$5,747,280	$6,982,640
Projected Surplus/ (Shortage) after Conservation	*(532)*	*(1,800)*	*(2,737)*	*(3,283)*	*(3,475)*	*(4,634)*
Firm up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	5,309	5,476	5,643	5,810	5,977
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Water Treatment Plant Expansion[A]						
Supply From Plan Element (acft/yr)[B]	2,352	2,352	3,610	3,138	2,707	2,256
Annual Cost ($/yr)	$2,251,000	$2,251,000	$2,491,000	$2,166,000	$1,146,000	$955,000
Unit Cost ($/acft)	$957	$957	$690	$690	$423	$423

A – Two separate expansions at 2.1 MGD each with the first completed by 2030 and the second completed before 2040.
B - Quantity represents increase in treatment capacity required to develop additional supplies and does not include the supply itself.

5.1.21 The Grove WSC

Description of Supply

The Grove WSC services entities in Bell and Coryell counties, with the majority of demand lying within Bell County. The WSC purchases treated surface water from the City of Gatesville and raw surface water from the Brazos River authority Little River System. The Grove WSC has contracted for 400 acft/yr of surface water supplies from the Brazos River Authority, which can supply 332 acft/yr in 2020 and 321 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The Grove WSC is projected to have sufficient water supply through the planning period and no changes to water supply are recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for The Grove WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2070
- Annual Cost: Costs borne by BRA.
- Unit Cost: Costs borne by BRA

Table 5.1-17. Recommended Plan Costs by Decade for The Grove WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*0*	*0*	*0*	*0*	*0*	*0*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	70	72	74	76	79
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.22 City of Troy

The City of Troy obtains its water from a contract with the City of Temple and wells located in the Trinity Aquifer. No shortages are projected for the City of Troy and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.23 West Bell County WSC

West Bell County WSC obtains its water through a contract with the Central Texas WSC. No shortages are projected for West Bell County WSC and no changes in water supply are recommended. Conservation was considered; however, the usage is below the selected goal of 140 gpcd.

5.1.24 Bell County-Other

Description of Supply

Bell County-Other entities obtain water supply from groundwater from the Trinity Aquifer and treated surface water from Bell County WCID No. 1, Central Texas WSC, and City of Temple. Shortages are projected for County Other by 2040.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Bell County-Other. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum $24,191 in 2070
   - Unit Cost: $560/acft

b. Purchase Additional Treated Surface Water Supply from Central Texas WSC
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Annual Cost: $387,024
   - Unit Cost: $1,460

Table 5.1-18. Recommended Plan Costs by Decade for Bell County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	1,025	995	955	911	287	(307)
Conservation						
Supply From Plan Element (acft/yr)	0	17	14	14	30	43
Annual Cost ($/yr)	$0	$9,520	$7,840	$7,840	$16,800	$24,080
Projected Surplus/(Shortage) after Conservation	*1,025*	*995*	*955*	*911*	*287*	*(264)*
Purchase Additional Treated Surface Water Supply from Central Texas WSC						
Supply From Plan Element (acft/yr)	—	—	—	—	—	264
Annual Cost ($/yr)	—	—	—	—	—	$387,024
Unit Cost ($/acft)	—	—	—	—	—	$1,466

5.1.25 Manufacturing

Description of Supply

Water supply for manufacturing in Bell County is obtained by purchase from the cities of Killeen, Temple, and Troy, and from wells within the Trinity Aquifer. Bell County Manufacturing is projected to have shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Bell County Manufacturing. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Annual Cost: Not determined

b. Reuse Supplies from Bell County WCID No. 1 (North)
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: Costs to be borne by Bell County WCID No. 1
   - Unit Cost: $919/acft

Table 5.1-19. Recommended Plan Costs by Decade for Bell County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(142)*	*(186)*	*(186)*	*(186)*	*(186)*	*(186)*
Conservation						
Supply From Plan Element (acft/yr)	19	34	48	48	48	48
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/ (Shortage) after Conservation	*(123)*	*(152)*	*(138)*	*(138)*	*(138)*	*(138)*
Purchase Reuse Supplies from Bell County WCID No. 1 (North)						
Supply From Plan Element (acft/yr)	—	152	152	152	152	152
Annual Cost ($/yr)	—	$126,920	$126,920	$42,720	$42,720	$42,720
Unit Cost ($/acft)	—	$835	$835	$281	$281	$281

ND – Not Determined. Costs to implement industrial conservation technologies will vary based on each location.

5.1.26 Steam-Electric

Steam-Electric operations in Bell County obtain reuse water supply from the City of Temple. Steam-Electric has a projected surplus throughout the planning period and no changes in water supply are recommended.

5.1.27 Mining

Description of Supply

Mining in Bell County obtains water supply from wells within the Trinity Aquifer. A shortage is projected for mining operations throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Bell County-Mining. Conservation is recommended.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: by 2030
    - Annual Cost: Not determined

b. Groundwater Development – Trinity Aquifer
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: $8,771,000
    - Unit Cost: $447/acft

c. Groundwater Development – Edwards BFZ Aquifer
    - Cost Source: Volume II
    - Date to be Implemented: before 2070
    - Project Cost: $1,423,000
    - Unit Cost: $324/acft

Table 5.1-20. Recommended Plan Costs by Decade for Bell County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2,077)*	*(2,815)*	*(3,434)*	*(4,184)*	*(4,940)*	*(5,803)*
Conservation						
Supply From Plan Element (acft/yr)	97	199	322	374	427	488
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	(1,980)	(2,616)	(3,112)	(3,810)	(4,513)	(5,315)
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	4,700	4,700	4,700	4,700	4,700	4,700
Annual Cost ($/yr)	$2,101,000	$2,101,000	$1,484,000	$1,484,000	$1,484,000	$1,484,000
Unit Cost ($/acft)	$447	$447	$316	$316	$316	$316
Groundwater Development – Edwards BFZ Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	—	615
Annual Cost ($/yr)	—	—	—	—	—	$199,000
Unit Cost ($/acft)	—	—	—	—	—	$324

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.1.28 Irrigation

Description of Supply

Bell County Irrigation is supplied by groundwater from the Trinity and the Edwards (BFZ) Aquifers, and surface water from the Brazos River Authority Little River System. Bell County Irrigation has contracted for 308 acft/yr of surface water supplies from the Brazos River Authority, which can supply 256 acft/yr in 2020 and 248 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Irrigation is projected to have shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Bell County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $263,326

- Unit Cost: $1,323/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Groundwater Development – Edwards BFZ Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $922,000
   - Unit Cost: $185/acft

Table 5.1-21. Recommended Plan Costs by Decade for Bell County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(670)*	*(680)*	*(690)*	*(700)*	*(710)*	*(719)*
Conservation						
Supply From Plan Element (acft/yr)	85	142	199	199	199	199
Annual Cost ($/yr)	$112,455	$187,870	$263,280	$263,280	$263,280	$263,280
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(585)*	*(538)*	*(491)*	*(501)*	*(511)*	*(520)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	54	55	57	59	60
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Groundwater Development – Edwards BFZ Aquifer						
Supply From Plan Element (acft/yr)	585	585	585	585	585	585
Annual Cost ($/yr)	$88,000	$88,000	$23,000	$23,000	$23,000	$23,000
Unit Cost ($/acft)	$150	$150	$39	$39	$39	$39

5.1.29 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.2 Bosque County Water Supply Plan

Table 5.2-1 lists each water user group in Bosque County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.2-1. Bosque County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Childress Creek WSC	139	124	Projected surplus
City of Clifton	59	(70)	Projected shortage - see plan below.
Cross Country WSC			See McLennan County
Highland Park WSC	(102)	(116)	Projected shortage - see plan below.
HILCO United Services			See Hill County
City of Meridian	228	167	Projected surplus
Mustang Valley WSC	(30)	(52)	Projected shortage - see plan below.
Smith Bend WSC	108	130	Projected surplus
City of Valley Mills	28	11	Projected surplus
County-Other	39	0	No projected surplus or shortage
Manufacturing	235	235	Projected surplus
Steam-Electric	3,621	3,621	Projected surplus
Mining	(726)	(655)	Projected shortage - see plan below.
Irrigation	(1,366)	(1,366)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.2.1 Childress Creek WSC

Description of Supply

Childress Creek WSC obtains its water supply from groundwater from the Trinity Aquifer. No shortages are projected for the Childress Creek WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet additional regional needs. Associated Childress Creek WSC costs are included for the Bosque County Regional Project. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Bosque County Regional Project

- Cost Source: Volume II

- Date to be Implemented: before 2030
- Project Cost: $8,030,000 for Childress Creek WSC portion
- Unit Cost: $3,488/acft

Table 5.2-2. Recommended Plan Costs by Decade for Childress Creek WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*169*	*147*	*139*	*133*	*128*	*124*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*169*	*147*	*139*	*133*	*128*	*124*
Bosque County Regional Project						
Supply From Plan Element (acft/yr)		203	203	203	203	203
Annual Cost ($/yr)		$708,000	$708,000	$333,000	$207,000	$207,000
Unit Cost ($/acft)		$3,488	$3,488	$1,640	$1,020	$1,020

5.2.2 City of Clifton

Description of Supply

The City of Clifton obtains its water supply from groundwater from the Trinity Aquifer and from surface water from the North Bosque River. The City of Clifton owns water rights on the North Bosque River and diverts water into a 500 acft off-channel reservoir. Based on the estimated availability of groundwater and surface water to the City, shortages are projected for the City beginning in 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for County-Other entities. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $42,731 in 2040; Unit cost of $560/acft

b. Bosque County Regional Project – includes expansion of the Clifton OCR and WTP

- Cost Source: Volume II

- Date to be Implemented: 2030
- Project Cost: $10,852,000 for the City's portion
- Unit Cost: $2,567/acft

Table 5.2-3. Recommended Plan Costs by Decade for City of Clifton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*214*	*120*	*59*	*13*	*(30)*	*(70)*
Conservation						
Supply From Plan Element (acft/yr)	0	53	76	71	71	71
Annual Cost ($/yr)	$0	$30,000	$43,000	$40,000	$40,000	$40,000
Projected Surplus/(Shortage) after Conservation	*214*	*120*	*59*	*13*	*41*	*1*
Bosque County Regional Project						
Supply From Plan Element (acft/yr)		397	397	397	397	397
Annual Cost ($/yr)		$1,019,000	$1,019,000	$512,000	$341,000	$341,000
Unit Cost ($/acft)		$2,567	$2,567	$1,290	$859	$859

5.2.3 Highland Park WSC

Description of Supply

Highland Park WSC obtains its water supply from groundwater from the Trinity Aquifer, and has a projected shortage from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet projected water supply shortages. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: $42,011 in 2070; Unit Cost of $560/acft

b. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $1,245,000
   - Unit Cost: $1,939/acft

Table 5.2-4. Recommended Plan Costs by Decade for Highland Park WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(82)*	*(95)*	*(102)*	*(108)*	*(112)*	*(116)*
Conservation						
Supply From Plan Element (acft/yr)	0	16	31	47	61	75
Annual Cost ($/yr)	$0	$9,000	$17,000	$26,000	$34,000	$42,000
Projected Surplus/(Shortage) after Conservation	*(82)*	*(80)*	*(71)*	*(61)*	*(51)*	*(41)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	82	82	82	82	82	82
Annual Cost ($/yr)	$159,000	$159,000	$30,000	$30,000	$30,000	$30,000
Unit Cost ($/acft)	$1,939	$1,939	$366	$366	$366	$366

5.2.4 City of Meridian

Description of Supply

The City of Meridian obtains its water supply from groundwater from the Trinity Aquifer and has a contract to purchase treated water from the City of Clifton. No shortages are projected for the City of Meridian.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet any unforeseen water needs that may arise. Associated costs are included for each strategy. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Bosque County Regional Project – includes expansion of the Clifton OCR and WTP

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $6,407,000 for the City's portion
- Unit Cost: $2,665/acft

Table 5.2-5. Recommended Plan Costs by Decade for City of Meridian

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/ (Shortage) (acft/yr)	*252*	*240*	*228*	*208*	*187*	*167*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*252*	*240*	*228*	*208*	*187*	*167*
Bosque County Regional Project						
Supply From Plan Element (acft/yr)	—	224	224	224	224	224
Annual Cost ($/yr)	—	$597,000	$597,000	$298,000	$197,000	$197,000
Unit Cost ($/acft)	—	$2,665	$2,665	$1,221	$879	$879

5.2.5 Mustang Valley WSC

Description of Supply

The Mustang Valley WSC service area is primarily in Bosque County but also serves a small portion of Coryell County. The WSC obtains all of its water supply from Trinity Aquifer groundwater. Based on the groundwater supply available, the City of Valley Mills is projected to have a shortage beginning in year 2030 and increasing throughout the planning period. The surplus/shortages shown in Table 5.2-6 represent the cumulative totals for Mustang Valley WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, conservation is the recommended water management strategy to meet water needs for Mustang Valley WSC. Associated costs are included below. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $78,318 in 2070; Unit Cost of $560/acft

Table 5.2-6. Recommended Plan Costs by Decade for Mustang Valley WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*19*	*(14)*	*(30)*	*(39)*	*(47)*	*(52)*
Conservation						
Supply From Plan Element (acft/yr)	0	38	79	120	137	138
Annual Cost ($/yr)	$0	$21,280	$44,240	$67,200	$76,720	$77,280
Projected Surplus/(Shortage) after Conservation	*19*	*24*	*49*	*81*	*90*	*86*

5.2.6 Smith Bend WSC

Description of Supply

Smith Bend WSC obtains all of its water supply from Trinity Aquifer groundwater. No shortages are projected for the WSC throughout the planning period and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.2.7 City of Valley Mills

Description of Supply

The City of Valley Mills service area is primarily in Bosque County but also serves a small portion of McLennan County. The City obtains all of its water supply from groundwater from the Trinity Aquifer. No shortages are projected for the City of Valley Mills throughout the planning period. The surpluses shown in Table 5.2-7 represent the cumulative totals for the City of Valley Mills (including Bosque and McLennan Counties).

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to improve the City's water system reliability. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $27,173 in 2070; Unit Cost of $560/acft

b. Bosque County Regional Project

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost:$7,923,000 for the City's portion
- Unit Cost: $3,753/acft

Table 5.2-7. Recommended Plan Costs by Decade for City of Valley Mills

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*57*	*37*	*28*	*21*	*16*	*11*
Conservation						
Supply From Plan Element (acft/yr)	0	21	43	46	46	47
Annual Cost ($/yr)	$0	$12,000	$24,000	$26,000	$26,000	$26,000
Projected Surplus/(Shortage) after Conservation	*57*	*58*	*71*	*67*	*62*	*58*
Bosque County Regional Project						
Supply From Plan Element (acft/yr)		182	182	182	182	182
Annual Cost ($/yr)		$683,000	$683,000	$313,000	$188,000	$188,000
Unit Cost ($/acft)		$3,753	$3,753	$1,720	$1,033	$1,033

5.2.8 County-Other

Description of Supply

Bosque County-Other entities obtain water supply from groundwater from the Trinity Aquifer. No shortages are projected for County-Other throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the Bosque County Regional Project is the recommended water management strategy to improve County-Other water system reliability. Associated costs are included below. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Bosque County Regional Project

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $5,573,000 for the County-Other portion
- Unit Cost: $6,984/acft

Table 5.2-8. Recommended Plan Costs by Decade for County-Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*117*	*61*	*39*	*30*	*26*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*117*	*61*	*39*	*30*	*26*	*0*
Bosque County Regional Project						
Supply From Plan Element (acft/yr)		64	64	64	64	64
Annual Cost ($/yr)		$447,000	$447,000	$187,000	$99,000	$99,000
Unit Cost ($/acft)		$6,984	$6,984	$2,922	$1,547	$1,547

5.2.9 Manufacturing

Water supply for manufacturing in Bosque County is obtained by purchase from a city or water supply corporation, from private wells operated by the manufacturing entity, or by limited surface water supplies. Childress Creek WSC, the City of Clifton, and the City of Hamilton sell groundwater to Bosque County manufacturing entities. No shortages are projected for manufacturing in Bosque County and no changes in water supply are recommended.

5.2.10 Steam-Electric

The water supply for Steam-Electric use in Bosque County consists of surface water contracts with the Brazos River Authority. No shortages are projected for Steam-Electric from the year 2020 through 2070 and no changes in water supply are recommended.

5.2.11 Mining

Description of Supply

Mining operations in Bosque County are supplied by Trinity Groundwater. Shortages are projected for Bosque County-Mining beginning in 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Bosque County-Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Annual Cost: not determined

b. Leave Needs Unmet

- Cost Source: Cost of not meeting needs – see Appendix G
- Date to be Implemented: before 2030

Table 5.2-9. Recommended Plan Costs by Decade for Bosque County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(806)*	*(905)*	*(726)*	*(706)*	*(667)*	*(655)*
Conservation						
Supply From Plan Element (acft/yr)	59	104	132	131	128	127
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(747)*	*(801)*	*(594)*	*(575)*	*(539)*	*(528)*
Purchase Supply from BRA						
Supply From Plan Element (acft/yr)	387	387	387	387	387	387
Annual Cost ($/yr)	$29,000	$29,000	$29,000	$29,000	$29,000	$29,000
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76
Leave Needs Unmet (acft/yr)	*(360)*	*(414)*	*(207)*	*(188)*	*(152)*	*(141)*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.2.12 Irrigation

Description of Supply

Bosque County Irrigation is supplied by Trinity Groundwater and run of the river water rights. Irrigation is projected to have shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Bosque County-Irrigation. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $242,829; Unit Cost: $970/acft

b. Groundwater Development – Trinity Aquifer

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Project Cost: $2,473,000
- Unit Cost: $195

Table 5.2-10. Recommended Plan Costs by Decade for Bosque County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,366)*	*(1,366)*	*(1,366)*	*(1,366)*	*(1,366)*	*(1,366)*
Conservation						
Supply From Plan Element (acft/yr)	107	179	250	250	250	250
Annual Cost ($/yr)	$104,000	$174,000	$243,000	$243,000	$243,000	$243,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1,259)*	*(1,187)*	*(1,116)*	*(1,116)*	*(1,116)*	*(1,116)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	1,259	1,259	1,259	1,259	1,259	1,259
Annual Cost ($/yr)	$245,000	$245,000	$55,000	$55,000	$55,000	$55,000
Unit Cost ($/acft)	$195	$195	$57	$57	$57	$57

5.2.13 Livestock

Livestock demand is met by local water supply and is projected to meet needs through 2070. No changes in Bosque County Livestock water supply are recommended.

5.3 Brazos County Water Supply Plan

Table 5.3-1 lists each water user group in Brazos County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.3-1. Brazos County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Bryan	(4,578)	(19,650)	Projected shortage - see plan below.
City of College Station	(8,874)	(13,360)	Projected shortage - see plan below.
Texas A&M University	104	124	Projected shortage - see plan below.
Wellborn SUD	1,785	(434)	Projected shortage - see plan below.
Wickson Creek SUD	1,201	64	Projected surplus
County-Other	40	46	Projected surplus
Manufacturing	1,078	1,078	Projected surplus
Steam-Electric	20	20	Projected shortage in 2020 – see plan below.
Mining	207	826	Projected surplus
Irrigation	6,336	6,336	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.3.1 City of Bryan

Description of Supply

The City of Bryan obtains its water supply from groundwater from the Carrizo-Wilcox and Sparta Aquifers. The city also provides water supply for Brazos County Manufacturing, Brazos County Steam-Electric, Wellborn SUD, and Wickson Creek SUD. Shortages are projected beginning in year 2030 for the City of Bryan.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of Bryan. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030

- Annual Cost: maximum of $1,393,972 in 2070
- Unit Cost: $560/acft

b. Wellfield Expansion in Brazos County – Carrizo-Wilcox Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $34,718,000
   - Unit Cost: $471/acft

c. Bryan ASR – Carrizo-Wilcox Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $72,404,000
   - Unit Cost: $445/acft

d. Direct Non-Potable Reuse – Option 1
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $11,092,000
   - Unit Cost: $2,450/acft

e. Alternative: Indirect Potable Reuse – Option 2
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $41,105,000
   - Unit Cost: $2,439/acft

f. Alternative: Wellfield Expansion in Robertson County – Carrizo-Wilcox Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $51,281,000
   - Unit Cost: $523/acft

Table 5.3-2. Recommended Plan Costs by Decade for City of Bryan

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*215*	*(1,896)*	*(4,578)*	*(8,034)*	*(12,323)*	*(19,650)*
Conservation						
Supply From Plan Element (acft/yr)	0	1,311	1,606	1,719	1,988	2,489
Annual Cost ($/yr)	$0	$734,000	$899,000	$963,000	$1,113,000	$1,394,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*215*	*(585)*	*(2,972)*	*(6,315)*	*(10,335)*	*(17,161)*
Wellfield Expansion in Brazos County – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	–	7,501	7,501	7,501	7,501	7,501
Annual Cost ($/yr)	–	$3,536,000	$3,536,000	$1,093,000	$1,093,000	$1,093,000
Unit Cost ($/acft)	–	$471	$471	$146	$146	$146
Bryan ASR – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	–	6,000	6,000	6,000	8,500	10,500
Annual Cost ($/yr)	–	$6,515,000	$6,515,000	$1,421,000	$1,421,000	$1,421,000
Unit Cost ($/acft)	–	$445	$445	$97	$97	$97
Indirect Potable Reuse – Option 2						
Supply From Plan Element (acft/yr)	–	2,419	2,419	2,419	2,419	2,419
Annual Cost ($/yr)	–	$5,899,000	$5,899,000	$3,007,000	$3,007,000	$3,007,000
Unit Cost ($/acft)	–	$2,439	$2,439	$1,243	$1,243	$1,243
Alternative: Wellfield Expansion in Robertson County – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	–	9,973	9,973	9,973	9,973	9,973
Annual Cost ($/yr)	–	$5,217,000	$5,217,000	$1,609,000	$1,609,000	$1,609,000
Unit Cost ($/acft)	–	$523	$523	$161	$161	$161

5.3.2 City of College Station

Description of Supply

The City of College Station obtains its water supply from groundwater from the Carrizo-Wilcox and Sparta Aquifers. The city provides water supply for Brazos County Manufacturing. Shortages are projected beginning in year 2030 for the City of College Station.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of College Station. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd. This goal is reached after 2030.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: $131,155
- Unit Cost: $560/acft

b. College Station ASR

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $86,514,000
- Unit Cost: $3,216/acft

c. Groundwater Development – Carrizo-Wilcox Aquifer

- Cost Source: Volume II
- Date to be Implemented: by 2040
- Project Cost: $43,914,000
- Unit Cost: $513/acft

d. Direct Potable Reuse

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $84,177,000
- Unit Cost: $1,325

Table 5.3-3. Recommended Plan Costs by Decade for City of College Station

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*413*	*(3,492)*	*(8,874)*	*(13,436)*	*(13,379)*	*(13,360)*
Conservation						
Supply From Plan Element (acft/yr)	–	234	–	–	–	–
Annual Cost ($/yr)	–	$131,000	–	–	–	–

Table 5.3-3. Recommended Plan Costs by Decade for City of College Station

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*413*	*(3,258)*	*(8,874)*	*(13,436)*	*(13,379)*	*(13,360)*
College Station ASR						
Supply From Plan Element (acft/yr)	–	3,640	3,640	3,640	3,640	3,640
Annual Cost ($/yr)	–	$11,705,000	$11,705,000	$5,618,000	$5,618,000	$4,222,000
Unit Cost ($/acft)	–	$3,216	$3,216	$1,543	$1,543	$1,160
Groundwater Development: Carrizo-Wilcox						
Supply From Plan Element (acft/yr)	–	–	5,234	9,695	9,796	9,796
Annual Cost ($/yr)	–	–	$5,030,000	$4,974,000	$1,940,000	$1,940,000
Unit Cost ($/acft)	–	–	$961	$513	$198	$198
Direct Potable Reuse						
Supply From Plan Element (acft/yr)	–	8,232	8,232	8,232	8,232	8,232
Annual Cost ($/yr)	–	$10,909,000	$10,909,000	$4,986,000	$4,986,000	$4,986,000
Unit Cost ($/acft)	–	$1,325	$1,325	$606	$606	$606

5.3.3 Texas A&M University

Description of Supply

Texas A&M University obtains its water supply from groundwater from the Sparta and Carrizo-Wilcox Aquifers. A shortage is projected only for 2020. This need will remain unmet in the plan. Needs remain unmet in 2020. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a supply shortage prior to the recommended water management strategies coming online.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Texas A&M University. Associated costs are included. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum of $1,352,435 in 2070
- Unit Cost: $560/acft

b. Groundwater Development - Sparta Aquifer

- Cost Source: Volume II
- Date to be Implemented: by 2040
- Project Cost: $4,931,000
- Unit Cost: $768/acft

Table 5.3-4. Recommended Plan Costs by Decade for Texas A&M University

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(99)*	*43*	*104*	*120*	*124*	*124*
Conservation						
Supply From Plan Element (acft/yr)	0	560	1,072	1,557	2,006	2,415
Annual Cost ($/yr)	$0	$314,000	$600,000	$872,000	$1,123,000	$1,352,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(99)*	*603*	*1,176*	*1,677*	*2,130*	*2,539*
Groundwater Development – Sparta Aquifer						
Supply From Plan Element (acft/yr)	–	–	638	638	638	638
Annual Cost ($/yr)	–	–	$490,000	$490,000	$143,000	$143,000
Unit Cost ($/acft)	–	–	$768	$768	$224	$224

5.3.4 Wellborn SUD

Description of Supply

Wellborn SUD is located in Brazos and Robertson counties and currently obtains water from the Carrizo-Wilcox Aquifer and through contracts with BRA and the City of Bryan. Wellborn SUD has sufficient supplies but is constrained by its treatment plant capacity resulting in a shortage beginning in 2070. With advanced conservation, however, the projected shortage can be met.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for Wellborn SUD. Associated costs are included. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: $420,440 in 2070
- Unit Cost: $560/acft

Table 5.3-5. Recommended Plan Costs by Decade for Wellborn SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*3,883*	*2,351*	*1,785*	*1,121*	*358*	*(434)*
Conservation						
Supply From Plan Element (acft/yr)	0	424	591	622	683	751
Annual Cost ($/yr)	—	$237,000	$331,000	$348,000	$382,000	$421,000
Projected Surplus/ (Shortage) after Conservation (acft/yr)	*3,883*	*2,351*	*1,785*	*1,121*	*358*	*317*

5.3.5 Wickson Creek SUD

Wickson Creek SUD is located in multiple counties (Grimes, Robertson, and Brazos). The balances shown in Table 5.3-1 represent the cumulative totals for Wickson Creek SUD. Supplies are obtained from the Sparta, Carrizo, and Yegua-Jackson Aquifers and is purchased from the City of Bryan. The entity also provides supply to Brazos and Grimes County Manufacturing. No shortages are projected for Wickson Creek SUD and no change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.3.6 County-Other

Brazos County-Other entities obtain water supply from groundwater from the Carrizo and Queen City Aquifers. This supply is projected to be sufficient through the planning period and no change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.3.7 Manufacturing

Water supply for manufacturing in Brazos County is obtained from nearby WUGs and wells within the Carrizo and Sparta Aquifers. Manufacturing is projected to have a surplus in water supply through the planning period.

5.3.8 Steam-Electric

Description of Supply

Supplies for Steam-Electric demand in Brazos County are obtained through groundwater from the Sparta and the Carrizo Aquifers and from Bryan Utilities Lake. Brazos County Steam-Electric is projected to have a shortage in year 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Brazos County Steam-Electric.

Leave Needs Unmet:

- Cost Source: Cost of not meeting needs – see Appendix G
- Date to be Implemented: 2020

Table 5.3-6. Recommended Plan Costs by Decade for Brazos County – Steam-Electric

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1)*	*18*	*20*	*20*	*20*	*20*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1)*	*18*	*20*	*20*	*20*	*20*
Leave Needs Unmet (acft/yr)	*(1)*	—	—	—	—	—

5.3.9 Mining

Description of Supply

Brazos County Mining operations obtain supply from the Yergua-Jackson Aquifer and are projected to have a surplus throughout the planning period.

5.3.10 Irrigation

Description of Supply

Brazos County Irrigation is supplied by Sparta, Carrizo, Yegua-Jackson, and Brazos River Alluvium groundwater and from run-of-river diversion rights from the Brazos River and contracts with BRA. Surpluses of over 6,000 acft/yr are projected for irrigation beginning in year 2020.

Table 5.3-7. Recommended Plan Costs by Decade for Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	6,258	6,328	6,336	6,336	6,336	6,336
BRA System Operation Surplus						
Supply From Plan Element (acft/yr)	348	348	348	348	348	348
Annual Cost ($/yr)	$26,448	$26,448	$26,448	$26,448	$26,448	$26,448
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76

5.3.11 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.4 Burleson County Water Supply Plan

Table 5.4-1 lists each water user group in Burleson County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the water users are presented in the following subsections.

Table 5.4-1. Burleson County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Caldwell	1,204	1,168	Projected surplus
Deanville WSC	226	218	Projected surplus
Milano WSC			See Milam County
City of Snook	180	149	Projected surplus
City of Somerville	576	479	Projected surplus
Southwest Milam WSC			See Milam County
County-Other	95	2	Projected surplus
Manufacturing	(6)	(6)	Projected shortage - see plan below.
Steam-Electric	0	0	No projected demand
Mining	506	1,590	Projected surplus
Irrigation	(347)	(347)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.4.1 City of Caldwell

Description of Supply

The City of Caldwell obtains its water supply from groundwater from the Carrizo-Wilcox Aquifer. The supply is projected to be sufficient through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management plan is recommended for the City of Caldwell. Associated costs are included. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum of $137,650 in 2070
- Unit Cost: $560/acft

Table 5.4-2. Recommended Plan Costs by Decade for City of Caldwell

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	1,249	1,233	1,204	1,204	1,185	1,168
Conservation						
Supply From Plan Element (acft/yr)	0	83	167	239	242	246
Annual Cost ($/yr)	$0	$46,000	$94,000	$134,000	$136,000	$138,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	1,249	1,233	1,204	1,204	1,185	1,168

5.4.2 Deanville WSC

The Deanville WSC obtains its water supply from groundwater from the Carrizo-Wilcox Aquifer. Water supply is projected to be sufficient through the planning period and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.4.3 City of Snook

Description of Supply

The City of Snook obtains its water supply from groundwater from the Sparta Aquifer. No shortages are projected through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management plan is recommended for the City of Snook. Associated costs are included. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum of $72,274 in 2070
- Unit Cost: $560/acft

Table 5.4-3. Recommended Plan Costs by Decade for City of Snook

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*206*	*189*	*180*	*167*	*157*	*149*
Conservation						
Supply From Plan Element (acft/yr)	0	25	50	78	104	129
Annual Cost ($/yr)	$0	$14,000	$28,000	$44,000	$58,000	$72,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*206*	*189*	*180*	*167*	*157*	*149*

5.4.4 City of Somerville

Description of Supply

The City of Somerville obtains its water supply from groundwater from the Sparta Aquifer. Water supply is projected to be sufficient through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management plan is recommended for the City of Somerville. Associated costs are included. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: $17,144 in 2070
- Unit Cost: $560/acft

Table 5.4-4. Recommended Plan Costs by Decade for City of Somerville

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*618*	*599*	*576*	*545*	*513*	*479*
Conservation						
Supply From Plan Element (acft/yr)	0	20	25	27	29	31
Annual Cost ($/yr)	$0	$11,000	$14,000	$15,000	$16,000	$17,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*618*	*599*	*576*	*545*	*513*	*479*

5.4.5 County-Other

Burleson County-Other entities obtain water supply from groundwater from the Queen City and Carrizo-Wilcox Aquifers. The supply is projected to be sufficient through the planning period and no change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.4.6 Manufacturing

Description of Supply

Water supply for manufacturing in Burleson County is obtained from Sparta wells operated by the various manufacturing entities. Manufacturing is projected to have a shortage of water beginning in the year 2020 and continuing through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management plan is recommended to meet the entity's water needs. Associated costs are included. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Groundwater Development – Sparta Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $233,000
   - Unit Cost: $760/acft

c. Alternative: Leave Needs Unmet in 2020
   - Cost Source: Cost of not meeting needs – see Appendix G
   - Date to be Implemented: 2020

Table 5.4-5. Recommended Plan Costs by Decade for Burleson County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(6)*	*(6)*	*(6)*	*(6)*	*(6)*	*(6)*
Conservation						
Supply From Plan Element (acft/yr)	4	6	8	8	8	8
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND

Table 5.4-5. Recommended Plan Costs by Decade for Burleson County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(2)*	*—*	*2*	*2*	*2*	*2*
Groundwater Development – Sparta Aquifer						
Supply From Plan Element (acft/yr)	25	25	25	25	25	25
Annual Cost ($/yr)	$18,000	$18,000	$2,000	$5,000	$5,000	$5,000
Unit Cost ($/acft)	$760	$760	$120	$120	$120	$120
Alternative: Leave Needs Unmet (acft/yr)	*(2)*					

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.4.7 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.4.8 Mining

Burleson County Mining is supplied by Yegua-Jackson groundwater. No shortages are projected for Mining and no changes in water supply are recommended.

5.4.9 Irrigation

Description of Supply

Water supply for irrigation in Burleson County is obtained from the Carrizo-Wilcox, Yegua-Jackson, and Brazos River Alluvium Aquifers. Irrigation is projected to have a shortage of water beginning in the year 2020 and continuing through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Irrigation. Associated costs are included. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $2,957,804
- Unit Cost: $1,576

Table 5.4-6. Recommended Plan Costs by Decade for Burleson County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(347)*	*(347)*	*(347)*	*(347)*	*(347)*	*(347)*
Conservation						
Supply From Plan Element (acft/yr)	804	1,340	1,876	1,876	1,876	1,876
Annual Cost ($/yr)	$1,267,000	$2,112,000	$2,957,000	$2,957,000	$2,957,000	$2,957,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*457*	*993*	*1,529*	*1,529*	*1,529*	*1,529*

5.4.10 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.5 Callahan County Water Supply Plan

Table 5.5-1 lists each water user group in Callahan County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.5-1. Callahan County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Baird	(150)	(164)	Projected shortage - see plan below.
Callahan County WSC	0	0	No projected surplus or shortage
City of Clyde	91	85	Projected surplus - see plan below.
Coleman County SUD	(15)	(15)	Projected shortage - see plan below.
City of Cross Plains	107	101	Projected surplus - see plan below.
Eula WSC	96	88	Projected surplus - see plan below.
Hamby WSC			See Jones County
Potosi WSC			See Taylor County
County-Other	24	17	Projected surplus
Steam-Electric	–	–	No demand projected
Manufacturing	–	–	No demand projected
Mining	(134)	(100)	Projected shortage - see plan below.
Irrigation	291	287	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.5.1 City of Baird

Description of Supply

The City of Baird obtains its water supply from surface water supplied from Lake Baird and from the City of Abilene. From 2020 through 2070, the City's contractual purchase from the City of Abilene is 77 acft/yr and the total amount of surface water availability from Lake Baird ranges from 25 to 0 in 2020 to 2070, respectively. Supplies are not sufficient to meet demands through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the City of Baird. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $1,694/acft ($5.20/1,000 gal)

Table 5.5-2. Recommended Plan Costs by Decade for the City of Baird

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(155)*	*(152)*	*(150)*	*(154)*	*(159)*	*(164)*
Conservation						
Supply from Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(155)*	*(152)*	*(150)*	*(154)*	*(159)*	*(164)*
Purchase Additional Supplies from City of Abilene						
Supply from Plan Element (acft/yr)	155	152	150	154	159	164
Annual Cost ($/yr)	$262,570	$257,488	$254,100	$260,876	$269,346	$277,816
Unit Cost ($/acft)	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694

5.5.2 Callahan County WSC

Callahan County WSC obtains its water supply from a contract with Clyde. Supplies are sufficient to meet demands through 2070. Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.5.3 City of Clyde

The City of Clyde uses surface water from Clyde Lake which is projected to supply 500 acft/yr from 2020 through 2070. Clyde also has a contractual purchase plan of 307 acft/yr from the City of Abilene that can cover the city's projected demands. No current or future shortages are projected. Clyde also has contractual sales to Eula WSC of 221 acft/yr through 2070 and Callahan County WSC from 184 to 188 acft/yr from 2020 to 2070, respectively. Clyde has recently acquired a 2,500 acft/yr water right for supplies from Fort Phantom Hill Reservoir; however, the full amount of the water right is not firm and supply will be less than 2,500 acft/yr. In addition, this supply cannot be applied until infrastructure is in place to deliver and treat the water.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the City of Clyde. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Additional Supply from Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $1,694/acft ($5.20/1,000 gal)

Table 5.5-3. Recommended Plan Costs by Decade for the City of Clyde

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(214)*	*(220)*	91	93	88	85
Conservation						
Supply from Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(214)*	*(220)*	91	93	88	85
BRA System Operations						
Supply from Plan Element (acft/yr)	214	220	–	–	–	–
Annual Cost ($/yr)	$363,000	$373,000	–	–	–	–
Unit Cost ($/acft)	$1,694	$1,694	–	–	–	–

5.5.4 Coleman County SUD

Description of Supply

Coleman County SUD obtains its water supply from the Lake Brownwood (sales from Brookesmith SUD from BCWID #1) and Lake Coleman and Hords Creek Lake (which have no supply under WAM Run 3) in Region F. These supplies become available under the subordination WMS for each lake and Coleman County SUD has no remaining needs. These supplies and WMS volumes are also in the database. Shortages are projected beginning in 2020. This WUG is located in multiple counties (Callahan and Taylor and others outside of Region G (Brown, Coleman, and Runnels)). The values shown in the table below represent the cumulative totals for Coleman County WSC in these two counties.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region F, the following water supply plan is recommended for Coleman County SUD. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Subordination Lake Coleman (Region F):

- Cost Source: 2020 Region F Water Plan
- Date to be Implemented: 2030
- Total Project Cost: no cost
- Unit Cost: none

Table 5.5-4. Recommended Plan Costs by Decade for the Coleman County SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(15)*	*(15)*	*(15)*	*(15)*	*(15)*	*(15)*
Conservation						
Supply from Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(15)*	*(15)*	*(15)*	*(15)*	*(15)*	*(15)*
Subordination Lake Coleman (Region F)						
Supply from Plan Element (acft/yr)	15	15	15	15	15	15
Annual Cost ($/yr)	–	–	–	–	–	–
Unit Cost ($/acft)	–	–	–	–	–	–
Subordination Hords Creek Lake (Region F)						
Supply from Plan Element (acft/yr)	3	3	3	3	3	3
Annual Cost ($/yr)	–	–	–	–	–	–
Unit Cost ($/acft)	–	–	–	–	–	–

5.5.5 City of Cross Plains

Description of Supply

The City of Cross Plains uses locally available groundwater from the Trinity Aquifer at 310 acft/yr. The city is projected to have sufficient supplies through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the City of Cross Plains. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $5,387in 2020
- Unit Cost: $560/acft

Table 5.5-5. Recommended Plan Costs by Decade for the City of Cross Plains

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*117*	*110*	*107*	*105*	*102*	*101*
Conservation						
Supply from Plan Element (acft/yr)	0	10	6	4	5	4
Annual Cost ($/yr)	$0	$6,000	$3,000	$2,000	$3,000	$2,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*117*	*120*	*113*	*109*	*107*	*105*
Additional Demands from Recommended Strategies from Others						
Increase Contract Amount to Mining-Callahan (acft/yr)	27	34	23	15	7	0
Total Needs Including Recommended Strategies	*90*	*86*	*90*	*94*	*100*	*105*

5.5.6 EULA WSC

Description of Supply

The City of Cross Plains has a contract with Abilene for 61 acft/yr and Clyde for 221 acft/yr and a surplus is projected.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for EULA WSC. Associated costs are included for each strategy. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

Table 5.5-6. Recommended Plan Costs by Decade for EULA WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*114*	*102*	*96*	*92*	*90*	*88*
Conservation						
Supply from Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*114*	*102*	*96*	*92*	*90*	*88*
Additional Demands from Recommended Strategies from Others						
Increase Contract Amount to Mining-Callahan (acft/yr)	114	102	96	92	90	87
Total Needs Including Recommended Strategies	*0*	*0*	*0*	*0*	*0*	*1*

5.5.7 County-Other

The water supply entities comprising County-Other mostly rely on groundwater systems in the Trinity Aquifer show a projected surplus through the planning period. No changes in water supply are recommended for Callahan County-Other. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.5.8 Manufacturing

No Manufacturing demand exists or is projected for the county.

5.5.9 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.5.10 Mining

Description of Supply

Mining activities are projected to increase in Callahan County requiring local water management strategies to meet the projected water demand and shortages. Available Trinity Aquifer supplies at 80 acft/yr in Callahan County will also be used to meet the projected demands.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for Mining in Callahan County. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation:
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Purchase Water from EULA WSC:
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Project Cost: $11,058,000
   - Unit Cost: $6,617 acft/yr (with debit service)

c. Purchase Water from City of Cross Plains:
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Project Cost: $11,058,000
   - Unit Cost: $6,617 acft/yr (with debit service)

Table 5.5-7. Recommended Plan Costs by Decade for the Callahan County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(148)*	*(147)*	*(134)*	*(121)*	*(110)*	*(100)*
Conservation						
Supply from Plan Element (acft/yr)	7	11	15	14	13	13
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(141)*	*(136)*	*(119)*	*(107)*	*(97)*	*(87)*
Purchase Water from EULA WSC						
Supply from Plan Element (acft/yr)	114	102	96	92	90	87
Annual Cost ($/yr)	$754,338	$674,934	$105,504	$101,108	$98,910	$95,613
Unit Cost ($/acft)	$6,617	$6,617	$1,099	$1,099	$1,099	$1,099
Purchase Water from City of Cross Plains						
Supply from Plan Element (acft/yr)	27	34	23	15	7	0
Annual Cost ($/yr)	$178,659	$224,978	$25,277	$16,485	$7,693	$0
Unit Cost ($/acft)	$6,617	$6,617	$1,099	$1,099	$1,099	$1,099

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.5.11 Irrigation

Description of Supply

Irrigation activities are supplied from the local Trinity Aquifer. Conservation is not needed as there are projected surplus supplies to meet the demands.

5.5.12 Livestock

No Livestock shortage exists or is projected for the county.

5.6 Comanche County Water Supply Plan

Table 5.6-1 lists each water user group in Comanche County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.6-1. Comanche County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Comanche	173	140	Projected surplus
City of De Leon	94	81	Projected surplus
County-Other	(440)	(488)	Projected shortage - see plan below.
Manufacturing	4	4	Projected surplus
Steam-Electric	0	0	No demand projected
Mining	(151)	83	Projected shortage - see plan below.
Irrigation	(15,151)	(15,292)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.6.1 City of Comanche

The City of Comanche obtains its water supply through purchases of treated surface water under contract from the Upper Leon River Municipal Water District. The water supplied by the Upper Leon River Municipal Water District is diverted from Lake Proctor under contracts with the Brazos River Authority. The City of Comanche is projected to obtain up to 706 acft/yr of treated surface water supply from the Upper Leon River Municipal Water District through the planning period. The City of Comanche is also contracted to sell 20 acft/yr of treated surface water to Manufacturing entities in Comanche County. No shortage is projected for the City of Comanche and no changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.6.2 City of De Leon

The City of De Leon obtains its water supply through purchases of treated surface water under contract from the Upper Leon River Municipal Water District. The water supplied by the Upper Leon River Municipal Water District is diverted from Lake Proctor under contracts with the Brazos River Authority. The City of De Leon is projected to obtain up to 307 acft/yr of treated surface water supply from the Upper Leon River Municipal Water District through the planning period. No supply shortage is projected for the City of De Leon and no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.6.3 County-Other

Description of Supply

Entities comprising the Comanche County-Other WUG obtain their water supply primarily through groundwater production from the Trinity Aquifer. Additionally, Comanche County WSC purchases treated surface water under contract from the Upper Leon Municipal Water District. Shortages are projected for each decade within the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for County-Other. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd. Associated costs are included for each strategy.

a. Trinity Aquifer Development, Erath County

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $5,359,000
- Unit Cost: maximum of $1,008/acft

Table 5.6-2. Recommended Plan Costs by Decade for Comanche County-Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(454)*	*(449)*	*(440)*	*(449)*	*(468)*	*(488)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*(454)*	*(449)*	*(440)*	*(449)*	*(468)*	*(488)*
Groundwater Development – Trinity Aquifer (Erath County)						
Supply From Plan Element (acft/yr)	488	488	488	488	488	488
Annual Cost ($/yr)	$492,000	$492,000	$115,000	$115,000	$115,000	$115,000
Unit Cost ($/acft)	$1,008	$1,008	$236	$236	$236	$236

5.6.4 Manufacturing

Comanche County Manufacturing entities obtain water supply through purchases of treated surface water from the City of Comanche, which is projected to provide up to 20 acft/yr of supply during the planning period. Additionally, local groundwater production from the Trinity Aquifer is also used by Manufacturing entities in the county. No shortages are projected and no change in water supply is recommended.

5.6.5 Steam-Electric

There is no projected demand for Comanche County Steam-Electric.

5.6.6 Mining

Description of Supply

Mining operations in Comanche County are supplied through groundwater production from the Trinity Aquifer. Supply projections show water shortages occurring until 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Comanche County-Mining. Conservation is recommended. Associated costs are included for each strategy.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Trinity Aquifer Development, Erath County
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $2,223,000
   - Unit Cost: maximum of $639/acft

Table 5.6-3. Recommended Plan Costs by Decade for Comanche County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(232)*	*(314)*	*(151)*	*(65)*	*24*	*83*
Conservation						
Supply From Plan Element (acft/yr)	13	26	26	19	13	9
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(219)*	*(288)*	*(125)*	*(46)*	37	*92*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	288	288	288	288	288	288
Annual Cost ($/yr)	$184,000	$184,000	$28,000	$28,000	$28,000	$28,000
Unit Cost ($/acft)	$639	$639	$97	$97	$97	$97

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.6.7 Irrigation

Description of Supply

Comanche County Irrigation is supplied through groundwater production from the Trinity Aquifer and through purchases of raw surface water from the Brazos River Authority. Irrigation is projected to have shortages throughout the planning period. Comanche Irrigation has contracted for 6,652 acft/yr of surface water supplies from the Brazos River Authority, which can supply 5,529 acft/yr in 2020 and 5,347 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Comanche County-Irrigation. Conservation is recommended. Associated costs are included for each strategy.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $3,106,912
   - Unit Cost: $1,382/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Leave Needs Unmet:
   - Cost Source: Cost of not meeting needs – see Appendix G
   - Date to be Implemented: before 2030

Table 5.6-4. Recommended Plan Costs by Decade for Comanche County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(15,078)*	*(15,147)*	*(15,151)*	*(15,220)*	*(15,224)*	*(15,292)*
Conservation						
Supply From Plan Element (acft/yr)	964	1,606	2,248	2,248	2,248	2,248
Annual Cost ($/yr)	$1,332,000	$2,219,000	$3,107,000	$3,107,000	$3,107,000	$3,107,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(14,114)*	*(13,541)*	*(12,903)*	*(12,972)*	*(12,976)*	*(13,044)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	1,159	1,196	1,233	1,269	1,306
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Leave Needs Unmet (acft/yr)	*(12,991)*	*(12,382)*	*(11,707)*	*(11,739)*	*(11,707)*	*(11,738)*

5.6.8 Livestock

No shortages are projected for Comanche County Livestock and no changes in water supply are recommended.

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5.7 Coryell County Water Supply Plan

Table 5.7-1 lists each water user group in Coryell County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.7-1. Coryell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Central Texas College District	0	0	Projected surplus
City of Copperas Cove	3,473	(1,802)	Projected shortage - see plan below.
Coryell City Water Supply District	329	324	Projected surplus
Elm Creek WSC			See Bell County
Flat WSC	(23)	(62)	Projected shortage - see plan below.
Fort Gates WSC	(353)	(500)	Projected shortage - see plan below.
Fort Hood			See Bell County
City of Gatesville	(2,455)	(4,688)	Projected shortage - see plan below.
Kempner WSC			See Lampasas County
Mountain WSC	110	13	Projected surplus
Multi-County WSC	(91)	(174)	Projected shortage - see plan below.
Mustang Valley WSC			See Bosque County
City of Oglesby	148	129	Projected surplus
The Grove WSC			See Bell County
County-Other	(259)	(1,107)	Projected shortage - see plan below.
Manufacturing	0	0	No projected surplus or shortage
Steam-Electric	—	—	No projected demand
Mining	(296)	(242)	Projected shortage - see plan below.
Irrigation	736	736	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.7.1 Central Texas College District

Description of Supply

The service area for the Central Texas College District is within both Coryell and Bell Counties. The quantities shown in Table 5.7-1 represent the cumulative totals for the Central Texas College District as a whole. Surpluses are projected from 2030 to 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the Central Texas College District. Conservation is recommended to reduce usage to a goal of 140 gpcd.

Table 5.7-2. Recommended Plan Costs by Decade for the Central Texas College District

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	7	4	3	3	3
Annual Cost ($/yr)	—	$4,000	$2,000	$2,000	$2,000	$2,000
Projected Surplus/(Shortage) after Conservation	—	*7*	*4*	*3*	*3*	*3*

5.7.2 City of Copperas Cove

Description of Supply

The service area for the City of Copperas Cove is within both Coryell and Lampasas Counties. The quantity shown in Table 5.7-1 represents the cumulative totals for the City of Copperas Cove as a whole. The City obtains its water supply solely through purchases of treated surface water under contract from Bell County WCID No.1. Bell County WCID No. 1 is projected to provide up to the contracted 8,824 acft/yr of treated surface water sourced from Lake Belton to the City of Copperas Cove at the beginning of the planning period; however, this contracted supply is prorated in later years and will only provide 5,304 acft/yr of supply by 2070, based on water availability analyses prescribed under water planning guidelines. Shortages are projected to begin by 2060. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Copperas Cove.

a. Purchase Raw Water Supply from Fort Hood.
   - Cost Source: Volume II
   - Date to be Implemented: before 2060
   - Annual Cost: $1,255,445
   - Unit Cost: $100/acft

b. Firm Up BRA Supplies.
   - Cost Source: Volume II

- Date to be Implemented: before 2070
- Annual Cost: Costs borne by BRA
- Unit Cost: Costs borne by BRA

Table 5.7-3. Recommended Plan Costs by Decade for the City of Copperas Cove

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*4,388*	*3,973*	*3,473*	*2,992*	*(125)*	*(1,802)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*4,388*	*3,973*	*3,473*	*2,992*	*(125)*	*(1,802)*
Purchase Raw Water Supply from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	—	125	1,285
Annual Cost ($/yr)	—	—	—	—	$12,500	$128,500
Unit Cost ($/acft)	—	—	—	—	$100	$100
Firm Up BRA Supplies						
Supply From Plan Element (acft/yr)	—	—	—	—	—	517
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.7.3 Coryell City Water Supply District

Description of Supply

Coryell City Water Supply District obtains its water supply primarily though purchases of treated surface water under contract from the City of Gatesville; the supply available to the District under this contract is projected to range from 933 acft/yr to 1,542 acft/yr. The District also purchases raw surface water under contract from the Brazos River Authority in the amount of 300 actft/yr which is treated by the City of Gatesville. Coryell City Water Supply District has contracted for 300 acft/yr of surface water supplies from the Brazos River Authority, which can supply 249 acft/yr in 2020 and 241 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The remainder of the Distict's water supply is obtained through groundwater production from the Trinity Aquifer which is projected to provide 83 acft/yr of supply through the planning period. No shortages are projected for Coryell City Water Supply District and no changes in water supply are recommended. This WUG is located in Coryell and McLennan Counties. The quantity shown in Table 5.7-1 represents the cumulative totals for Coryell City Water Supply District.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the Coryell City Water Supply District. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II, Chapter 2
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $10,640 in 2030
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

Table 5.7-4. Recommended Plan Costs by Decade for Coryell City Water Supply District

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*332*	*331*	*329*	*327*	*326*	*324*
Conservation						
Supply From Plan Element (acft/yr)	—	19	8	—	—	—
Annual Cost ($/yr)	—	$10,640	$4,480	—	—	—
Projected Surplus/(Shortage) after Conservation	*332*	*350*	*337*	*327*	*326*	*324*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	*52*	*54*	*56*	*57*	*59*
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.7.4 Flat WSC

Description of Supply

Flat Creek WSC obtains its water supply solely through purchases of treated surface water under contract with the City of Gatesville, which is projected to supply up to 102 acft/yr through the planning period. Shortages are projected for Flat Creek WSC beginning in 2030.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Flat WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum of $22,240 in 2070
   - Unit Cost: $560/acft

b. Purchase Additional Water from Gatesville
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: N/A
   - Unit Cost: $1,309/acft

Table 5.7-5. Recommended Plan Costs by Decade for Flat WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2*	*(10)*	*(23)*	*(35)*	*(48)*	*(62)*
Conservation						
Supply From Plan Element (acft/yr)	—	9	20	32	36	40
Annual Cost ($/yr)	—	$5,040	$11,200	$17,920	$20,160	$22,400
Projected Surplus/(Shortage) after Conservation	*2*	*(1)*	*(3)*	*(3)*	*(12)*	*(22)*
Purchase Additional Water from Gatesville						
Supply From Plan Element (acft/yr)	—	*1*	*3*	*3*	*12*	*22*
Annual Cost ($/yr)	—	$1,309	$3,927	$3,927	$15,708	$28,798
Unit Cost ($/acft)	—	$1,309	$1,309	$1,309	$1,309	$1,309

5.7.5 Fort Gates WSC

Description of Supply

Fort Gates WSC obtains its water supply through purchases of treated surface water from the City of Gatesville, which is projected to supply 120 acft/yr during the planning period. The entity also has a contract for purchasing raw surface water from the Brazos River Authority; however, Fort Gates WSC does not have facilities necessary to treat this water. Fort Gates WSC has contracted for 200 acft/yr of surface water supplies from the Brazos River Authority, which can supply 166 acft/yr in 2020 and 161 acft/yr in 2070, based on

water availability analyses prescribed under water planning guidelines. Shortages are projected for the across the planning period for Fort Gates WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Flat WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: maximum of $61,600
    - Unit Cost: $560/acft
b. Firm Up BRA Little River Supplies
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: Costs borne by BRA
    - Unit Cost: Costs borne by BRA
c. Purchase Additional Diversion, Treatment, and Delivery of Supply from Gatesville. Strategy involves the City of Gatesville treating and delivering Fort Gates WSC's raw water supply under contract with the Brazos River Authority.
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: maximum of $234,400
    - Unit Cost: $1,172/acft
d. Purchase Additional Water from Gatesville. Strategy involves purchasing additional treated water supply.
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: maximum of $248,740
    - Unit Cost: $1,309/acft

Table 5.7-6. Recommended Plan Costs by Decade for Fort Gates WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(260)*	*(303)*	*(353)*	*(399)*	*(449)*	*(500)*
Conservation						
Supply From Plan Element (acft/yr)	—	33	73	93	101	110
Annual Cost ($/yr)	—	$18,480	$40,880	$52,080	$56,560	$61,600
Projected Surplus/(Shortage) after Conservation	*(260)*	*(270)*	*(280)*	*(306)*	*(348)*	*(390)*
Gatesville Treat and Deliver Existing Raw Supply (firmed up BRA supplies)						
Supply From Plan Element (acft/yr)		200	200	200	200	200
Annual Cost ($/yr)		$234,400	$234,400	$234,400	$234,400	$234,400
Unit Cost ($/acft)		$1,172	$1,172	$1,172	$1,172	$1,172
Purchase Additional Water from Gatesville (firmed up BRA supplies)						
Supply From Plan Element (acft/yr)		70	80	106	148	190
Annual Cost ($/yr)		$91,630	$104,720	$138,754	$193,732	$248,710
Unit Cost ($/acft)		$1,309	$1,309	$1,309	$1,309	$1,309

5.7.6 City of Gatesville

Description of Supply

The City of Gatesville obtains its water supply through purchases of raw water under contract from the Brazos River Authority. The City of Gatesville has contracted for 5,898 acft/yr of surface water supplies from the Brazos River Authority, which can supply 4,902 acft/yr in 2020 and 4,740 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The contracted supply volume is for 5,898 acft/yr; however, this contract is projected to be prorated and only provide a maximum of 4,902 acft/yr during the planning period. The City of Gatesville also provides treated surface water to a number of nearby WUGs through wholesale supply contracts.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Gatesville. Conservation is recommended to reduce usage to a goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $1,339,520 in 2070
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Water Treatment Plant Expansion
   - Cost Source: Volume II
   - Date to be Implemented: before 2030.
   - Project Cost: $9,577,000
   - Unit Cost: maximum of $979 acft/yr

d. Purchase Raw Water Supply from Multi-County WSC; supply would be provided out of the Coryell County OCR.
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $1,660,000
   - Unit Cost: $2,017/acft

Table 5.7-7. Recommended Plan Costs by Decade for the City of Gatesville

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,041)*	*(1,692)*	*(2,455)*	*(3,154)*	*(3,917)*	*(4,688)*
Conservation						
Supply From Plan Element (acft/yr)	—	384	852	1,386	1,988	2,392
Annual Cost ($/yr)	—	$215,040	$477,120	$776,160	$1,113,280	$1,339,520
Projected Surplus/(Shortage) after Conservation	*(1,041)*	*(1,308)*	*(1,603)*	*(1,768)*	*(1,929)*	*(2,296)*
Additional Demands from Recommended Strategies from Others						
Increase Contract to Flat WSC (acft/yr)	—	(1)	(3)	(3)	(12)	(22)
Increase Contract to Fort Gates WSC (acft/yr)	—	(270)	(280)	(306)	(348)	(390)

Table 5.7-7. Recommended Plan Costs by Decade for the City of Gatesville

Plan Element	2020	2030	2040	2050	2060	2070
Total Surplus/(Shortage) including Recommended Strategies	—	*(1,579)*	*(1,886)*	*(2,077)*	*(2,289)*	*(2,708)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	1,028	1,060	1,093	1,125	1,158
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Raw Water Supply from Multi-County WSC (Coryell County OCR)						
Supply From Plan Element (acft/yr)	—	550	823	981	1,152	1,528
Annual Cost ($/yr)	—	$1,109,000	$1,660,000	$1,019,000	$1,197,000	$680,000
Unit Cost ($/acft)	—	$2,017	$2,017	$1,039	$1,039	$445

5.7.7 Mountain WSC

Mountain WSC obtains its water supply through groundwater production from the Trinity Aquifer and through purchases of treated surface water under contract from the City of Gatesville which is projected to provide up to 280 acft/yr of supply. Available supply from the Trinity Aquifer is projected at 147 acft/yr. No shortages are projected for Mountain WSC and no changes to water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.7.8 Multi-County WSC

Description of Supply

Multi-County WSC obtains its water supply through purchases of treated surface water under contract from the City of Hamilton, which is projected to provide 245 acft/yr of supply through the planning period. This WUG is located in Coryell and Hamilton Counties. The quantity shown in Table 5.7-1 represents the cumulative totals for Multi-County WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the Multi-County WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. Local officials have requested that the Coryell County Off-Channel Reservoir be evaluated and recommended as a water management strategy to meet future needs in Coryell County. The project would likely be developed in cooperation with the Brazos River Authority. The Multi-County WSC has been identified as the current project sponsor.

a. Purchase additional water from City of Hamilton
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Unit Cost: $250/acft
   - Annual Cost: maximum of $41.750

b. Coryell County Off-Channel Reservoir
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Unit Cost: maximum of $2,017/acft
   - Annual Cost: maximum of $2,574,000

Table 5.7-8. Recommended Plan Costs by Decade for Multi-County WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(46)*	*(67)*	*(91)*	*(115)*	*(144)*	*(174)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*(46)*	*(67)*	*(91)*	*(115)*	*(144)*	*(174)*
Additional Demands from Recommended Strategies from Others						
Coryell County-Other (acft/yr)		*1,308*	*1,308*	*1,308*	*1,308*	*1,308*
Total Surplus/(Shortage) Including Recommended Strategies	(46)	(1,375)	(1,3994)	(1,423)	(1,452)	(1,482)
Purchase from City of Hamilton						
Supply From Plan Element (acft/yr)	146	167	91	115	144	174
Annual Cost ($/yr)	$36,500	$41,750	$22,750	$28,750	$36,000	$43,500
Unit Cost ($/acft)	$250	$250	$250	$250	$250	$250
Coryell County Off-Channel Reservoir						
Supply From Plan Element (acft/yr)	—	1,276	1,001	843	663	277
Annual Cost ($/yr)	—	$2,574,000	$2,019,000	$876,000	$689,000	$123,000
Unit Cost ($/acft)	—	$2,017	$2,017	$1,039	$1,039	$455

5.7.9 City of Oglesby

The City of Oglesby obtains its water supply solely through groundwater production from the Trinity Aquifer which is projected to provide 211 acft/yr of groundwater supply. No shortages are projected for the City during the planning period and no changes to water supply are recommended. Conservation was considered; however, the entity's usage is below the selected target rate of 140 gpcd.

5.7.10 County-Other

Description of Supply

Water supply for County-Other entities is obtained through groundwater production from the Trinity Aquifer, which is projected to provide 614 acft/yr of groundwater supply. Shortages for Coryell County-Other are projected to occur before 2040. Local officials have requested that the Coryell County Off-Channel Reservoir be evaluated and recommended as a water management strategy to meet future needs in Coryell County. The project would likely be developed in cooperation with the Brazos River Authority. The Multi-County WSC has been identified as the current project sponsor.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the entities in Coryell County-Other. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase from Multi-County WSC (Coryell County Off-Channel Reservoir)
    - Strategy to develop new raw supply, only. Delivery and treatment would be required when supplies are needed and location is known.
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: borne by Multi-County WSC
    - Unit Cost: maximum of $2,017 acft/yr

b. Groundwater Development – Trinity Aquifer
    - Cost Source: Volume II
    - Date to be Implemented: before 2040
    - Project Cost: $4,710,000
    - Unit Cost: maximum of $784/acft

Table 5.7-9. Recommended Plan Costs by Decade for Coryell County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*324*	*52*	*(259)*	*(525)*	*(815)*	*(1,107)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*324*	*52*	*(259)*	*(525)*	*(815)*	*(1,107)*
Purchase from Multi-County WSC (Coryell County Off-Channel Reservoir)						
Supply From Plan Element (acft/yr)	—	1,308	1,308	1,308	1,308	1,308
Annual Cost ($/yr)	—	$2,638,236	$2,638,236	$1,359,000	$1,359,000	$595140
Unit Cost ($/acft)	—	$2,017	$2,017	$1,039	$1,039	$455
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	—	—	259	525	815	1,107
Annual Cost ($/yr)	—	—	$203,000	$305,000	$407,000	$376,000
Unit Cost ($/acft)	—	—	$784	$581	$499	$340

5.7.11 Manufacturing

Coryell County Manufacturing obtains water supply through purchases of treated surface water under contract from the City of Gatesville. No shortage is projected and no changes in water supply are recommended.

5.7.12 Steam-Electric

Coryell County has no current or projected future demand for Steam-Electric; therefore, no recommendations have been made.

5.7.13 Mining

Description of Supply

Mining demand in Coryell County is projected to peak in 2020, and slowly decrease until 2070. Water supply to meet Mining demands is obtained solely through groundwater production from the Trinity Aquifer. Shortages are projected throughout the planning period.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Coryell

County-Mining. Conservation is recommended. Associated costs are included for each strategy.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: Not determined.

b. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $3,145,856
   - Unit Cost: maximum of $222/acft

Table 5.7-10. Recommended Plan Costs by Decade for Coryell County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,315)*	*(877)*	*(296)*	*(168)*	*(203)*	*(242)*
Conservation						
Supply From Plan Element (acft/yr)	45	54	34	25	28	31
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	(1,270)	*(823)*	*(262)*	*(143)*	*(175)*	*(211)*
Groundwater Development - Trinity						
Supply From Plan Element (acft/yr)	1,270	1,270	1,270	1,270	1,270	1,270
Annual Cost ($/yr)	$282,000	$282,000	$61,000	$61,000	$61,000	$61,000
Unit Cost ($/acft)	$222	$222	$48	$48	$48	$48

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.7.14 Irrigation

No shortages are projected for Coryell County Irrigation and no changes in water supply are recommended.

5.7.15 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.8 Eastland County Water Supply Plan

Table 5.8-1 lists each water user group in Eastland County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsection.

Table 5.8-1. Eastland County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Cisco	217	227	Projected surplus
City of Eastland	1,481	1,400	Projected surplus
Fort Griffin SUD			See Stephens County
City of Gorman	82	83	Projected surplus
City of Ranger	1,327	1,330	Projected surplus
City of Rising Star	76	78	Projected surplus
Staff WSC	104	107	Projected surplus
Stephens Regional SUD			See Stephens County
County-Other	32	44	Projected surplus
Manufacturing	42	42	Projected surplus
Steam-Electric	—	—	No projected demand
Mining	(686)	(189)	Projected shortage - see plan below.
Irrigation	79	66	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.8.1 City of Cisco

The City of Cisco obtains its water supply through diversions from Lake Cisco under a water right held by the City, which is projected to provide the City with up to 1,075 acft/yr of water supply. The City also provides sales of treated surface water to Eastland County-Other users. No shortages are projected for the City of Cisco and no changes in water supply are recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Cisco. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Unit Cost: $560/acft
- Annual Cost: maximum of $29,120

Table 5.8-2. Recommended Plan Costs by Decade for City of Cisco

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*199*	*202*	*217*	*225*	*227*	*227*
Conservation						
Supply From Plan Element (acft/yr)	—	52	52	44	42	42
Annual Cost ($/yr)	—	$29,120	$29,120	$24,640	$23,520	$23,520
Projected Surplus/(Shortage) after Conservation	*199*	*254*	*269*	*269*	*269*	*269*

5.8.2 City of Eastland

The City of Eastland obtains its water supply through purchases of treated surface water under contract with the Eastland County Water Supply District, which is projected to provide an annual supply beginning at 2,302 acft/yr at the beginning of the planning period and decreasing the 2,144 acft/yr at the end. The Eastland County Water Supply District sources raw surface water through diversions Lake Leon under a water right held by the water supply district. The City also provides sales of treated surface water under contract with Staff WSC, the City of Carbon, Westbound WSC, and Olden WSC; the latter three of entities are grouped in the County-Other WUG for Eastland County. No shortages are projected for the City of Eastland and no changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.8.3 City of Gorman

The City of Gorman obtains its water supply through purchases of treated surface water under contract from the Upper Leon River Municipal Water District, which is projected to provide up to 169 acft/yr of supply. The water supplied by the Upper Leon River Municipal Water District is diverted from Lake Proctor under contracts with the Brazos River Authority. No shortages are projected for the City of Gorman and no changes in water supply are recommended. Conservation was aslo considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.8.4 City of Ranger

The City of Ranger obtains its water supply through purchases of treated surface water from the Eastland County Water Supply District, which is projected to provide up to 2,025 acft/yr across the planning period. The Eastland County Water Supply District sources raw surface water through diversions Lake Leon under a water right held by the water supply district. The City also provides sales of treated surface water and groundwater to Staff WSC. No shortages are projected for the City of Ranger and no changes in water supply are recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Ranger. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $22,090

Table 5.8-3. Recommended Plan Costs by Decade for City of Ranger

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,314*	*1,317*	*1,327*	*1,329*	*1,330*	*1,330*
Conservation						
Supply From Plan Element (acft/yr)	—	33	40	38	37	37
Annual Cost ($/yr)	—	$18,480	$22,400	$21,280	$20,720	$20,720
Projected Surplus/(Shortage) after Conservation	*1,314*	*1,350*	*1,367*	*1,367*	*1,367*	*1,367*

5.8.5 City of Rising Star

The City of Rising Star obtains its water supply solely through groundwater production from the Trinity Aquifer, which is projected to provide up to 170 acft/yr of supply. No shortages are projected for the City of Rising Star and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.8.6 Staff WSC

Staff WSC obtains its water supply through purchases of treated surface water under contract with the City of Eastland, and purchases of treated surface and groundwater from the City of Ranger. Total supply purchases are projected to provide 262 acft/yr of supply to Staff WSC through the planning period. No shortages are projected for Staff WSC and no changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.8.7 County-Other

The entities comprising Eastland County-Other obtain water supply from multiple sources in the County. The City of Eastland sells treated surface water under contract to the City of Carbon, Westbound WSC, and Olden WSC; additionally, the City of Cisco also sells treated surface water to Westbound WSC. Entities comprising Eastland County-Other also rely on groundwater production from the Trinity Aquifer to meet demands. Water supply

contracts are projected to provide users Eastland County-Other users with up to 267 acft/yr of treated surface water while available groundwater supplies are projected at 203 acft/yr. No shortages are projected through the planning period and no changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.8.8 Manufacturing

Manufacturing in Eastland County is supplied with treated surface water from the Eastland County Water Supply District. The Eastland County Water Supply District sources raw surface water through diversions Lake Leon under a water right held by the water supply district. No water supply shortages are projected for Manufacturing in Eastland County and no change in water supply is recommended.

5.8.9 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.8.10 Mining

Description of Supply

Mining operations in Eastland County obtain water supply solely through groundwater production from the Trinity Aquifer. Current groundwater allocations in the county exceed the MAG supply and are not projected to be available for production in the future.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Eastland County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Groundwater Development – Trinity Aquifer (Erath County)
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $3,669,000
   - Unit Cost: maximum of $371/acft

Table 5.8-4. Recommended Plan Costs by Decade for Eastland County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(921)*	*(930)*	*(686)*	*(471)*	*(275)*	*(189)*
Conservation						
Supply From Plan Element (acft/yr)	35	59	65	50	36	30
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(886)*	*(871)*	*(621)*	*(421)*	*(239)*	*(159)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	886	886	886	886	886	886
Annual Cost ($/yr)	$329,000	$329,000	$71,000	$71,000	$71,000	$71,000
Unit Cost ($/acft)	$371	$371	$80	$80	$80	$80

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.8.11 Irrigation

Irrigation in Eastland County is supplied through groundwater production from the Trinity Aquifer. No supply shortages are projected throughout the planning period and no change in water supply is recommended.

5.8.12 Livestock

All of the livestock demand for Eastland County is met with local surface water supplies. No change in water supply is recommended.

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5.9 Erath County Water Supply Plan

Table 5.9-1 lists each water user group in Erath County and their corresponding surplus or shortage in years 2040 and 2070.

Table 5.9-1. Erath County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Dublin	73	24	Projected surplus
City of Gordon			See Palo Pinto County
City of Stephenville	2,553	1,933	Projected surplus
County-Other	310	(347)	Projected shortage - see plan below
Manufacturing	2	29	Projected shortage – see plan below
Steam-Electric	—	—	No projected demand
Mining	631	830	Projected surplus
Irrigation	360	360	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.9.1 City of Dublin

The City of Dublin obtains its water supply through purchases of treated surface water under contract from the Upper Leon River Municipal Water District. The water supplied by the Upper Leon River Municipal Water District is diverted from Lake Proctor under contracts with the Brazos River Authority. The City of Dublin is projected to obtain up to 598 acft/yr of treated surface water supply from the Upper Leon River Municipal Water District through the planning period. The City also provides sales of treated surface water to Manufacturing entities and entities comprising the County-Other WUG in Erath County. No shortages are projected for the City of Dublin and no change in water supply is recommended. Conservation was also considered; however, the City's usage is below the selected goal of 140 gpcd.

5.9.2 City of Stephenville

Description of Supply

The City of Stephenville obtains its water supply through groundwater production from the Trinity Aquifer and through purchases of treated surface water under contract with the Upper Leon River Municipal Water District. The Upper Leon River Municipal Water District has contracted with the Brazos River Authority for raw water supply from Lake Proctor. Treated water supply available under contract from the Upper Leon River Municipal Water District is projected at 1,862 acft/yr through the planning period while the groundwater supply available to the City is projected at 3,780 acft/yr. No supply shortages are projected for the City.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the City of Stephenville. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Trinity Aquifer Groundwater Development:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $7,344,000
- Unit Cost: maximum of $1,353/acft

Table 5.9-2. Recommended Plan Costs by Decade for City of Stephenville

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,954*	*2,740*	*2,553*	*2,353*	*2,139*	*1,933*
Conservation						
Supply from Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*2,954*	*2,740*	*2,553*	*2,353*	*2,139*	*1,933*
Additional Demands from Recommended Strategies from Others						
Increase Supply to Erath County-Manufacturing (acft/yr)	(1)	(2)	—	—	—	—
Total Needs Including Recommended Strategies (acft/yr)	*2,953*	*2,738*	*2,553*	*2,353*	*2,139*	*1,933*
Groundwater Development – Trinity Aquifer						
Supply from Plan Element (acft/yr)	484	414	484	484	484	484
Annual Cost ($/yr)	$655,000	$560,142	$138,000	$138,000	$138,000	$138,000
Unit Cost ($/acft)	$1,353	$1,353	$285	$285	$285	$285

5.9.3 County-Other

Description of Supply

The water supply entities comprising County-Other rely primarily on groundwater production from the Trinity Aquifer for water supply. Some treated surface water supplies are provided through the City of Dublin and City of Gordon. Available Trinity Aquifer groundwater supplies are projected at 3,211 acft/yr, while treated surface water is projected to provide an additional 122 acft/yr of supply. Supply shortages are projected for the entity beginning by 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the Erath County-Other. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Trinity Aquifer Groundwater Development:

- Cost Source: Volume II
- Date to be Implemented: before 2060
- Project Cost: $1,350,000
- Unit Cost: maximum of $438/acft

Table 5.9-3. Recommended Plan Costs by Decade for Erath County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*727*	*499*	*310*	*63*	*(148)*	*(347)*
Conservation						
Supply from Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*727*	*499*	*310*	*63*	*(148)*	*(347)*
Groundwater Development – Trinity Aquifer						
Supply from Plan Element (acft/yr)	—	—	—	—	347	347
Annual Cost ($/yr)	—	—	—	—	$152,000	$152,000
Unit Cost ($/acft)	—	—	—	—	$438	$438

5.9.4 Manufacturing

Description of Supply

Manufacturing water supply in Erath County is obtained from multiple sources including through local groundwater production from the Trinity Aquifer, purchases of treated surface from the City of Dublin and County-Other entities, and groundwater purchases from the City of Stephenville. Manufacturing is projected to have a supply shortage until 2040.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the Erath County-Other. Conservation is recommended. Associated costs are included for each strategy.

a. Conservation:
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Purchase additional groundwater supply from the City of Stephenville:
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $4,920/yr
   - Unit Cost: maximum of $2,460/acft

Table 5.9-4. Recommended Plan Costs by Decade for Erath County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(3)*	*(6)*	*2*	*9*	*18*	*29*
Conservation						
Supply from Plan Element (acft/yr)	2	4	6	6	6	6
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1)*	*(2)*	*8*	*15*	*24*	*35*
Purchase additional supply from City of Stephenville						
Supply from Plan Element (acft/yr)	1	2	—	—	—	—
Annual Cost ($/yr)	$2,460	$4,920	—	—	—	—
Unit Cost ($/acft)	$2,460	$2,460	—	—	—	—

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.9.5 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.9.6 Mining

Water supply for Mining in Erath County is obtained through groundwater production from the Trinity Aquifer. No water supply shortages are projected for Mining entities in the County through the planning period.

5.9.7 Irrigation

Irrigation in Erath County obtains water solely through local groundwater production from the Trinity Aquifer is projected to have a surplus of available water through the planning period. No change in water supply is recommended.

5.9.8 Livestock

Water supply for Livestock is obtained through local stock surface water impoundments. No shortages are projected for Livestock use and no changes in water supply are recommended.

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5.10 Falls County Water Supply Plan

Table 5.10-1 lists each water user group in Falls County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.10-1. Falls County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Bell-Milam WSC			See Bell County
City of Bruceville-Eddy			See McLennan County
Cego-Durango WSC	27	22	Projected surplus
East Bell County WSC			See Bell County
Little Elm Valley WSC			See Bell County
City of Marlin	899	839	Projected surplus
North Milam WSC			See Milam County
City of Rosebud	454	449	Projected surplus
West Brazos WSC	455	417	Projected surplus
County-Other	69	87	Projected surplus
Manufacturing	—	—	No projected demand
Steam-Electric	—	—	No projected demand
Mining	(161)	(233)	Projected shortage - see plan below.
Irrigation	1,382	1,382	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.10.1 Cego-Durango WSC

Cego-Durango WSC obtains its water supply solely through groundwater production from the Trinity Aquifer, which is projected to provide an available groundwater supply of 205 acft/yr through the planning period. No shortages are projected for Cego-Durango WSC through the planning period and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the Cego-Durango WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Annual Cost: maximum of $3,360 in 2030
- Unit Cost: $560/acft

Table 5.10-2. Recommended Plan Costs by Decade for Cego-Durango WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*29*	*25*	*27*	*32*	*27*	*22*
Conservation						
Supply From Plan Element (acft/yr)	—	6	3	2	1	1
Annual Cost ($/yr)	—	$3,360	$1,680	$1,120	$560	$560
Projected Surplus/(Shortage) after Conservation (acft/yr)	*29*	*31*	*30*	*34*	*28*	*23*

5.10.2 City of Marlin

Description of Supply

The City of Marlin obtains its water supply through raw water diversions from local reservoirs and the Brazos River under water rights held by the City. The City owns and operates two existing reservoirs – Marlin City Lake and New Marlin Reservoir – that impound runoff from Big Sandy Creek, The City also has contracted to purchase raw surface water from the Brazos River Authority. Surface water supplies available through diversions by the City are projected to provide up to 2,250 acft/yr of supply at the beginning of the planning period, then decreasing to 2,000 acft/yr at the end of the period. Purchases of raw surface water under contract with the Brazos River Authority is projected to provide a constant supply of 1,200 acft/yr through the planning period.

Water Supply Plan

The supplies projected are adequate to meet the City's water demand through 2070. Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the City of Marlin. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $408,800 in 2070
   - Unit Cost: $560/acft

b. Brushy Creek Reservoir
   - Cost Source: Volume II
   - Date to be Implemented: 2030

- Total Project Cost: $33,229,000
- Annual Cost: maximum of $2,493,000 (includes NRCS share of project)

Table 5.10-3. Recommended Plan Costs by Decade for the City of Marlin

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*951*	*892*	*899*	*950*	*896*	*839*
Conservation						
Supply From Plan Element (acft/yr)	—	151	296	432	583	730
Annual Cost ($/yr)	—	$84,560	$165,760	$241,920	$326,480	$408,800
Projected Surplus/(Shortage) after Conservation (acft/yr)	*951*	*1,043*	*1,195*	*1,382*	*1,479*	*1,569*
Brushy Creek Reservoir						
Supply From Plan Element (acft/yr)	—	—	2,000	2,000	2,000	2,000
Annual Cost ($/yr)	—	—	$2,493,000	$2,493,000	$2,493,000	$2,493,000
Unit Cost ($/acft)	—	—	$1,247	$1,247	$1,247	$1,247

5.10.3 City of Rosebud

The City of Rosebud obtains its water supply primarily through purchases of treated surface water under contract from Central Texas WSC, which treats and delivers water from Stillhouse Hollow Lake through purchases under contract with the Brazos River Authority. This supply contract is projected to provide up to 525 acft/yr of supply to the City. Additionally, the City of Rosebud also contracts directly with the Brazos River Authority for purchases of raw surface water which is projected to provide 100 acft/yr of supply. No shortages are projected for the City of Rosebud. And no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.10.4 West Brazos WSC

The service area for West Brazos WSC is located in multiple counties (McLennan and Falls) and obtains its water supply solely through groundwater production from the Trinity Aquifer. The values presented in Table 5.10-1 for West Brazos WSC represents the cumulative supply surplus for the WUG. Trinity Aquifer groundwater supply available to West Brazos WSC is projected at 815 to 817 acft/yr during the planning period. No supply shortages are projected through the planning period for West Brazos WSC and change in supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.10.5 County-Other

Entities comprising Falls County-Other obtain water supply through purchases of treated surface water from Central Texas WSC and through local groundwater production from

the Brazos River Alluvium and Carrizo-Wilcox Aquifers. Supply purchases from Central Texas WSC are projected to provide a total of 92 acft/yr through the planning period; available groundwater supply from the Brazos River Alluvium Aquifer are projected at 170 acft/yr and available supply from the Carrizo-Wilcox Aquifer is projected to range between 514 and 530 acft/yr. No supply shortages are projected during the planning period and no change in supply is recommended.

Description of Supply

Various entities are dealing with elevated levels of arsenic in groundwater supplies and have been pursuing water management strategies through the FHLM WSC. Through a TWDB sponsored study coordinated by FHLM WSC, these entities have considered a regional brackish RO WTP in Limestone County, Carrizo-Wilcox Regional Groundwater in Limestone County, Tehuacana Reservoir, and supplies from City of Marlin (Brushy Creek Reservoir), and City of Waco. The recommended strategy is to provide for arsenic treatment for individual entities. This strategy does not provide new supply. Surpluses are projected through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Falls County-Other. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Upgrade Treatment for Arsenic

Entities within County-Other for which Arsenic treatment is recommended include Moore WS.

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $255,000
- Unit Cost: maximum of $1,585/acft

Table 5.10-4. Recommended Plan Costs by Decade for the Falls County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*3*	*4*	*69*	*114*	*102*	*87*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*3*	*4*	*69*	*114*	*102*	*87*
Upgrade Treatment for Arsenic						

Table 5.10-4. Recommended Plan Costs by Decade for the Falls County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Supply From Plan Element (acft/yr)	53	53	53	53	53	53
Annual Cost ($/yr)	$84,000	$84,000	$66,000	$66,000	$66,000	$66,000
Unit Cost ($/acft)	$1,585	$1,585	$1,245	$1,245	$1,245	$1,245

5.10.6 Manufacturing

No Manufacturing demand exists or is projected for the county.

5.10.7 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.10.8 Mining

Description of Supply

Mining operations in Falls County obtain water supply solely through groundwater production from the Brazos River Alluvium Aquifer. Mining is projected to have a shortage of water through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Falls County Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: Not determined

b. Reallocation from Falls County – Irrigation:
   - Cost Source: Unknown – the exact location of the projected Mining demands in Falls County is unknown, but could logically be located near the supplies located in the county, and development of a cost is not feasible.
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

Table 5.10-5. Recommended Plan Costs by Decade for Falls County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage)	*(127)*	*(148)*	*(161)*	*(188)*	*(209)*	*(233)*
Conservation						
Supply from Plan Element (acft/yr)	7	12	18	20	21	23
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(120)*	*(136)*	*(143)*	*(168)*	*(188)*	*(210)*
Reallocation of Supplies from Falls County Irrigation						
Supply from Plan Element (acft/yr)	120	136	143	168	188	210
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Unit Cost ($/acft)	ND	ND	ND	ND	ND	ND

ND – Not determined. Costs to implement conservation technologies will vary based on each location and have not been determined.

5.10.9 Irrigation

Irrigation in Falls County obtains water supply through groundwater production from the Brazos River Alluvium. No supply shortages are projected for Irrigation through the planning period and no change in water supply is recommended.

Table 5.10-6. Recommended Plan Costs by Decade for Falls County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage)	1,382	1,382	1,382	1,382	1,382	1,382
BRA System Operation Surplus						
Supply from Plan Element (acft/yr)	309	309	309	309	309	309
Annual Cost ($/yr)	$23,484	$23,484	$23,484	$23,484	$23,484	$23,484
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76

5.10.10 Livestock

Livestock operations in Falls County obtain water supply through local stock surface water impoundments. No shortages are projected through the planning period and no change in water supply is recommended.

5.11 Fisher County Water Supply Plan

Table 5.11-1 lists each water user group in Fisher County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.11-1. Fisher County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Roby	34	34	Projected surplus - see plan below.
City of Rotan	(19)	(66)	Projected shortage - see plan below.
The Bitter Creek WSC			See Nolan County
County-Other	6	7	Projected surplus
Manufacturing	54	54	Projected surplus
Steam-Electric	–	–	No projected demand
Mining	(143)	(22)	Projected shortage - see plan below.
Irrigation	782	782	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.11.1 City of Roby

Description of Supply

Water supplies are obtained from the Seymour Aquifer at 34 ac-fr/yr and the City of Sweetwater from 124 acft/yr to 117 acft/yr from 2020 to 2070, respectively. No shortage is projected for the City of Roby throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Roby. The supplies projected are adequate to meet the City's water demand through 2070, although conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $8,152 in 2040
- Unit Cost: $560/acft

Table 5.11-2. Recommended Plan Costs by Decade for the City of Roby

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*34*	*34*	*34*	*34*	*34*	*34*
Conservation						
Supply From Plan Element (acft/yr)	0	9	15	13	13	13
Annual Cost ($/yr)	$0	$4,960	$8,152	$7,032	$7,032	$7,032
Projected Surplus/(Shortage) after Conservation (acft/yr)	*34*	*43*	*49*	*47*	*47*	*47*

5.11.2 City of Rotan

Description of Supply

The City of Rotan is currently purchasing water under contract from the City of Snyder from 73 acft/yr to 61 acft/yr in 2020 to 2070, respectively. The city also provides supply for manufacturing demand in Fisher County at 4 acft/yr. Shortages are projected by 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region F, the following water management strategies are recommended to meet water needs for the City of Rotan. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Water Supply from City of Snyder to meet Contract

- Cost Source: Costs applied to CRMWD to meet contracts (2020 Region F Water Supply Plan)
- Date to be Implemented: 2020
- Project Cost: none, existing infrastructure assumed sufficient
- Annual Cost: already contracted supplies

Table 5.11-3. Recommended Plan Costs by Decade for City of Rotan

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(38)*	*(19)*	*(19)*	*(36)*	*(52)*	*(66)*
Conservation						
Supply from Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(38)*	*(19)*	*(19)*	*(36)*	*(52)*	*(66)*
Water Supply from City of Snyder						
Supply from Plan Element (acft/yr)	38	19	19	36	52	66
Annual Cost ($/yr)	$0	$0	$0	$0	$0	$0
Unit Cost ($/acft)	$0	$0	$0	$0	$0	$0

5.11.3 County-Other

Entities in Fisher County-Other receive supplies from the Seymour Aquifer at 76 acft/yr and are projected to have a surplus of water through the year 2070. No changes in water supply are recommended. Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.11.4 Manufacturing

Description of Supply

Manufacturing obtains most of its supply from the Dockum Aquifer at 233 acft/yr in combination with minimal supplies from Hamlin at 2 acft/yr and Rotan at 4 acft/yr. Manufacturing is projected to have a surplus of water through the year 2070.

5.11.5 Steam-Electric

No Steam-Electric demand exists nor is projected for the county.

5.11.6 Mining

Description of Supply

Mining is projected to have a shortage of water through the year 2070. The main supply is from the Blaine Aquifer at 216 acft/yr.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected shortage of Fisher County Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: Costs to implement industrial conservation technologies will vary based on each location and have not been determined.

b. Groundwater Development – Blaine Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $511,000
   - Unit Cost: Max of $291 /acft (2020)

Table 5.11-4. Recommended Plan Costs by Decade for Fisher County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(191)*	*(186)*	*(143)*	*(97)*	*(57)*	*(22)*
Conservation						
Supply from Plan Element (acft/yr)	12	20	25	22	19	17
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(179)*	*(166)*	*(118)*	*(75)*	*(38)*	*(5)*
Groundwater Development – Blaine Aquifer						
Supply from Plan Element (acft/yr)	179	166	118	75	38	5
Annual Cost ($/yr)	$55,311	$51,294	$12,862	$8,175	$4,142	$545
Unit Cost ($/acft)	$309	$309	$109	$109	$109	$109

ND – Not Determined. Costs to implement industrial conservation technologies will vary based on each location.

5.11.7 Irrigation

Irrigation uses water supplies from the Blaine at 3,642 acft/yr and Seymour Aquifers at 1,820 acft/yr. Irrigation in Fisher County is projected to have a surplus of water through the year 2070 and no change in water supply is recommended.

5.11.8 Livestock

Livestock is projected to have a no additional need for water through the year 2070 and no changes in water supply are recommended.

5.12 Grimes County Water Supply Plan

Table 5.12-1 lists each water user group in Grimes County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.12-1. Grimes County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Dobbin Plantersville WSC	54	67	Projected surplus
G&W WSC	42	59	Projected surplus
City of Navasota	546	403	Projected surplus
TDCJ Luther Units	496	445	Projected surplus
TDCJ W. Pack Unit	178	107	Projected surplus
Wickson Creek SUD			See Brazos County
County-Other	53	122	Projected surplus
Manufacturing	142	213	Projected surplus
Steam-Electric	5,046	5,046	Projected surplus
Mining	(281)	62	Projected shortage - see plan below.
Irrigation	(151)	(151)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.12.1 Dobbin-Plantersville WSC

Dobbin Plantersville WSC serves customers in Grimes and Montgomery counties. The majority of the demand for the entity is in Montgomery County which is part of Region H. This section will only deal with the supply, demands and strategies that are within the Brazos G Area. Dobbin-Plantersville WSC obtains water supply through groundwater production from the Gulf Coast Aquifer, which is projected to provide 301 acft/yr in available supply. No water supply shortages are projected and no changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.12.2 G&W WSC

G&W WSC serves customers in Grimes and Waller counties. The majority of the demand for the entity is in Waller County which is part of Region H. This section will only deal with the supply, demands and strategies that are the Brazos G Area. G & W WSC obtains water supply through groundwater production from the Gulf Coast Aquifer and through purchases of treated surface water from a supplier in in Region H. Total water supply available to G&W WSC is projected to range from 858 acft/yr at the beginning of the planning period to 2,256 act/yr at the end. No shortages in supply are projected through

the planning period. No changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.12.3 City of Navasota

Description of Supply

The City of Navasota obtains its water supply solely through groundwater production from the Gulf Coast Aquifer, which is projected to provide 2,153 acft/yr of supply. Additionally, the City provides a portion of supply under contract to Grimes County Manufacturing. No shortages are projected for the City through the planning period and no change to supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for City of Navasota. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $135,520
- Unit Cost: $560/acft

Table 5.12-2. Recommended Plan Costs by Decade for City of Navasota

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*565*	*553*	*546*	*525*	*474*	*403*
Conservation						
Supply From Plan Element (acft/yr)	—	110	219	236	238	242
Annual Cost ($/yr)	—	$61,600	$122,640	$132,160	$133,280	$135,520
Projected Surplus/(Shortage) after Conservation (acft/yr)	*565*	*663*	*765*	*761*	*712*	*645*

5.12.4 TDCJ - Luther Units

Description of Supply

The Texas Department of Criminal Justice – Luther Units obtains its water supply through groundwater production from the Gulf Coast Aquifer, which is projected to provide 825 acft/yr of supply. No shortages are projected for the WUG through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for TDCJ – Luther Units. Conservation s recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum $36,960 in 2070
- Unit Cost: $560/acft

Table 5.12-3. Recommended Plan Costs by Decade for TDCJ – Luther Units

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*536*	*514*	*496*	*477*	*460*	*445*
Conservation						
Supply From Plan Element (acft/yr)	—	25	54	61	64	66
Annual Cost ($/yr)	—	$14,000	$30,240	$34,160	$35,840	$36,960
Projected Surplus/(Shortage) after Conservation (acft/yr)	*536*	*539*	*550*	*538*	*524*	*511*

5.12.5 TDCJ – W. Pack Unit

Description of Supply

The Texas Department of Criminal Justice – W. Pack Unit obtains its water supply through groundwater production from the Gulf Cost Aquifer, which is projected to provide 631 acft/yr of supply. No shortages are projected for the WUG through the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for TDCJ – W. Pack Unit. Conservation s recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $92,960
- Unit Cost: $560/acft

Table 5.12-4. Recommended Plan Costs by Decade for TDCJ – W. Pack Unit

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*234*	*202*	*178*	*151*	*127*	*107*
Conservation						
Supply From Plan Element (acft/yr)	—	36	75	116	159	166
Annual Cost ($/yr)	—	$20,160	$42,000	$64,960	$89,040	$92,960
Projected Surplus/(Shortage) after Conservation (acft/yr)	*234*	*238*	*253*	*267*	*286*	*273*

5.12.6 County-Other

Entities comprising Grimes County-Other obtain water supply through groundwater production from the Gulf Coast and Carrizo-Wilcox Aquifers in the county, which when combined is projected to provide 1,251 acft/yr of available supply. County-Other entities are projected to have a supply surplus of supply through planning period and no change to supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.12.7 Manufacturing

Manufacturing operations in Grimes County obtain water supply through groundwater production from the Gulf Coast Aquifer and through purchases of groundwater from the City of Navasota and Wickson Creek SUD. No shortages are projected and no change in supply is recommended.

5.12.8 Steam-Electric

Grimes County Steam-Electric obtains water supply primarily through purchases of raw water under from the City of Huntsville and the Brazos River Authority. Groundwater production from the Gulf Coast Aquifer is also used, though the quantity is relatively small compared to the surface water supplies. No supply shortages are projected for Steam-Electric entities and no change in water supply is recommended.

5.12.9 Mining

Description of Supply

Mining operations in Grimes County are supplied by groundwater from the Gulf Coast Aquifer. Demands for Mining are projected to increase resulting in shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Grimes County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Gulf Coast Aquifer Groundwater Development
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $744,000
   - Unit Cost: maximum of $168/acft

Table 5.12-5. Recommended Plan Costs by Decade for Grimes County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(133)*	*(412)*	*(281)*	*(150)*	*(19)*	*62*
Conservation						
Supply From Plan Element (acft/yr)	10	30	33	24	15	9
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(123)*	*(382)*	*(248)*	*(126)*	*(4)*	*71*
Groundwater Development – Gulf Coast Aquifer						
Supply From Plan Element (acft/yr)	382	382	382	382	382	382
Annual Cost ($/yr)	$64,000	$64,000	$12,000	$12,000	$12,000	$12,000
Unit Cost ($/acft)	$168	$168	$31	$31	$31	$31

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.12.10 Irrigation

Description of Supply

Irrigation in Grimes County is supplied through groundwater production from the Gulf Coast, Brazos River Alluvium, and Navasota River Alluvium Aquifers. Water supply shortages are projected in each decade of the planning period for Irrigation.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Grimes County-Irrigation.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $64,357
   - Unit Cost: $1,376/acft

b. Gulf Coast Aquifer Groundwater Development
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $623,000
   - Unit Cost: maximum of $382/acft

Table 5.12-6. Recommended Plan Costs by Decade for Grimes County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(151)*	*(151)*	*(151)*	*(151)*	*(151)*	*(151)*
Conservation						
Supply From Plan Element (acft/yr)	20	33	47	47	47	47
Annual Cost ($/yr)	$27,582	$45,970	$64,357	$64,357	$64,357	$64,357
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(131)*	*(118)*	*(104)*	*(104)*	*(104)*	*(104)*
Groundwater Development – Gulf Coast Aquifer						
Supply From Plan Element (acft/yr)	131	131	131	131	131	131
Annual Cost ($/yr)	$50,000	$50,000	$6,000	$6,000	$6,000	$6,000
Unit Cost ($/acft)	$382	$382	$46	$46	$46	$46

5.12.11 Livestock

Livestock in Grimes County is supplied through local stock surface water impoundments. No shortage is projected during the planning period and no change in water supply is recommended.

5.13 Hamilton County Water Supply Plan

Table 5.13–1 lists each water user group in Hamilton County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.13–1. Hamilton County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Hamilton	173	181	Projected surplus
City of Hico	396	400	Projected surplus
Multi-County WSC			See Coryell County
County-Other	28	30	Projected surplus
Manufacturing	0	0	No projected surplus or shortage
Steam-Electric	—	—	No projected demand
Mining	155	256	Projected shortage (2020) – See plan below
Irrigation	176	168	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.13.1 City of Hamilton

Description of Supply

The City of Hamilton obtains its water supply through purchases of treated surface water under contract from the Upper Leon River Municipal Water District. The water supplied by the Upper Leon River Municipal Water District is diverted from Lake Proctor under contracts with the Brazos River Authority. The City of Hamilton is projected to obtain up to 921 acft/yr of treated surface water supply from the Upper Leon River Municipal Water District through the planning period. No shortages in water supply are projected for the City through the planning period and no change in supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for City of Hamilton. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Unit Cost: $560/acft
- Annual Cost: $16,800 in 2030

Table 5.13–2. Recommended Plan Costs by Decade for City of Hamilton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*158*	*162*	*173*	*180*	*181*	*181*
Conservation						
Supply From Plan Element (acft/yr)	—	30	19	12	11	11
Annual Cost ($/yr)	—	$16,800	$10,640	$6,720	$6,160	$6,160
Projected Surplus/(Shortage) after Conservation (acft/yr)	*158*	*192*	*192*	*192*	*192*	*192*
Additional Demands from Recommended Strategies from Others						
Increase Contract to Multi-County WSC (acft/yr)	(46)	(67)	(91)	(115)	(144)	(174)
Total Surplus/(Shortage) Including Recommended Strategies	*112*	*125*	*101*	*77*	*48*	*18*

5.13.2 City of Hico

The City of Hico obtains its water supply through groundwater production from the Trinity Aquifer, which is projected to provide a constant 567 acft/yr of supply through the planning period. No shortages in supply are projected for the City during the planning period and no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.13.3 County-Other

Entities in Hamilton County-Other obtain their water supply through groundwater production from the Trinity Aquifer, which is projected to provide a constant 450 acft/yr of supply. No shortages are projected throughout the planning period and no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.13.4 Manufacturing

Manufacturing water supply in Hamilton County is obtained through groundwater production from the Trinity Aquifer. No shortage is projected through the planning period and no change in water supply is recommended.

5.13.5 Steam-Electric

There is no projected water demand for Steam-Electric in Hamilton County.

5.13.6 Mining

Description of Supply

Mining operations in Hamilton County are supplied through groundwater production from the Trinity Aquifer. Shortages are projected to occur at the beginning of the planning period for Mining in Hamilton County.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Hamilton County Mining. Conservation is recommended. Associated costs are included for each strategy.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: not determined

b. Trinity Aquifer Groundwater Development

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $548,000

c. Unit Cost: maximum of $368/acft

Table 5.13–3. Recommended Plan Costs by Decade for Hamilton County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(137)*	*20*	*155*	*256*	*256*	*256*
Conservation						
Supply From Plan Element (acft/yr)	12	12	7	—	—	—
Annual Cost ($/yr)	ND	ND	ND	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(125)*	*32*	*162*	*256*	*256*	*256*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	125	125	125	125	125	125
Annual Cost ($/yr)	$46,000	$46,000	$7,000	$7,000	$7,000	$7,000
Unit Cost ($/acft)	$368	$368	$56	$56	$56	$56

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.13.7 Irrigation

Irrigation water supply in Hamilton County is obtained through groundwater production from the Trinity Aquifer. No water supply shortages are projected for Irrigation through the planning period and no change in water supply is recommended.

5.13.8 Livestock

Livestock water supply is obtained through local stock surface water impoundments and is projected to meet demands through the planning period. No change in water supply is recommended.

5.14 Haskell County Water Supply Plan

Table 5.14-1 lists each water user group in Haskell County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.14-1. Haskell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Haskell	(468)	(499)	Projected shortage - see plan below.
City of Stamford			See Jones County
County-Other	19	1	Projected surplus
Manufacturing	—	—	No projected demand
Steam-Electric	—	—	No projected demand
Mining	(83)	(59)	Projected shortage - see plan below.
Irrigation	(14,462)	(15,835)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.14.1 City of Haskell

Description of Supply

Surface water supplies are obtained from a contract with North Central Texas Municipal Water Authority (NCTMWA). While the contract exceeds the City's projected demands, the current supplies from the NCTMWA are not sufficient to meet demands through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for the City of Haskell. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.

- Cost Source: Volume II
    - Project requires a subordination agreement with the BRA in order to develop sufficient supply
- Date to be Implemented: before 2030

- Project Cost: none (cost would be borne by NCTMWA)
- Unit Cost: none (supply already purchased from NCTMWA)

Table 5.14-2. Recommended Plan Costs by Decade for City of Haskell

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(477)*	*(473)*	*(468)*	*(471)*	*(483)*	*(499)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(477)*	*(473)*	*(468)*	*(471)*	*(483)*	*(499)*
Lake Creek Reservoir						
Supply From Plan Element (acft/yr)	—	473	468	472	483	499
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.14.2 County-Other

Supplies for Haskell County other are obtained through groundwater production from the Seymour Aquifer and through contract supply purchases from the City of Stamford and NCTMWA. Although supplies from NCTMWA have been reduced due to projected availability of supplies, County-Other supplies are projected to be adequate to meet demands through 2070. No supply shortages are projected and no change in supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.14.3 Manufacturing

No Manufacturing demand exists or is projected for the county.

5.14.4 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.14.5 Mining

Description of Supply

Mining operations in Haskell County are supplied solely though groundwater production from the Seymour Aquifer; however, this aquifer is projected to have zero supply availability through the planning period.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Haskell County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Leave Needs Unmet:
   - Cost Source: Cost of not meeting needs – see appendix G
   - Date to be Implemented: before 2030

Table 5.14-3. Recommended Plan Costs by Decade for Haskell County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(93)*	*(92)*	*(83)*	*(74)*	*(66)*	*(59)*
Conservation						
Supply From Plan Element (acft/yr)	3	5	6	5	5	4
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(90)*	*(87)*	*(77)*	*(69)*	*(61)*	*(55)*
Leave Needs Unmet (acft/yr)	*(90)*	*(87)*	*(77)*	*(69)*	*(61)*	*(55)*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.14.6 Irrigation

Description of Supply

Haskell County Irrigation is supplied through groundwater production from the Seymour Aquifer; however, no available supply is projected for this aquifer through the planning period.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Haskell County-Irrigation. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $6,391,940

- Unit Cost: $1,594/acft

b. Leave Needs Unmet:

- Cost Source: Cost of not meeting needs – see appendix G
- Date to be Implemented: before 2030

Table 5.14-4. Recommended Plan Costs by Decade for Haskell County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(16,679)*	*(16,793)*	*(14,462)*	*(14,742)*	*(15,721)*	*(15,835)*
Conservation						
Supply From Plan Element (acft/yr)	1,747	2,912	3,922	3,933	4,010	4,010
Annual Cost ($/yr)	$2,784,718	$4,641,728	$6,251,668	$6,269,202	$6,391,940	$6,391,940
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(14,932)*	*(13,881)*	*(10,540)*	*(10,809)*	*(11,711)*	*(11,825)*
Leave Needs Unmet (acft/yr)	*(14,932)*	*(13,881)*	*(10,540)*	*(10,809)*	*(11,711)*	*(11,825)*

5.14.7 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.15 Hill County Water Supply Plan

Table 5.15-1 lists each water user group in Hill County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections. Water supply plans are also presented for some entities that need pumping/conveyance facilities to utilize their existing water resources, or to become a regional provider.

Table 5.15-1. Hill County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Birome WSC	197	180	Projected surplus
Bold Springs WSC			See McLennan County
Brandon-Irene WSC	208	151	Projected surplus
Chatt WSC	15	(12)	Projected shortage - see plan below.
Double Diamond Utilities	(25)	(93)	Projected shortage - see plan below.
Files Valley WSC	704	441	Projected surplus
Gholson WSC			See McLennan County
HILCO United Services	167	46	Projected surplus
Hill County WSC	317	262	Projected surplus
City of Hillsboro	1,510	1,185	Projected surplus
City of Hubbard	263	208	Projected surplus
City of Itasca	64	54	Projected surplus
Johnson County SUD			See Johnson County
Parker WSC			See Johnson County
Post Oak SUD	(4)	(184)	Projected shortage - see plan below.
City of Whitney	(49)	(77)	Projected shortage - see plan below.
Woodrow-Osceola WSC	343	297	Projected surplus
County-Other	(59)	(70)	Projected shortage - see plan below.
Manufacturing	54	69	Projected surplus
Steam-Electric	(4,120)	(4,120)	Projected shortage - see plan below.
Mining	623	926	Projected surplus
Irrigation	(210)	(211)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.15.1 Birome WSC

Birome WSC is located in Hill, Limestone, and McLennan Counties, however most of its demand is within Hill County. Birome WSC obtains its water from the Trinity Aquifer and

purchases water from Post Oak SUD. Surpluses are projected through 2070 for Birome WSC, and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.2 Brandon-Irene WSC

Brandon-Irene WSC is located in Hill, Ellis and Navarro County, however most of its demand is located in Hill County. Brandon-Irene WSC obtains its water from the Trinity Aquifer and surface water through a contract with Aquilla WSD. The WSC also provides supply to the City of Bynum in Hill County. Surpluses are projected through 2070 for Brandon Irene WSC, and no changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

Table 5.15-2. Recommended Plan Costs by Decade for Brandon-Irene WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*203*	*215*	*208*	*193*	*179*	*151*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*203*	*215*	*208*	*193*	*179*	*151*
Additional Demands from Recommended Strategies from Others						
Increase Supplies to Hill County-Other (acft/yr)	57	63	59	66	63	70
Projected Surplus/(Shortage) after Recommended Strategies (acft/yr)	*146*	*152*	*149*	*127*	*116*	*81*

5.15.3 Chatt WSC

Description of Supply

Chatt WSC obtains water supply from the Trinity Aquifer and purchases treated surface water from Aquilla Water Supply. The WSC also provides water to Hill County Manufacturing. A shortage is projected for Chatt WSC beginning in 2060 and continuing through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended to meet projected needs. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Water from Files Valley WSC

- Cost Source: Volume II

- Date to be Implemented: 2060
- Project Cost: Cost of purchase only
- Unit Cost: $652/acft

Table 5.15-3. Recommended Plan Costs by Decade for Chatt WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*23*	*22*	*15*	*7*	*(1)*	*(12)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*23*	*22*	*15*	*7*	*(1)*	*(12)*
Purchase Water from Files Valley WSC						
Supply From Plan Element (acft/yr)	—	—	—	—	1	12
Annual Cost ($/yr)	—	—	—	—	$652	$7,820
Unit Cost ($/acft)	—	—	—	—	$652	$652

5.15.4 Double Diamond Utilities

Description of Supply

Double Diamond Utilities is located in Hill and Johnson Counties, however most of its demand is located in Hill County. The Utility obtains water supply from the Trinity Aquifer and has a contract to purchase surface water from the Brazos River Authority (BRA), however the Utility does not have the infrastructure to utilize the BRA supply. With conservation as a recommended water management strategy, Double Diamond Utilities' water supply is projected to be sufficient throughout the planning period. Balances represented in Table 5.15-4 are for the entire Utility.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended to meet projected needs. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: maximum of $89,549 in 2070
- Unit Cost: $560/acft

b. BRA System Operations

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: maximum of $29,640 in 2050
- Unit Cost: $76/acft

Table 5.15-4. Recommended Plan Costs by Decade for Double Diamond Utilities

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(15)*	*(25)*	*(39)*	*(48)*	*(93)*
Conservation						
Supply From Plan Element (acft/yr)	0	38	75	115	148	160
Annual Cost ($/yr)	$0	$21,186	$42,082	$64,377	$82,769	$89,549
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*23*	*50*	*76*	*100*	*67*
BRA System Operations						
Supply From Plan Element (acft/yr)	367	378	390	390	390	390
Annual Cost ($/yr)	$27,892	$28,728	$29,640	$29,640	$29,640	$29,640
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76

5.15.5 Files Valley WSC

Files Valley WSC is located in Hill and Ellis (Region C) counties, however most of its demand is located in Hill County. The WSC has a contract for 1,709 acft/yr of treated surface water from Lake Aquilla through Aquilla Water Supply District. Files Valley WSC also provides water to Parker WSC and and Ellis County-Other entities. The WSC has a projected surplus throughout the planning period and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.6 HILCO United Services

HILCO United Services is located in Hill, Ellis, and Bosque counties, however most of its demand is located in Hill County. HILCO United Services obtains its water supply from the Trinity Aquifer and has a contract for 150 acft/yr of surface water from Lake Aquilla through the BRA. HILCO United Services has contracted for 150 acft/yr of surface water supplies from the Brazos River Authority, which can supply 150 acft/yr in 2020 and 143 acft/yr in 2070, based on water availability analyses proscribed under water planning guidelines. Surpluses are projected for HILCO United Services throughout all counties for the entire planning period. No changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.7 Hill County WSC

Hill County WSC obtains its water supply from the Trinity Aquifer and a treated surface water contract with Aquilla Water Supply District. The existing contract and production capacity of the wells and groundwater availability are adequate to supply the needs of the WSC through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.8 City of Hillsboro

Description of Supply

The City of Hillsboro purchases its water supply from the Aquilla WSD and has surpluses projected through 2070.

Water Supply Plan

Although the City has sufficient supplies, working within the planning criteria established by the Brazos G RWPG and TWDB. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $292,621 in 2070
- Unit Cost: $560/acft

Table 5.15-5. Recommended Plan Costs by Decade for the City of Hillsboro

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,846*	*1,564*	*1,510*	*1,442*	*1,378*	*1,185*
Conservation						
Supply From Plan Element (acft/yr)	0	157	320	493	516	523
Annual Cost ($/yr)	$0	$87,718	$179,420	$276,289	$289,015	$292,621
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,846*	*1,721*	*1,830*	*1,935*	*1,894*	*1,708*

5.15.9 City of Hubbard

Description of Supply

The City of Hubbard obtains its water supply the Trinity Aquifer and from Lake Navarro Mills through the Post Oak Special Utility District (SUD). The City of Hubbard has a projected surplus throughout the planning period. No change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.10 City of Itasca

The City of Itasca obtains its water supply from the Trinity Aquifer. The production capacity of the wells and groundwater availability are adequate to supply the demands of the City of Itasca through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.11 Post Oak SUD

Description of Supply

Post Oak SUD services Hill, Navarro, and Limestone counties, however the majority of demand is in Hill County. Post Oak SUD purchases raw and treated surface water supply from Corsicana and Trinity River Authority. The SUD has a projected water supply shortage beginning in 2020 and continuing throughout the planning period. Balance and strategies represented in Table 5.15-6 are for the entire SUD across all counties and planning areas.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended to meet projected needs. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Additional Supply from Corsicana

- Cost Source: Volume II
- Date to be Implemented: 2020
- Annual Cost: maximum of $281,274 in 2070
- Unit Cost: $2,591/acft

Table 5.15-6. Recommended Plan Costs by Decade for Post Oak SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*(4)*	*(63)*	*(121)*	*(184)*
Conservation (Region C conservation strategy)						
Supply From Plan Element (acft/yr)	—	—	1	1	1	1
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*0*	*(3)*	*(62)*	*(120)*	*(183)*
Purchase Additional Supply from Corsicana						
Supply From Plan Element (acft/yr)	—	—	*3*	*62*	*120*	*183*
Annual Cost ($/yr)	—	—	$7,773	$160,600	$131,000	$338,200
Unit Cost ($/acft)	—	—	$1,092	$1,848	$1,848	$2,167

5.15.12 City of Whitney

Description of Supply

The City of Whitney obtains its water supply from the Trinity Aquifer. The City of Whitney has also contracted with the Brazos River Authority for 750 acft/yr of supply from Lake Whitney; however, the City has not constructed the required infrastructure to utilize this supply.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended to meet projected needs. Associated costs are included. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum of $43,126 in 2070
- Unit Cost: $560/acft

Table 5.15-7. Recommended Plan Costs by Decade for City of Whitney

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(38)*	*(49)*	*(67)*	*(75)*	*(77)*
Conservation						
Supply From Plan Element (acft/yr)	0	38	76	74	75	77
Annual Cost ($/yr)	$0	$21,109	$42,318	$41,530	$41,905	$43,126
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*0*	*27*	*7*	*0*	*0*

5.15.13 Woodrow-Osceola WSC

Woodrow-Osceola WSC obtains its water supply from the Trinity Aquifer. The existing production capacity of the wells and groundwater availability are adequate to supply the demands of the WSC through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.14 County-Other

Description of Supply

Entities in Hill County-Other use Trinity and Woodbine Aquifer groundwater and surface water from Brandon-Irene WSC, Corsicana, and the Trinity River Authority. County-Other entities are projected to have a shortage in water supply from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended to meet projected needs. Associated costs are included for each strategy. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Additional Supply from Brandon-Irene WSC

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: Cost of purchase only
- Unit Cost: $1,629/acft

Table 5.15-8. Recommended Plan Costs by Decade for Hill County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(57)*	*(63)*	*(59)*	*(67)*	*(64)*	*(70)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(57)*	*(63)*	*(59)*	*(66)*	*(63)*	*(70)*
Purchase Additional Supply from Brandon-Irene WSC						
Supply From Plan Element (acft/yr)	57	63	59	66	63	70
Annual Cost ($/yr)	$92,868	$102,643	$96,126	$107,531	$102,643	$114,048
Unit Cost ($/acft)	$1,629	$1,629	$1,629	$1,629	$1,629	$1,629

5.15.15 Manufacturing

Hill County Manufacturing purchases its water supply from Chatt WSC and is projected to have sufficient water supplies through the year 2070. No changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.15.16 Steam-Electric

Description of Supply

There is no current water supply for steam-electric operations in Hill County, however a shortage is projected from 2020 through 2070. A planned power generation project which formed the basis for those demand projections is no longer being pursued and the resulting shortages should be left unmet.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Hill County Steam-Electric. Associated costs are included.

a. Leave Needs Unmet:

- Cost Source: Cost of leaving needs unmet – see Appendix G
- Date to be Implemented: 2020

Table 5.15-9. Recommended Plan Costs by Decade for Hill County – Steam-Electric

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*
Leave Needs Unmet (acft/yr)	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*	*(4,120)*

5.15.17 Mining

Description of Supply

Supplies for Mining in Hill County include groundwater from the Trinity, Woodbine, and Brazos River Alluvium Aquifers and from a BRA contract for 1,000 acft/yr. Mining is projected to have a shortage in 2020, while 2030 through 2070 show projected surpluses.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Hill County Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: not determined

b. Leave Needs Unmet:

- Cost Source: Cost of leaving needs unmet – see Appendix G
- Date to be Implemented: 2020

Table 5.15-10. Recommended Plan Costs by Decade for Hill County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(236)*	*208*	*623*	*995*	*962*	*926*
Conservation						
Supply From Plan Element (acft/yr)	49	60	54	28	31	33
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(187)*	*208*	*623*	*995*	*962*	*926*
Leave Needs Unmet (acft/yr)	*(187)*	—	—	—	—	—

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.15.18 Irrigation

Description of Supply

Supplies for Irrigation in Hill County include groundwater from the Woodbine and Brazos River Alluvium Aquifers, and from a BRA contract for 1,000 acft/yr. Irrigation is projected to have shortages from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Hill County Irrigation. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation:
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: maximum of $83,334
   - Unit Cost: $680/acft

b. Groundwater Development – Woodbine Aquifer:
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $870,000
   - Unit Cost: $468/acft

Table 5.15-11. Recommended Plan Costs by Decade for Hill County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(210)*	*(211)*	*(210)*	*(211)*	*(210)*	*(211)*
Conservation						
Supply From Plan Element (acft/yr)	53	88	123	123	123	123
Annual Cost ($/yr)	$35,714	$59,524	$83,334	$83,334	$83,334	$83,334
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(158)*	*(124)*	*(88)*	*(89)*	*(88)*	*(89)*
Groundwater Development – Woodbine Aquifer						
Supply From Plan Element (acft/yr)	158	158	158	158	158	158
Annual Cost ($/yr)	$74,000	$74,000	$13,000	$13,000	$13,000	$13,000
Unit Cost ($/acft)	$468	$468	$82	$82	$82	$82

5.15.19 Livestock

Livestock water supply is projected to meet demands through the year 2070 and no changes in water supply are recommended.

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5.16 Hood County Water Supply Plan

Table 5.16-1 lists each water user group in Hood County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.16-1. Hood County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Acton MUD	(1,126)	(4,203)	Projected shortage - see plan below
City of Granbury	144	(342)	Projected shortage - see plan below
City of Lipan	33	9	Projected surplus
Santo SUD			See Palo Pinto County
City of Tolar	41	4	Projected surplus
County-Other	(759)	924	Projected surplus
Manufacturing	10,008	10,008	Projected surplus
Steam-Electric	0	0	No projected surplus or shortage
Mining	(821)	(656)	Projected shortage - see plan below
Irrigation	417	417	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.16.1 Acton MUD

Description of Supply

The Acton MUD service area includes portions of Hood and Johnson Counties. Acton MUD obtains its water supply from groundwater from the Trinity Aquifer and a contract with the Brazos River Authority for water from Lake Granbury. Treated surface water is constrained by the SWATS plant capacity, co-owned with Johnson County SUD through the Brazos Regional Public Utility Agency. The surpluses and shortages shown in Table 5.16-2 represent the cumulative totals for Acton MUD in Hood and Johnson Counties.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for Acton MUD. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Groundwater Development – Trinity Aquifer

- Cost Source: Volume II
- Date to be implemented: by 2030

- Project Cost: $965,000
- Annual Cost: $89,000

b. Increase WTP Capacity (SWATS):

- Cost Source: Volume II
- Date to be Implemented: by 2040
- Project Cost: $23,934,000 (Acton MUD portion)
- Annual Cost: $2,611,000

c. Trinity Johnson County ASR

- Cost Source: Volume II
- Date to be Implemented: by 2020
- Project Cost: $17,296,000 (Acton MUD portion)
- Unit Cost: $662/acft

Table 5.16-2. Recommended Plan Costs by Decade for Acton MUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,546*	*(50)*	*(1,126)*	*(1,708)*	*(2,933)*	*(4,203)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,546*	*(50)*	*(1,126)*	*(1,708)*	*(2,933)*	*(4,203)*
Groundwater Development – Trinity Aquifer (Hood and Johnson Counties)						
Supply From Plan Element (acft/yr)	—	51	51	51	51	451
Annual Cost ($/yr)	—	$89,000	$89,000	$21,000	$21,000	$185,812
Unit Cost ($/acft)	—	$1,745	$1,745	$412	$412	$412
Increase WTP Capacity (SWATS)						
Supply From Plan Element (acft/yr)	—	—	3,752	3,752	3,752	3,752
Annual Cost ($/yr)	—	—	$2,611,400	$2,611,400	$1,091,800	$1,091,800
Unit Cost ($/acft)	—	—	$696	$696	$291	$291
Alternative: Johnson County ASR						
Supply From Plan Element (acft/yr)	2,526	2,526	2,526	2,526	2,526	2,526
Annual Cost ($/yr)	$1,672,212	$1,672,212	$454,680	$454,680	$454,680	$454,680
Unit Cost ($/acft)	$662	$662	$180	$180	$180	$180

5.16.2 City of Granbury

Description of Supply

The City of Granbury obtains its water supply from groundwater from the Trinity Aquifer and a contract with the Brazos River Authority for water from Lake Granbury. There is a water treatment plant constraint on the surface water from Lake Granbury, and a water supply shortage is projected beginning in 2050.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for Granbury. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Granbury North Water Treatment Plant:

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $45,500,000
- Annual Cost: $7,155,000 (maximum of phased costs)

Table 5.16-3. Recommended Plan Costs by Decade for the City of Granbury

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*673*	*365*	*144*	*(55)*	*(216)*	*(342)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*673*	*365*	*144*	*(55)*	*(216)*	*(342)*
Granbury North Water Treatment Plant						
Supply From Plan Element (acft/yr)	—	2,800	2,800	2,800	2,800	2,800
Annual Cost ($/yr)	—	$7,155,000	$7,155,000	$3,954,000	$3,954,000	$3,954,000
Unit Cost ($/acft)	—	$2,555	$2,555	$1,412	$1,412	$1,412

5.16.3 City of Lipan

The City of Lipan receives supply from the Trinity Aquifer. There is a surplus projected for the City throughout the planning period and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.16.4 City of Tolar

The City of Lipan receives supply from the Trinity Aquifer. There is a surplus projected for the City throughout the planning period and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.16.5 County-Other

Description of Supply

Entities in Hood County-Other receive groundwater from the Trinity Aquifer and surface water supplies through contracts with Acton MUD. Future population in County-Other is expected to decrease over time as those people begin to be served by retail water utilities. Shortages are projected from 2020 through 2050.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for County-Other entities. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Trinity Aquifer Development

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $6,210,000
- Unit Cost: $435/acft

Table 5.16-4. Plan Costs by Decade for Hood County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,845)*	*(1,135)*	*(759)*	*(687)*	*77*	*924*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1,845)*	*(1,135)*	*(759)*	*(687)*	*77*	*924*
Trinity Aquifer Development						
Supply From Plan Element (acft/yr)	1,845	1,845	1,845	1,845	1,845	1,845
Annual Cost ($/yr)	$803,000	$803,000	$366,000	$366,000	$366,000	$366,000
Unit Cost ($/acft)	$435	$435	$198	$198	$198	$198

5.16.6 Manufacturing

Hood County Manufacturing obtains treated water from the Trinity Aquifer untreated surface water from the BRA. Hood County Manufacturing is projected to have a surplus of water through the year 2070 and no changes in water supply are recommended.

5.16.7 Steam-Electric

Steam-Electric operations in Hood County are supplied by water from Lake Granbury. No shortages are projected and no change in water supply is recommended.

5.16.8 Mining

Description of Supply

Mining operations in Hood County are supplied by Trinity Groundwater. Demands for Mining are projected to increase significantly, resulting in shortages beginning in 2020.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Hood County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $1,027,000
   - Unit Cost: Max of $112/acft

Table 5.16-5. Recommended Plan Costs by Decade for Hood County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(677)*	*(1,035)*	*(821)*	*(732)*	*(642)*	*(656)*
Conservation						
Supply From Plan Element (acft/yr)	62	122	156	149	143	144
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(615)*	*(913)*	*(665)*	*(583)*	*(499)*	*(512)*
Groundwater Well Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	913	913	913	913	913	913
Annual Cost ($/yr)	$102,000	$102,000	$30,000	$30,000	$30,000	$30,000
Unit Cost ($/acft)	$112	$112	$33	$33	$33	$33

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.16.9 Irrigation

Hood County Irrigation is projected to have a surplus of 417 acft/yr through 2070. No changes in water supply are recommended.

Table 5.16-6. Recommended Plan Costs by Decade for Hood County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage)	417	417	417	417	417	417
BRA System Operation Surplus						
Supply from Plan Element (acft/yr)	774	774	774	774	774	774
Annual Cost ($/yr)	$58,824	$58,824	$58,824	$58,824	$58,824	$58,824
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76

5.16.10 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.17 Johnson County Water Supply Plan

Table 5.17-1 lists each water user group in Johnson County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.17-1. Johnson County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Acton MUD			See Hood County
City of Alvarado	1,912	1,728	Projected surplus
Bethany WSC	1,003	852	Projected surplus
Bethesda WSC	(751)	(2,255)	Projected shortage - see plan below.
City of Burleson	(2,037)	(5,204)	Projected shortage - see plan below.
City of Cleburne	(1,097)	(7,324)	Projected shortage - see plan below.
City of Crowley	(5)	(21)	Projected shortage - see plan below.
Double Diamond Utilities			See Hill County
City of Forth Worth	0	(949)	Projected shortage - see plan below.
City of Godley	(22)	(65)	Projected shortage - see plan below.
City of Grandview	156	82	Projected surplus
Johnson County SUD	1,477	(1,491)	Projected shortage - see plan below.
City of Keene	785	477	Projected surplus
City of Mansfield	(507)	(1,375)	Projected shortage - see plan below.
Mountain Peak SUD	(523)	(1,397)	Projected shortage - see plan below.
Parker WSC	123	(145)	Projected shortage - see plan below.
City of Rio Vista	120	4	Projected surplus
City of Venus	(411)	(654)	Projected shortage - see plan below.
County-Other	1,155	1,365	Projected surplus
Manufacturing	1,438	2,518	Projected surplus
Steam-Electric	(571)	(571)	Projected shortage - see plan below.
Mining	(68)	107	Projected surplus - see plan below.
Irrigation	(269)	(269)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.17.1 City of Alvarado

The City of Alvarado obtains its water supply from the Trinity Aquifer at 196 acft/yr and treated surface water from Johnson County SUD at 2,241 acft/yr. No shortages are projected for the City of Alvarado and no change in water supply is recommended.

Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.17.2 Bethany WSC

Bethany WSC obtains its water supply from the Trinity Aquifer at 309 to 308 acft/yr and treated surface water from Johnson County SUD at 1,120 acft/yr. No shortages are projected for Bethany WSC and no change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.17.3 Bethesda WSC

Description of Supply

Bethesda WSC is located in Johnson and Tarrant (Region C) counties and obtains its water supply from the Trinity Aquifer at 2,333 acft/yr and surface water from Tarrant Regional Water District (TRWD) through the Fort Worth System at 3,703 to 7,912 acft/yr. Bethesda WSC is projected to have a shortage from 2030 to 2070. Balance and strategies represented in the table below are for the portion of the WSC in Brazos G.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region C, the following water management strategies are recommended to meet the projected water shortage for Bethesda WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation in Brazos G
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Unit Cost: $560/acft
    - Annual Cost: maximum of $1,248,493 in 2070
b. Purchase Additional Supplies from Fort Worth
    - Cost Source: 2021 Region C Water Plan
    - Date to be Implemented: 2020
    - Project Cost: none
    - Unit Cost: $531/acft ($1.63/1,000 gal)

Table 5.17-2. Recommended Plan Costs by Decade for Bethesda WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(359)*	*(751)*	*(1,188)*	*(1,645)*	*(2,255)*
Conservation						
Supply From Plan Element (acft/yr)	0	327	735	1,190	1,331	1,487
Annual Cost ($/yr)	$0	$183,000	$412,000	$666,000	$745,000	$833,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*(32)*	*(16)*	*2*	*(314)*	*(768)*
Purchase additional supplies from Fort Worth						
Supply From Plan Element (acft/yr)	–	260	646	1,060	1,509	2,109
Annual Cost ($/yr)	–	$138,000	$343,000	$563,000	$801,000	$1,120,000
Unit Cost ($/acft)	–	$531	$531	$531	$531	$531

5.17.4 City of Burleson

Description of Supply

The City of Burleson obtains its water supply from Tarrant Regional Water District (TRWD) through the Fort Worth System, which ranges from 6,466 to 6,917 acft/yr. Burleson is projected to have a shortage from 2030 to 2070. Balance and strategies represented in the table below are for the entire city in both counties and regions.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of Burleson. Conservation was considered in Brazos G but the current per capita use is below the targeted gpcd of 140. However, Region C has recommended conservation as a water management strategy.

a. Conservation in Region C
   - See the 2021 Region C Water Plan

b. Increase Delivery Infrastructure from Fort Worth
   - Cost Source: 2021 Region C Water Plan
   - Date to be Implemented: 2020
   - Project Cost: $4,688,000 (cost of delivery infrastructure)
   - Unit Cost: $162/acft

Table 5.17-3. Recommended Plan Costs by Decade for the City of Burleson

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(3)*	*(1,045)*	*(2,037)*	*(3,066)*	*(4,112)*	*(5,204)*
Conservation in Region C						
Supply From Plan Element (acft/yr)	48	54	57	87	118	141
Projected Surplus/(Shortage) after Conservation (acft/yr)	*45*	*(991)*	*(1,980)*	*(2,979)*	*(3,994)*	*(5,063)*
Purchase from Fort Worth						
Supply From Plan Element (acft/yr)	0	991	1,980	2,984	4,080	5,192
Annual Cost ($/yr)	–	$161,000	$321,000	$110,000	$151,000	$192,000
Unit Cost ($/acft)	–	$162	$162	$37	$37	$37

5.17.5 City of Cleburne

The City of Cleburne is projected to have a shortage beginning in 2040. The City of Cleburne obtains its water supply from direct reuse at 1,344 acft/yr, Pat Cleburne Reservoir 5,040 to 4,680 acft/yr, Trinity Aquifer 789 acft/yr and a contract with BRA that ranges from 2,971 to 885 acft/yr at 2020 to 2070, respectively. The City of Cleburne has contracted for 5,300 acft/yr of surface water supplies from the Brazos River Authority, which can supply 5,300 acft/yr in 2020 and 5,067 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Cleburne is projected to have a shortage from 2040 to 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of Cleburne. Conservation is recommended to reduce the City's gallons per capita per day (gpcd) to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Capital Cost: $729,070
   - Unit Cost: $560/acft

b. City of Cleburne West Loop Reuse Phase 1
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 202
   - Project Cost: $10,203,000
   - Unit Cost: $316/acft

c. City of Cleburne West Loop Reuse Phase 2
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 2030
   - Project Cost: $21,117,000
   - Unit Cost: $422/acft

d. Trinity Basin Purchase (Tarrant Regional Water District) Phase 1
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 2040
   - Project Cost: $68,993,000
   - Unit Cost: $1,665/acft

e. Trinity Basin Purchase (Tarrant Regional Water District) Phase 2
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 2050
   - Project Cost: $7,566,000
   - Unit Cost: $815/acft

f. Lake Whitney Desalination Phase 1
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 2060
   - Project Cost: $89,369,000
   - Unit Cost: $2,499/acft

g. Lake Whitney Desalination Phase 2
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 2070
   - Project Cost: $32,898,000
   - Unit Cost: $2,066/acft

h. Alternative Johnson County SUD Connection
   - Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
   - Date to be Implemented: 2060
   - Project Cost: $6,902,000
   - Unit Cost: $1,597/acft

i. Alternative Lake Aquila Reallocation

- Cost Source: City of Cleburne Water Supply and Reuse Integration Plan
- See BRA Wholesale Water Provider

Table 5.17-4.Recommended Plan Costs by Decade for the City of Cleburne

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,831*	*763*	*(1,097)*	*(2,988)*	*(5,195)*	*(7,324)*
Conservation						
Supply From Plan Element (acft/yr)	0	561	942	1,018	1,171	1,302
Annual Cost ($/yr)	$0	$314,170	$527,611	$569,977	$655,741	$729,070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,831*	*1,324*	*(155)*	*(1,970)*	*(4,024)*	*(6,022)*
Additional Demands from Recommended Strategies from Others						
Increase Reuse Amount to Johnson County Steam Electric (acft/yr)	571	571	571	571	571	571
Increase Reuse Amount to Johnson County Mining (acft/yr)	2,555	1,206	–	–	–	–
Total Surplus/(Shortage) Including Recommended Strategies	*(1,295)*	*(453)*	*(726)*	*(2,541)*	*(4,595)*	*(6,593)*
City of Cleburne West Loop Reuse: Phase 1						
Supply From Plan Element (acft/yr)	2,240	2,240	2,240	2,240	2,240	2,240
Annual Cost ($/yr)	$707,840	$707,840	$152,320	$152,320	$152,320	$152,320
Unit Cost ($/acft)	$316	$316	$68	$68	$68	$68
City of Cleburne West Loop Reuse: Phase 2						
Supply From Plan Element (acft/yr)	5,377	5,377	5,377	5,377	5,377	5,377
Annual Cost ($/yr)	$2,270,000	$2,270,000	$2,270,000	$785,042	$785,042	$785,042
Unit Cost ($/acft)	$422	$422	$146	$146	$146	$146
Trinity Basin Purchase Phase 1						
Supply From Plan Element (acft/yr)	–	–	5,601	5,601	5,601	5,601
Annual Cost ($/yr)	–	–	$9,325,665	$9,325,665	$4,469,598	$4,469,598
Unit Cost ($/acft)	–	–	$1,665	$1,665	$798	$798
Trinity Basin Purchase Phase 2						
Supply From Plan Element (acft/yr)	–	–	–	5,601	5,601	5,601
Annual Cost ($/yr)	–	–	–	$4,564,815	$4,564,815	$4,032,720

Table 5.17-4.Recommended Plan Costs by Decade for the City of Cleburne

Plan Element	2020	2030	2040	2050	2060	2070
Unit Cost ($/acft)	–	–	–	$815	$815	$720
Lake Whitney Desalination Phase 1						
Supply From Plan Element (acft/yr)	–	–	–	–	4,300	4,300
Annual Cost ($/yr)	–	–	–	–	$10,745,700	$10,745,700
Unit Cost ($/acft)	–	–	–	–	$2,499	$2,499
Lake Whitney Desalination Phase 2						
Supply From Plan Element (acft/yr)	–	–	–	–	–	3,100
Annual Cost ($/yr)	–	–	–	–	–	$6,404,600
Unit Cost ($/acft)	–	–	–	–	–	$2,066
Alternative: Johnson County SUD Connection						
Supply From Plan Element (acft/yr)	–	–	–	–	–	3,360
Annual Cost ($/yr)	–	–	–	–	–	$5,365,920
Unit Cost ($/acft)	–	–	–	–	–	$1,597
Alternative: Lake Aquilla Reallocation						

5.17.6 City of Crowley

Description of Supply

The City of Crowley is mostly located in Tarrant County; however, a portion of the city limits is within Johnson County. The City obtains its water from Fort Worth and is projected to have a shortage in Johnson County.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and through coordination with Region C, the following water supply plan is recommended to meet water needs for the portion of the city within Johnson County (Brazos G). The full water plan for City of Crowley is discussed in the 2021 Region C Water Plan. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd in Brazos G. Needs and supplies from strategies are for the Brazos G portion of Crowley only.

a. Purchase additional supplies from Fort Worth
   - Cost Source: 2020 Region C Water Plan
   - Date to be Implemented: 2030
   - Project Cost: none
   - Unit Cost: $531/acft (weighted average of Region C strategies)

Table 5.17-5. Recommended Plan Costs by Decade for the City of Crowley

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(2)*	*(5)*	*(9)*	*(15)*	*(21)*
Conservation (Region C strategy applied to Brazos G portion)						
Supply From Plan Element (acft/yr)	–	1	2	3	1	3
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*(1)*	*(3)*	*(6)*	*(14)*	*(18)*
Purchase from Fort Worth						
Supply From Plan Element (acft/yr)	–	1	3	6	14	18
Annual Cost ($/yr)	–	$531	$1,600	$3,200	$7,400	$9,600
Unit Cost ($/acft)	–	$531	$531	$531	$531	$531

5.17.7 City of Fort Worth

Description of Supply

The City of Fort Worth is a wholesale water provider in Region C in Tarrant County; however, a portion of the city limits is within Johnson County in Brazos G. The City obtains its water supply from surface water supplies located in Region C and is projected to have a shortage in Johnson County.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and through coordination with Region C, the following water management strategies are recommended to meet water needs for the portion of the city within Johnson County and Brazos G. The full water plan for City of Fort Worth is discussed in the 2021 Region C Water Plan.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2060
   - Unit Cost: $560/acft
   - Annual Cost: maximum of $186,204 in 2070

b. Purchase additional supplies from Tarrant Regional Water District
   - Cost Source: 2021 Region C Water Plan
   - Date to be Implemented: 2050
   - Project Cost: $0 Existing infrastructure assumed sufficient
   - Unit Cost: $978/acft

Table 5.17-6. Recommended Plan Costs by Decade for the City of Fort Worth

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*(391)*	*(695)*	*(949)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	67	98	107
Annual Cost ($/yr)	–	–	–	$181,000	$334,000	$472,000
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*0*	*0*	*(324)*	*(597)*	*(842)*
Purchase from Tarrant Regional Water District						
Supply From Plan Element (acft/yr)	–	–	–	324	597	842
Annual Cost ($/yr)	–	–	–	$317,000	$584,000	$823,000
Unit Cost ($/acft)	–	–	–	$978	$978	$978

5.17.8 City of Godley

Description of Supply

The City of Godley obtains its water supply from groundwater from the Trinity Aquifer at 99 acft/yr. Based on the available groundwater supply, the City of Godley is projected to have shortages throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for the City of Godley. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $686,000
   - Unit Cost: $1,423/acft

Table 5.17-7. Recommended Plan Costs by Decade for the City of Godley

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(3)*	*(12)*	*(22)*	*(35)*	*(49)*	*(65)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–

Table 5.17-7. Recommended Plan Costs by Decade for the City of Godley

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(3)*	*(12)*	*(22)*	*(35)*	*(49)*	*(65)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	3	12	22	35	49	65
Annual Cost ($/yr)	$4,269	$17,076	$5,082	$8,085	$11,319	$15,015
Unit Cost ($/acft)	$1,423	$1,423	$231	$231	$231	$231

5.17.9 City of Grandview

The City of Grandview obtains its water supply from groundwater from the Woodbine Aquifer at 369 acft/yr and is projected to have a surplus of water through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.17.10 Johnson County SUD

Johnson County SUD is projected to have a shortage in 2020, 2060, and 2070, and a surplus in 2030 through 2050. This WUG is located in multiple counties (Johnson, Tarrant (Region C), Ellis (Region C), and Hill). The balance shown in the table below represent the cumulative totals within Brazos G for Johnson County SUD.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Johnson County SUD. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $9,306,000
   - Unit Cost: $437/acft

b. Increase WTP Capacity (SWATS):
   - Cost Source: Volume II
   - Date to be Implemented: by 2040
   - Project Cost: $8,814,000 (Johnson County SUD portion)
   - Unit Cost: $696/acft

c. Alternative: Trinity Johnson County ASR

- Cost Source: Volume II
- Date to be Implemented: by 2020
- Project Cost: $19,789,000 (Johnson County SUD portion)
- Unit Cost: $634/acft

Table 5.17-8. Recommended Plan Costs by Decade for Johnson County SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(208)*	*1,432*	*1,477*	*179*	*(737)*	*(1,491)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(208)*	*1,432*	*1,477*	*179*	*(737)*	*(1,491)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	208	–	–	–	737	1,491
Annual Cost ($/yr)	$90,896	–	–	–	$35,376	$71,568
Unit Cost ($/acft)	$437	–	–	–	$48	$48
WTP Expansion (SWATS)						
Supply From Plan Element (acft/yr)	–	–	1,529	1,529	1,529	1,529
Annual Cost ($/yr)	–	–	$1,065,000	$1,065,000	$445,000	$445,000
Unit Cost ($/acft)	–	–	$696	$696	$291	$291
Alternative: Johnson County ASR						
Supply From Plan Element (acft/yr)		5,739	5,739	5,739	5,739	5,740
Annual Cost ($/yr)		$3,799,200	$3,799,200	$3,799,200	$3,799,200	$3,799,200
Unit Cost ($/acft)		$662	$662	$662	$662	$662

5.17.11 City of Keene

The City of Keene obtains its water supply from groundwater from the Trinity Aquifer at 326-327 acft/yr and a contract with Johnson County SUD at 1,120 acft/yr. The City of Keene is expected to have a surplus and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.17.12 City of Mansfield

Description of Supply

The City of Mansfield is located in Tarrant, Ellis and Johnson counties with a majority of its population and demand in Tarrant County. The City obtains its water supply from

surface water from the Tarrant Regional Water District (TRWD), principally located in Region C. The table includes the balance for the Johnson County (Brazos G) portion only. More information on City of Mansfield is discussed in the 2021 Region C Water Plan. The City of Mansfield is projected to have shortages starting in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region C, the following water management strategy is recommended for the City of Mansfield. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Unit Cost: $560/acft
   - Annual Cost: maximum of $516,488 in 2070

b. Purchase additional supplies from Tarrant Regional Water District
   - Cost Source: 2021 Region C Water Plan
   - Date to be Implemented: 2020
   - Project Cost: $0 Existing infrastructure assumed sufficient
   - Unit Cost: $978/acft

Table 5.17-9. Recommended Plan Costs by Decade for City of Mansfield

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(48)*	*(289)*	*(507)*	*(783)*	*(1,063)*	*(1,375)*
Conservation						
Supply From Plan Element (acft/yr)	0	87	223	407	641	922
Annual Cost ($/yr)	$0	$48,803	$124,900	$228,097	$359,186	$516,488
Projected Surplus/(Shortage) after Conservation	*(48)*	*(202)*	*(284)*	*(376)*	*(422)*	*(453)*
Purchase additional supplies from Tarrant Regional Water District						
Supply from Plan Element (acft/yr)	20	242	447	703	961	1,245
Annual Cost ($/yr)	$19,600	$236,700	$437,200	$687,500	$939,900	$1,217,600
Unit Cost ($/acft)	$978	$978	$978	$978	$978	$978

5.17.13 Mountain Peak SUD

Description of Supply

Mountain Peak SUD is located in Johnson and Ellis counties, with a majority of its population and demand in Ellis County (Region C). The WUG obtains its water supply from the City of Midlothian. A small shortage is projected for 2020, but after conservation a surplus is projected for Mountain Peak SUD through 2070. The Table below includes the balance for the Johnson County (Brazos G) portion only. More information on Mountain Peak SUD is discussed in the 2021 Region C Water Plan.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region C, the following water management strategy is recommended for Mountain Peak SUD. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Unit Cost: $338/acft (weighted cost of Region C strategy in 2020)
   - Annual Cost: maximum of $2,405,711 in 2070

b. Purchase additional supplies from Midlothian (various Region C strategies)
   - Cost Source: 2020 Region C Water Plan
   - Date to be Implemented: by 2030
   - Project Cost: $0 (existing infrastructure assumed sufficient)
   - Unit Cost: $609/acft (weighted cost of Region C strategies)

Table 5.17-10. Recommended Plan Costs by Decade for Mountain Peak SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(55)*	*(287)*	*(523)*	*(793)*	*(1,081)*	*(1,397)*
Conservation (Region C sponsored strategy)						
Supply From Plan Element (acft/yr)	55	141	155	191	222	252
Annual Cost ($/yr)	$18,600	$47,700	$52,390	$64,600	$75,000	$85,200
Projected Surplus/(Shortage) after Conservation	*0*	*(146)*	*(368)*	*(602)*	*(859)*	*(1,145)*
Purchase additional supplies from Midlothian (various Region C strategies)						
Supply From Plan Element (acft/yr)		146	368	602	859	1,145
Annual Cost ($/yr)		$57,336	$193,246	$358,681	$477,884	$696,997
Unit Cost ($/acft)		$393	$525	$596	$556	$609

5.17.14 Parker WSC

Description of Supply

Parker WSC is located in Hill and Johnson counties and obtains its water supply from the Trinity Aquifer at 274 acft/yr and surface water supplies from Files Valley WSC. Based on the existing supply available from groundwater, a shortage begins in 2060. The surplus/shortages shown in the table below represent the cumulative totals for Parker WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Parker WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Trinity Aquifer Development

- Cost Source: Volume II
- Date to be Implemented: before 2060
- Project Cost: $1,045,000
- Unit Cost: $661/acft

Table 5.17-11. Recommended Plan Costs by Decade for Parker WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*261*	*194*	*123*	*42*	*(48)*	*(145)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*261*	*194*	*123*	*42*	*(48)*	*(145)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	0	0	0	0	48	145
Annual Cost ($/yr)	–	–	–	–	$31,728	$95,845
Unit Cost ($/acft)	–	–	–	–	$661	$661

5.17.15 City of Rio Vista

Description of Supply

The City of Rio Vista obtains its water supply from groundwater from the Trinity Aquifer at 334 acft/yr. No shortages are projected for the City of Alvarado and no change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.17.16 City of Venus

Description of Supply

The City of Venus obtains its water supply from the Woodbine Aquifer at 103 acft/yr and surface water from the City of Midlothian in Region C ranges from 200 to 268 acft/yr. The city has a projected shortage starting in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region C, the following water management strategies are recommended to meet water needs for the City of Venus. Conservation is recommended to reduce usage to a goal of 140 gpcd. Note all shortages and supplies from strategies are totals for Region C and Brazos G.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum of $91,183 in 2070
   - Unit Cost: $556/acft (weighted average of Brazos G and Region C strategies)

a. Purchase Water from Midlothian (various Region C strategies)
   - Cost Source: 2021 Region C Water Plan
   - Date to be Implemented: 2020
   - Project Cost: N/A
   - Unit Cost: $534/acft (maximum of weighted average of Region C strategies)

Table 5.17-12. Recommended Plan Costs by Decade for City of Venus

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(92)*	*(309)*	*(411)*	*(462)*	*(549)*	*(654)*
Conservation (Brazos G and Region C strategies)						
Supply From Plan Element (acft/yr)	0	62	119	132	148	166
Annual Cost ($/yr)	$0	$34,204	$65,135	$73,366	$81,893	$92,123
Projected Surplus/(Shortage) after Conservation	*(92)*	*(247)*	*(292)*	*(330)*	*(401)*	*(488)*
Purchase Water from Midlothian (various Region C strategies)						
Supply From Plan Element (acft/yr)	92	247	292	330	401	488
Annual Cost ($/yr)	$0	$21,327	$86,433	$151,643	$189,380	$260,683
Unit Cost ($/acft)	$0	$86	$296	$460	$472	$534

5.17.17 County-Other

Entities in Johnson County-Other obtain water supply from the Trinity Aquifer at 7 acft/yr and as well as treated surface water from Johnson County SUD at 1,507 to 2,981 acft/yr and Grand Prairie at 188 to 531 acft/yr. A surplus of supply is projected for Johnson County-Other through 2070. No changes in water supply are recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd

5.17.18 Manufacturing

Johnson County Manufacturing is supplied by the Trinity Aquifer at 194 acft/yr, and the cities of Burleson at 2 acft/yr, Cleburne at 2,239 to 4,182 acft/yr and Hillsboro at 6 to 12 acft/yr. No shortage is projected for Johnson County Manufacturing and no changes in water supply are recommended.

5.17.19 Steam-Electric

Description of Supply

Johnson County Steam-Electric currently receives 1,344 acft/yr of reuse and potable water supplies from the City of Cleburne. Johnson County Steam-Electric is projected to have shortages through year 2070. Conservation for Steam-Electric use is not recommended by the Brazos G RWPG.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Johnson County Steam-Electric.

a. Purchase reuse water from the City of Cleburne
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $30,238,000
   - Unit Cost: $427/acft

Table 5.17-13. Recommended Plan Costs by Decade for Johnson County – Steam-Electric

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(571)*	*(571)*	*(571)*	*(571)*	*(571)*	*(571)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(571)*	*(571)*	*(571)*	*(571)*	*(571)*	*(571)*
Purchase reuse water from the City of Cleburne						

Table 5.17-13. Recommended Plan Costs by Decade for Johnson County – Steam-Electric

Plan Element	2020	2030	2040	2050	2060	2070
Supply From Plan Element (acft/yr)	571	571	571	571	571	571
Annual Cost ($/yr)	$243,817	$243,817	$84,508	$84,508	$84,508	$84,508
Unit Cost ($/acft)	$427	$427	$148	$148	$148	$148
Projected Surplus/(Shortage) after Reuse (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*

5.17.20 Mining

Description of Supply

Johnson County Mining obtains its water supply from Cleburne at 1,344 acft/yr. Johnson County Mining is projected to have a shortage in 2020 and 2030,surpluses from 2040 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Johnson County Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: Not determined

b. Purchase reuse water from the City of Cleburne
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $2,099,198
   - Unit Cost: $211/acft

Table 5.17-14. Recommended Plan Costs by Decade for Johnson County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2,679)*	*(1,345)*	*(68)*	*430*	*286*	*107*
Conservation						
Supply From Plan Element (acft/yr)	124	139	106	71	81	94
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation	*(2,555)*	*(1,206)*	*38*	*430*	*286*	*107*

Table 5.17-14. Recommended Plan Costs by Decade for Johnson County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Purchase reuse water from the City of Cleburne						
Supply From Plan Element (acft/yr)	2,555	1,206	–	–	–	–
Annual Cost ($/yr)	$539,105	$254,466	–	–	–	–
Unit Cost ($/acft)	$211	$211	–	–	–	–
ND – Not Determined. Costs to implement industrial conservation technologies will vary based on each location						

5.17.21 Irrigation

Johnson County Irrigation obtains its water supply from the Trinity Aquifer at 167 acft/yr and the Woodbine Aquifer at 130 acft/yr. Shortages are projected for Johnson County Irrigation.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Johnson County Irrigation. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Unit Cost $1,241/acft
   - Annual Cost: maximum of $6,464

b. BRA System Operations (Double Diamond Retreat)
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $95,792,000
   - Unit Cost: $4,497/acft

Table 5.17-15. Recommended Plan Costs by Decade for Johnson County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(269)*	*(269)*	*(269)*	*(269)*	*(269)*	*(269)*
Conservation						
Supply From Plan Element (acft/yr)	17	28	40	40	40	40
Annual Cost ($/yr)	$21,075	$35,125	$49,175	$49,175	$49,175	$49,175

Table 5.17-15. Recommended Plan Costs by Decade for Johnson County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation	*(252)*	*(241)*	*(229)*	*(229)*	*(229)*	*(229)*
Purchase water through BRA System Operations from Double Diamond Retreat						
Supply From Plan Element (acft/yr)	252	241	229	229	229	229
Annual Cost ($/yr)	$1,133,244	$1,083,777	$318,310	$318,310	$318,310	$318,310
Unit Cost ($/acft)	$4,497	$4,497	$1,390	$1,390	$1,390	$1,390

5.17.22 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.18 Jones County Water Supply Plan

Table 5.18-1 lists each water user group in Jones County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.18-1. Jones County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Abilene			See Taylor County
City of Anson	0	0	No projected surplus or shortage
Hamby WSC	148	143	Projected surplus
City of Hamlin	77	17	Projected surplus - see plan below.
Hawley WSC	113	94	Projected surplus
City of Stamford	309	242	Projected surplus - see plan below.
County-Other	(92)	(121)	Projected shortage - see plan below.
Manufacturing	0	0	No projected demand
Steam-Electric	0	0	No projected demand
Mining	(139)	(90)	Projected shortage - see plan below.
Irrigation	(191)	(191)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.18.1 City of Anson

Description of Supply

The City of Anson receives surface water supplies the West Central Texas MWD at 365 to 402 acft/yr. No shortages are projected for the City of Anson. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. No changes to Anson's water supplies are recommended.

5.18.2 Hamby WSC

Description of Supply

The Hamby WSC receives surface water supplies from the City of Anson, ranging from 495 to 532 acft/yr. A surplus is projected for the Hamby WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. No changes in the water supply plan are recommended.

5.18.3 City of Hamlin

Description of Supply

The City of Hamlin receives surface water supplies from the City of Anson, which ranges in 495 to 532 acft/yr. A surplus is projected for the City of Hamlin.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Hamlin. Conservation is recommended to reduce the City's gallons per capita per day (gpcd) to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $32,500 in 2070

Table 5.18-2. Recommended Plan Costs by Decade for City of Hamlin

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*109*	*89*	*77*	*53*	*35*	*17*
Conservation						
Supply From Plan Element (acft/yr)	0	30	55	57	57	58
Annual Cost ($/yr)	$0	$16,824	$31,024	$31,750	$31,730	$32,500
Projected Surplus/(Shortage) after Conservation	*109*	*119*	*132*	*110*	*92*	*75*

5.18.4 Hawley WSC

Hawley WSC is located in multiple counties (Taylor, and Jones). The balance shown in the table below represents the cumulative totals for Hawley WSC. Hawley WSC is supplied with water from the City of Abilene at 307 acft/yr and City of Anson at 221 acft/yr. Hawley WSC provides supply to meet the current and projected demands for the City of Hawley. No shortages are projected for Hawley WSC through 2070 and no change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. No changes in the water supply plan are recommended.

5.18.5 City of Stamford

The City of Stamford is located in Jones and Haskell Counties. The balance shown below represents the cumulative totals for City of Stamford. The City has a contract with BRA to compensate BRA for the reduction in yield of its system as the result of the City's upstream diversion. The City of Stamford's supply is sufficient to meet the current and projected

demands for the City. No shortages are projected through 2070 and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Stamford. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $193,513 in 2070

Table 5.18-3. Recommended Plan Costs by Decade for City of Stamford

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*360*	*329*	*309*	*284*	*261*	*242*
Conservation						
Supply From Plan Element (acft/yr)	*0*	*68*	*136*	*212*	*285*	*342*
Annual Cost ($/yr)	$0	$38,000	$76,000	$119,000	$160,000	$192,000
Projected Surplus/(Shortage) after Conservation	*360*	*397*	*445*	*496*	*546*	*584*

5.18.6 County-Other

Entities in County-Other receive supplies through the City of Stamford at 89 acft/yr and the Seymour Aquifer at 201 acft/yr. County-Other entities are projected to have a shortage of water throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the County Other Jones. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $2,347/acft ($7.20/1,000 gal)

Table 5.18-4. Recommended Plan Costs by Decade for Jones County-Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(68)*	*(82)*	*(92)*	*(102)*	*(112)*	*(121)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(68)*	*(82)*	*(92)*	*(102)*	*(112)*	*(121)*
Purchase Additional Supplies from City of Abilene						
Supply From Plan Element (acft/yr)	68	82	92	102	112	121
Annual Cost ($/yr)	$159,596	$192,454	$215,924	$239,394	$262,864	$283,987
Unit Cost ($/acft)	$2,347	$2,347	$2,347	$2,347	$2,347	$2,347

5.18.7 Manufacturing

There is no projected demand for Manufacturing in Jones County and no changes in water supply are recommended.

5.18.8 Steam-Electric

There is no projected demand for Steam-Electric in Jones County and no changes in water supply are recommended.

5.18.9 Mining

Description of Supply

Jones County Mining obtains its water supply from run-of-the river water rights which are not reliable in the drought of record and the Seymour Aquifer at 79 acft/yr. Jones County Mining is projected to have a shortage between 2020 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Jones County-Mining. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: not determined

b. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $2,347/acft ($7.20/1,000 gal)

Table 5.18-5. Recommended Plan Costs by Decade for Jones County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	(160)	(155)	(139)	(120)	(104)	(90)
Conservation						
Supply From Plan Element (acft/yr)	7	12	15	14	13	12
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(153)*	*(143)*	*(124)*	*(106)*	*(91)*	*(78)*
Purchase Additional Supplies from City of Abilene						
Supply From Plan Element (acft/yr)	153	143	124	106	91	78
Annual Cost ($/yr)	$359,091	$335,621	$291,028	$248,782	$213,577	$183,066
Unit Cost ($/acft)	$2,347	$2,347	$2,347	$2,347	$2,347	$2,347

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.18.10 Irrigation

Description of Supply

Jones County Irrigation is supplied by the Seymour Aquifer at 2,638 acft/yr. Irrigation is projected to have a shortage of water beginning in 2020 through 2070, but conservation will limit shortages to occur only in 2020 and 2030.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Jones County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: $28,462 maximum in 2070
- Unit Cost: $1,409/acft

b. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $2,347/acft ($7.20/1,000 gal)

Table 5.18-6. Recommended Plan Costs by Decade for Jones County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(191)*	*(191)*	*(191)*	*(191)*	*(191)*	*(191)*
Conservation						
Supply From Plan Element (acft/yr)	85	141	198	198	198	198
Annual Cost ($/yr)	$119,575	$199,292	$279,009	$279,009	$279,009	$279,009
Unit Cost ($/acft)	$1,409	$1,409	$1,409	$1,409	$1,409	$1,409
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(106)*	*(50)*	*7*	*7*	*7*	*7*
Purchase Additional Supplies from City of Abilene						
Supply From Plan Element (acft/yr)	106	50	–	–	–	–
Annual Cost ($/yr)	$248,782	$117,350	–	–	–	–
Unit Cost ($/acft)	$2,347	$2,347	–	–	–	–

5.18.11 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.19 Kent County Water Supply Plan

Table 5.19-1 lists each water user group in Kent County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of each water user group supply is presented in the following subsections.

Table 5.19-1. Kent County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Jayton	(112)	(111)	Projected shortage - see plan below.
County-Other	0	0	No projected surplus or shortage
Manufacturing	0	0	No projected demand
Steam-Electric	0	0	No projected demand
Mining	686	695	Projected surplus
Irrigation	634	634	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.19.1 City of Jayton

Description of Supply

Water supply for the City of Jayton is from the Seymour Aquifer. Jayton has sufficient supplies through 2070. However, the TCEQ has mandated that the City put in reverse osmosis treatment for its groundwater supply due to high levels of chlorides, sulfates, and total dissolved solids. Shortages are projected due to a treatment constraint from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet for the City of Jayton. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $4,507 in 2030
- Unit Cost: $560/acft

b. New Water Treatment Plant (0.4 MGD)
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $3,555,000
   - Unit Cost: $2,851

c. Alternative: Purchase Water from the Salinity Control Project
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $2,115,000 for City's portion
   - Unit Cost: $2,593/acft

Table 5.19-2. Recommended Plan Costs by Decade for City of Jayton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(118)*	*(115)*	*(112)*	*(111)*	*(111)*	*(111)*
Conservation						
Supply From Plan Element (acft/yr)	0	8	5	4	4	4
Annual Cost ($/yr)	$0	$4,507	$2,827	$2,267	$2,267	$2,267
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(118)*	*(107)*	*(107)*	*(107)*	*(107)*	*(107)*
New Water Treatment Plant (0.4 MGD)						
Supply From Plan Element (acft/yr)	249	249	249	249	249	249
Annual Cost ($/yr)	$710,000	$710,000	$460,000	$460,000	$460,000	$460,000
Unit Cost ($/acft)	$2,851	$2,851	$1,847	$1,847	$1,847	$1,847
Purchase Water from the Salt Fork Water Quality Cooperation Salinity Control Project						
Supply ~~F~~from Plan Element (acft/yr)	–	118	118	118	118	118
Annual Cost ($/yr)	–	$306,000	$157,000	$157,000	$157,000	$157,000
Unit Cost ($/acft)	–	$2,593	$1,331	$1,331	$1,331	$1,331

5.19.2 County-Other

Water supply for County-Other is from local groundwater and the Seymour Aquifer. No shortages are projected throughout the planning period, demand is equal to supply. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.19.3 Manufacturing

No Manufacturing demand exists or is projected for the county.

5.19.4 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.19.5 Mining

No shortages are projected for Mining, surpluses are projected through 2070, and no changes in water supply are recommended.

5.19.6 Irrigation

No shortages are projected for Irrigation, a surplus of 634 acft/yr is projected through 2070. No changes in water supply are recommended.

5.19.7 Livestock

No shortages are projected for Livestock, the demand equals the supply, and no changes in water supply are recommended.

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5.20 Knox County Water Supply Plan

Table 5.20–1 lists each water user group in Knox County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of each water user group supply is presented in the following subsections.

Table 5.20–1. Knox County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Baylor SUD			See Young County
Knox City	(235)	(256)	Projected shortage - see plan below.
City of Munday	(249)	(270)	Projected shortage - see plan below.
County-Other	12	2	Projected surplus
Manufacturing	0	0	No projected surplus or shortage
Steam-Electric	–	–	No projected demand
Mining	(9)	(8)	Projected shortage - see plan below.
Irrigation	(13,590)	(13,381)	Projected shortage - see plan below
Livestock	0	0	No projected surplus or shortage

5.20.1 Knox City

Description of Supply

Knox City obtains its water supply through purchases of treated surface water under contract from the North Central Texas Municipal Water Authority (NCTMWA) and through local groundwater production from the Seymour Aquifer. The City is contracted to purchase up to 260 acft/yr from the NCTMWA; however, due to availability of supplies, this contract is prorated to provide a maximum of only 11 acft/yr during the planning period. Additionally, no local groundwater supply from the Seymour Aquifer is projected to be available to the City. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Knox City. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Annual Cost: maximum of $30,240 in 2070
- Unit Cost: $560/acft

b. Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.

- Cost Source: Volume II
  - Project requires a subordination agreement with the BRA
- Date to be Implemented: before 2030
- Project Cost: none (cost would be borne by NCTMWA)
- Unit Cost: none (supply already purchased from NCTMWA)

Table 5.20–2. Recommended Plan Costs by Decade for Knox City

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(226)*	*(231)*	*(235)*	*(244)*	*(250)*	*(256)*
Conservation						
Supply From Plan Element (acft/yr)	—	17	36	52	53	54
Annual Cost ($/yr)	—	$9,520	$20,160	$29,120	$29,680	$30,240
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(226)*	*(214)*	*(199)*	*(191)*	*(197)*	*(202)*
Lake Creek Reservoir						
Supply From Plan Element (acft/yr)	—	214	199	192	197	202
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.20.2 City of Munday

Description of Supply

City of Munday obtains surface water via a contract with North Central Texas Municipal Water Authority (NCTMWA) and exempt groundwater use in the city limits from the Seymour Aquifer. The City is contracted to purchase up to 268 acft/yr from the NCTMWA; however, due to availability of supplies, this contract is prorated to provide a maximum of only 11 acft/yr during the planning period. Additionally, no local groundwater supply from the Seymour Aquifer is projected to be available to the City.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Munday. Conservation is recommended to reduce usage to a goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts

of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $20,160 in 2070
   - Unit Cost: $560/acft

b. Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.
   - Cost Source: Volume II
     - Project requires a subordination agreement with the BRA
   - Date to be Implemented: before 2030
   - Project Cost: none (cost would be borne by NCTMWA)
   - Unit Cost: none (supply already purchased from NCTMWA)

Table 5.20–3. Recommended Plan Costs by Decade for the City of Munday

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(242)*	*(246)*	*(249)*	*(258)*	*(264)*	*(270)*
Conservation						
Supply From Plan Element (acft/yr)	—	17	35	36	35	36
Annual Cost ($/yr)	—	$9,520	$19,960	$20,160	$19,600	$20,160
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(242)*	*(229)*	*(214)*	*(222)*	*(228)*	*(234)*
Lake Creek Reservoir						
Supply From Plan Element (acft/yr)	—	229	214	222	228	234
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.20.3 County-Other

Entities in Knox County-Other obtain water supply through groundwater production from the Seymour and Blaine Aquifers and through purchases of surface water under contracts with the NCTMWA. The combined supply under contract with the NCTMWA is for 131 acft/yr; however, this annual supply is projected to be prorated and only provide a maximum of 6 acft/yr during the planning period. No future local groundwater supply is projected to be available from the Seymour Aquifer; local available supply to Knox County-Other usersf rom the Blaine Aquifer is projected at 100 acft/yr. No water supply shortages are projected and no change in water supply is recommended. Conservation was also considered; however, the current usage is below the selected goal of 140 gpcd.

5.20.4 Manufacturing

Description of Supply

Manufacturing entities in Knox County are projected to have a constant shortage during the planning period; no existing water supplies are currently allocated for this WUG.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Manufacturing:

a. Groundwater Development – Blaine Aquifer

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $331,000
- Unit Cost: maximum of $1,120/acft

Table 5.20–4. Recommended Plan Costs by Decade for Knox County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Groundwater Development – Blaine Aquifer						
Supply From Plan Element (acft/yr)	25	25	25	25	25	25
Annual Cost ($/yr)	$28,000	$28,000	$5,000	$5,000	$5,000	$5,000
Unit Cost ($/acft)	$1,120	$1,120	$200	$200	$200	$200

5.20.5 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.20.6 Mining

Description of Supply

No water supplies are currently allocated for Mining operations in Knox County. Water supply shortages are projected for Mining beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II, Chapter 2
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Groundwater Development – Blaine Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $178,000
   - Unit Cost: maximum of $560

Table 5.20–5. Recommended Plan Costs by Decade for Knox County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(9)*	*(10)*	*(9)*	*(9)*	*(8)*	*(8)*
Conservation						
Supply From Plan Element (acft/yr)	—	1	1	1	1	1
Annual Cost ($/yr)	—	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(9)*	*(9)*	*(8)*	*(8)*	*(7)*	*(7)*
Groundwater Development – Blaine Aquifer						
Supply From Plan Element (acft/yr)	25	25	25	25	25	25
Annual Cost ($/yr)	$14,000	$14,000	$1,000	$1,000	$1,000	$1,000
Unit Cost ($/acft)	$560	$560	$40	$40	$40	$40

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.20.7 Irrigation

Description of Supply

Knox County Irrigation obtains water supplies from the Seymour and the Blaine Aquifer as well as surface water supplies from Lake Davis and run-of-the river water rights. Irrigation shortages are projected through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Irrigation. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $4,702,742
   - Unit Cost: $1,662/acft

b. Groundwater Development – Blaine Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $631,000
   - Unit Cost: maximum of $136/acft

c. Leave Needs Unmet:
   - Cost Source: Cost of not meeting needs – see Appendix G
   - Date to be Implemented: before 2030

Table 5.20–6. Recommended Plan Costs by Decade for Knox County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(14,884)*	*(17,282)*	*(13,590)*	*(11,488)*	*(11,188)*	*(13,381)*
Conservation						
Supply From Plan Element (acft/yr)	1,319	2,199	2,791	2,665	2,829	2,829
Annual Cost ($/yr)	$2,193,453	$3,655,754	$4,640,020	$4,431,025	$4,702,742	$4,702,742
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(13,565)*	*(15,083)*	*(10,799)*	*(8,823)*	*(8,359)*	*(10,552)*
Groundwater Development – Blaine Aquifer						
Supply From Plan Element (acft/yr)	405	405	405	405	405	405
Annual Cost ($/yr)	$55,000	$55,000	$11,000	$11,000	$11,000	$11,000
Unit Cost ($/acft)	$136	$136	$27	$27	$27	$27
Leave Needs Unmet (acft/yr)	*(13,160)*	*(14,678)*	*(10,394)*	*(8,418)*	*(7,954)*	*(10,117)*

5.20.8 Livestock

No shortages are projected for Livestock, the demand equals the supply, and no changes in water supply are recommended.

5.21 Lampasas County Water Supply Plan

Table 5.21-1 lists each water user group in Lampasas County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.21-1. Lampasas County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Copperas Cove			See Coryell County
Corix Utilities Texas, Inc			See Washington county
Kempner WSC	(970)	(1,664)	Projected shortage - see plan below.
City of Lampasas	(308)	(600)	Projected shortage - see plan below.
County-Other	100	190	Projected surplus
Manufacturing	(22)	(3)	Projected shortage - see plan below.
Steam-Electric	0	0	No projected demand
Mining	(137)	(209)	Projected shortage - see plan below.
Irrigation	(233)	(242)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.21.1 Kempner WSC

Kempner WSC has service area in portions of Coryell, Bell, Lampasas and Burnet (Region K) Counties. Kempner WSC has contracted for 8,900 acft/yr of surface water supplies from the Brazos River Authority, which can supply 7,397 acft/yr in 2020 and 7,153 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Kempner's supplies are constrained by water treatment capacity to 3,965 acft/yr. Kempner WSC sells supplies to the Lampasas County-Other, Lampasas County Mining, and Salado WSC water user groups. Shortages are projected for Kempner WSC in 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Kempner WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd. Kempner WSC has no shortages in the Region K portion; however, the Region K RWPG has recommended conservation and drought management strategies. Shortages and strategies shown are for the Brazos G portion only.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Unit Cost: $560/acft
- Annual Cost: maximum of $139,376 in 2070

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Increase Water Treatment Plant Capacity
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $10,821,000
   - Unit Cost: $879/acft

Table 5.21-2. Recommended Plan Costs by Decade for Kempner WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(470)*	*(740)*	*(970)*	*(1,211)*	*(1,445)*	*(1,664)*
Conservation						
Supply From Plan Element (acft/yr)	0	234	233	229	237	249
Annual Cost ($/yr)	$0	$131,221	$130,715	$128,005	$132,825	$139,376
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(470)*	*(506)*	*(737)*	*(982)*	*(1,208)*	*(1,415)*
Additional Demands from Recommended Strategies from Others						
Increase Contract Amount to City of Lampasas (acft/yr)	121	226	308	403	504	600
Increase Contract Amount to City of Lampasas to then sell to Manufacturing (acft/yr)	7	16	7	4	–	–
Total Needs Including Recommended Strategies	*(598)*	*(748)*	*(1,045)*	*(1,389)*	*(1,712)*	*(2,015)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	–	1,551	1,600	1,649	1,698	1,747
Annual Cost ($/yr)	–	–	–	–	–	–
Unit Cost ($/acft)	–	–	–	–	–	–
Increase WTP Capacity						
Supply From Plan Element (acft/yr)[A]	1,120	1,120	1,120	2,015	2,015	2,015
Annual Cost ($/yr)	$984,480	$984,480	$477,120	$858,390	$858,390	$858,390
Unit Cost ($/acft)	$879	$879	$426	$426	$426	$426

A – Quantity represents increase in treatment capacity required to develop existing supplies currently constrained by treatment capacity. Existing contracted supplies are sufficient to meet shortage if treatment capacity is expanded.

5.21.2 City of Lampasas

Description of Supply

The City of Lampasas has contracted for water supply from Kempner WSC at 1,144 to 1,068 acft/yr. City of Lampasas has contracted for 3,500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 2,909 acft/yr in 2020 and 2,813 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. City of Lampasas supplies are constrained by water treatment capacity. The City provides supply for Lampasas County-Manufacturing demands. Shortages are projected beginning in 2020 and last through 2070. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Lampasas. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

d. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: costs borne by BRA
- Unit Cost: costs borne by BRA

Table 5.21-3. Recommended Plan Costs by Decade for City of Lampasas

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(121)*	*(226)*	*(308)*	*(403)*	*(504)*	*(600)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(121)*	*(226)*	*(308)*	*(403)*	*(504)*	*(600)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	–	610	629	649	668	687
Annual Cost ($/yr)	–	–	–	–	–	–
Unit Cost ($/acft)	–	–	–	–	–	–

5.21.3 County-Other

Entities included in Lampasas County-Other obtain water supply from the Trinity Aquifer at 5 acft/yr and Marble Falls Aquifer at 6 acft/yr. Surpluses are projected through 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.21.4 Manufacturing

Lampasas County Manufacturing obtains its water supply the City of Lampasas at 137 to 213 acft/yr and run-of-river rights at 48 to 0 acft/yr from 2020 to 2070. Based on the available surface water supply, Lampasas County Manufacturing is projected to have a shortage through 2050 after conservation.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the Lampasas County Manufacturing. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: not determined

b. Increase treatment contract with City of Lampasas
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: Existing infrastructure assumed sufficient
   - Unit Cost: $500/acft

Table 5.21-4. Recommended Plan Costs by Decade for Lampasas County-Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(13)*	*(27)*	*(22)*	*(19)*	*(11)*	*(3)*
Conservation						
Supply From Plan Element (acft/yr)	6	11	15	15	15	15
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation	*(7)*	*(16)*	*(7)*	*(4)*	*4*	*12*
Increase treated water contract from City of Lampasas						
Supply From Plan Element (acft/yr)	7	16	7	4	–	–
Annual Cost ($/yr)	$3,500	$8,000	$3,500	$2,000	–	–
Unit Cost ($/acft)	$500	$500	$500	$500	$500	$500

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.21.5 Steam-Electric

No Steam-Electric demand is projected for Lampasas County.

5.21.6 Mining

Description of Supply

Lampasas County Mining currently obtains its water supply from Kempner WSC at 25 acft/yr and the Ellenburger-San Saba Aquifer at 79 acft/yr. Mining is projected to have shortages starting in 2020 to 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Lampasas County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: not determined

b. Groundwater Development – Ellenburger-San Saba Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $2,051,000
   - Unit Cost: $936

Table 5.21-5. Recommended Plan Costs by Decade for Lampasas County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(94)*	*(117)*	*(137)*	*(157)*	*(182)*	*(209)*
Conservation						
Supply From Plan Element (acft/yr)	6	11	17	18	20	22
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(88)*	*(106)*	*(120)*	*(139)*	*(162)*	*(187)*
Groundwater Development – Ellenburger-San Saba Aquifer						
Supply From Plan Element (acft/yr)	88	106	120	139	162	187
Annual Cost ($/yr)	$82,368	$99,216	$19,680	$22,796	$26,568	$30,668
Unit Cost ($/acft)	$936	$936	$164	$164	$164	$164

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.21.7 Irrigation

Description of Supply

Lampasas County Irrigation is supplied by the Trinity and Marble Falls Aquifers at 208 acft/yr and run of the river water rights at 103 to 88 acft/yr. Irrigation is projected to have shortages beginning in 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Lampasas County-Irrigation. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: maximum of $5,936 in 2030
   - Unit Cost: $1,285/acft

b. Groundwater Development – Marble Falls Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $2,054,000
   - Unit Cost: Max of $834/ acft/yr

Table 5.21-6. Recommended Plan Costs by Decade for Lampasas County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(227)*	*(230)*	*(233)*	*(236)*	*(239)*	*(242)*
Conservation						
Supply From Plan Element (acft/yr)	16	27	38	38	38	38
Annual Cost ($/yr)	$20,734	$34,557	$48,380	$48,380	$48,380	$48,380
Unit Cost ($/acft)	$1,285	$1,285	$1,285	$1,285	$1,285	$1,285
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(211)*	*(203)*	*(195)*	*(198)*	*(201)*	*(204)*
Groundwater Development – Marble Falls Aquifer						
Supply From Plan Element (acft/yr)	211	203	195	198	201	204
Annual Cost ($/yr)	$175,974	$169,302	$29,055	$29,502	$29,949	$30,396
Unit Cost ($/acft)	$834	$834	$149	$149	$149	$149

5.21.8 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.22 Lee County Water Supply Plan

Table 5.22-1 lists each water user group in Lee County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.22-1. Lee County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Aqua WSC	0	0	No projected surplus or shortage - see plan below.
City of Giddings	400	351	Projected surplus - see plan below.
Lee County WSC	2,035	1,517	Projected surplus
City of Lexington	387	377	Projected surplus - see plan below.
Southwest Milam WSC			See Milam County
County-Other	7	1	Projected surplus
Manufacturing	7	10	Projected surplus
Steam-Electric	0	0	No projected demand
Mining	3,115	3,324	Projected surplus, shortage in 2020-2030 - see plan below.
Irrigation	197	207	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.22.1 Aqua WSC

Description of Supply

Aqua WSC is located in Lee (Brazos G) and Bastrop (Region K), Fayette (Region K), Travis (Region K), and Caldwell (Region L) Counties with a majority of its demand in Bastrop County. Aqua WSC obtains its water supply from groundwater from the Carrizo-Wilcox Aquifer. Based on the existing supply available from groundwater, demands are projected to match supplies from year 2020 through year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Regions K and L, the following water management strategy is recommended for Aqua WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd. The conservation strategy is shown for only the Brazos G recommended strategy. Regions K and L also recommend water conservation in their plans.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $2,244 in 2040
- Unit Cost: $560/acft

Table 5.22-2. Recommended Plan Costs by Decade for Aqua WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	0	11	4	0	0	0
Annual Cost ($/yr)	$0	$5,983	$2,244	$225	$0	$0
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*11*	*4*	*0*	*0*	*0*

5.22.2 City of Giddings

Description of Supply

The City of Giddings obtains its water supply from groundwater from the Carrizo-Wilcox Aquifer at 1,730 to 1,725 acft/yr. The City of Giddings sells water to Lee County Manufacturing at 13 to 18 acft/yr. There are surpluses projected through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Giddings. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $134,243 in 2070
- Unit Cost: $560/acft

Table 5.22-3. Recommended Plan Costs by Decade for City of Giddings

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*576*	*461*	*400*	*380*	*362*	*351*
Conservation						
Supply From Plan Element (acft/yr)	0	95	199	237	238	240
Annual Cost ($/yr)	$0	$52,980	$111,538	$132,735	$133,385	$134,243
Projected Surplus/(Shortage) after Conservation	*576*	*556*	*599*	*617*	*600*	*591*

5.22.3 Lee County WSC

Lee County WSC is located in Lee, Bastrop (Region K) and Fayette (Region K) counties. The majority of water demand is located in Lee County. The WSC obtains its water supply from groundwater from the Queen City Aquifer at 133 to 136 acft/yr, the Carrizo Wilcox at 3,934 acft/yr, and the Sparta Aquifer at 272 acft/yr. Balance and strategies represented in the table below are for the entire WSC in all counties and regions. No shortages are projected for the planning period. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.22.4 City of Lexington

Description of Supply

The City of Lexington obtains its water supply from the Carrizo-Wilcox Aquifer at 667 acft/yr. No shortages are projected for the City of Lexington, surpluses are projected through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Lexington. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $11,812 in 2060
- Unit Cost: $560/acft

Table 5.22-4. Recommended Plan Costs by Decade for City of Lexington

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*423*	*399*	*387*	*383*	*379*	*377*
Conservation						
Supply From Plan Element (acft/yr)	0	20	23	21	21	21
Annual Cost ($/yr)	$0	$11,025	$12,601	$11,591	$11,812	$11,790
Projected Surplus/(Shortage) after Conservation	*423*	*419*	*410*	*404*	*400*	*398*

5.22.5 County-Other

Entities in Lee County-Other receive supplies from the Carrizo-Wilcox Aquifer at 156 acft/yr. County-Other is projected to have a surplus of water through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.22.6 Manufacturing

Manufacturing is supplied from City of Giddings at 13 to 18 acft/yr and is projected to have a surplus of water through the year 2070 and no changes in water supply are recommended.

5.22.7 Steam-Electric

No Steam-Electric demand exists nor is projected for the county.

5.22.8 Mining

Description of Supply

Mining operations in Lee County are supplied water from the Carrizo-Wilcox at 2,905 to 3,324 acft/yr from 2020 to 2070. Shortages are projected from 2020 to 2030 and surpluses for Mining are projected between 2040 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Lee County-Mining. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2020
- Annual Cost: not determined

b. Groundwater Development – Carrizo-Wilcox Aquifer

- Cost Source: Volume II
- Date to be Implemented: 2020 and 2030
- Project Cost: $3,077,000
- Unit Cost: $1,413

Table 5.22-5. Recommended Plan Costs by Decade for Lee County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(275)*	*(169)*	*3,115*	*3,221*	*3,324*	*3,324*
Conservation						
Supply From Plan Element (acft/yr)	95	159	0	0	0	0
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(180)*	*(10)*	*3,115*	*3,221*	*3,324*	*3,324*
Groundwater Development – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	180	10	–	–	–	–
Annual Cost ($/yr)	$254,340	$14,130	–	–	–	–
Unit Cost ($/acft)	$1,413	$1,413	–	–	–	–

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.22.9 Irrigation

Lee County Irrigation is supplied from run-of-the river water rights at 1 acft/yr, the Carrizo-Wilcox Aquifer at 781 to 783 acft/yr from 2020 to 2070, and the Queen City Aquifer at 576 to 591 acft/yr from 2020 to 2070. Irrigation is projected to have a surplus of water through the year 2070 and no changes in water supply are recommended.

5.22.10 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.23 Limestone County Water Supply Plan

Table 5.23-1 lists each water user group in Limestone County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.23-1. Limestone County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Birome WSC			See Hill County
Bistone MWSD	28	28	Projected surplus
City of Coolidge	209	141	Projected surplus
City of Groesbeck	(667)	(665)	Projected shortage - see plan below.
City of Mart			See McLennan County
City of Mexia	284	(182)	Projected shortage - see plan below.
Point Enterprise WSC	15	0	Projected surplus
Post Oak SUD			See Hill County
Prairie Hill WSC	137	105	Projected surplus
SLC WSC	15	6	Projected surplus
Tri-County SUD	1,168	1,169	Projected surplus
White Rock WSC	536	517	Projected surplus
County-Other	243	236	Projected surplus
Manufacturing	(314)	(313)	Projected shortage - see plan below.
Steam-Electric	(388)	(388)	Projected shortage - see plan below.
Mining	(6,707)	(8,267)	Projected shortage - see plan below.
Irrigation	28	28	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.23.1 Bistone Municipal Water Supply District

Description of Supply

Bistone Municipal Water Supply District obtains its water supply through groundwater production from the Carrizo-Wilcox Aquifer, through diversions of surface water from Lake Mexia under water rights held by the District, and through purchases of treated surface water under contract with the City of Mexia. Available groundwater supplies from the Carrizo-Wilcox Aquifer are projected at a constant 2,067 acft/yr through the planning period, and available supply through treated water purchases from the City of Mexia is projected at 28 acft/yr. Water supply obtained through surface water diversions by the

District is projected to have an availability of 1,100 acft/yr at the beginning of the planning period, which will decrease to 600 acft/yr by 2070.

Bistone Municipal Water Supply District also provides sales of treated surface water under contract with the City of Coolidge, White Rock WSC, and Mexia State School which is grouped within the Limestone County-Other WUG. Additionally, the Bistone Municipal Water Supply District provides sales of Carrizo-Wilcox groundwater produced by the District to the City of Mexia. No shortages in water supply are projected for Bistone Municipal Water Supply District though the planning period, however, with additional demands projected from its wholesale customers, Bistone will need to develop additional supplies in 2060 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to for the Bistone Municipal Water Supply District. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $58,240
- Unit Cost: $560/acft

b. Carrizo-Wilcox Aquifer Development

- Cost Source: Volume II
- Date to be Implemented: before 2060
- Project Cost: $1,772,000
- Unit Cost: $358.70/acft

Table 5.23-2. Recommended Plan Costs by Decade for Bistone Municipal Water Supply District

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*116*	*28*	*28*	*28*	*28*	*28*
Conservation						
Supply From Plan Element (acft/yr)	—	20	40	62	83	104
Annual Cost ($/yr)	—	$11,200	$22,400	$34,720	$46,480	$58,240
Projected Surplus/(Shortage) after Conservation (acft/yr)	*116*	*48*	*68*	*90*	*111*	*132*
Additional Demands from Recommended Strategies from Others						
Increase Groundwater Supply to City of Mexia (includes supplies to Wortham (Region C)) (acft/yr)	—	—	—	—	(186)	(363)

Table 5.23-2. Recommended Plan Costs by Decade for Bistone Municipal Water Supply District

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr) Including Recommended Strategies	*106*	*31*	*47*	*65*	*(75)*	*(231)*
Groundwater Development – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	274	97
Annual Cost ($/yr)	—	—	—	—	$98,400	$34,800
Unit Cost ($/acft)	—	—	—	—	$359	$359

5.23.2 City of Coolidge

Description of Supply

The City of Coolidge obtains its water supply through purchases of treated surface water under contracts with the Bistone Municipal Water Supply District and Post Oak SUD; water provided by Post Oak SUD is sourced within Region C. Total treated water supplies available to the City are projected to range between 392 to 430 acft/yr. No shortages are projected for the City of Coolidge during the planning period and no change is recommended to water supply.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region C, the following water management strategies are recommended for the City of Coolidge. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $2,240
- Unit Cost: $560/acft

Table 5.23-3. Recommended Plan Costs by Decade for City of Coolidge

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*197*	*198*	*209*	*190*	*169*	*141*
Conservation						
Supply From Plan Element (acft/yr)	—	4	—	—	—	—
Annual Cost ($/yr)	—	$2,240	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*197*	*202*	*209*	*190*	*169*	*141*

5.23.3 City of Groesbeck

Description of Supply

The City of Groesbeck obtains its water supply through diversions from the Navasota River; however, no surface water supplies are projected as being available to the City during the planning period. The City owns senior water rights (priority date of 1921) on the Navasota River and has limited storage available from Springfield Lake. The City has purchased a quarry to temporarily store water supply to manage the most recent drought. However; until a permanent solution is identified, the City of Groesbeck is projected to have shortages.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of Groesbeck. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Groesbeck Off-Channel Reservoir

- Cost Source: Volume II
- Date to be Implemented: 2030
- Project Cost: $23,599,000
- Unit Cost: maximum of $1,056/acft

Table 5.23-4. Recommended Plan Costs by Decade for City of Groesbeck

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(688)*	*(677)*	*(667)*	*(665)*	*(668)*	*(665)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(688)*	*(677)*	*(667)*	*(665)*	*(668)*	*(665))*
Groesbeck OCR						
Supply From Plan Element (acft/yr)	—	1,755	1,755	1,755	1,755	1,755
Annual Cost ($/yr)	—	$1,853,000	$1,853,000	$750,000	$379,000	$379,000
Unit Cost ($/acft)	—	$1,056	$1,056	$427	$216	$216

5.23.4 City of Mexia

Description of Supply

The City of Mexia obtains its water supply through contracted purchases of Carrizo-Wilcox groundwater produced by the Bistone Municipal Water Supply District, which is projected to provide 2,067 acft/yr of available supply at the beginning of the planning period and decreasing to 1,615 acft/yr in 2070. The City also provides sales of treated water to the Bistone Municipal Water Supply District, White Rock WSC, Manufacturing entities in Limestone County, and the City of Wortham (Region C). Additionally, the City sells Carrizo-Wilcox groundwater purchased from the Bistone Municipal Water District to County-Other users in Limestone County, including the City of Shiloh and the 84 West WSC. Shortages in available water supply for the City are projected to occur in 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of Mexia. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Obtain additional groundwater from Bistone Municipal Water Supply District

- Cost Source: Volume II, Chapter 14
    - Project requires Bistone Municipal Water Supply District to develop additional Carrizo-Wilcox groundwater supply.
- Date to be Implemented: before 2060
- Annual Cost: maximum of $130,680
- Unit Cost: $359/acft

Table 5.23-5. Recommended Plan Costs by Decade for City of Mexia

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*530*	*443*	*284*	*115*	*(43)*	*(182)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*530*	*443*	*284*	*115*	*(43)*	*(182)*
Additional Demands from Recommended Strategies from Others						
Increase sales to Wortham (Region C) (acft/yr)	(10)	(17)	(21)	(25)	(143)	(181)
Projected Surplus/(Shortage) (acft/yr) Including Recommended Strategies	*520*	*426*	*263*	*90*	*(186)*	*(363)*

Table 5.23-5. Recommended Plan Costs by Decade for City of Mexia

Plan Element	2020	2030	2040	2050	2060	2070
Purchase additional Groundwater from Bistone Municipal Water Supply District (includes supply to Wortham)						
Supply From Plan Element (acft/yr)	—	—	—	—	186	363
Annual Cost ($/yr)	—	—	—	—	$66,960	$130,680
Unit Cost ($/acft)	—	—	—	—	$360	$360

5.23.5 Point Enterprise WSC

Point Enterprise WSC's service area includes portions of Limestone and Freestone Counties (Region C). This section addresses only the supply, demands and strategies that are within the Brazos G Area. Point Enterprise WSC obtains water supply through groundwater production from the Carrizo-Wilcox Aquifer. No supply shortages are projected during the planning period and no change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.23.6 Prairie Hill WSC

Description of Supply

Prairie Hill WSC obtains its water supply solely through groundwater production from the Carrizo-Wilcox Aquifer, which is projected to provide a constant 395 acft/yr of supply through the planning period. No shortages are projected for Prairie Hill WSC and no change in water supply is recommended.

Various entities are dealing with elevated levels of arsenic in groundwater supplies and have been pursuing water management strategies through the FHLM WSC. Through a TWDB sponsored study coordinated by FHLM WSC, these entities have considered a regional brackish RO WTP in Limestone County, Carrizo-Wilcox Regional Groundwater in Limestone County, Tehuacana Reservoir, and supplies from City of Marlin (Brushy Creek Reservoir), and City of Waco. The recommended strategy is to provide for arsenic treatment for individual entities. This strategy does not provide new supply.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for Prairie Hill WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $3,360 in 2030
   - Unit Cost: $560/acft

b. Upgrade Treatment for Arsenic

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $1,408,000
- Unit Cost: maximum of $1,000/acft

Table 5.23-6. Recommended Plan Costs by Decade for Prairie Hill WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*154*	*145*	*137*	*126*	*114*	*105*
Conservation						
Supply From Plan Element (acft/yr)	—	4	1	—	—	—
Annual Cost ($/yr)	—	$2,240	$560	—	—	—
Projected Surplus/(Shortage) after Conservation	*154*	*149*	*138*	*126*	*114*	*105*
Upgrade Treatment for Arsenic						
Supply From Plan Element (acft/yr)	268	268	268	268	268	268
Annual Cost ($/yr)	$268,000	$268,000	$286,000	$169,000	$169,000	$169,000
Unit Cost ($/acft)	$1,000	$1,000	$631	$631	$631	$631

5.23.7 SLC WSC

SLC WSC obtains its water supply through groundwater production from the Carrizo-Wilcox Aquifer and through purchases of raw surface water under contract from the Brazos River Authority. Local groundwater production is projected to provide 123 acft/yr of supply through the planning period, while surface water purchases are projected to provide a constant 200 acft/yr. No shortages in water supply are projected for SLC WSC through the planning period and no change in supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.23.8 Tri-County SUD

Tri-County SUD obtains its water supply through groundwater production from the Trinity and Carrizo-Wilcox Aquifers in Falls County and from the Carrizo-Wilcox Aquifer in Robertson County. Total groundwater supply available for production by the SUD is projected to range between 1,420 to 1,430 acft/yr during the planning period. No water supply shortages are projected and no change in supply is recommended for Tri-County SUD. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.23.9 White Rock WSC

White Rock WSC obtains its water supply through purchases of treated water under contracts with the Bistone Municipal Water Supply District and the City of Mexia. These contracts are projected to provide a constant 761 acft/yr of supply through the planning

period. No shortages in water supply are projected for White Rock WSC during the planning period and no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.23.10 County-Other

Description of Supply

Entities in County-Other obtain water supply through local groundwater production from the Carrizo-Wilcox and Trinity Aquifers, though purchases of groundwater from the City of Mexia by 84 West WSC and the City of Shiloh, and through purchases of treated surface water from the Bistone Municipal Water Supply District by the Mexia State School. Groundwater supplies available for local production are projected at a constant 5 acft/yr; purchases of groundwater and treated surface water are projected to provide 534 acft/yr through the planning period. No supply shortages are projected and no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.23.11 Manufacturing

Description of Supply

Limestone County Manufacturing obtains its water supply through purchases of treated water from the City of Mexia and City of Groesbeck and through purchases of groundwater from the City of Coolidge. Manufacturing in the County is projected to experience water supply shortages throughout the planning period.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Limestone County-Manufacturing. Conservation is recommended.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: not determined

b. Carrizo-Wicox Aquifer Development
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: $1,767,000
    - Unit Cost: maximum of $525/acft

Table 5.23-7. Recommended Plan Costs by Decade for the Limestone County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(259)*	*(314)*	*(314)*	*(314)*	*(313)*	*(313)*
Conservation						
Supply From Plan Element (acft/yr)	10	19	26	26	26	26
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation	*(249)*	*(295)*	*(288)*	*(314)*	*(314)*	*(313)*
Groundwater Development – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	314	314	314	314	314	314
Annual Cost ($/yr)	$165,000	$165,000	$41,000	$41,000	$41,000	$41,000
Unit Cost ($/acft)	$525	$525	$131	$131	$131	$131

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.23.12 Steam-Electric

Description of Supply

Steam-Electric water demand in Limestone County is associated with the NRG (formerly Reliant Energy) power plant located at Lake Limestone. NRG has contracted with the Brazos River Authority for up to 21,837 acft/yr of raw water supply through purchases of raw water from Lake Limestone. Additionally, NRG utilizes local groundwater produced from the Carrizo-Wilcox Aquifer; this supply is projected to provide an additional 711 acre-feet of annual supply. Limestone County Steam-Electric is projected to have shortages from 2030 through the year 2070.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Limestone County-Mining. The Brazos G RWPG does not recommend conservation for Steam-Electric use.

a. Carrizo-Wicox Aquifer Development

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $1,709,000
- Unit Cost: maximum of $363//acft

Table 5.23-8. Recommended Plan Costs by Decade for Limestone County – Steam-Electric

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(388)*	*(388)*	*(388)*	*(388)*	*(388)*	*(388)*
Groundwater Development - Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	388	388	388	388	388	388
Annual Cost ($/yr)	$141,000	$141,000	$21,000	$21,000	$21,000	$21,000
Unit Cost ($/acft)	$363	$363	$54	$54	$54	$54

5.23.13 Mining

Description of Supply

Mining operations in Limestone County are supplied by Carrizo-Wilcox groundwater. Demands for Mining exceed current supplies resulting in shortages beginning in 2020.

Recommended Strategy

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Limestone County-Mining. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: not determined

b. Leave Needs Unmet

- Mining activity in Limestone County has slowed down since the release of the most recent demand projections and current mine operations are focused on reclamation. Projected demands and corresponding shortages are not anticipated to be realized during the planning period.
- Cost Source: Cost of not meeting needs – see Appendix G
- Date to be Implemented: before 2030

Table 5.23-9. Recommended Plan Costs by Decade for Limestone County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(7,159)*	*(6,767)*	*(6,707)*	*(7,181)*	*(7,647)*	*(8,267)*
Conservation						
Supply From Plan Element (acft/yr)	310	496	691	724	756	800
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(6,849)*	*(6,271)*	*(6,016)*	*(6,457)*	*(6,891)*	*(7,467)*
Leave Needs Unmet (acft/yr)	*(6,849)*	*(6,271)*	*(6,016)*	*(6,457)*	*(6,891)*	*(7,467)*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.23.14 Irrigation

Irrigation in Limestone County obtains water supply through local groundwater production from the Carrizo-Wilcox Aquifer and through purchases of surface water from Limestone County-Other entities. Irrigation is projected to have a surplus of water supply throughout the planning period. No change in water supply is recommended.

5.23.15 Livestock

Water supply for Livestock in Limestone County is obtained from local stock surface water impoundments, which are projected to meet demands through the planning period. No change in water supply is recommended.

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5.24 McLennan County Water Supply Plan

Table 5.24-1 lists each water user group in McLennan County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.24-1. McLennan County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Axtell WSC	108	79	Projected surplus – see plan below.
City of Bellmead	2,056	1,896	Projected surplus – see plan below.
Birome WSC			See Hill County
Bold Springs WSC	876	828	Projected surplus
City of Bruceville-Eddy	379	170	Projected surplus – see plan below.
Central Bosque WSC	359	359	Projected surplus
Chalk Bluff WSC	466	472	Projected surplus
Coryell City Water Supply District			See Coryell County
City of Crawford	21	17	Projected surplus – see plan below.
Cross Country WSC	228	212	Projected surplus – see plan below.
East Crawford WSC	(154)	(219)	Projected shortage – see plan below.
Elm Creek WSC			See Bell County
EOL WSC	138	97	Projected surplus
Gholson WSC	399	316	Projected surplus
H&H WSC	94	46	Projected surplus
City of Hewitt	(1,172)	(2,262)	Projected shortage – see plan below.
Highland Park WSC			See Bosque County
Hilltop WSC	324	307	Projected surplus
City of Lacy-Lakeview	292	131	Projected surplus – see plan below.
Leroy Tours Gerald WSC	235	211	Projected surplus
Levi WSC	383	364	Projected surplus
City of Lorena	503	406	Projected surplus – see plan below.
City of Mart	(180)	(244)	Projected shortage – see plan below.
City of McGregor	1,505	1,360	Projected surplus
McLennan County WCID 2	406	356	Projected surplus
City of Moody	379	337	Projected surplus
North Bosque WSC	(190)	(522)	Projected shortage – see plan below.
Prairie Hill WSC			See Limestone County

Table 5.24-1. McLennan County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Riesel	144	134	Projected surplus
City of Robinson	(1,048)	(2,255)	Projected shortage – see plan below.
Ross WSC	366	307	Projected surplus
Spring Valley WSC	175	121	Projected surplus
Texas State Technical College	0	0	No projected surplus or shortage – see plan below.
City of Valley Mills			See Bosque County
City of Waco	5,023	(2,908)	Projected shortage – see plan below.
City of West	922	887	Projected surplus – see plan below.
West Brazos WSC			See Falls County
Windsor Water	131	111	Projected surplus
City of Woodway	82	139	Projected surplus – see plan below.
County-Other	172	667	Projected surplus – see plan below.
Manufacturing	(2,463)	(1,309)	Projected shortage – see plan below.
Steam-Electric	16,453	16,405	Projected surplus
Mining	(2,322)	(3,478)	Projected shortage – see plan below.
Irrigation	955	1,195	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.24.1 Axtell WSC

Description of Supply

Axtell WSC obtains its water supply from the Trinity Aquifer (287 acft/yr). No shortages are projected for Axtell WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Axtell WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd. To reduce arsenic concentrations, Axtell plans to purchase treated water to blend with water purchased from the City of Waco. This purchase may be made through the FHLM WSC.

a. Purchase water from City of Waco to blend to reduce arsenic concentrations

- Cost Source: Volume II
- Date to be Implemented: 2020

- Unit Cost: assumed unit cost of $3,273/acft ($10.15/1,000 gallons) for wholesale treated water, including transmission costs

Table 5.24–2. Recommended Plan Costs by Decade for Axtell WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*121*	*115*	*108*	*100*	*89*	*79*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*121*	*115*	*108*	*100*	*89*	*79*
Purchase water from the City of Waco for Arsenic Blending						
Supply From Plan Element (acft/yr)	83	86	90	94	99	104
Annual Cost ($/yr)	$271,659	$281,478	$294,570	$307,662	$324,027	$340,392
Unit Cost ($/acft)	$3,273	$3,273	$3,273	$3,273	$3,273	$3,273

5.24.2 City of Bellmead

Description of Supply

The City of Bellmead obtains its water supply from the Trinity Aquifer at 2,000 acft/yr. The City of Bellmead also has contracted with the City of Waco at 1,344 acft/yr for supplemental surface water supply from Lake Waco, but has no plans to utilize the contract. No shortages are projected for the City of Bellmead; however, the City of Waco and the City of Bellmead are considering alternate water supply in order to reduce Bellmead's dependence on Trinity Aquifer groundwater. The purchase of supplemental reuse water from WMARSS is recommended to reduce demands on the Trinity Aquifer.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Bellmead. Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase reuse water from WMARSS (Bellmead/Lacy-Lakeview Reuse). The reuse supply will reduce demands for landscape irrigation at existing or future parks, schools, ball fields, and other green spaces. Reuse water may also potentially supply existing or future industrial customers.

- Cost Source: Volume II
- Date to be Implemented: by 2020
- Project Cost: None. City of Waco is the project sponsor. Entity will purchase from the City.
- Unit Cost: $424/acft

Table 5.24–3. Recommended Plan Costs by Decade for City of Bellmead

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,111*	*2,083*	*2,056*	*2,013*	*1,956*	*1,896*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*2,111*	*2,083*	*2,056*	*2,013*	*1,956*	*1,896*
WMARSS Bellmead/Lacy Lakeview Reuse						
Supply From Plan Element (acft/yr)	1,121	1,121	1,121	1,121	1,121	1,121
Annual Cost ($/yr)	$949,760	$949,760	$275,520	$275,520	$275,520	$275,520
Unit Cost ($/acft)	$424	$424	$123	$123	$123	$123
Projected Surplus/(Shortage) after Reuse (acft/yr)	*3,232*	*3,204*	*3,177*	*3,134*	*3,077*	*3,017*

5.24.3 Bold Springs WSC

Bold Springs WSC obtains its water supply from the Trinity Aquifer at 613 acft/yr and surface water from the City of Waco at 560 acft/yr. No shortages are projected for Bold Springs WSC and no change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.4 City of Bruceville-Eddy

Description of Supply

The City of Bruceville-Eddy obtains its water supply from the Trinity Aquifer (618 acft/yr) and has a contract for surface water from Bluebonnet WSC (908 to 878 acft/yr from 2020 to 2070) for supplemental water supplies. No shortages are projected for the City of Bruceville-Eddy. This WUG is located in multiple counties (McLennan and Falls). The surpluses shown in the table below represent the cumulative totals for the City of Bruceville-Eddy.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Bruceville-Eddy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $76,802in 2070

Table 5.24–4. Recommended Plan Costs by Decade for City of Bruceville-Eddy

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*496*	*436*	*379*	*315*	*243*	*170*
Conservation						
Supply From Plan Element (acft/yr)	0	79	129	126	130	137
Annual Cost ($/yr)	$0	$44,281	$72,327	$70,382	$73,005	$76,802
Projected Surplus/(Shortage) after Conservation	*496*	*515*	*508*	*441*	*373*	*307*

5.24.5 Central Bosque WSC

Central Bosque WSC obtains its water supply from 128 to 164 acft/yr from a contract with McGregor and 359 acft/yr from a contract with Waco. No shortages are projected for Central Bosque WSC and no change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.6 Chalk Bluff WSC

Chalk Bluff WSC obtains its water supply from the Trinity Aquifer at 715 acft/yr. No shortages are projected for the Chalk Bluff WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.7 City of Crawford

Description of Supply

The City of Crawford obtains its water supply from the Trinity Aquifer at 167 acft/yr. No shortages are projected for City of Crawford and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Crawford. Conservation is recommended to reduce Crawford's per-capita usage below the selected target rate of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $15,589 in 2070
- Unit Cost: $560/acft

Table 5.24–5. Recommended Plan Costs by Decade for City of Crawford

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*19*	*20*	*21*	*20*	*19*	*17*
Conservation						
Supply From Plan Element (acft/yr)	0	11	21	28	27	28
Annual Cost ($/yr)	$0	$6,128	$11,921	$15,665	$15,347	$15,589
Projected Surplus/(Shortage) after Conservation	*19*	*31*	*42*	*48*	*46*	*45*

5.24.8 Cross Country WSC

Description of Supply

Cross Country WSC obtains its water supply from groundwater from the Trinity Aquifer at 780 acft/yr. Cross Country WSC is projected to have a surplus through the year 2070. This WUG is located in McLennan and Bosque Counties. The surplus/shortages shown in the table below represent the cumulative totals for Cross Country WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the Cross Country WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $4,390 in 2070
- Unit Cost: $560/acft

Table 5.24–6. Recommended Plan Costs by Decade for Cross Country WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*234*	*229*	*228*	*224*	*218*	*212*
Conservation						
Supply From Plan Element (acft/yr)	0	23	14	9	8	8
Annual Cost ($/yr)	$0	$13,048	$7,812	$5,222	$4,454	$4,390
Projected Surplus/(Shortage) after Conservation	*234*	*252*	*242*	*233*	*226*	*220*

5.24.9 East Crawford WSC

East Crawford WSC obtains its water supply from groundwater from the Trinity Aquifer at 215 acft/yr. A shortage is projected through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the East Crawford WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $92,035 in 2070
- Unit Cost: $560/acft

b. Purchase water from City of Waco

- Cost Source: Volume II
- Date to be Implemented: 2020
- Unit Cost: assumed unit cost of $3,273/acft ($10.15/1,000 gallons) for wholesale treated water, including transmission costs

Table 5.24–7. Recommended Plan Costs by Decade for East Crawford WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(113)*	*(135)*	*(154)*	*(175)*	*(197)*	*(219)*
Conservation						
Supply From Plan Element (acft/yr)	0	30	61	94	129	164
Annual Cost ($/yr)	$0	$16,656	$34,035	$52,745	$72,264	$92,035
Projected Surplus/(Shortage) after Conservation	*(113)*	*(105)*	*(93)*	*(81)*	*(68)*	*(55)*
Purchase from Waco						
Supply From Plan Element (acft/yr)	113	105	93	81	68	55
Annual Cost ($/yr)	$369,849	$343,665	$304,389	$265,113	$222,564	$100,815
Unit Cost ($/acft)	$3,273	$3,273	$3,273	$3,273	$3,273	$1,833

5.24.10 EOL WSC

The EOL WSC obtains its water supply from groundwater from the Trinity Aquifer at 387 acft/yr. A surplus is projected through the year 2070; and, there are no changes recommended to the water supply. To reduce arsenic concentrations, Axtell plans to purchase treated water to blend with water purchased from the City of Waco. This purchase may be made through the FHLM WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for EOL WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd. To reduce arsenic concentrations, EOL WSC plans to purchase treated water to blend with water purchased from the City of Waco.

a. Purchase water from City of Waco to blend to reduce arsenic concentrations

- Cost Source: Volume II
- Date to be Implemented: 2020
- Unit Cost: assumed unit cost of $3,273/acft ($10.15/1,000 gallons) for wholesale treated water, including transmission costs

Table 5.24–8. Recommended Plan Costs by Decade for EOL WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*156*	*147*	*138*	*126*	*111*	*97*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*156*	*147*	*138*	*126*	*111*	*97*
Purchase water from the City of Waco for Arsenic Blending						
Supply From Plan Element (acft/yr)	116	120	125	131	131	138
Annual Cost ($/yr)	$379,668	$392,760	$409,125	$428,763	$428,763	$451,674
Unit Cost ($/acft)	$3,273	$3,273	$3,273	$3,273	$3,273	$3,273
Projected Surplus/(Shortage) after Conservation	*272*	*267*	*263*	*257*	*242*	*235*

5.24.11 Gholson WSC

The Gholson WSC obtains its water supply from groundwater from the Trinity Aquifer at 766 acft/yr. Gholson WSC is split between Hill and McLennan counties, with primary demands in the McLennan County. A surplus is projected through the year 2070; and, there are no changes recommended to the water supply. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.12 H & H WSC

The H & H WSC obtains its water supply from groundwater from the Trinity Aquifer at 387 acft/yr. A surplus is projected through the year 2070; and, there are no changes recommended to the water supply. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.13 City of Hewitt

Description of Supply

The City of Hewitt obtains its water supply from groundwater from the Trinity Aquifer at 1,429 acft/yr and has a contract with the City of Waco at 1,120 acft/yr for a supplemental supply from Lake Waco.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Hewitt. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $144,415 in 2070
   - Unit Cost: $560/acft

b. Purchase reuse water from WMARSS (Bulhide Creek Reuse). The reuse supply will reduce demands for landscape irrigation at existing or future parks, schools, ball fields, and other green spaces. Reuse water may also potentially supply existing or future industrial customers.
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: None. City of Waco is the project sponsor. Entity will purchase from the City.
   - Unit Cost: $543/acft

c. Purchase additional water from City of Waco
   - Cost Source: Volume II
   - Date to be Implemented: 2050
   - Unit Cost: assumed unit cost of $2,164/acft ($6.64/1,000 gallons) for wholesale treated water

Table 5.24–9. Recommended Plan Costs by Decade for City of Hewitt

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(480)*	*(844)*	*(1,172)*	*(1,522)*	*(1,893)*	*(2,262)*
Conservation						
Supply From Plan Element (acft/yr)	0	247	236	227	240	258
Annual Cost ($/yr)	$0	$138,568	$131,977	$126,958	$134,402	$144,415
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(480)*	*(597)*	*(936)*	*(1,295)*	*(1,653)*	*(2,004)*
WMARSS – Bullhide Creek Reuse						
Supply From Plan Element (acft/yr)	–	1,233	1,233	1,233	1,233	1,233
Annual Cost ($/yr)	–	$669,519	$669,519	$218,241	$218,241	$218,241
Unit Cost ($/acft)	–	$543	$543	$177	$177	$177
Projected Surplus/(Shortage) after Reuse (acft/yr)	*(480)*	*636*	*297*	*(62)*	*(420)*	*(77)*
Purchase Water from City of Waco						
Supply From Plan Element (acft/yr)	–	–	–	62	420	771
Annual Cost ($/yr)	–	–	–	$134,168	$908,880	$1,668,444
Unit Cost ($/acft)	–	–	–	$2,164	$2,164	$2,164

5.24.14 Hilltop WSC

The Hilltop WSC obtains its water supply from groundwater from the Trinity Aquifer at 329 acft/yr and a contract with Waco at 101 acft/yr. A surplus is projected through the year 2070; and, there are no changes recommended to the water supply. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.15 City of Lacy-Lakeview

Description of Supply

The City of Lacy-Lakeview obtains its water supply from the City of Waco at 1,120 acft/yr. Based on the current contracted amount, the City of Lacy-Lakeview is projected to have a surplus of supplies. Supplemental reuse water from WMARSS is recommended to reduce demands on water supplied by the City of Waco.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Lacy-Lakeview. Purchase reuse water from WMARSS (Bellmead/Lacy-Lakeview Reuse). The reuse supply will reduce demands for landscape irrigation at existing or future parks, schools, ball fields, and other green spaces. Reuse water may also potentially supply existing or

future industrial customers. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. WMARSS – Bellmead/Lacy-Lakeview Reuse

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: None. City of Waco is the project sponsor. Entity will purchase from the City.
- Unit Cost: $424/acft

Table 5.24–10. Recommended Plan Costs by Decade for City of Lacy-Lakeview

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*375*	*332*	*292*	*243*	*188*	*131*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*375*	*332*	*292*	*243*	*188*	*131*
WMARSS – Bellmead/Lacy-Lakeview Reuse						
Supply From Plan Element (acft/yr)	745	745	745	745	745	745
Annual Cost ($/yr)	$315,880	$315,880	$91,635	$91,635	$91,635	$91,635
Unit Cost ($/acft)	$424	$424	$123	$123	$123	$123
Projected Surplus/(Shortage) after Reuse (acft/yr)	*1,120*	*1,077*	*1,037*	*988*	*933*	*876*

5.24.16 Leroy Tours Gerald WSC

Description of Supply

The Leroy Tours Gerald WSC obtains its water supply from groundwater from the Trinity Aquifer at 383 acft/yr. A surplus is projected through the year 2070; and, there are no changes recommended to the water supply except to pursue a strategy to reduce arsenic levels.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Leroy Tours Gerald WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd. An alternative strategy is to treat for arsenic at each well head.

a. Purchase Water from Waco for Arsenic Blending

- Cost Source: Volume II
- Date to be Implemented: by 2020
- Project Cost: None; delivered by FHLM WSC
- Unit Cost: $3,273/acft

Table 5.24–11. Recommended Plan Costs by Decade for Leroy Tours Gerald WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	244	239	235	228	220	211
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	244	239	235	228	220	211
Purchase Water from Waco for Arsenic Blending						
Supply From Plan Element (acft/yr)	70	72	74	78	82	86
Annual Cost ($/yr)	$229,110	$235,656	$242,202	$255,294	$268,386	$281,478
Unit Cost ($/acft)	$3,273	$3,273	$3,273	$3,273	$3,273	$3,273

5.24.17 Levi WSC

The Levi WSC obtains its water supply from groundwater from the Trinity Aquifer at 498 acft/yr. A surplus is projected through the year 2070; and, there are no changes recommended to the water supply. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.18 City of Lorena

Description of Supply

The City of Lorena obtains its water supply from a contract with the Brazos River Authority (treated by the City of Robinson) at 1,000 acft/yr, City of Robinson at 560 acft/yr,and the Trinity Aquifer at 322 acft/yr. No shortages are projected for the City of Lorena; however, purchase of supplemental reuse water from WMARSS is recommended to reduce demands on groundwater from the Trinity Aquifer.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Lorena. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $1,777 in 2030
- Unit Cost: $560/acft

b. Purchase reuse water from WMARSS (Bullhide Creek Reuse). The reuse supply will reduce demands for landscape irrigation at existing or future parks, schools, ball fields, and other green spaces. Reuse water may also potentially supply existing or future industrial customers

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: None. City of Waco is the project sponsor. Entity will purchase from the City.
- Unit Cost: $543/acft

Table 5.24–12. Recommended Plan Costs by Decade for the City of Lorena

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*563*	*531*	*503*	*472*	*439*	*406*
Conservation						
Supply From Plan Element (acft/yr)	0	3	–	–	–	–
Annual Cost ($/yr)	$0	$1,777	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*563*	*534*	*503*	*472*	*439*	*406*
WMARSS – Bullhide Creek Reuse						
Supply From Plan Element (acft/yr)	448	448	448	448	448	448
Annual Cost ($/yr)	$243,264	$243,264	$79,296	$79,296	$79,296	$79,296
Unit Cost ($/acft)	$543	$543	$177	$177	$177	$177
Projected Surplus/(Shortage) after Reuse (acft/yr)	*1,011*	*976*	*951*	*920*	*887*	*854*

5.24.19 City of Mart

Description of Supply

The City of Mart obtains its water supply from the Trinity Aquifer at 203 acft/yr. Based on the available groundwater supply and no firm yield from Lake Mart, the City of Mart is projected to have a shortage through the year 2070. The City is located in multiple counties (McLennan and Limestone). The shortages shown in the table below represent the cumulative totals for the City of Mart.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Mart. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase water from City of Waco

- Cost Source: Volume II
- Date to be Implemented: 2020
- Unit Cost: assumed unit cost of $2,164/acft ($6.64/1,000 gallons) for wholesale treated water

b. Trinity ASR McLennan County

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: $2,884,000 (City's portion)
- Unit Cost: $3,317/acft

Table 5.24–13. Recommended Plan Costs by Decade for the City of Mart

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(149)*	*(165)*	*(180)*	*(200)*	*(221)*	*(244)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(149)*	*(165)*	*(180)*	*(200)*	*(221)*	*(244)*
Purchase Water Supply from City of Waco						
Supply From Plan Element (acft/yr)	149	165	180	200	221	244
Annual Cost ($/yr)	$322,436	$357,060	$389,520	$432,800	$478,244	$528,016
Unit Cost ($/acft)	$2,164	$2,164	$2,164	$2,164	$2,164	$2,164
Trinity ASR McLennan County						
Supply From Plan Element (acft/yr)		250	250	250	250	250
Annual Cost ($/yr)		$829,250	$829,250	$329,000	$329,000	$329,000
Unit Cost ($/acft)		$3,317	$3,317	$1,316	$1,316	$1,316

5.24.20 City of McGregor

Description of Supply

The City of McGregor obtains its water supply from a contract with Bluebonnet WSC at 1,851 to 1,792 acft/yr and BRA from 518 to 473 acft/yr from 2020 to 2070, respectively.

The City of McGregor has contracted for 810 acft/yr of surface water supplies from the Brazos River Authority, which can supply 673 acft/yr in 2020 and 651 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The city also sells water to Central Bosque WSC and Manufacturing entities in McLennan County. No shortages are projected for the City of McGregor and no changes in water supply are recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of McGregor. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Firm Up BRA Little River Supplies

BRA provides this supply under contract to entity. BRA to develop any combinations of strategies as described in Section 5.38.2 to firm up this amount.

- Cost Source: BRA to firm up water supply
- Date to be Implemented: before 2030
- Project Cost: Costs borne by BRA
- Unit Cost: Costs borne by BRA

Table 5.24–14. Recommended Plan Costs by Decade for the City of McGregor

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,568*	*1,536*	*1,505*	*1,463*	*1,413*	*1,360*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,568*	*1,536*	*1,505*	*1,463*	*1,413*	*1,360*
Firm Up BRA Little River Supples						
Supply From Plan Element (acft/yr)	–	141	146	150	155	159
Annual Cost ($/yr)	–	–	–	–	–	–
Unit Cost ($/acft)	–	–	–	–	–	–

5.24.21 McLennan County WCID 2

McLennan County WCID 2 obtains its water supply from the Trinity Aquifer at 705 acft/yr. No shortages are projected for the City of McGregor and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.22 City of Moody

The City of Moody obtains its water supply from the Trinity Aquifer at 211 acft/yr and Bluebonnet WSC at 388 to 375 acft/yr in 2020 to 2070, respectively. No shortages are projected for the City of Moody, and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.23 North Bosque WSC

Description of Supply

North Bosque WSC obtains its water supply from the Trinity Aquifer at 605 acft/yr. Based on the available groundwater supply, North Bosque WSC is projected to have a shortage through the year 2070. Conservation is recommended to reduce North Bosque gallons per capita per day (gpcd) to a goal of 140 gpcd.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for North Bosque WSC. Associated costs are included for each strategy.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $231,191 in 2070
   - Unit Cost: $560/acft

b. Trinity ASR McLennan County (from Waco)
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $2,884,000 (City's portion)
   - Unit Cost: $1,9755/acft

Table 5.24–15. Recommended Plan Costs by Decade for North Bosque WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*39*	*(82)*	*(190)*	*(300)*	*(412)*	*(522)*
Conservation						
Supply From Plan Element (acft/yr)	0	57	131	219	319	413
Annual Cost ($/yr)	$0	$31,966	$73,373	$122,562	$178,740	$231,191
Projected Surplus/(Shortage) after Conservation (acft/yr)	*39*	*(25)*	*(59)*	*(81)*	*(93)*	*(109)*
Trinity ASR McLennan County (purchase from Waco)						
Supply From Plan Element (acft/yr)	–	200	200	200	200	200
Annual Cost ($/yr)	–	$129,000	$129,000	$13,000	$13,000	$13,000
Unit Cost ($/acft)	–	$1,975	$1,120	$1,120	$1,120	$1,120

5.24.24 City of Riesel

Description of Supply

The City of Riesel obtains its water supply from the Trinity Aquifer at 181 acft/yr and County, Other McLennan at 125 acft/yr. Based on the available groundwater supply, the City of Riesel is projected to have a shortage through the year 2070. No shortages are projected for the City of Riesel, and no changes in water supply are recommended. Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.25 City of Robinson

Description of Supply

The City of Robinson obtains its water supply from the Trinity Aquifer at 1,101 acft/yr and surface water from the Brazos River at 1,126 acft/yr. The city also has a 560 acft/yr contract to provide treated supply to the City of Lorena, which utilizes Lorena's contract with the BRA. Based on the constrained supply amounts, the City of Robinson is projected to have shortages. Although the City has sufficient raw water supply to meet its future needs, the City's water treatment plant has an annual average capacity of 1,125 acft.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Robinson. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum $376,263 in 2070
- Unit Cost: $560/acft

b. Expand Water Treatment Plant (4 MGD)

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $16,813,000
- Unit Cost: Max of $481/acft

Table 5.24–16. Recommended Plan Costs by Decade for City of Robinson

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(245)*	*(669)*	*(1,048)*	*(1,444)*	*(1,851)*	*(2,255)*
Conservation						
Supply From Plan Element (acft/yr)	0	220	504	557	612	672
Annual Cost ($/yr)	$0	$123,429	$282,196	$311,757	$342,962	$376,263
Projected Surplus/(Shortage) after Conservation	*(245)*	*(449)*	*(544)*	*(887)*	*(1,239)*	*(1,583)*
Expand WTP (4 MGD)						
Supply From Plan Element (acft/yr)	4,311	4,108	3,905	3,701	3,498	3,295
Annual Cost ($/yr)	$2,073,591	$1,975,948	$847,385	$803,117	$759,066	$715,015
Unit Cost ($/acft)	$481	$481	$217	$217	$217	$217

5.24.26 Ross WSC

The Ross WSC obtains its water supply from the Trinity Aquifer at 445 acft/yr and surface water from the City of Waco at 280 acft/yr. No shortages are projected for the Ross WSC, and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.27 Spring Valley WSC

The Spring Valley WSC obtains its water supply from the Trinity Aquifer at 176 acft/yr and from Bluebonnet WSC at 291 to 282 acft/yr in 2020 to 2070, respectively. No shortages are projected for the Spring Valley WSC, and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.28 Texas State Technical College

Texas State Technical College obtains its water supply from the City of Waco at 888 to 1,193 acft/yr in 2020 to 2070, respectively. No shortages are projected for the Texas State Technical College.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Texas State Technical College. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum $261,221 in 2070
- Unit Cost: $560/acft

Table 5.24–17. Recommended Plan Costs by Decade for Texas State Technical College

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	0	88	180	274	370	466
Annual Cost ($/yr)	$0	$49,556	$100,841	$153,629	$207,027	$261,221
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*88*	*180*	*274*	*370*	*466*

5.24.29 City of Waco

The City of Waco obtains its water supply from surface water from Lake Waco, for which it owns water rights. The City supplies several neighboring communities with treated water. A portion of the city's treated wastewater is also contracted to irrigation and industrial customers in the County. The City is projected to have a shortage of supplies starting in 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Waco. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd. Waco plans to expand the Riverside WTP, which will cost an inflation-adjusted $13,000,000 and utilize Brazos River water at the Riverside WTP, which will cost an additional $15,000,000. Those strategies are not shown here.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum $6,964,137in 2070
   - Unit Cost: $560/acft

b. Waco WMARSS Reuse Projects McLennan I-84
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $28,249,000
   - Unit Cost: $3,711/acft

c. Reuse WMARSS Bellmead/Lacy-Lakeview
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $28,249,000
   - Unit Cost: $424/acft

d. Waco WMARSS Reuse Projects Flat Creek Reuse
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $20,014,000
   - Unit Cost: $350/acft

e. Waco WMARSS Reuse Projects North-China Spring
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $25,888,000
   - Unit Cost: $2,635/acft

f. Trinity ASR McLennan County
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $2,884,000
   - Unit Cost: $645/acft

Table 5.24–18. Recommended Plan Costs by Decade for City of Waco

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*9,510*	*7,271*	*5,023*	*2,517*	*(123)*	*(2,908)*
Conservation (includes meter replacement project)						
Supply From Plan Element (acft/yr)	698	4,820	7,706	10,858	14,246	15,176
Annual Cost ($/yr)	$1,533,000	$2,981,000	$3,257,000	$4,952,000	$6,775,000	$7,219,000
Projected Surplus/(Shortage) after Conservation	10,208	12,091	12,729	13,375	14,123	12,268
Additional Demands from Recommended Strategies from Others						
Increase Contract Amount to East Crawford WSC (acft/yr)	113	105	93	81	68	55
Increase Contract Amount to City of Hewitt (acft/yr)	–	–	–	62	420	771
Increase Contract Amount to City of Mart (acft/yr)	149	165	180	200	221	244
New Contract with Axtel WSC	83	86	90	94	99	104
New Contract with EOL WSC	116	120	125	131	131	138
Total Surplus/(Shortage) Including Recommended Strategies	9,747	11,615	12,241	12,807	13,184	10,956
Waco WMARSS Reuse Projects – McLennan I-84						
Supply From Plan Element (acft/yr)	1,400	1,400	1,400	1,680	1,680	1,680
Annual Cost ($/yr)	$5,195,400	$5,195,400	$3,537,800	$4,245,360	$4,245,360	$4,245,360
Unit Cost ($/acft)	$3,711	$3,711	$2,527	$2,527	$2,527	$2,527
Waco WMARSS Reuse Projects – Bellmead/Lacy-Lakeview						
Supply From Plan Element (acft/yr)	374	374	374	374	374	374
Annual Cost ($/yr)	$158,576	$158,576	$46,002	$46,002	$46,002	$46,002
Unit Cost ($/acft)	$424	$424	$123	$123	$123	$123
Waco WMARSS Reuse Projects – Flat Creek						
Supply From Plan Element (acft/yr)	2,147	2,147	2,147	2,147	2,147	2,147
Annual Cost ($/yr)	$2,746,000	$2,746,000	$291,992	$291,992	$291,992	$291,992
Unit Cost ($/acft)	$350	$350	$136	$136	$136	$136
Waco WMARSS Reuse Projects – North-China Spring						
Supply From Plan Element (acft/yr)	1,120	1,120	1,120	1,120	1,120	1,120
Annual Cost ($/yr)	$4,998,750	$4,869,750	$490,750	$490,750	$490,750	$490,750
Unit Cost ($/acft)	$2,635	$2,635	$701	$701	$701	$701
Projected Surplus/(Shortage) after Reuse	14,090	14,419	14,936	15,659	15,901	13,537

Table 5.24–18. Recommended Plan Costs by Decade for City of Waco

Plan Element	2020	2030	2040	2050	2060	2070
Trinity ASR McLennan County						
Supply From Plan Element (acft/yr)		7,550	7,550	7,550	7,550	7,550
Annual Cost ($/yr)		$4,869,750	$4,869,750	$490,750	$490,750	$490,750
Unit Cost ($/acft)		$645	$645	$65	$65	$65

5.24.30 City of West

Description of Supply

The City of West obtains its water supply from the Trinity Aquifer at 268 acft/yr and the 1,120 acft/yr from the City of Waco. Surpluses are projected through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of West. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum $2,788 in 2030
- Unit Cost: $560/acft

Table 5.24–19. Recommended Plan Costs by Decade for City of West

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*931*	*927*	*922*	*914*	*901*	*887*
Conservation						
Supply From Plan Element (acft/yr)	0	21	12	6	5	5
Annual Cost ($/yr)	$0	$11,651	$6,635	$3,212	$2,676	$2,788
Projected Surplus/(Shortage) after Conservation	*931*	*948*	*934*	*920*	*906*	*892*

5.24.31 Windsor Water

Windsor Water obtains its water supply from the Trinity Aquifer at 245 acft/yr. No shortages are projected for the Windsor Water, and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.24.32 City of Woodway

Description of Supply

The City of Woodway obtains its water supply from the Trinity Aquifer at 2,454 acft/yr from Lake Waco from the City of Waco at 0 to 989 acft/yr, and from Bluebonnet WSC at 1,319 to 1,275 acft/yr from 2020 to 2070. The City provides 2 acft/yr for McLennan County Manufacturing. The supply contracts are adequate to meet demands; however under drought conditions, Bluebonnet WSC may not be able to provide the full contract amount to all of its customers, including Woodway. Conservation is recommended to reduce usage to a goal of 140 gpcd.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Woodway.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum $968,857 in 2070
- Unit Cost: $560/acft

Table 5.24–20. Recommended Plan Costs by Decade for City of Woodway

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*308*	*78*	*82*	*111*	*119*	*139*
Conservation						
Supply From Plan Element (acft/yr)	0	308	635	988	1,357	1,730
Annual Cost ($/yr)	$0	$172,428	$355,402	$553,058	$759,670	$968,857
Projected Surplus/(Shortage) after Conservation	*308*	*386*	*717*	*1,099*	*1,476*	*1,869*

5.24.33 County-Other

Description of Supply

McLennan County-Other entities obtain water supply from groundwater from the Trinity Aquifer at 968 and surface water from a contract with H&H WSC at 78 to 99 acft/yr from 2020 to 2070. Entities in County-Other provide additional supply to Riesel and provide supply to steam-electric power and manufacturing customers in McLennan County.

Various entities are dealing with elevated levels of arsenic in groundwater supplies and have been pursuing water management strategies through the FHLM WSC. A shortage is projected for 2020 and after there are surpluses through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for McLennan County-Other. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Upgrade Treatment for Arsenic

This is a treatment strategy and does not increase the supply available to these entities. Total treatment is estimated at 917 acft/yr.

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $4,425,000
- Unit Cost: $911/acft

Table 5.24–21. Recommended Plan Costs by Decade for the McLennan County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(222)*	*14*	*172*	*349*	*511*	*667*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(222)*	*14*	*172*	*349*	*511*	*667*
Upgrade Treatment for Arsenic						
Supply From Plan Element (acft/yr)	250	250	250	250	250	250
Annual Cost ($/yr)	$227,750	$227,750	$142,750	$142,750	$142,750	$142,750
Unit Cost ($/acft)	$911	$911	$571	$571	$571	$571

5.24.34 Manufacturing

Description of Supply

Water supply for manufacturing in McLennan County is obtained by purchase from a city or water supply corporation, from Trinity Aquifer wells operated by the manufacturing entity, and from run-of-river rights. McLennan County Manufacturing is projected to have shortages beginning in 2020. However, purchase of supplemental reuse water from WMARSS is recommended to reduce demands on water supplied by the run-of-river rights, Lake Waco and groundwater from the Trinity Aquifer.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for McLennan County Manufacturing. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: Not determined

b. WMARSS Flat Creek Reuse Project

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: None. City of Waco is the project sponsor. Entity will purchase from the City.
- Unit Cost: $205/acft

Table 5.24–22. Recommended Plan Costs by Decade for McLennan County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(543)*	*(2,824)*	*(2,463)*	*(2,094)*	*(1,764)*	*(1,309)*
Conservation						
Supply From Plan Element (acft/yr)	144	373	522	522	522	522
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(399)*	*(2,451)*	*(1,941)*	*(1,572)*	*(1,242)*	*(787)*
Purchase Reuse Supplies from WMARSS – Flat Creek Project						
Supply From Plan Element (acft/yr)	2,500	2,500	2,500	2,500	2,500	2,500
Annual Cost ($/yr)	$875,000	$875,000	$340,000	$340,000	$340,000	$340,000
Unit Cost ($/acft)	$350	$350	$136	$136	$136	$136
Projected Surplus/(Shortage) after Reuse (acft/yr)	*2,101*	*49*	*559*	*928*	*1,258*	*1,713*

ND – Not Determined. Costs to implement industrial conservation technologies will vary based on each location.

5.24.35 Steam-Electric

McLennan County Steam-Electric obtains its water supply from Tradinghouse Reservoir, Lake Creek Reservoir, the Trinity Aquifer, and from WMARSS reuse. No shortage is projected for McLennan County Steam-Electric and no changes in water supply are recommended.

5.24.36 Mining

Description of Supply

Mining operations in McLennan County are supplied by Brazos River Alluvium groundwater at 735 acft/yr. Demands for Mining are projected to increase significantly resulting in shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for McLennan County-Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: not determined

b. WMARSS Flat Creek Reuse Project

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: None. City of Waco is the project sponsor. Entity will purchase from the City.
- Unit Cost: $350

Table 5.24–23. Recommended Plan Costs by Decade for McLennan County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,800)*	*(2,262)*	*(2,322)*	*(2,770)*	*(3,094)*	*(3,478)*
Conservation						
Supply From Plan Element (acft/yr)	76	150	214	246	268	295
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1,724)*	*(2,112)*	*(2,108)*	*(2,524)*	*(2,826)*	*(3,183)*
WMARSS Flat Creek Reuse Project						
Supply From Plan Element (acft/yr)	3,200	3,200	3,200	3,200	3,200	3,200
Annual Cost ($/yr)	$1,120,000	$1,120,000	$435,200	$435,200	$435,200	$435,200
Unit Cost ($/acft)	$350	$350	$136	$136	$136	$136
Projected Surplus/(Shortage) after Reuse (acft/yr)	*1,476*	*1,088*	*1,092*	*676*	*374*	*17*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.24.37 Irrigation

Description of Supply

McLennan County Irrigation is supplied by groundwater from the Trinity Aquifer at 561 acft/yr and the Brazos River Alluvium at 4,259 acft/yr, and run of the river water rights at 937 to 1,337 acft/yr from 2020 to 2070. No shortages are projected for Irrigation and no changes in water supply are recommended.

5.24.38 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.25 Milam County Water Supply Plan

Table 5.25-1 lists each water user group in Milam County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.25-1. Milam County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Bell-Milam Falls WSC			See Bell County
City of Cameron[1]	(1,623)	(1,794)	Projected shortage - see plan below.
Milano WSC	37	25	Projected surplus
North Milam WSC	114	140	Projected surplus - see plan below.
City of Rockdale	(613)	(609)	Projected shortage - see plan below.
Salem Elm Ridge WSC	285	269	Projected surplus
Southwest Milam WSC	(419)	(619)	Projected shortage - see plan below.
City of Thorndale	12	(10)	Projected shortage - see plan below.
County-Other	21	4	Projected surplus
Manufacturing	1	1	Projected surplus
Steam-Electric	(32,254)	(32,254)	Projected shortage – see plan below
Mining	47	57	Projected surplus
Irrigation	(205)	93	Projected surplus (shortage only 2030 & 2040) - see plan below.

1. Note that DB22 does not account for the infrastructure constraint shown that results in loss of supply for Cameron.

5.25.1 City of Cameron

Description of Supply

The City of Cameron obtains its water supply from run-of-the-river rights at 2,615 acft/yr. The city provides supply to North Milam WSC, Salem Elm Ridge WSC, and to Manufacturing. No shortages are projected for the City of Cameron.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Cameron. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Unit Cost: $560/acft
   - Annual Cost: maximum of $260,663 in 2070

b. New Little River Intake and Raw Water Pipeline
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $13,006,000
   - Unit Cost: $407/acft (maximum of phased costs)

Table 5.25-2. Recommended Plan Costs by Decade for City of Cameron

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,252*	*(1,590)*	*(1,623)*	*(1,681)*	*(1,738)*	*(1,794)*
Conservation						
Supply From Plan Element (acft/yr)	0	107	218	339	449	465
Annual Cost ($/yr)	$0	$60,061	$122,024	$190,045	$251,609	$260,663
Projected Surplus/(Shortage) after Conservation	*1,252*	*(1,483)*	*(1,405)*	*(1,342)*	*(1,289)*	*(1,329)*
New Little River Intake and Raw Water Pipeline						
Supply From Plan Element (acft/yr)	-	2,615	2,615	2,615	2,615	2,615
Annual Cost ($/yr)	-	$1,064,000	$1,064,000	$209,200	$209,200	$209,200
Unit Costt ($/acft)	-	$407	$407	$80	$80	$80

5.25.2 Milano WSC

Milano WSC obtains its water supply from the Carrizo-Wilcox Aquifer at 520 to 496 acft/yr. This WUG is located in Milam and Burleson Counties. No shortages are projected for Milano WSC and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.25.3 North Milam WSC

Description of Supply

North Milam WSC obtains its water supply from the Carrizo-Wilcox Aquifer at 520 to 496 acft/yr. This WUG is located in multiple counties (Milam and Burleson). The surplus shown

in the table below and represents the cumulative total for North Milam WSC. No shortages are projected for North Milam WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the North Milam WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $$10,529260,663 in 2070

Table 5.25-3. Recommended Plan Costs by Decade for North Milam WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*214*	*140*	*114*	*144*	*151*	*140*
Conservation						
Supply From Plan Element (acft/yr)	0	19	19	18	18	19
Annual Cost ($/yr)	$0	$10,640	$10,640	$10,080	$10,080	$10,640
Projected Surplus/(Shortage) after Conservation	*214*	*159*	*133*	*162*	*169*	*159*

5.25.4 City of Rockdale

Description of Supply

The City of Rockdale obtains its water supply from groundwater from the Carrizo-Wilcox Aquifer at 1,094 to 771 acft/yr from 2020 to 2070. Shortage are projected for the City of Rockdale through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Rockdale. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $116,966 in 2070
- Unit Cost: $560/acft

b. Water Supply from Lee County Carrizo-Wilcox Wells

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: $5,086,000
- Unit Cost: $1,034/acft

Table 5.25-4. Recommended Plan Costs by Decade for City of Rockdale

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(79)*	*(289)*	*(613)*	*(558)*	*(562)*	*(609)*
Conservation						
Supply From Plan Element (acft/yr)	0	89	180	198	202	209
Annual Cost ($/yr)	$0	$49,787	$100,957	$110,661	$113,303	$116,966
Projected Surplus/(Shortage) after Conservation	*(79)*	*(200)*	*(433)*	*(360)*	*(360)*	*(400)*
Water Supply from Lee County Carrizo Wilcox Wells						
Supply From Plan Element (acft/yr)	79	200	433	360	360	400
Annual Cost ($/yr)	$81,686	$206,800	$89,631	$74,520	$74,520	$82,800
Unit Cost ($/acft)	$1,03	$1,034	$207	$207	$207	$207

5.25.5 Salem Elm Ridge WSC

Salem Elm Ridge WSC obtains its water supply from Cameron at 125 acft/yr and Central Texas WSC at 297 acft/yr. No shortages are projected for Salem Elm Ridge WSC and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.25.6 Southwest Milam WSC

Description of Supply

Southwest Milam WSC obtains its water supply from groundwater from the Carrizo-Wilcox Aquifer at 1,635 to 1,512 acft/yr. This WUG is located in multiple counties (Milam, Lee, Williamson, and Burleson). The surplus/shortages shown in the table below represent the cumulative totals for Southwest Milam WSC. Southwest Milam WSC is projected to have a surplus from 2020 and a shortage from 2030 through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Southwest Milam WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum of $47,447 in 2070
   - Unit Cost: $560/acft

b. Water Supply from Lee County Carrizo Wilcox Wells
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $5,080,000
   - Unit Cost: $853/acft

Table 5.25-5. Recommended Plan Costs by Decade for Southwest Milam WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*169*	*(225)*	*(419)*	*(386)*	*(465)*	*(619)*
Conservation						
Supply From Plan Element (acft/yr)	*0*	*25*	*54*	*61*	*73*	*85*
Annual Cost ($/yr)	$0	$14,082	$30,407	$34,396	$40,872	$47,447
Projected Surplus/(Shortage) after Conservation	*169*	*(200)*	*(365)*	*(325)*	*(392)*	*(534)*
Water Supply from Lee County Carrizo-Wilcox Wells						
Supply From Plan Element (acft/yr)	–	200	365	325	392	534
Annual Cost ($/yr)	–	$170,600	$311,345	$59,800	$72,128	$98,256
Unit Cost ($/acft)	–	$853	$853	$184	$184	$184

5.25.7 City of Thorndale

The City of Thorndale is located in Milam and partially in Williamson County. The city obtains its water supply from Southwest Milam WSC at 202 acft/yr. Shortages are projected for the City of Thorndale in 2060 to 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Water Supply from Lake Granger ASR

- Cost Source: Volume II
- Date to be Implemented: 2060
- Project Cost: $99,820,000 (sum of 2 phases)
- Unit Cost: Max of $77/acft (BRA System Rate)

Table 5.25-6. Recommended Plan Costs by Decade for Thorndale

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*19*	*14*	*12*	*5*	*(2)*	*(10)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Water Supply from Lake Granger ASR						
Supply From Plan Element (acft/yr)	–	–	–	–	2	10
Annual Cost ($/yr)	–	–	–	–	$154	$770
Unit Cost ($/acft)	–	–	–	–	$77	$77

5.25.8 County-Other

Entities in County-Other obtain supplies from Brazos River Alluvium Aquifer at 160 acft/yr. County Other is projected to have a surplus of water through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.25.9 Manufacturing

Manufacturing receives supplies from City of Cameron at 14 acft/yr. Manufacturing is projected to have sufficient water supplies through the year 2070 and no changes in water supply are recommended.

5.25.10 Steam-Electric

Description of Supply

Milam County Steam-Electric obtains its water supply from Lake Alcoa, a water right for diversions from the Little River, contractual supply from BRA and the Carrizo-Wilcox Aquifer. Milam County Steam Electric has contracted for 5,000 acft/yr of surface water supplies from the Brazos River Authority, which can supply 4,156 acft/yr in 2020 and 4,019 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Based on the available supplies, Milam County Steam-Electric is projected to have surpluses throughout the planning period.

Water Supply Plan

Power generation has ceased at the facility associated with the Milam County Steam-Electric demands and supplies. Therefore, the BGRWPG has opted to recommend strategies to use those supplies for other purposes, and the demands for Milam County Steam-Electric use will not be met.

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Milam County-Steam Electric.

a. Leave Needs Unmet

- Date to be Implemented: 2020

Table 5.25-7. Recommended Plan Costs by Decade for Milam County – Steam Electric

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*
Leave Needs Unmet (acft/yr)	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*	*(32,254)*

5.25.11 Mining

Milam County Mining obtains its water supply from the Carrizo-Wilcox Aquifer at 76 to 71 acft/yr, from 2020 to 2070, used for mine reclamation. Milam County Mining is projected to have adequate supplies between 2020 and 2070.

5.25.12 Irrigation

Description of Supply

Milam County Irrigation is supplied by groundwater from the Carrizo-Wilcox, Queen City and Brazos River Alluvium Aquifers as well as run of the river water rights. Irrigation is projected to have shortages in 2030 and 2040, which can be met through conservation.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Milam County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum $59,755 in 2070
- Unit Costs: $ 1,542/acft

Table 5.25-8. Recommended Plan Costs by Decade for Milam County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*239*	*(104)*	*(205)*	*4*	*93*	*93*
Conservation						
Supply From Plan Element (acft/yr)	195	325	455	455	455	455
Annual Cost ($/yr)	$300,861	$501,435	$702,009	$702,009	$702,009	$702,009
Projected Surplus/(Shortage) after Conservation (acft/yr)	*434*	*221*	*250*	*459*	*548*	*548*

5.25.13 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.26 Nolan County Water Supply Plan

Table 5.26-1 lists each water user group in Nolan County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.26-1. Nolan County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Bitter Creek WSC	(213)	(229)	Projected shortage - see plan below.
City of Roscoe	(90)	(107)	Projected shortage - see plan below.
City of Sweetwater	(350)	(521)	Projected shortage - see plan below.
County-Other	11	2	Projected surplus
Manufacturing	(33)	(35)	Projected shortage - see plan below.
Steam-Electric	0	0	No projected demand
Mining	(53)	6	Shortage to projected surplus - see plan below.
Irrigation	(8,237)	(8,237)	Projected shortage
Livestock	0	0	No projected surplus or shortage

5.26.1 Bitter Creek WSC

Description of Supply

The Bitter Creek WSC obtains its water supply from the Dockum Aquifer at 109 acft/yr. This WUG is located in Nolan and Fisher Counties. The surpluses shown in the table below represent the cumulative totals for Bitter Creek WSC in both counties. Shortages are projected through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Bitter Creek WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase Water Supply from Sweetwater

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: Existing infrastructure assumed sufficient
- Unit Cost: $1,031/acft (Sweetwater Wholesale Rate)

Table 5.26-2. Recommended Plan Costs by Decade for Bitter Creek WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(218)*	*(216)*	*(213)*	*(219)*	*(224)*	*(229)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(218)*	*(216)*	*(213)*	*(219)*	*(224)*	*(229)*
Additional Water from Sweetwater						
Supply From Plan Element (acft/yr)	218	216	213	219	224	229
Annual Cost ($/yr)	$224,758	$222,696	$219,603	$225,789	$230,944	$236,099
Unit Cost ($/acft)	$1,031	$1,031	$1,031	$1,031	$1,031	$1,031

5.26.2 City of Roscoe

Description of Supply

The City of Roscoe obtains groundwater from the Dockum Aquifer at 115 acft/yr. A need is projected for the City of Roscoe through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Bitter Creek WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase Water Supply from Sweetwater

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: Existing infrastructure assumed sufficient
- Unit Cost: $1,031/acft (Sweetwater Wholesale Rate)

Table 5.26-3. Recommended Plan Costs by Decade for Roscoe

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(84)*	*(88)*	*(90)*	*(96)*	*(101)*	*(107)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(84)*	*(88)*	*(90)*	*(96)*	*(101)*	*(107)*
Additional Water from Sweetwater to meet Contract						
Supply From Plan Element (acft/yr)	84	88	90	96	101	107
Annual Cost ($/yr)	$86,604	$90,728	$92,790	$98,976	$104,131	$110,317
Unit Cost ($/acft)	$1,031	$1,031	$1,031	$1,031	$1,031	$1,031

5.26.3 City of Sweetwater

Description of Supply

The City of Sweetwater obtains groundwater from the Dockum Aquifer at 339 to 353 acft/yr from 2020 to 2070. The City of Sweetwater supplies water to Bronte, County Other-Taylor, Manufacturing-Nolan, and Roby. A shortage is projected for the City of Sweetwater through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for the City of Sweetwater. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase from Abilene (Cedar Ridge Reservoir)

   The City of Abilene is pursuing the Cedar Ridge Reservoir project to develop the supplies necessary to meet Abilene's future municipal demands and contractual sales.

   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $21,667,019
   - Unit Cost: $1,115/acft

b. Additional water from Oak Creek Reservoir Conjunctive use

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: None infrastructure is in place

Table 5.26-4. Recommended Plan Costs by Decade for Sweetwater

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(296)*	*(333)*	*(350)*	*(413)*	*(469)*	*(521)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(296)*	*(333)*	*(350)*	*(413)*	*(469)*	*(521)*
Additional Demands from Recommended Strategies from Others						
Sell water to Bitter Creek WSC (acft/yr)	218	216	213	219	224	229
Sell water to City of Roscoe (acft/yr)	84	88	90	96	101	107
Increase Reuse Amount to Nolan County Manufacturing (acft/yr)	–	5	–	–	–	–
Increase contract to Nolan County Mining	71	211	186	166	147	131
Sell water to Bronte (Region F)		210	209	207	207	207
Sell water to Robert Lee (Region F)		238	239	239	239	239
Total Needs Including Recommended Strategies	*(669)*	*(1,301)*	*(1,287)*	*(1,340)*	*(1,387)*	*(1,434)*
Purchase from Abilene						
Supply From Plan Element (acft/yr)		1,651	1,668	1,731	1,787	1,839
Annual Cost ($/yr)		$1,840,865	$428,676	$444,867	$459,259	$472,623
Unit Cost ($/acft)		$1,115	$257	$257	$257	$257
Additional Water from Oak Creek Conjunctive Use (Brazos G) and Subordination (Region F)						
Supply From Plan Element (acft/yr)	1,127	1,052	1,052	1,054	1,054	1,054
Annual Cost ($/yr)	–	–	–	–	–	–
Unit Cost ($/acft)	–	–	–	–	–	–

5.26.4 County-Other

Description of Supply

Entities in Nolan County-Other obtains water from the Edwards-Trinity Aquifer at 139 acft/yr. A surplus is projected through 2070. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd. No changes are recommended to the Water Supply Plan.

5.26.5 Manufacturing

Description of Supply

Nolan County Manufacturing obtains its water supply from the Dockum Aquifer, City of Sweetwater and from the Edwards-Trinity (Plateau) Aquifer. Manufacturing is projected to have a shortage beginning in year 2030.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Nolan County-Manufacturing. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: not determined

b. Additional Water Supply from Sweetwater
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: N/A. Infrastructure assumed sufficient
   - Unit Cost: $1,031/acft

Table 5.26-5. Recommended Plan Costs by Decade for Nolan County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*52*	*(31)*	*(33)*	*(35)*	*(35)*	*(35)*
Conservation						
Supply From Plan Element (acft/yr)	13	26	37	37	37	37
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*52*	*(5)*	*4*	*2*	*2*	*2*

Table 5.26-5. Recommended Plan Costs by Decade for Nolan County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Purchase from Sweetwater						
Supply From Plan Element (acft/yr)	–	5	–	–	–	–
Annual Cost ($/yr)	–	$5,155	–	–	–	–
Unit Cost ($/acft)	–	$1,031	–	–	–	–

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.26.6 Mining

Description of Supply

Nolan County Mining obtains its water supply from the Dockum and Edwards-Trinity (Plateau) Aquifers. Based on the available groundwater supply, Nolan County Mining is projected to have a shortage between 2020 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Nolan County-Mining. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: not determined

b. Purchase Water Supply from Sweetwater

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: Existing infrastructure assumed sufficient
- Unit Cost: $1,031/acft (Sweetwater Wholesale Rate)

Table 5.26-6. Recommended Plan Costs by Decade for Nolan County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(78)*	*(75)*	*(53)*	*(31)*	*(11)*	*6*
Conservation						
Supply From Plan Element (acft/yr)	7	11	14	12	11	10
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND

Table 5.26-6. Recommended Plan Costs by Decade for Nolan County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(218)*	*(211)*	*(186)*	*(166)*	*(147)*	*(131)*
Additional Water from Sweetwater						
Supply From Plan Element (acft/yr)	71	211	186	166	147	131
Annual Cost ($/yr)	$223,861	$223,861	$223,861	$223,861	$223,861	$223,861
Unit Cost ($/acft)	$1,018	$1,018	$1,018	$1,018	$1,018	$1,018

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.26.7 Irrigation

Description of Supply

Nolan County Irrigation obtains its water supply from the Dockum and Edwards Trinity Aquifer and run-of-river diversions from the Brazos River. Based on the available supply, Nolan County Irrigation is projected to have a shortage between 2020 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Nolan County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: max $109,733 in 2040
- Unit Cost: $1,494/acft

b. Leave Needs Unmet

New supplies for irrigation would be cost prohibitive to develop and most farms would switch to dry-land crops or allow fields to go fallow during a prolonged drought.

- Cost Source: Cost of not meeting needs – will be provided by TWDB
- Date to be Implemented: 2020

Table 5.26-7. Recommended Plan Costs by Decade for Nolan County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(8,237)*	*(8,237)*	*(8,237)*	*(8,237)*	*(8,237)*	*(8,237)*
Conservation						
Supply From Plan Element (acft/yr)	347	578	809	809	809	809
Annual Cost ($/yr)	$518,232	$863,720	$1,209,208	$1,209,208	$1,209,208	$1,209,208
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(6,572)*	*(6,341)*	*(6,110)*	*(6,110)*	*(6,110)*	*(6,110)*
Leave Needs Unmet (acft/yr)	*(6,572)*	*(6,341)*	*(6,110)*	*(6,110)*	*(6,110)*	*(6,110)*

5.26.8 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.27 Palo Pinto County Water Supply Plan

Table 5.27-1 lists each water user group in Palo Pinto County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.27-1. Palo Pinto County Surplus/(Shortage)

Water User Group	Surplus/Shortage		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Gordon	(160)	(175)	Projected shortage - see plan below.
Lake Palo Pinto Area WSC	33	11	Projected surplus
City of Mineral Wells	(594)	(1,200)	Projected shortage - see plan below.
North Rural WSC	55	44	Projected surplus
Palo Pinto WSC	56	47	Projected surplus
Parker County SUD			See Region C
Possum Kingdom WSC	(206)	(290)	Projected shortage - see plan below.
Santo SUD	35	(14)	Projected shortage - see plan below.
Sportsmans World MUD	(47)	(61)	Projected shortage - see plan below.
Stephens Regional SUD			See Stephens County
City of Strawn	(46)	(59)	Projected shortage - see plan below.
Sturdivant Progress WSC	57	33	Projected surplus
County-Other	(187)	(177)	Projected shortage - see plan below.
Manufacturing	1,197	1,197	Projected surplus
Steam-Electric	11,601	11,601	Projected surplus
Mining	(622)	(232)	Projected shortage – see plan below.
Irrigation	(2,326)	(2,326)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.27.1 City of Gordon

Description of Supply

The City of Gordon is split between Erath and Palo Pinto Counties; however, the majority of the City's demand is located in Palo Pinto County. Gordon receives supply from Lake CB Long, but the reservoir has a zero firm yield based on water availability analyses prescribed under water planning guidelines. Water shortages are projected between 2020 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Gordon. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: $25,286 in 2070
   - Unit Cost: $560/acft

b. Purchase Water from Strawn
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: $318,549
   - Unit Cost: $2,167/acft ($6.65 per 1,000 gallons)

Table 5.27-2. Recommended Plan Costs by Decade for City of Gordon

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(147)*	*(155)*	*(160)*	*(166)*	*(171)*	*(175)*
Conservation						
Supply From Plan Element (acft/yr)	0	12	24	36	42	43
Annual Cost ($/yr)	$0	$6,771	$13,689	$21,479	$24,802	$25,286
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(147)*	*(143)*	*(136)*	*(130)*	*(129)*	*(132)*
Purchase Water from Strawn (additional Trinity Aquifer supplies)						
Supply From Plan Element (acft/yr)	147	147	148	148	148	148
Annual Cost ($/yr)	$318,600	$318,500	$320,700	$320,700	$320,700	$320,700
Unit Cost ($/acft)	$2,167	$2,167	$2,167	$2,167	$2,167	$2,167

5.27.2 Lake Palo Pinto Area WSC

Lake Palo Pinto Area WSC obtains its water supply from Palo Pinto County MWD. The WSC has a projected surplus throughout the planning period, and no changes to water supply are recommended. Conservation was considered; however, the current per capita use rate is below the target rate of 140 gpcd.

5.27.3 City of Mineral Wells

Description of Supply

The City of Mineral Wells is split between Parker County in Region C and Palo Pinto County (Brazos G), however the majority of demand lies within Palo Pinto County. The City obtains water supply from Lake Mineral Wells and from Palo Pinto County MWD 1. Mineral Wells provides water to Palo Pinto WSC, Santo SUD, Sturdivant Progress WSC, North Rural WSC, Palo Pinto County-Other and Manufacturing entities, and to various users in Region C. Due to a prorated reduction in treated surface water supply form Palo Pinto County MWD 1, water shortages are projected for the City of Mineral Wells from 2020 through 2070. Balances shown are for the entire City, including areas in Parker County and Region C. Water conservation as a recommended water management strategy is shown for both the Brazos G and Region C portions.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Mineral Wells. Conservation is recommended to reduce usage to a goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: $18,836
   - Unit Cost: $560/acft

b. Turkey Peak Reservoir – Lake Palo Pinto Enlargement
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: $5,935,000
   - Unit Cost: $733/acft

Table 5.27-3. Recommended Plan Costs by Decade for City of Mineral Wells

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(168)*	*(403)*	*(594)*	*(800)*	*(1,007)*	*(1,200)*
Conservation						
Supply From Plan Element (acft/yr) (Brazos G)	—	34	—	—	—	—

Table 5.27-3. Recommended Plan Costs by Decade for City of Mineral Wells

Plan Element	2020	2030	2040	2050	2060	2070
Supply From Plan Element (acft/yr) (Region C portion)	17	21	3	4	5	6
Annual Cost ($/yr) (Brazos G portion only)	—	$18,836	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(151)*	*(348)*	*(591)*	*(796)*	*(1,002)*	*(1,194)*
Additional Demands from Recommended Strategies from Others						
Increase Contract Amount to Santo SUD (acft/yr)	—	—	—	—	—	14
Increase Contract Amount to County-Other (acft/yr)	191	190	187	187	184	177
Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)	*(342)*	*(538)*	*(778)*	*(983)*	*(1,186)*	*(1,385)*
Turkey Peak Reservoir – Lake Palo Pinto Enlargement						
Supply From Plan Element (acft/yr)	—	543	778	983	1,186	1,386
Annual Cost ($/yr)	—	$398,000	$570,000	$598,000	$721,000	$136,000
Unit Cost ($/acft)	—	$733	$608	$608	$98	$98

5.27.4 North Rural WSC

North Rural WSC is split between Parker County in Region C and Palo Pinto County (Brazos G), however the majority of demand lies within Palo Pinto County. North Rural WSC obtains its water supply from the City of Mineral Wells. No shortages are projected for the WSC and no changes in water supply are recommended throughout the planning period. Conservation was considered; however, the current per capita use rate is below the targeted rate of 140 gpcd.

5.27.5 Palo Pinto WSC

Palo Pinto obtains its water supply from the City of Mineral Wells. No shortages are projected for the WSC and no changes in water supply are recommended throughout the planning period. Conservation was considered; however, the current per capita use rate is below the targeted rate of 140 gpcd.

5.27.6 Possum Kingdom WSC

Description of Supply

Possum Kingdom WSC is split between Stephens and Palo Pinto County. The WSC receives supply from the Brazos River Authority. Water shortages are projected between 2020 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the Possum Kingdom WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: $222,404 in 2070
   - Unit Cost: $560/acft

b. BRA System Operations
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: $146,984
   - Unit Cost: $76/acft

c. Voluntary Redistribution from Palo Pinto Manufacturing
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: Cost of purchase only, maximum of $9,027 in 2020
   - Unit Cost: $76.50/acft

Table 5.27-4. Recommended Plan Costs by Decade for Possum Kingdom WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(118)*	*(171)*	*(206)*	*(240)*	*(268)*	*(290)*
Conservation						
Supply From Plan Element (acft/yr)	0	80	161	243	323	397
Annual Cost ($/yr)	$0	$44,691	$90,098	$135,915	$180,692	$222,404
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(118)*	*(91)*	*(45)*	*3*	*55*	*107*
BRA System Operations						
Supply From Plan Element (acft/yr)	1,934	1,934	1,934	1,934	1,934	1,934
Annual Cost ($/yr)	$146,984	$146,984	$146,984	$146,984	$146,984	$146,984
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76

Table 5.27-4. Recommended Plan Costs by Decade for Possum Kingdom WSC

Plan Element	2020	2030	2040	2050	2060	2070
Voluntary Redistribution from Palo Pinto Manufacturing						
Supply From Plan Element (acft/yr)	118	91	45	—	—	—
Annual Cost ($/yr)	$9,027	$6,962	$3,443	—	—	—
Unit Cost ($/acft)	$76.50	$76.50	$76.50	—	—	—

5.27.7 Santo SUD

Description of Supply

Santo SUD is split between Hood and Palo Pinto counties as well as Parker County in Region C, however the majority of the SUD's demand lies within Palo Pinto County. Santo SUD obtains treated surface water supply from the City of Mineral Wells. Values shown below reflect the Brazos G portion only of Santo SUD.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the entity's water needs. Conservation was considered, however the current per capita use rate is below the targeted rate of 140 gpcd.

a. Purchase Additional Supply from the City of Mineral Wells

- Cost Source: Volume II
- Date to be Implemented: 2070
- Annual Cost: $29,232
- Unit Cost: $2,088/acft

Table 5.27-5. Recommended Plan Costs by Decade for Santo SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*55*	*43*	*35*	*22*	*5*	*(14)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*55*	*43*	*35*	*22*	*5*	*(14)*

Table 5.27-5. Recommended Plan Costs by Decade for Santo SUD

Plan Element	2020	2030	2040	2050	2060	2070
Purchase Additional Supply from the City of Mineral Wells						
Supply From Plan Element (acft/yr)	—	—	—	—	—	14
Annual Cost ($/yr)	—	—	—	—	—	$29,232
Unit Cost ($/acft)	—	—	—	—	—	$2,088

5.27.8 Sportsmans World MUD

Description of Supply

Sportsman World MUD is supplied by surface water from the main stem of the Brazos River. The MUD has a projected shortage from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Sportsman World MUD. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum of $32,921 in 2070
   - Unit Cost: $560/acft

b. BRA System Operations
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: $22,000
   - Unit Cost: $76/acft

c. Voluntary Redistribution from Palo Pinto Manufacturing
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: Cost of purchase only, maximum of $2,525 in 2020
   - Unit Cost: $76.50/acft

Table 5.27-6. Recommended Plan Costs by Decade for Sportsmans World MUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(33)*	*(42)*	*(47)*	*(53)*	*(57)*	*(61)*
Conservation						
Supply From Plan Element (acft/yr)	0	13	24	36	48	59
Annual Cost ($/yr)	$0	$7,052	$13,466	$20,356	$26,766	$32,921
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(33)*	*(29)*	*(23)*	*(17)*	*(9)*	*(2)*
BRA System Operations						
Supply From Plan Element (acft/yr)	290	290	290	290	290	290
Annual Cost ($/yr)	$22,040	$22,040	$22,040	$22,040	$22,040	$22,040
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76
Voluntary Redistribution from Palo Pinto Manufacturing						
Supply From Plan Element (acft/yr)	33	29	23	17	9	2
Annual Cost ($/yr)	$2,607	$2,291	$1,817	$1,343	$711	$158
Unit Cost ($/acft)	$76.50	$76.50	$76.50	$76.50	$76.50	$76.50

5.27.9 City of Strawn

Description of Supply

The City of Strawn is supplied by surface water from Lake Tucker and Trinity Aquifer and is projected to have shortages through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Strawn.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: $13,319 in 2070
- Unit Cost: $560/acft

b. Groundwater Development – Trinity Aquifer (Erath County)

- Cost Source: Volume II
- Date to be Implemented: by 2030

- Projectl Cost: $2,447,000
- Unit Cost: $1,401/acft

Table 5.27-7. Recommended Plan Costs by Decade for City of Strawn

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(35)*	*(42)*	*(46)*	*(50)*	*(55)*	*(59)*
Conservation						
Supply From Plan Element (acft/yr)	0	11	23	22	23	24
Annual Cost ($/yr)	$0	$6,320	$12,832	$12,407	$12,836	$13,319
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(35)*	*(31)*	*(23)*	*(28)*	*(32)*	*(35)*
Additional Demands from Recommended Plans from Others						
Supply Contract to Gordon (acft/yr)	147	147	141	140	140	140
Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)	(182)	(178)	(164)	(168)	(172)	(175)
Groundwater Development – Trinity Aquifer (Erath County)						
Supply From Plan Element (acft/yr)	182	182	183	183	183	183
Annual Cost ($/yr)	$255,000	$255,000	$83,000	$83,000	$83,000	$83,000
Unit Cost ($/acft)	$1,401	$1,401	$456	$456	$456	$456

5.27.10 Sturdivant Progress WSC

Sturdivant Progress WSC purchases treated water from the City of Mineral Wells. The WSC's contract is projected to provide sufficient supply through the planning period. Conservation was considered; however, the current per capita use rate is below the targeted rate of 140 gpcd. No changes in water supply are recommended.

5.27.11 County-Other

Description of Supply

Entities in Palo Pinto County-Other obtain treated surface water from the City of Mineral Wells. There is a projected shortage for County-Other from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Palo-Pinto County-Other entities. Conservation was also considered; however, the current per capita use rate is below the targeted rate of 140 gpcd.

a. Purchase Additional Water from the City of Mineral Wells

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: Maximum of $398,808 in 2020
- Unit Cost: $2,088/acft

Table 5.27-8. Recommended Plan Costs by Decade for Palo Pinto – County-Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(191)*	*(190)*	*(187)*	*(187)*	*(184)*	*(177)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(191)*	*(190)*	*(187)*	*(187)*	*(184)*	*(177)*
Purchase Additional Water from the City of Mineral Wells						
Supply From Plan Element (acft/yr)	191	*190*	*187*	*187*	*184*	*177*
Annual Cost ($/yr)	$398,808	$396,720	$390,456	$390,456	$384,192	$369,576
Unit Cost ($/acft)	$2,088	$2,088	$2,088	$2,088	$2,088	$2,088

5.27.12 Manufacturing

Palo Pinto County Manufacturing obtains its water supply from the City of Mineral Wells and the Brazos River Authority. Palo Pinto County Manufacturing shows a projected surplus. In order to meet the needs of other WUGs within Palo Pinto County, a portion of the Manufacturing supply is recommended to be voluntarily redistributed to Possum Kingdom WSC and Sportsmans World MUD.

Table 5.27-9. Recommended Plan Costs by Decade for Palo Pinto – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,199*	*1,197*	*1,197*	*1,197*	*1,197*	*1,197*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,199*	*1,197*	*1,197*	*1,197*	*1,197*	*1,197*

Table 5.27-9. Recommended Plan Costs by Decade for Palo Pinto – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Additional Demands from Recommended Plans from Others						
Increase Contract Amount to Possum Kingdom WSC (acft/yr)	118	91	45	0	0	0
Increase Contract Amount to Sportsmans World MUD (acft/yr)	33	29	23	17	9	2
Balance Including Recommended Strategies for others (acft/yr)	*1,350*	*1,317*	*1,265*	*1,214*	*1,206*	*1,199*
BRA System Operations Supplies						
Supply From Plan Element (acft/yr)	15	15	15	15	15	15
Annual Cost ($/yr)	$1,140	$1,140	$1,140	$1,140	$1,140	$1,140

5.27.13 Steam-Electric

Palo Pinto County Steam-Electric obtains its water supply from Palo Pinto County MWD No. 1, the Brazos River Authority, and from Palo Pinto County-Other entities. Steam-Electric is projected to have surplus supplies through the planning period and no change to water supply is recommended.

5.27.14 Mining

Description of Supply

Palo Pinto County Mining obtains its water supply from Trinity Aquifer, Brazos River Authority, and from Palo Pinto County-Other entities. Mining operations have a projected shortage throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Palo-Pinto County-Other entities. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Unit Cost: Not determined (ND). Costs to implement industrial conservation technologies will vary based on each location

b. Groundwater Development – Trinity Aquifer (Erath County)

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $4,885,000
- Unit Cost: $699/acft

Table 5.27-10. Recommended Plan Costs by Decade for Palo Pinto – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(653)*	*(844)*	*(622)*	*(477)*	*(333)*	*(232)*
Conservation						
Supply From Plan Element (acft/yr)	20	42	44	34	24	16
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(633)*	*(802)*	*(578)*	*(443)*	*(309)*	*(216)*
Groundwater Development – Trinity Aquifer (Erath County)						
Supply From Plan Element (acft/yr)	653	844	622	477	333	232
Annual Cost ($/yr)	$456,447	$589,956	$181,002	$138,807	$96,903	$67,512
Unit Cost ($/acft)	$699	$699	$291	$291	$291	$291

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.27.15 Irrigation

Description of Supply

Palo Pinto County Irrigation obtains its water supply from run of the river water rights and the BRA. Based on the available supply, Palo Pinto County Irrigation is projected to have a shortage between 2020 and 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Palo Pinto County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: $40,825
- Unit Cost: $1,045/acft

b. Groundwater Development – Trinity Aquifer (Erath County)

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $49,832,000
- Unit Cost: $2,230 /acft

Table 5.27-11. Recommended Plan Costs by Decade for Palo Pinto County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2,326)*	*(2,326)*	*(2,326)*	*(2,326)*	*(2,326)*	*(2,326)*
Conservation						
Supply From Plan Element (acft/yr)	90	151	211	211	211	211
Annual Cost ($/yr)	$94,437	$157,396	$220,354	$220,354	$220,354	$220,354
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(2,236)*	*(2,175)*	*(2,115)*	*(2,115)*	*(2,115)*	*(2,115)*
Groundwater Development – Trinity Aquifer (Erath County)						
Supply From Plan Element (acft/yr)	2,236	2,175	2,115	2,115	2,115	2,115
Annual Cost ($/yr)	$4,986,000	$4,850,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000
Unit Cost ($/acft)	$2,230	$2,230	$662	$662	$662	$662

5.27.16 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.28 Robertson County Water Supply Plan

Table 5.28-1 lists each water user group in Robertson County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.28-1. Robertson County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Bethany-Hearne WSC	0	0	No projected surplus or shortage
City of Bremond	186	141	Projected surplus
City of Calvert	349	350	Projected surplus
City of Franklin	917	738	Projected surplus
City of Hearne	1,729	1,724	Projected surplus
Robertson County WSC	(235)	(526)	Projected shortage - see plan below.
Twin Creek WSC	390	325	Projected surplus
Wellborn SUD			See Brazos County
Wickson Creek SUD			See Brazos County
County-Other	10	11	Projected surplus
Manufacturing	4,566	4,566	Projected surplus
Steam-Electric	0	0	No projected surplus or shortage
Mining	3,687	3,687	Projected surplus
Irrigation	(17,100)	(17,921)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.28.1 Beathany-Hearne WSC

Bethany-Hearne WSC purchases its water supply from the City of Hearne. Supply is projected to meet demand throughout the planning period. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.28.2 City of Bremond

Description of Supply

The City of Bremond obtains its water supply from the Carrizo-Wilcox Aquifer. No shortages are projected for the City.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Bremond. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum of $13,365 in 2070
- Unit Cost: $560/acft

Table 5.28-2. Recommended Plan Costs by Decade for City of Bremond

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*210*	*198*	*186*	*171*	*156*	*141*
Conservation						
Supply From Plan Element (acft/yr)	0	13	21	21	23	24
Annual Cost ($/yr)	$0	$7,514	$11,700	$12,021	$12,605	$13,365
Projected Surplus/(Shortage) after Conservation (acft/yr)	*210*	*211*	*207*	*192*	*179*	*165*

5.28.3 City of Calvert

The City of Calvert obtains its water supply from the Carrizo-Wilcox Aquifer. No shortages are projected for the City. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.28.4 City of Franklin

The City of Franklin obtains its water supply from the Carrizo-Wilcox Aquifer. No shortages are projected for the City of Franklin. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.28.5 City of Hearne

Description of Supply

The City of Hearne obtains its water supply from the Carrizo-Wilcox Aquifer. The City also provides supply to Robertson County Manufacturing and Bethany Hearne WSC. No shortages are projected for the City of Hearne.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Hearne. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: $23,914 in 2030
- Unit Cost: $560/acft

Table 5.28-3. Recommended Plan Costs by Decade for City of Hearne

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,040*	*1,899*	*1,729*	*1,729*	*1,728*	*1,724*
Conservation						
Supply From Plan Element (acft/yr)	0	43	22	19	17	17
Annual Cost ($/yr)	$0	$23,914	$12,577	$10,897	$9,777	$9,777
Projected Surplus/(Shortage) after Conservation (acft/yr)	*2,040*	*1,942*	*1,751*	*1,748*	*1,745*	*1,741*

5.28.6 Robertson County WSC

Description of Supply

Robertson County WSC obtains its water supply from the Carrizo-Wilcox Aquifer. The entity also provides supply to Robertson County Steam and Electric. Robertson County WSC has a projected shortage throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Robertson County WSC. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Groundwater Development

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: $3,440,000
- Unit Cost: $813/acft

Table 5.28-4. Recommended Plan Costs by Decade for Robertson County WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(81)*	*(157)*	*(235)*	*(332)*	*(433)*	*(526)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(81)*	*(157)*	*(235)*	*(332)*	*(433)*	*(526)*
Groundwater Development – Carrizo-Wilcox Aquifer						
Supply From Plan Element (acft/yr)	550	550	550	550	550	550
Annual Cost ($/yr)	$447,000	$447,000	$205,000	$205,000	$205,000	$205,000
Unit Cost ($/acft)	$813	$813	$373	$373	$373	$373

5.28.7 Twin Creek WSC

Description of Supply

Twin Creek WSC obtains its water supply from the Carrizo-Wilcox Aquifer. A surplus is projected for Twin Creek WSC throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Hearne. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: $13,811 in 2070
- Unit Cost: $560/acft

Table 5.28-5. Recommended Plan Costs by Decade for Twin Creek WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*427*	*408*	*390*	*368*	*347*	*325*
Conservation						
Supply From Plan Element (acft/yr)	0	21	23	23	23	25
Annual Cost ($/yr)	$0	$11,642	$13,153	$13,003	$12,995	$13,811
Projected Surplus/(Shortage) after Conservation (acft/yr)	*427*	*429*	*413*	*391*	*370*	*350*

5.28.8 County-Other

Description of Supply

Robertson County-Other entities obtain water supply from groundwater from the Carrizo-Wilcox Aquifer. No shortages are projected for Robertson County-Other. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.28.9 Manufacturing

Water supply for manufacturing in Robertson County is obtained by purchase from the City of Hearne and from Carrizo-Wilcox wells operated by the manufacturing entity. Manufacturing is projected to have a surplus of 4,566 acft/yr through the year 2070 and no changes in water supply are recommended.

5.28.10 Steam-Electric

Robertson County Steam-Electric entities obtain water supply from the Carrizo-Wilcox Aquifer, contracts with the Brazos River Authority, and groundwater purchased from Robertson County WSC. No shortages are projected and no change in water supply is recommended.

5.28.11 Mining

Mining operations in Robertson County are supplied by Carrizo-Wilcox Groundwater. Surpluses are projected for Robertson County Mining throughout the planning period.

5.28.12 Irrigation

Description of Supply

Robertson County Irrigation is supplied by the Carrizo-Wilcox, Queen City, Sparta, and Brazos River Alluvium Aquifers. Current pumping in the Brazos River Alluvium greatly exceeds the MAG for Robertson County. Irrigation is projected to have shortages beginning in 2020 and continuing through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Robertson County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Unit Cost: $857/acft

b. Leave Needs Unmet

- New supplies for irrigation would be cost prohibitive to develop and most farms would switch to dry-land crops or allow fields to go fallow during a prolonged drought.
- Cost Source: Cost of not meeting needs – see Appendix G
- Date to be Implemented: 2020

Table 5.28-6. Recommended Plan Costs by Decade for Robertson County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(12,851)*	*(16,181)*	*(17,100)*	*(17,718)*	*(17,829)*	*(17,921)*
Conservation						
Supply From Plan Element (acft/yr)	2,375	3,959	5,579	5,612	5,612	5,612
Annual Cost ($/yr)	$561,438	$935,730	$1,318,692	$1,326,302	$1,326,319	$1,326,319
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(10,476)*	*(12,222)*	*(11,521)*	*(12,106)*	*(12,217)*	*(12,309)*
Leave Needs Unmet (acft/yr)	*(10,476)*	*(12,222)*	*(11,521)*	*(12,106)*	*(12,217)*	*(12,309)*

5.28.13 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.29 Shackelford County Water Supply Plan

Table 5.29-1 lists each water user group in Shackelford County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.29-1. Shackelford County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Albany	113	114	Projected surplus - see plan below.
Fort Griffin SUD			See Stephens County
Hamby WSC			See Jones County
Stephens Regional SUD			See Stephens County
Callahan County WSC			See Callahan County
County-Other	12	15	Projected surplus
Manufacturing	37	37	Projected surplus
Steam-Electric	0	0	No projected demand
Mining	(348)	(33)	Projected shortage - see plan below.
Irrigation	100	100	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.29.1 City of Albany

Description of Supply

Water supply for the City of Albany is from Hubbard Creek Reservoir, owned by the West Central Texas MWD at 659 to 738 acft/yr and from Lake McCarty at 75 to 0 acft/yr based on yields from 2020 to 2070, respectively. The City of Albany sells water to Fort Griffin SUD.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $130,213 in 2070
- Unit Cost $560/acft

Table 5.29-2. Recommended Plan Costs by Decade for the City of Albany

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*130*	*99*	*113*	*113*	*114*	*114*
Conservation						
Supply From Plan Element (acft/yr)	0	50	98	146	191	233
Annual Cost ($/yr)	$0	$28,174	$54,976	$81,965	$107,034	$130,213
Projected Surplus/(Shortage) after Conservation (acft/yr)	*130*	*149*	*211*	*259*	*305*	*347*
Additional Demands from Recommended Strategies from Others						
Increase Reuse Amount to Fort Griffin SUD (acft/yr)	2	2	2	2	2	2
Total Surplus/(Shortage) Including Recommended Strategies	*128*	*147*	*209*	*257*	*303*	*345*

5.29.2 County-Other

Description of Supply

Water supplies from County-Other are from a minor unnamed aquifer at 25 acft/yr. Projections indicate sufficient water supply for County-Other and no change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.29.3 Manufacturing

Projections indicate a surplus of water for Manufacturing and no changes in water supply are recommended.

5.29.4 Steam-Electric

No Steam-Electric demand is projected for the county.

5.29.5 Mining

Description of Supply

Surface water for Mining in Shackelford County is obtained from Fort Griffin SUD at 2 acft/yr, run of river water rights at 5 to 6 acft/yr and Cross Timbers Aquifer at 202 acft/yr. Projections indicate an increase in water demand for Mining and shortages projected beginning in 2020. Changes in water supply are recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Unit Cost: not determined

b. Leave Needs Unmet

New supplies for irrigation would be cost prohibitive to develop and most farms would switch to dry-land crops or allow fields to go fallow during a prolonged drought.

- Cost Source: Cost of not meeting needs – will be provided by TWDB
- Date to be Implemented: 2020

Table 5.29-3. Recommended Plan Costs by Decade for Shackelford County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(353)*	*(538)*	*(348)*	*(232)*	*(118)*	*(33)*
Conservation						
Supply From Plan Element (acft/yr)	17	37	39	31	23	17
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Unit Cost ($/acft)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(336)*	*(501)*	*(309)*	*(201)*	*(95)*	*(16)*
Leave Needs Unmet (acft/yr)	*(336)*	*(501)*	*(309)*	*(201)*	*(95)*	*(16)*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.29.6 Irrigation

Irrigation obtains water supply from the Cross Timbers Aquifer at 350 acft/yr. There are some irrigation rights located along the Clear Fork of the Brazos River; however, there is no surface water availability for those rights during a repeat of the drought of record. Supplies appear to be sufficient to meet demands and no water supply changes or conservation are recommended.

5.29.7 Livestock

No future shortages are projected in the Livestock category and no changes in water supply are recommended.

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5.30 Somervell County Water Supply Plan

Table 5.30-1 lists each water user group in Somervell County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.30-1. Somervell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Glen Rose	(90)	(179)	Projected shortage - see plan below.
Somervell County Water District	1,402	1,379	Projected surplus
County-Other	(92)	(183)	Projected shortage - see plan below.
Manufacturing	4	4	Projected surplus
Steam-Electric	(35,579)	(35,867)	Projected shortage - see plan below.
Mining	(455)	(280)	Projected shortage - see plan below.
Irrigation	172	172	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.30.1 City of Glen Rose

Description of Supply

The City of Glen Rose obtains its water supply from groundwater from the Trinity Aquifer. Based on the available groundwater supply, the City of Glen Rose is projected to have a shortage from 2030 through year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for City of Glen Rose. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $103,132 in 2070

b. Purchase Supply from Somervell County Water Supply Project

- The project will treat raw water from the Wheeler Branch Off-Channel Reservoir and transmit the treated water to customers of the Somervell County Water District. Phases 1-4 of the project are complete and are located in the immediate vicinity of Glen Rose.

- Cost Source: Volume II
- Date to be Implemented: by 2035
- Annual Cost: $52,950 (based on current cost of service for highest rate tier ($3.25/1000 gal) published by the Somervell County WSD

Table 5.30-2. Recommended Plan Costs by Decade for City of Glen Rose

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*8*	*(50)*	*(90)*	*(123)*	*(154)*	*(179)*
Conservation						
Supply From Plan Element (acft/yr)	0	52	108	169	179	184
Annual Cost ($/yr)	$0	$28,898	$60,585	$94,655	$100,198	$103,132
Projected Surplus/(Shortage) after Conservation (acft/yr)	*8*	*2*	*18*	*46*	*25*	*5*
Alternative: Somervell County Water Supply Project						
Supply From Plan Element (acft/yr)	—	50	50	50	50	50
Annual Cost ($/yr)	—	$52,950	$52,950	$52,950	$52,950	$52,950
Unit Cost ($/acft)	—	$1,059	$1,059	$1,059	$1,059	$1,059

5.30.2 Somervell County Water District

Description of Supply

Somervell County Water District obtains its supply through groundwater from the Trinity Aquifer and from the Wheeler Off-Channel Reservoir. No shortages are projected for the Somervell County Water District.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Somervell County Water District to help meet the needs of adjacent water users, including County-Other entities and the City of Glen Rose. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Somervell County Water Supply Project

- The project will treat raw water from the Wheeler Branch Off-Channel Reservoir and transmit the treated water to customers of the Somervell County Water District. Phases 1 – 4 are complete and provide 1,400 acft/yr of supply. Remaining phases will supply an additional 600 acft/yr.
- Cost Source: Volume II
- Date to be Implemented: by 2030
- Total Project Cost (Phases 7A and 9 – 17): $36,250,000
- Annual Cost: $3,546,000

Costs are shown for the additional supply of water made available by the remaining phases, which are planned for completion by 2035. Costs shown are for new infrastructure only, and do not include existing debt service for existing phases of the project or for costs for supply from Wheeler Branch Reservoir.

Table 5.30-3. Recommended Plan Costs by Decade for Somervell County Water District

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,424*	*1,411*	*1,402*	*1,394*	*1,386*	*1,379*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*1,424*	*1,411*	*1,402*	*1,394*	*1,386*	*1,379*
Somervell County Water Supply Project						
Supply From Plan Element (acft/yr)	—	600	600	600	600	600
Annual Cost ($/yr)	—	$3,546,000	$3,546,000	$995,000	$995,000	$995,000
Unit Cost ($/acft)	—	$5,910	$5,910	$1,658	$1,658	$1,658

5.30.3 County-Other

Description of Supply

Somervell County-Other obtains its water supply from groundwater from the Trinity Aquifer, and water supply shortages are projected beginning in 2030. However, the Somervell County Water District has completed the Wheeler Branch Off-Channel Reservoir, and is implementing infrastructure to utilize that resource throughout the county. Phases 1 – 4 are complete and provide 1,400 acft/yr of supply. Remaining phases will supply an additional 600 acft/yr.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for County-Other entities. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Somervell County Water Supply Project

- The project will treat raw water from the Wheeler Branch Off-Channel Reservoir and transmit the treated water to customers of the Somervell County Water District.
- Cost Source: Volume II

- Date to be Implemented: by 2035
- Annual Cost: $193,800 (based on current cost of service for highest rate tier ($3.25/1000 gal)

Table 5.30-4. Recommended Plan Costs by Decade for Somervell County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(54)*	*(92)*	*(125)*	*(156)*	*(183)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	0	(54)	(92)	(125)	(156)	(183)
Somervell County Water Supply Project						
Supply From Plan Element (acft/yr)	—	183	183	183	183	183
Annual Cost ($/yr)	—	$193,800	$193,800	$193,800	$193,800	$193,800
Unit Cost ($/acft)	—	$1,059	$1,059	$1,059	$1,059	$1,059

5.30.4 Manufacturing

Somervell County Manufacturing obtains its water supply from groundwater from the Trinity Aquifer. There are surpluses projected through 2070 and no changes are recommended to the water supply.

5.30.5 Steam-Electric

Description of Supply

Somervell County Steam-Electric obtains water supply from the Squaw Creek Reservoir and from the Brazos River Authority through Lake Granbury. Somervell County Steam-Electric is projected to have shortages beginning in year 2020 and continuing through year 2070. Local groundwater currently supplies potable water for plant staff and high-quality process water for boiler feed at the Comanche Peak Steam Electric Station. When the Somervell County Water Supply Project is developed, some potable water and process water for the Comanche Peak Station will be obtained from the project.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Somervell County Steam-Electric. Conservation was not applied to this plan because the steam-electric facilities are assumed to be built with technologies minimizing water use as much as practicable.

a. Somervell County Water Supply Project

- Cost Source: Volume II
- Date to be Implemented: fully phased by 2035
- Annual Cost: $741,300 (based on current cost of service for highest rate tier ($3.25/1000 gal) published by the Somervell County WSD[1])

b. Leave Needs Unmet

- Significant demand is associated with the plan to expand the Comanche Peak Steam Electric Station, however there are no longer plans to move forward with this expansion. Therefore, these needs should be left unmet.
- Cost Source: Cost of not meeting needs – see Appendix G
- Date to be Implemented: 2020

Table 5.30-5. Recommended Plan Costs by Decade for Somervell County – Steam-Electric

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(35,387)*	*(35,483)*	*(35,579)*	*(35,675)*	*(35,771)*	*(35,867)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(35,387)*	*(35,483)*	*(35,579)*	*(35,675)*	*(35,771)*	*(35,867)*
Somervell County Water Supply Project						
Supply From Plan Element (acft/yr)	—	700	700	700	700	700
Annual Cost ($/yr)	—	$45,137,000	$45,137,000	$1,160,600	$1,160,600	$1,160,600
Unit Cost ($/acft)	—	$5,910	$5,910	$1,658	$1,658	$1,658
Leave Needs Unmet (acft/yr)	*(35,387)*	*(34,773)*	*(34,879)*	*(34,975)*	*(35,071)*	*(35,167)*

5.30.6 Mining

Description of Supply

Mining operations in Somervell County are supplied by Trinity Aquifer groundwater. Demands for Mining are projected to increase significantly resulting in shortages beginning in 2020.

[1] http://www.scwd.com/uploads/1/2/8/1/12818560/scwd_service_policy_5-14.pdf

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Somervell County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $876,000
   - Unit Cost: Max of $200/acft (2020)

c. BRA System Operations
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $4,104
   - Unit Cost: $76

d. Leave Needs Unmet
   - Cost Source: Cost of not meeting needs – see Appendix G
   - Date to be Implemented: 2030 – 2039

Table 5.30-6. Recommended Plan Costs by Decade for Somervell County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(421)*	*(588)*	*(455)*	*(369)*	*(307)*	*(280)*
Conservation						
Supply From Plan Element (acft/yr)	33	64	80	74	70	68
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(388)*	*(524)*	*(375)*	*(295)*	*(237)*	*(212)*
BRA System Operations						
Supply From Plan Element (acft/yr)	54	54	54	54	54	54
Annual Cost ($/yr)	$4,104	$4,104	$4,104	$4,104	$4,104	$4,104
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76

Table 5.30-6. Recommended Plan Costs by Decade for Somervell County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Groundwater Well Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	426	426	426	426	426	426
Annual Cost ($/yr)	$85,000	$85,000	$23,000	$23,000	$23,000	$23,000
Unit Cost ($/acft)	$200	$200	$54	$54	$54	$54
Leave Needs Unmet (acft/yr)	—	(44)	—	—	—	—

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.30.7 Irrigation

Somervell County Irrigation is projected to have a surplus of 172 acft/yr through the year 2070. No changes in water supply are recommended.

5.30.8 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.31 Stephens County Water Supply Plan

Table 5.31-1 lists each water user group in Stephens County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.31-1. Stephens County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Breckenridge	877	868	Projected surplus
Fort Belknap WSC			See Young County
Fort Griffin SUD	(2)	(2)	Projected shortage - see plan below.
Possum Kingdom WSC			See Palo Pinto County
Staff WSC			See Eastland County
Stephens Regional SUD	173	176	Projected surplus
County-Other	7	6	Projected surplus
Manufacturing	0	0	No projected surplus or shortage
Steam-Electric	0	0	No projected demand
Mining	(2,869)	(1,184)	Projected shortage - see plan below.
Irrigation	(121)	(121)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.31.1 City of Breckenridge

Description of Supply

The City of Breckenridge obtains water from Hubbard Creek Reservoir through the West Central Texas Municipal Water District and from Lake Daniel. Projections indicate a surplus of water for the City of Breckenridge, and no change in supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Breckenridge. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: maximum of $28,388 in 2030
- Unit Cost: $560/acft

Table 5.31-2. Recommended Plan Costs by Decade for City of Breckenridge

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*882*	*871*	*877*	*879*	*878*	*868*
Conservation						
Supply From Plan Element (acft/yr)	0	51	29	16	15	14
Annual Cost ($/yr)	$0	$28,388	$16,070	$9,154	$8,221	$8,113
Projected Surplus/(Shortage) after Conservation	*882*	*922*	*906*	*895*	*893*	*882*

5.31.2 Fort Griffin SUD

Description of Supply

Fort Griffin SUD purchases treated surface water from the City of Albany and distributes to a number of counties. Of those counties, Stephens has the highest demand and is considered the SUD's primary county. The projections in Table 5.31-3 represent cumulative water supply shortages. Fort Griffin SUD also has a contract for 353 acft/yr from the BRA, but does not have infrastructure to utilize that supply.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Fort Griffin SUD. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Treated Water Supply from the City of Albany

- Cost Source: Volume II
- Date to be Implemented: 2020
- Annual Cost: $3,878
- Unit Cost: Cost of purchase $1,939/acft

b. Alternative: Build Infrastructure to Utilize BRA Supply

- Cost: Not determined
- Date to be Implemented: by 2030

Table 5.31-3. Recommended Plan Costs by Decade for Fort Griffin SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2)*	*(2)*	*(2)*	*(2)*	*(2)*	*(2)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(2)*	*(2)*	*(2)*	*(2)*	*(2)*	*(2)*
Purchase Treated Water Supply from the City of Albany						
Supply From Plan Element (acft/yr)	2	2	2	2	2	2
Annual Cost ($/yr)	$3,878	$3,878	$3,878	$3,878	$3,878	$3,878
Unit Cost ($/acft)	$1,939	$1,939	$1,939	$1,939	$1,939	$1,939
Alternative: Build Infrastructure to Utilize BRA Supply						

5.31.3 Stephens Regional SUD

Stephens Regional SUD is located in multiple counties (Eastland, Shackelford, Palo Pinto, Throckmorton and Stephens). The surplus shown in Table 5.31-4 represents the cumulative totals for Stephens Regional SUD in all the counties it serves. The current supply comes through the Brazos River Authority for supply from Possum Kingdom Reservoir. The WUG also provides supply to the City of Woodson (Throckmorton County-Other). Since water needs are met throughout the planning period no water management strategies are recommended for Stephens Regional SUD. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.31.4 County-Other

Water supply for county-other entities is obtained from local groundwater. Projections indicate adequate water supply and no changes are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.31.5 Manufacturing

The City of Breckenridge provides supply to meet Stephens County Manufacturing needs. No shortage is projected and no changes in water supply are recommended.

5.31.6 Steam-Electric

Stephens County has no projected demand for Steam-Electric.

5.31.7 Mining

Description of Supply

Mining operations in Stephens County obtain supply from Possum Kingdom Reservoir through the Brazos River Authority and from the Cross Timbers Aquifer. Mining demand in Stephens County is projected to peak in 2030, and slowly decrease until 2070. A shortage of supplies is projected beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management plan is recommended to meet water needs for Stephens County-Mining. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Annual Cost: not determined

b. Leave Needs Unmet

- Cost Source: Cost of not meeting needs – see Appendix G
- Date to be Implemented: 2020

Table 5.31-4. Recommended Plan Costs by Decade for Stephens County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(3,475)*	*(3,552)*	*(2,869)*	*(2,236)*	*(1,668)*	*(1,184)*
Conservation						
Supply From Plan Element (acft/yr)	152	257	312	268	228	194
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(3,323)*	*(3,295)*	*(2,557)*	*(1,968)*	*(1,440)*	*(990)*
Leave Needs Unmet (acft/yr)	*(3,323)*	*(3,295)*	*(2,557)*	*(1,968)*	*(1,440)*	*(990)*

ND – Not Determined. Costs to implement industrial conservation technologies will vary based on each location.

5.31.8 Irrigation

Description of Supply

Stephens County Irrigation obtains 31 acft/yr of groundwater supply from the Cross Timbers Aquifer. Irrigation is projected to have a shortage of supply through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Stephens County-Irrigation. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: maximum of $15,840
   - Unit Cost: 1,489/acft

b. Groundwater Development – Other Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $143,000
   - Unit Cost: Max of $400/acft (2020)

c. Leave Needs Unmet
   - Cost Source: Cost of not meeting needs – see Appendix G
   - Date to be Implemented: 2020

Table 5.31-5. Recommended Plan Costs by Decade for Stephens County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(121)*	*(121)*	*(121)*	*(121)*	*(121)*	*(121)*
Conservation						
Supply From Plan Element (acft/yr)	5	8	11	11	11	11
Annual Cost ($/yr)	$6,789	$11,314	$15,840	$15,840	$15,840	$15,840
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(116)*	*(113)*	*(110)*	*(110)*	*(110)*	*(110)*
Groundwater Development – Other Aquifer						
Supply From Plan Element (acft/yr)	30	30	30	30	30	30
Annual Cost ($/yr)	$12,000	$12,000	$2,000	$2,000	$2,000	$2,000
Unit Cost ($/acft)	$400	$400	$67	$67	$67	$67
Leave Needs Unmet (acft/yr)	*(80)*	*(80)*	*(80)*	*(80)*	*(80)*	*(80)*

5.31.9 Livestock

Stephens County Livestock obtains water from local supply and is projected to meet demands through 2070. No changes in water supply are recommended.

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5.32 Stonewall County Water Supply Plan

Table 5.32-1 lists each water user group in Stonewall County and their corresponding surplus or shortage in years 2040 and 2070. A brief description of each water user group has been developed and is presented in the following subsections.

Table 5.32-1. Stonewall County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Aspermont	(41)	(52)	Projected shortage - see plan below.
County-Other	6	6	Projected surplus
Manufacturing	(58)	(58)	Projected shortage - see plan below.
Steam-Electric	0	0	No projected demand
Mining	(318)	(144)	Projected shortage - see plan below.
Irrigation	4	3	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.32.1 City of Aspermont

Description of Supply

The City of Aspermont is supplied from North Central Texas Municipal Water Authority (NCTMWA) and from local groundwater sources, primarily from the Seymour Aquifer. The City has a projected water supply shortage beginning in 2020 and increasing through 2070; however, with conservation the City is able to decrease their projected shortage to where there is a surplus beginning in 2050.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for City of Aspermont. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation:

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $49,856 in 2070
- Unit Cost: $560/acft

b. Purchase Water from the Salt Fork Water Quality Cooperation Salinity Control Project
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: $8,254,000 for City's portion
   - Unit Cost: $3,823/acft

c. Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.
   - Cost Source: Volume II
     - Project requires a subordination agreement with the BRA
   - Date to be Implemented: by 2030
   - Project Cost: none (cost would be borne by NCTMWA)
   - Unit Cost: none (supply already purchased from NCTMWA)

Table 5.32-2. Recommended Plan Costs by Decade for the City of Aspermont

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(39)*	*(39)*	*(41)*	*(50)*	*(51)*	*(52)*
Conservation						
Supply From Plan Element (acft/yr)	0	19	37	56	73	89
Annual Cost ($/yr)	$0	$10,820	$20,664	$31,593	$40,917	$49,856
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(39)*	*(20)*	*(4)*	*6*	*22*	*37*
Purchase Water from the Salt Fork Water Quality Cooperation Salinity Control Project						
Supply From Plan Element (acft/yr)	—	249	249	249	249	249
Annual Cost ($/yr)	—	$952,000	$952,000	$371,000	$371,000	$371,000
Unit Cost ($/acft)	—	$3,823	$3,823	$1,490	$1,490	$1,490
Lake Creek Reservoir						
Supply From Plan Element (acft/yr)	—	20	4	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.32.2 County-Other

Stonewall County-Other entities obtain their groundwater supply from the Blaine Aquifer. A surplus is projected throughout the planning period and no changes in water supply are

recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.32.3 Manufacturing

Description of Supply

There is no water supply currently allocated for Stonewall County Manufacturing entities, however projections indicate a manufacturing demand and shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation:
   - Cost Source: Volume II
   - Date to be Implemented: by 2020
   - Unit Cost: not determined

b. Groundwater Development (Blaine Aquifer):
   - Cost Source: Volume II
   - Date to be Implemented: by 2020
   - Project Cost: $192,000
   - Unit Cost: Max of $268/acft (2020)

Table 5.32-3. Recommended Plan Costs by Decade for Stonewall County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(58)*	*(58)*	*(58)*	*(58)*	*(58)*	*(58)*
Conservation						
Supply From Plan Element (acft/yr)	2	3	4	4	4	4
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(56)*	*(55)*	*(54)*	*(54)*	*(54)*	*(54)*
Groundwater Well Development – Blaine Aquifer						
Supply From Plan Element (acft/yr)	56	56	56	56	56	56
Annual Cost ($/yr)	$15,000	$15,000	$2,000	$2,000	$2,000	$2,000
Unit Cost ($/acft)	$268	$268	$34	$34	$34	$34

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.32.4 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.32.5 Mining

Description of Supply

Groundwater supply for Mining in Stonewall County is obtained from the Blaine Aquifer. Projections indicate a decrease in water demand for Mining, however shortages are projected from 2020 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for Mining. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation:
   - Cost Source: Volume II
   - Date to be Implemented: by 2020
   - Unit Cost: not determined

b. Groundwater Development (Blaine Aquifer):
   - Cost Source: Volume II
   - Date to be Implemented: by 2020
   - Project Cost: $687,000
   - Unit Cost: Max of $218/acft

Table 5.32-4. Recommended Plan Costs by Decade for Stonewall County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(390)*	*(382)*	*(318)*	*(252)*	*(194)*	*(144)*
Conservation						
Supply From Plan Element (acft/yr)	18	29	36	31	27	24
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(372)*	*(353)*	*(282)*	*(221)*	*(167)*	*(120)*
Groundwater Well Development – Blaine Aquifer						
Supply From Plan Element (acft/yr)	372	372	372	372	372	372
Annual Cost ($/yr)	$81,000	$81,000	$33,000	$33,000	$33,000	$33,000
Unit Cost ($/acft)	$218	$218	$89	$89	$89	$89

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.32.6 Irrigation

Stonewall County Irrigation entities obtain groundwater supply from the Blaine and Seymour Aquifers. A surplus in supply is projected and no changes in water supply are recommended.

5.32.7 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.33 Taylor County Water Supply Plan

Table 5.33-1 lists each water user group in Taylor County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.33-1. Taylor County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Abilene	(6,763)	(19,771)	Projected shortage - see plan below.
Coleman County SUD			See Callahan County
Hamby WSC			See Jones County
Hawley WSC			See Jones County
City of Lawn	20	13	Projected surplus - see plan below.
City of Merkel	(25)	(41)	Projected shortage - see plan below.
North Runnels WSC	(31)	(31)	See Region F Plan
Potosi WSC	(542)	(586)	Projected shortage - see plan below.
Steamboat Mountain WSC	(155)	(171)	Projected shortage - see plan below.
City of Tye	(4)	(13)	Projected shortage - see plan below.
View Caps WSC	0	(9)	Projected shortage - see plan below.
County-Other	287	(197)	Projected shortage - see plan below.
Manufacturing	0	0	No projected surplus or shortage
Steam-Electric	0	0	No projected demand
Mining	(232)	(181)	Projected shortage - see plan below.
Irrigation	(1,266)	(1,266)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.33.1 City of Abilene

Description of Supply

The City of Abilene obtains its water supply from surface water from Fort Phantom Hill Reservoir, Fort Phantom Hill Reuse, BRA Main Stem System (Possum Kingdom Reservoir), Hubbard Creek Reservoir and O.H. Ivie (Region F) Reservoir. Abilene also has a wastewater reuse system for non-potable use, with water stored in Lake Kirby. The City supplies several neighboring communities and projected demands indicate shortages through 2070. This WUG is located in Taylor and Jones Counties. Conservation is recommended to reduce the City of Abilene gallons per capita per day (gpcd) to a goal of 140 gpcd.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet water needs for the City of Abilene.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: $560/acft

b. BRA System Operations Supply
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $591,881
   - Unit Cost: $76.50/acft

c. Water Treatment Plant Expansion
   - Cost Source: Volume II
   - Date to be Implemented: before 2060
   - Project Cost: $61,665,000
   - Unit Cost: $0.88/acft

d. West Texas Water Partnershipo
   - Cost Source: See 2021 Region F Regional Water Plan
   - Date to be Implemented: before 2030
   - Project Cost: see Region F Water Plan

e. Unit Cost: maximum of $1,783/acftCedar Ridge Reservoir
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $283,646,000
   - Unit Cost: $853/acft

Table 5.33-2. City of Abilene Demands and Supplies

Projected Demands	Year (acft/yr)					
Major Water Contract Holders	2020	2030	2040	2050	2060	2070
City of Abilene	22,261	22,698	23,050	23,440	23,874	24,238
Existing Contractual Sales						
City of Ballinger	1,250	1,250	1,250	1,250	1,250	1,250
City of Baird	77	77	77	77	77	77

Table 5.33-2. City of Abilene Demands and Supplies

Projected Demands	Year (acft/yr)					
Major Water Contract Holders	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Blair WSC (Taylor C-O)	77	77	77	77	77	77
City of Buffalo Gap (Taylor C-O)	153	153	153	153	153	153
City of Clyde	307	307	307	307	307	307
City of Clyde	11,837	11,837	11,837	11,837	11,837	11,837
City of Lawn	153	153	153	153	153	153
City of Merkel	353	353	353	353	353	353
City of Tye	184	184	184	184	184	184
Eula WSC	61	61	61	61	61	61
Hamby WSC	308	308	308	308	308	308
Hawley WSC	307	307	307	307	307	307
Potosi WSC	307	307	307	307	307	307
Steamboat Mountain WSC	307	307	307	307	307	307
S.U.N. WSC (Taylor C-O)	230	230	230	230	230	230
Tuscola-Taylor County WCID No. 1 (Taylor C-O)	92	92	92	92	92	92
View Caps WSC	199	199	199	199	199	199
County Aggregated Demands						
Taylor County Manufacturing	585	671	671	671	671	671
Total Existing Demands	**16,787**	**16,873**	**16,873**	**16,873**	**16,873**	**16,873**
Recommended Strategies[1]						
BAIRD (increase contract amount)	155	152	150	154	159	164
MERKEL (increase contract amount)	20	23	25	29	35	41
Potosi WSC (increase contract amount)	506	525	542	557	572	586
Steamboat Mountain WSC (increase contract amount)	148	151	155	159	165	171
Sweetwater	1,614	1,651	1,668	1,731	1,787	1,839
City of Tye (increase contract amount)	–	2	4	7	11	13
View Caps WSC (increase contract amount)	–	–	–	3	6	9
City of Winters (Region F Recommended Strategy)	212	212	212	212	212	212
CALLAHAN COUNTY-MINING	141	136	119	107	97	87
JONES COUNTY-OTHER	68	82	92	102	112	121
JONES COUNTY-IRRIGATION	106	50	–	–	–	–

Table 5.33-2. City of Abilene Demands and Supplies

Projected Demands	Year (acft/yr)					
Major Water Contract Holders	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
JONES COUNTY-MINING	153	143	124	106	91	78
TAYLOR COUNTY-OTHER	93	93	96	113	125	135
TAYLOR COUNTY-IRRIGATION	1,217	1,184	1,152	1,152	1,152	1,152
TAYLOR COUNTY-MINING	245	237	206	188	172	–
Total Recommended Strategies	**4,678**	**4,641**	**4,545**	**4,620**	**4,696**	**4,608**
Total Demands	**43,726**	**44,212**	**44,468**	**44,933**	**45,443**	**45,719**
Supply Source						
Lake Abilene[2]	0	0	0	0	0	0
Lake Kirby[3]	0	0	0	0	0	0
BRA Main Stem System[4]	10,400	10,400	10,400	7,910	7,910	7,910
Lake O.H. Ivie (Colorado River MWD)[5]	4,794	4,634	4,460	4,030	3,600	3,190
Fort Phantom Hill[6]	2,300	2,200	2,100	2,000	1,900	1,100
Fort Phantom Hill Reuse[7]	7,840	7,840	7,840	7,840	7,840	7,840
West Central Texas MWD (Hubbard)	13,077	10,720	8,360	6,000	3,640	1,300
Total Supply	**38,411**	**35,794**	**33,160**	**27,780**	**24,890**	**21,340**
Projected Balance						
Water Balance/(Shortage) (current contracts and supplies)	*(637)*	*(3,777)*	*(6,763)*	*(12,533)*	*(15,857)*	*(19,771)*
Water Balance/(Shortage) (with Recommended Strategies)	*(5,315)*	*(8,418)*	*(11,308)*	*(17,153)*	*(20,553)*	*(24,379)*

[1] WUG needs after conservation
[2] Lake Abilene is not considered a dependable supply by the City and is currently not used.
[3] Lake Kirby is used primarily to store reuse water for the City's reuse customers. Reuse demands are not included in the water demand projections for the City.
[4] Consistent with the City of Abilene's Purpose and Need memorandum, BRA supplies to Abilene are assumed to be reduced by 24% to account for reductions in supply due to future more severe droughts.
[5] Updated yields with subordination, 16.54% of the projected yield of Ivie. Reduced by 6% for RO efficiency. 2020-2040 are the supply numbers provided by Region F while 2050-2070 are from the City's P&N.
[6] Fort Phantom Hill Reservoir Supply is 2-year safe yield less 2,500 acft/yr (Clyde Water Right) for 2020-2060. The 2070 supply matches the City's P&N.
[7] Fort Phantom Hill Reuse is indirect potable reuse into the reservoir from Abilene's advanced treatment plant known as the Hamby Water Reclamation Facility.

Table 5.33-3. Recommended Plan Costs by Decade for the City of Abilene

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(637)*	*(3,777)*	*(6,763)*	*(12,533)*	*(15,857)*	*(19,771)*
Conservation						
Supply From Plan Element (acft/yr)	0	1,624	2,197	2,001	1,995	2,023
Annual Cost ($/yr)	$0	$909,351	$1,230,407	$1,120,538	$1,117,158	$1,132,889
Projected Surplus/(Shortage) after Conservation	*(637)*	*(2,153)*	*(4,566)*	*(10,532)*	*(13,862)*	*(17,748)*
BRA System Operations Supply						
Supply From Plan Element (acft/yr)[1]	5,673	6,890	6,890	5,230	5,230	5,230
Annual Cost ($/yr)	$2,391,000	$2,391,000	$2,391,000	$1,616,000	$1,616,000	$1,616,000
Unit Cost ($/acft)	$347	$347	$347	$309	$309	$309
Abilene WTP Expansion (23.2 MGD)						
Supply From Plan Element (acft/yr)	–	26,005	26,005	26,005	26,005	26,005
Annual Cost ($/yr)	–	$22,884	$22,884	$22,884	$22,884	$22,884
Unit Cost ($/acft)	–	$0.88	$0.88	$0.88	$0.88	$0.88
West Texas Water Partnership Supply						
Supply From Plan Element (acft/yr)	–	8,400	8,400	8,400	8,400	8,400
Annual Cost ($/yr)	–	$14,977,200	$14,977,200	$3,385,200	$3,385,200	$3,385,200
Unit Cost ($/acft)	–	$1,783	$1,783	$403	$403	$403
Cedar Ridge Reservoir						
Supply From Plan Element (acft/yr)	–	18,815	18,889	16,300	13,200	10,100
Annual Cost ($/yr)	–	$24,535,000	$28,560,000	$29,340,000	$5,016,000	$5,020,000
Unit Cost ($/acft)	–	$1,304	$1,512	$1,800	$380	$497

[1] Supplies assumed to decrease due to reductions in BRA System Operations supply from future more severe droughts.

5.33.2 City of Lawn

Description of Supply

City of Lawn obtains its water a contract with the City of Abilene at 153 acft/yr. No shortages are projected for City of Lawn and no changes in water supply are recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet water needs for the City of Abilene. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: $560/acft

Table 5.33-4. Recommended Plan Costs by Decade for City of Lawn

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*25*	*22*	*20*	*17*	*15*	*13*
Conservation						
Supply From Plan Element (acft/yr)	–	10	20	23	23	23
Annual Cost ($/yr)	$0	$5,619	$10,944	$13,018	$12,908	$13,062
Projected Surplus/(Shortage) after Conservation	*25*	*32*	*40*	*40*	*38*	*36*

5.33.3 City of Merkel

Description of Supply

The City of Merkel obtains surface water from local sources and from the City of Abilene at 353 acft/yr. A shortage is projected starting in year 2020 for the City of Merkel.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for the City of Merkel. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Water Supply from Abilene

- Cost Source: Assumed wholesale rate
- Date to be Implemented: 2020
- Project Cost: $0 (Current infrastructure assumed to be adequate)
- Unit Cost: $1,694/acft

Table 5.33-5. Recommended Plan Costs by Decade for the City of Merkel

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(20)*	*(23)*	*(25)*	*(29)*	*(35)*	*(41)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(20)*	*(23)*	*(25)*	*(29)*	*(35)*	*(41)*
Purchase from Abilene						
Supply From Plan Element (acft/yr)	20	23	25	29	35	41
Annual Cost ($/yr)	$33,880	$38,962	$42,350	$49,126	$59,290	$69,454
Unit Cost ($/acft)	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694

5.33.4 North Runnels WSC

See the Region F plan. The need in Brazos G will be met with sales from the City of Winters.

5.33.5 Potosi WSC

Description of Supply

The Potosi WSC purchases water from the City of Abilene at 307 acft/yr, and shows a projected shortage starting in 2020. This WUG is located in multiple counties (Taylor and Callahan). The shortages shown in the table below represent the cumulative totals for Potosi WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Potosi WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase Additional Water Supply from Abilene

- Cost Source: Assumed wholesale rate
- Date to be Implemented: before 2020
- Project Cost: $0 (Current infrastructure assumed to be adequate)
- Unit Cost: $1,694/acft

Table 5.33-6. Recommended Plan Costs by Decade for Potosi WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(506)*	*(525)*	*(542)*	*(557)*	*(572)*	*(586)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(506)*	*(525)*	*(542)*	*(557)*	*(572)*	*(586)*
Purchase from City of Abilene						
Supply From Plan Element (acft/yr)	506	525	542	557	572	586
Annual Cost ($/yr)	$857,164	$889,350	$918,148	$943,558	$968,968	$992,684
Unit Cost ($/acft)	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694

5.33.6 Steamboat Mountain WSC

Description of Supply

Steamboat Mountain WSC purchases water from the City of Abilene at 228 acft/yr, and shows a projected shortage starting in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Steamboat Mountain WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase Additional Water Supply from Abilene

- Cost Source: Assumed wholesale rate
- Date to be Implemented: before 2020
- Project Cost: $0 (Current infrastructure assumed to be adequate)
- Unit Cost: $1,694/acft

Table 5.33-7. Recommended Plan Costs by Decade for Steamboat Mountain WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(148)*	*(151)*	*(155)*	*(159)*	*(165)*	*(171)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(148)*	*(151)*	*(155)*	*(159)*	*(165)*	*(171)*
Purchase from City of Abilene						
Supply From Plan Element (acft/yr)	148	151	155	159	165	171
Annual Cost ($/yr)	$250,712	$255,794	$262,570	$269,346	$279,510	$289,674
Unit Cost ($/acft)	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694

5.33.7 City of Tye

Description of Supply

The City of Tye purchases water from the City of Abilene at 184 acft/yr, and shows a small need throughout the planning period starting in 2030.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Tye. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Water Supply from Abilene (BRA System Operations Supply)

- Cost Source: Assumed wholesale rate
- Date to be Implemented: before 2020
- Project Cost: $0 (Current infrastructure assumed to be adequate)
- Unit Cost: $1,694/acft

Table 5.33-8. Recommended Plan Costs by Decade for the City of Tye

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(2)*	*(4)*	*(7)*	*(11)*	*(13)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*0*	*(2)*	*(4)*	*(7)*	*(11)*	*(13)*
Purchase from Abilene (BRA System Operations Supply)						
Supply From Plan Element (acft/yr)	0	2	4	7	11	13
Annual Cost ($/yr)	–	$3,388	$6,776	$11,858	$18,634	$22,022
Unit Cost ($/acft)	–	$1,694	$1,694	$1,694	$1,694	$1,694

5.33.8 View Caps WSC

Description of Supply

View Caps WSC purchases water from the City of Abilene at 199 acft/yr. There is a small need starting in 2050. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for View Caps WSC.

a. Water Supply from Abilene (BRA System Operations Supply)

- Cost Source: Assumed wholesale rate
- Date to be Implemented: before 2020
- Project Cost: $0 (Current infrastructure assumed to be adequate)
- Unit Cost: $1,694/acft

Table 5.33-9. Recommended Plan Costs by Decade for the View Caps WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*4*	*2*	*0*	*(3)*	*(6)*	*(9)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*4*	*2*	*0*	*(3)*	*(6)*	*(9)*
Purchase from Abilene (BRA System Operations Supply)						
Supply From Plan Element (acft/yr)	–	–	–	9	13	15
Annual Cost ($/yr)	–	–	–	$15,246	$22,022	$25,410
Unit Cost ($/acft)	–	–	–	$1,694	$1,694	$1,694

5.33.9 County-Other

Description of Supply

County-Other Taylor obtains water supply from Abilene, Steamboat Mountain WSC, and Sweetwater. The water supply entities for Taylor County-Other show a projected shortage.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the County-Other entities. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Water Supply from Abilene (Cedar Ridge Reservoir)

- Cost Source: Assumed wholesale rate
- Date to be Implemented: before 2020
- Project Cost: $0 (Current infrastructure assumed to be adequate)
- Unit Cost: $1,694/acft

Table 5.33-10. Recommended Plan Costs by Decade for Taylor County-Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*382*	*336*	*287*	*224*	*166*	*(197)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*382*	*336*	*287*	*224*	*166*	*(197)*
Purchase from Abilene (Cedar Ridge Reservoir)						
Supply From Plan Element (acft/yr)	–	93	96	113	125	197
Annual Cost ($/yr)	–	$157,542	$162,624	$191,422	$211,750	$228,690
Unit Cost ($/acft)	–	$1,694	$1,694	$1,694	$1,694	$1,694

5.33.10 Manufacturing

Taylor County Manufacturing receives water from the City of Abilene at 1,248 to 2,019 acft/yr, from 2020 to 2070 respectively. A surplus is projected for Manufacturing in Taylor County. No changes in water supply are recommended.

5.33.11 Steam-Electric

The water supply entities for Taylor County Steam-Electric show no projected demand.

5.33.12 Mining

Description of Supply

Mining operations in Taylor County obtains water from the Edwards-Trinity Plateau at 134 acft/yr. Mining is projected to show shortages beginning in 2020. Conservation is recommended for Mining.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Taylor County-Mining. Associated costs are included for each strategy.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Annual Cost: not determined

b. Purchase from Abilene

- Cost Source: Assumed wholesale rate
- Date to be Implemented: 2020
- Project Cost: Not enough information to cost delivery
- Unit Cost: $1,694/acft (BRA wholesale rate only)

Table 5.33-11. Recommended Plan Costs by Decade for Taylor County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(257)*	*(257)*	*(232)*	*(212)*	*(195)*	*(181)*
Conservation						
Supply From Plan Element (acft/yr)	12	20	26	24	23	22
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(245)*	*(237)*	*(206)*	*(188)*	*(172)*	*(159)*
Purchase from Abilene						
Supply From Plan Element (acft/yr)	–	237	206	188	172	159
Annual Cost ($/yr)	–	$401,478	$348,964	$318,472	$291,368	$269,346
Unit Cost ($/acft)	–	$1,694	$1,694	$1,694	$1,694	$1,694
ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location						

5.33.13 Irrigation

Description of Supply

Taylor County Irrigation is supplied by groundwater from the Edwards-Trinity at 355 acft/yr and Trinity Aquifer at 14 acft/yr. Irrigation is projected to have shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Taylor County-Irrigation.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Annual Cost: $1,924/acft

b. Purchase from Abilene

- Cost Source: Assumed wholesale rate
- Date to be Implemented: 2020
- Project Cost: Not enough information to cost delivery
- Unit Cost: $1,694/acft (BRA wholesale rate only)

Table 5.33-12. Recommended Plan Costs by Decade for Taylor County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,266)*	*(1,266)*	*(1,266)*	*(1,266)*	*(1,266)*	*(1,266)*
Conservation						
Supply From Plan Element (acft/yr)	49	82	114	114	114	114
Annual Cost ($/yr)	$94,375	$157,291	$220,207	$220,207	$220,207	$220,207
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1,217)*	*(1,184)*	*(1,152)*	*(1,152)*	*(1,152)*	*(1,152)*
Purchase from Abilene						
Supply From Plan Element (acft/yr)	1,217	1,184	1,152	1,152	1,152	1,152
Annual Cost ($/yr)	$2,061,598	$2,005,696	$1,951,488	$1,951,488	$1,951,488	$1,951,488
Unit Cost ($/acft)	$1,694	$1,694	$1,694	$1,694	$1,694	$1,694

5.33.14 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

5.34 Throckmorton County Water Supply Plan

Table 5.34-1 lists each water user group in Throckmorton County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.34-1. Throckmorton County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Baylor SUD			See Young County
Fort Belknap WSC			See Young County
Fort Griffin SUD			See Stephens County
Stephens Regional SUD			See Stephens County
City of Throckmorton	(147)	(177)	Projected shortage - see plan below.
County-Other	71	72	Projected surplus
Manufacturing	—	—	No projected demand
Steam-Electric	—	—	No projected demand
Mining	(67)	(12)	Projected shortage - see plan below.
Irrigation	(157)	(157)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.34.1 City of Throckmorton

Description of Supply

The City of Throckmorton obtains its water supply through diversions from Lake Throckmorton authorized under a water right held by the City; projected availability of supply under this water right is limited to 50 acft/yr at the beginning of the planning period and decreases to zero by 2070. Should Lake Throckmorton become unreliable, the City is connected to receive supply from Graham through Fort Belknap WSC. Water supply shortages are projected for the City of Throckmorton throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and the TWDB, the following water supply plan is recommended for the City of Throckmorton. Conservation is recommended to reduce usage to a goal of 140 gpcd. Associated costs are included for each strategy. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $24,640 in 2060
   - Unit Cost: $560/acft

b. Water Supply from New Throckmorton Reservoir:
   - Cost Source: Volume II
     - Project requires a subordination agreement with the BRA
   - Date to be Implemented: before 2030
   - Project Cost: $68,103,000
   - Unit Cost: maximum of $1,687/acft

Table 5.34-2. Recommended Plan Costs by Decade for the City of Throckmorton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(135)*	*(141)*	*(147)*	*(157)*	*(167)*	*(177)*
Conservation						
Supply From Plan Element (acft/yr)	—	14	26	40	44	44
Annual Cost ($/yr)	—	$7,840	$14,560	$22,400	$24,640	$24,640
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(135)*	*(127)*	*(121)*	*(117)*	*(123)*	*(133)*
Additional Needs in Recommended Strategies for Others						
Provide Treated Water Sales to City of Graham (acft/yr)		1,500	1,500	1,500	1,500	1,500
Total Surplus/(Shortage) Including Recommended Strategies	*(135)*	*(1,627)*	*(1,621)*	*(1,617)*	*(1,623)*	*(1,633)*
New Throckmorton Reservoir						
Supply From Plan Element (acft/yr)	—	3,500	3,500	3,500	3,500	3,500
Annual Cost ($/yr)	—	$5,905,000	$5,905,000	$3,497,000	$1,911,000	$1,911,000
Unit Cost ($/acft)	—	$1,687	$1,687	$999	$546	$546

5.34.2 County-Other

The entities in Throckmorton County-Other receive their water supply through groundwater production from the Cross Timbers Aquifer, through diversions of local surface water authorized under a water right, and through purchases of treated surface water supplies under contract from Stephens Regional SUD. Future water supply is projected to be available from Stephens Regional SUD, only, in the amount of 99 acft/yr. No shortages are projected no change in water supply is recommended. Conservation was also considered; however, the entity's usage is below the selected goal 140 gpcd.

5.34.3 Manufacturing

No Manufacturing demand exists or is projected for the county.

5.34.4 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.34.5 Mining

Description of Supply

Mining in Throckmorton County obtains water supply through groundwater production from local aquifers. Projections show Mining will experience water supply shortages in each decade of the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Mining. Conservation is recommended. Associated costs are included for each strategy.

a. Conservation:
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Unit Cost: not determined
b. Cross Timbers Aquifer Development:
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: $344,000
    - Unit Cost: maximum of $321/acft

Table 5.34-3. Recommended Plan Costs by Decade for Throckmorton County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(90)*	*(87)*	*(67)*	*(46)*	*(28)*	*(12)*
Conservation						
Supply From Plan Element (acft/yr)	6	10	12	11	9	8
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(84)*	*(77)*	*(55)*	*(36)*	*(19)*	*(4)*
Groundwater Development – Cross Timbers Aquifer						
Supply From Plan Element (acft/yr)	84	84	84	84	84	84
Annual Cost ($/yr)	$27,000	$27,000	$3,000	$3,000	$3,000	$3,000
Unit Cost ($/acft)	$321	$321	$36	$36	$36	$36

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.34.6 Irrigation

Description of Supply

Irrigation in Throckmorton County does not have a defined source for water supply. Water demands for irrigation are projected to remain constant across the planning period; with no defined supply, water supply shortages are also projected across the entire planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Mining. Conservation is recommended. Associated costs are included for each strategy:

a. Conservation:
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $23,273
   - Unit Cost: $2,118/acft

b. Cross Timbers Aquifer Development:
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $405,000
   - Unit Cost: maximum of $217/acft

Table 5.34-4. Recommended Plan Costs by Decade for Throckmorton County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(157)*	*(157)*	*(157)*	*(157)*	*(157)*	*(157)*
Conservation						
Supply From Plan Element (acft/yr)	5	8	11	11	11	11
Annual Cost ($/yr)	$9,974	$16,624	$23,273	$23,273	$23,273	$23,273
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(152)*	*(149)*	*(146)*	*(146)*	*(146)*	*(146)*
Groundwater Development – Cross Timbers Aquifer						
Supply From Plan Element (acft/yr)	152	152	152	152	152	152
Annual Cost ($/yr)	$33,000	$33,000	$2,000	$2,000	$2,000	$2,000
Unit Cost ($/acft)	$217	$217	$33	$33	$33	$33

5.34.7 Livestock

No water supply shortages are projected and no change in water supply is recommended.

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5.35 Washington County Water Supply Plan

Table 5.35-1 lists each water user group in Washington County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.35-1. Washington County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Brenham	(1,120)	(1,681)	Projected shortage - see plan below.
Central Washington County WSC	184	163	Projected surplus
Chappell Hill WSC	118	105	Projected surplus
Corix Utilities Texas, Inc	(399)	(498)	Projected shortage - see plan below.
West End WSC	0	0	OOR WUG Region H
County-Other	51	48	Projected surplus
Manufacturing	(6)	(6)	Projected shortage - see plan below.
Steam-Electric	0	0	No projected demand
Mining	(625)	(186)	Projected shortage - see plan below.
Irrigation	200	200	Projected surplus
Livestock	0	0	No projected surplus or shortage

5.35.1 City of Brenham

Description of Supply

The City of Brenham obtains its water supply through a contract with the Brazos River Authority for 4,200 acft/yr of water supply from Lake Somerville. The supply is currently restrained by water treatment plant capacity to 3,701 acft/yr, creating shortages starting in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Brenham. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $922,943 in 2070

b. Groundwater Development – Gulf Coast Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $2,958,000
   - Unit Cost: $527 acft/yr

c. BRA System Operation
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $58,824
   - Unit Cost: $76 acft/yr

Table 5.35-2. Recommended Plan Costs by Decade for City of Brenham

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(628)*	*(926)*	*(1,120)*	*(1,337)*	*(1,524)*	*(1,681)*
Conservation						
Supply From Plan Element (acft/yr)	0	367	755	1,170	1,592	1,648
Annual Cost ($/yr)	$0	$205,297	$422,922	$654,982	$891,575	$922,943
Projected Surplus/(Shortage) after Conservation	*(628)*	*(559)*	*(365)*	*(167)*	*68*	*(33)*
BRA System Operation						
Supply From Plan Element (acft/yr)	774	774	774	774	774	774
Annual Cost ($/yr)	$58,824	$58,824	$58,824	$58,824	$58,824	$58,824
Unit Cost ($/acft)	$76	$76	$76	$76	$76	$76
Groundwater Development – Gulf Coast Aquifer						
Supply From Plan Element (acft/yr)	628	559	365	167	–	33
Annual Cost ($/yr)	$330,956	$294,593	$71,540	$32,732	–	$6,468
Unit Cost ($/acft)	$527	$52	$196	$196	–	$196

5.35.2 Central Washington County WSC

Central Washington County WSC obtains water from the Gulf Coast Aquifer System at 452 acft/yr. It is projected to have a surplus through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.35.3 Chappell Hill WSC

Chappell Hill WSC obtains water from the Gulf Coast Aquifer System at 268 ac-ft/yr. It is projected to have a surplus through the year 2070 and no changes in water supply are

recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.35.4 Corix Utilities

Description of Supply

Corix Utilities Texas Inc. obtains its water supply from surface water from LCRA at 526 to 525 acft/yr and other groundwater sources at 758 acft/yr from Ellenberger-San Saba, Gulf Coast Aquifer, and other alluvial sources. Shortages are projected for Corix Utilities from 2020 to 2070 in Region G.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Corix Utilities. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Groundwater Development – Gulf Coast Aquifer

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost: $1,853,359
- Unit Cost: $512/acft

Table 5.35-3. Recommended Plan Costs by Decade for Corix Utilities

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(349)*	*(370)*	*(399)*	*(437)*	*(468)*	*(498)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(349)*	*(370)*	*(399)*	*(437)*	*(468)*	*(498)*
Groundwater Development – Gulf Coast Aquifer						
Supply From Plan Element (acft/yr)	349	370	399	437	468	498
Annual Cost ($/yr)	$178,688	$189,440	$41,496	$45,448	$48,672	$51,792
Unit Cost ($/acft)	$512	$512	$104	$104	$104	$104

5.35.5 County-Other

Washington County-Other is projected to have a surplus through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

5.35.6 Manufacturing

Description of Supply

Water supply for manufacturing in Washington County is obtained by from the Gulf Coast Aquifer at 369 acft/yr and from Brenham at 208 acft/yr. Washington County Manufacturing is projected to have shortages beginning in 2030.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Washington County Manufacturing. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2020
- Annual Cost: Not determined

Table 5.35-4. Recommended Plan Costs by Decade for Washington County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*(6)*	*(6)*	*(6)*	*(6)*	*(6)*
Conservation						
Supply From Plan Element (acft/yr)	17	29	41	41	41	41
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation	*0*	*23*	*35*	*35*	*35*	*35*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.35.7 Steam-Electric

No Steam-Electric demand exists nor is projected for the county.

5.35.8 Mining

Description of Supply

Mining operations in Washington County are supplied by Brazos River Alluvium groundwater at 78 acft/yr. Demands for Mining are projected to increase significantly resulting in shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Washington County-Mining. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: not determined

b. Groundwater Development – Gulf Coast Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: $3,348,000
   - Unit Cost: $508/acft

Table 5.35-5. Recommended Plan Costs by Decade for Washington County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(491)*	*(788)*	*(625)*	*(460)*	*(295)*	*(186)*
Conservation						
Supply From Plan Element (acft/yr)	17	43	49	38	26	18
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(474)*	*(745)*	*(576)*	*(422)*	*(269)*	*(168)*
Groundwater Development – Gulf Coast Aquifer						
Supply From Plan Element (acft/yr)	474	745	576	422	269	168
Annual Cost ($/yr)	$240,792	$378,460	$110,592	$81,024	$51,648	$32,256
Unit Cost ($/acft)	$508	$508	$192	$192	$192	$192

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.35.9 Irrigation

Irrigation obtains water from the Gulf Coast Aquifer at 416 acft/yr and Brazos River Alluvial Aquifer at 93 acft/yr. There is a projected surplus of water supplies and no changes in water supply are recommended.

5.35.10 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.36 Williamson County Water Supply Plan

Table 5.36-1 lists each water user group in Williamson County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.36-1.Williamson County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)[1]		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Bartlett	(251)	(382)	Projected shortage - see plan below.
Bell-Milam Falls WSC			See Bell County
Block House MUD	280	287	Projected surplus
Brushy Creek MUD	(191)	(231)	Projected shortage - see plan below.
City of Cedar Park	(4,759)	(4,768)	Projected shortage - see plan below.
Fern Bluff MUD	0	0	No projected surplus or shortage
City of Florence	(42)	(72)	Projected shortage - see plan below.
City of Georgetown	(28,300)	(66,632)	Projected shortage - see plan below.
City of Granger	2	(56)	Projected shortage - see plan below.
City of Hutto	(3,304)	(10,703)	Projected shortage - see plan below.
Jarrell-Schwertner	1,819	839	Projected surplus
Jonah Water SUD	290	290	Projected surplus
City of Leander	(8,258)	(19,041)	Projected shortage - see plan below.
City of Liberty Hill	(90)	(90)	Projected shortage - see plan below.
Manville WSC	439	0	Projected surplus - see Region K Plan
Paloma Lake MUD 1	0	0	No projected surplus or shortage
Paloma Lake MUD 2	0	0	No projected surplus or shortage
City of Pflugerville	6	10	Projected surplus - see Region K Plan
City of Round Rock	(8,830)	(16,566)	Projected shortage - see plan below.
Sonterra MUD	2,323	2,269	Projected surplus
Southwest Milam WSC			See Milam County
City of Taylor	0	0	No projected surplus or shortage
City of Thorndale			See Milam County
Walsh Ranch MUD	0	0	No projected surplus or shortage
Williamson County MUD 9	0	0	No projected surplus or shortage
Williamson County MUD 10	0	0	No projected surplus or shortage
Williamson County MUD 11	0	0	No projected surplus or shortage
Williamson County WSID 3	90	0	Projected surplus
Williamson-Travis Counties MUD 1	212	217	Projected surplus
County-Other	(3,631)	(37,814)	Projected shortage - see plan below.
Manufacturing	285	285	Projected surplus

Table 5.36-1.Williamson County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)[1]		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Steam-Electric	—	—	No projected demand
Mining	(6,923)	(10,745)	Projected shortage - see plan below.
Irrigation	(172)	(172)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.36.1 City of Bartlett

Description of Supply

The City of Bartlett obtains its water supply from groundwater from the Trinity Aquifer. Based on the available groundwater supply, the City of Bartlett is projected to have shortages through the year 2070. This WUG is located in multiple counties (Williamson and Bell). The shortages shown in Table 5.36-1 represent the cumulative totals for the City of Bartlett.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Bartlett.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $39,200
   - Unit Cost: $560/acft

b. Purchase Supply from Jarrell-Schwertner WSC
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: $672,375
   - Unit Cost: $2,445/acft

c. Alternative Strategy: Develop Trinity Aquifer Well
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Project Cost: $1,872,000
   - Unit Cost: maximum of $669/acft

Table 5.36-2. Recommended Plan Costs by Decade for City of Bartlett

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	(183)	(214)	(251)	(291)	(336)	(382)
Conservation						
Supply From Plan Element (acft/yr)	—	28	61	82	99	107
Annual Cost ($/yr)	—	$8,400	$17,920	$29,120	$36,400	$39,200
Projected Surplus/(Shortage) after Conservation	*(102)*	*(86)*	*(69)*	*(65)*	*(69)*	*(82)*
Purchase Supply from Jarrell-Schwertner WSC						
Supply From Plan Element (acft/yr)	275	275	275	275	275	275
Annual Cost ($/yr)	$672,375	$672,375	$672,375	$672,375	$672,375	$672,375
Unit Cost ($/acft)	$2,445	$2,445	$2,445	$2,445	$2,445	$2,445
Alternative Strategy: Develop Trinity Aquifer Well						
Supply From Plan Element (acft/yr)	275	275	275	275	275	275
Annual Cost ($/yr)	$184,000	$184,000	$52,000	$52,000	$52,000	$52,000
Unit Cost ($/acft)	$669	$669	$189	$189	$189	$189

5.36.2 Blockhouse MUD

Blockhouse MUD obtains its water supply from the City of Cedar Park. No shortages are projected for Blockhouse MUD and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.3 Brushy Creek MUD

Description of Supply

Brushy Creek MUD obtains its water supply from a contract with the Brazos River Authority for water from Stillhouse Hollow Reservoir and from local groundwater. Brushy Creek MUD has a projected shortage through 2070. Brushy Creek MUD has contracted for 4,000 acft/yr of surface water supplies from the Brazos River Authority, which can supply 3,325 acft/yr in 2020 and 3,215 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Brushy Creek MUD.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Unit Cost: $560/acft
   - Annual Cost: maximum of $147,280 in 2040

b. Purchase Supplies from Round Rock
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Annual Cost: $228,000
   - Unit Cost: $912/acft

Table 5.36-3. Recommended Plan Costs by Decade for Brushy Creek MUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(246)*	*(206)*	*(191)*	*(193)*	*(210)*	*(231)*
Conservation						
Supply From Plan Element (acft/yr)	—	233	263	243	238	237
Annual Cost ($/yr)	—	$130,480	$147,280	$136,080	$133,280	$132,720
Projected Surplus/(Shortage) after Conservation	*(246)*	*27*	*72*	*50*	*28*	*6*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	697	719	741	763	785
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Supplies from Round Rock						
Supply From Plan Element (acft/yr)	250	—	—	—	—	—
Annual Cost ($/yr)	$228,000	—	—	—	—	—
Unit Cost ($/acft)	$912	—	—	—	—	—

5.36.4 City of Cedar Park

Description of Supply

The City of Cedar Park is located in Williamson County and part of Travis County (Region K) and provides wholesale water to entities in Williamson and Travis Counties. The City has an 18,000 acft/yr contract from LCRA for Highland Lakes supply. Cedar Park is a

participant in the Brushy Creek Regional Utility Authority to develop additional supplies from the Highland Lakes in Region K. The project is under construction and remaining phases are under development. Based on the available surface water supply and contractual commitments to supply water to wholesale customers, the City of Cedar Park is projected to have a shortage through the year 2070. Table 5.36-4 includes additional information on existing contracts and water supplies for the City of Cedar Park. Table 5.36-5 presents the water supply plan for the portion of Cedar Park in Brazos G.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the City of Cedar Park.

a. Conservation: Additional advanced conservation was considered and not applied since no shortage remains in later decades after applying conservation.
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Unit Cost: $560/acft

b. Brushy Creek RUA Water Supply Project
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Total Project Cost: $73,104,200 (city's portion of cost)
   - Unit Cost: $598/acft

c. Reuse
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $7,184,000
   - Unit Cost: maximum of $543/acft

Table 5.36-4. Recommended Plan Costs by Decade for the City of Cedar Park

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2,887)*	*(4,603)*	*(4,759)*	*(4,792)*	*(4,775)*	*(4,768)*
Conservation						
Supply From Plan Element (acft/yr)		1,887	3,638	5,212	6,515	6,833
Annual Cost ($/yr)	—	$1,056,720	$2,037,280	$2,918,720	$3,648,960	$3,826,480
Projected Surplus/(Shortage) after Conservation	*(2,887)*	*(2,716)*	*(1,121)*	*420*	*1,740*	*2,115*

Table 5.36-4. Recommended Plan Costs by Decade for the City of Cedar Park

Plan Element	2020	2030	2040	2050	2060	2070
Brushy Creek RUA Water Supply Project[1]						
Supply From Plan Element (acft/yr)	1	1	1	1	1	1
Annual Cost ($/yr)	$13,763,000	$13,763,000	$9,280,000	$9,280,000	$9,280,000	$9,280,000
Unit Cost ($/acft)	$598	$598	$403	$403	$403	$403
Reuse						
Supply From Plan Element (acft/yr)	2,886	2,715	1,120	1,120	1,120	1,120
Annual Cost ($/yr)	$1,567,098	$1,474,245	$103,000	$103,000	$103,000	$103,000
Unit Cost ($/acft)	$543	$543	$92	$92	$92	$92

1 – The LCRA contract is shown as a current supply to Cedar Park. This strategy provides additional flexibility to take supplies during drought by a deep water intake in Lake Travis.

5.36.5 Fern Bluff MUD

Description of Supply

Fern Bluff MUD obtains its water supply from groundwater from the Edwards-Balcones Fault Zone, Highland Lakes, and Direct Reuse. The demand is equal to supply balances shown in Table 5.36-1 represent the cumulative totals for Fern Bluff MUD.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the Fern Bluff MUD.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum in 2070 of $214,100
- Unit Cost: $560/acft

Table 5.36-5. Recommended Plan Costs by Decade for Fern Bluff MUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	101	197	285	367	382
Annual Cost ($/yr)	—	$56,839	$110,401	$159,586	$205,481	$214,100
Projected Surplus/(Shortage) after Conservation	—	*101*	*197*	*285*	*367*	*382*

5.36.6 City of Florence

Description of Supply

The City of Florence obtains its water supply from groundwater from the Trinity Aquifer. Based on the City's available groundwater supply, the City of Florence is projected to have a shortage through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Florence. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

a. Purchase from Georgetown

- Cost Source: Volume II
- Date to be Implemented: 2020
- Annual Cost: maximum of $56,304
- Unit Cost: $782/acft

Table 5.36-6. Recommended Plan Costs by Decade for the City of Florence

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(35)*	*(38)*	*(42)*	*(50)*	*(59)*	*(72)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*(35)*	*(38)*	*(42)*	*(50)*	*(59)*	*(72)*
Purchase from Georgetown						
Supply From Plan Element (acft/yr)	35	38	42	50	59	72
Annual Cost ($/yr)	$27,370	$29,716	$32,844	$39,100	$46,138	$56,304
Unit Cost ($/acft)	$782	$782	$782	$782	$782	$782

5.36.7 City of Georgetown

Description of Supply

The City of Georgetown obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and contracts with the Brazos River Authority for water from Lake Georgetown and Stillhouse Hollow Reservoir. The City of Georgetown has contracted for 45,707 acft/yr of surface water supplies from the Brazos River Authority,

which can supply 37,990 acft/yr in 2020 and 36,737 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Based on the available treatment capacity of the city's water treatment plant, the City of Georgetown is projected to have a shortage from 2030 through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for The City of Georgetown. Associated costs are included for each strategy. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: maximum of $16,162,702
    - Unit Cost: $560/acft

b. Firm up BRA Little River Supplies
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: Costs borne by BRA
    - Unit Cost: Costs borne by BRA

c. Increase Treatment Plant Capacity
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: $85,760,000
    - Unit Cost: $584/acft

d. Lake Georgetown ASR
    - Cost Source: Volume II
    - Date to be Implemented: before 2040
    - Project Cost: $306,276,000
    - Unit Cost: maximum of $3,910/acft

e. Reuse – Dove Springs
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $6,270,000
   - Unit Cost: maximum of $349/acft

f. Alcoa Property Supply – Surface Water
   - Cost Source: Volume II
   - Date to be Implemented: before 2050
   - Project Cost: $121,448,000
   - Unit Cost: maximum of $1,244/acft

g. Alternative: Lake Whitney Reallocation (Purchase from BRA)
   These are project costs for intake, water treatment plant, pump station, and pipeline, but do not include BRA's costs for the reallocation water management strategy.
   - Cost Source: Volume II
   - Date to be Implemented: 2060
   - Project Cost: $306,683,000
   - Unit Cost: maximum of $1,617/acft

h. Alternative: Williamson County Groundwater – South Option
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Project Cost: $392,793,000
   - Unit Cost: maximum of $3,434/acft

Table 5.36-7. Recommended Plan Costs by Decade for City of Georgetown

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(10,272)*	*(19,148)*	*(28,300)*	*(39,354)*	*(52,048)*	*(66,632)*
Conservation						
Supply From Plan Element (acft/yr)	—	2,957	7,271	13,126	20,510	29,228
Annual Cost ($/yr)	—	$1,656,000	$4,072,000	$7,351,000	$11,486,000	$16,368,000
Projected Surplus/(Shortage) after Conservation	*(10,272)*	*(16,191)*	*(21,029)*	*(26,228)*	*(31,538)*	*(37,404)*

Table 5.36-7. Recommended Plan Costs by Decade for City of Georgetown

Plan Element	2020	2030	2040	2050	2060	2070
Additional Demands from Strategies Recommended for Others						
Supply to Florence (acft/yr)	35	38	42	50	59	72
Total Needs Including Recommended Strategies (acft/yr)	*(10,307)*	*(16,229)*	*(21,071)*	*(26,278)*	*(31,597)*	*(37,476)*
Firm Up Supplies from BRA Contract						
Supply From Plan Element (acft/yr)	—	7,968	8,218	8,469	8,720	8,970
Annual Cost	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Increase Water Treatment Capacity						
Supply From Plan Element (acft/yr)	—	17,000	17,000	17,000	17,000	17,000
Annual Cost	—	$9,929,000	$9,929,000	$3,895,000	$3,895,000	$3,895,0000
Unit Cost ($/acft)	—	$584	$584	$229	$229	$229
Lake Georgetown ASR						
Supply From Plan Element (acft/yr)	—	—	8,645	8,645	8,645	8,645
Annual Cost ($/yr)	—	—	$33,799,000	$33,799,000	$12,249,000	$12,249,000
Unit Cost ($/acft)	—	—	$3,910	$3,910	$1,417	$1,417
Reuse – Dove Springs						
Supply From Plan Element (acft/yr)	—	1,456	1,456	1,456	1,456	1,456
Annual Cost ($/yr)	—	$508,144	$508,144	$66,976	$66,976	$66,976
Unit Cost ($/acft)	—	$349	$349	$46	$46	$46
Alcoa Property Supply – Surface Water						
Supply From Plan Element (acft/yr)	—	—	—	—	4,772	10,669
Annual Cost ($/yr)	—	—	—	—	$5,936,368	$4,150,241
Unit Cost ($/acft)	—	—	—	—	$1,244	$389
Alternative: Purchase Additional BRA Supplies (Lake Whitney Reallocation)						
Alternative: Williamson County GW Supply – South Option						

5.36.8 City of Granger

Description of Supply

The City of Granger obtains its water supply from groundwater from the Trinity Aquifer. Based on the available groundwater supply, the City of Granger is projected to have a shortage beginning in 2050.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Granger. Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

a. BRA Supply (Lake Granger) through the East Williamson County Water Supply Project

- Cost Source: Volume II
- Date to be Implemented: 2050
- Project Cost $30,264,420 (total cost of project)
- Unit Cost: $235/acft

Table 5.36-8. Recommended Plan Costs by Decade for City of Granger

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*22*	*13*	*2*	*(14)*	*(33)*	*(56)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*22*	*13*	*2*	*(14)*	*(33)*	*(56)*
BRA Supply (Lake Granger) through the EWCWSP						
Supply From Plan Element (acft/yr)	—	—	—	56	56	56
Annual Cost ($/yr)	—	—	—	$13,160	$13,160	$13,160
Unit Cost ($/acft)	—	—	—	$235	$235	$235

5.36.9 City of Hutto

Description of Supply

The City of Hutto obtains its water supply from Manville WSC, City of Taylor, and a groundwater system recently purchased from Heart of Texas Water Suppliers LLC. The current supply from the groundwater system is limited by the MAG in Williamson County.

Based on the available supplies, the City of Hutto is projected to have shortages through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Hutto. Associated costs are included for each strategy. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

a. Williamson County Groundwater Supply – Milam County Supply Option

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $392,793,000
- Unit Cost: maximum of $3,434/acft

b. Alcoa Property Supply in 2050-2070

Cost Source: Volume II

- Date to be Implemented: before 2050
- Project Cost: $85,760,000
- Unit Cost: maximum of $1,244/acft

Table 5.36-9. Recommended Plan Costs by Decade for City of Hutto

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(907)*	*(3,046)*	*(3,304)*	*(5,437)*	*(8,596)*	*(10,703)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*(907)*	*(3,046)*	*(3,304)*	*(5,437)*	*(8,596)*	*(10,703)*
Williamson County Groundwater Supply – South Option						
Supply From Plan Element (acft/yr)		3,046	3,304	3,304	3,304	3,304
Annual Cost ($/yr)		$10,459,964	$11,345,936	$11,345,936	$11,345,936	$11,345,936
Unit Cost ($/acft)		$3,434	$832	$832	$832	$832
Alcoa Property Supply						
Supply From Plan Element (acft/yr)	—	—	—	2,133	5,292	7,399
Annual Cost ($/yr)	—	—	—	$2,653,452	$2,653,452	$2,878,211
Unit Cost ($/acft)	—	—	—	$1,244	$1,244	$389

5.36.10 Jarrell-Schwertner WSC

Description of Supply

Jarrell-Schwertner WSC obtains its water supply from the Edwards-BFZ (Northern Segment) Aquifer, and Central Texas WSC. The WSC also has a contract with BRA for supplies from Stillhouse Hollow Lake. . Jarrell-Schwertner WSC has contracted for 1,000 acft/yr of surface water supplies from the Brazos River Authority, which can supply 831 acft/yr in 2020 and 804 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Based on the available water supply, Jarrell-Schwertner WSC is projected to have a surplus throughout the planning period. This WUG is located in multiple counties (Williamson and Bell). The surplus/shortages shown represent the cumulative totals for Jarrell-Schwertner WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region K, the following water management strategy is recommended for the Jarrell-Schwertner WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

a. Firm up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

Table 5.36-10. Recommended Plan Costs by Decade for Jarrell-Schwertner WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	2,241	2,054	1,819	1,560	1,261	839
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*1,520*	*1,384*	*1,221*	*1,046*	*845*	*562*
Additional Demands from Strategies Recommended for Others						
Supply to Bartlett (acft/yr)	275	275	275	275	275	275
Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)	*1,245*	*1,109*	*946*	*774*	*570*	*287*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	174	180	185	191	196
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.36.11 Jonah Water SUD

Description of Supply

Jonah Water SUD obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer, the City of Georgetown and a contract with the BRA for treated supply through the East Williamson County WTP. Based on the available groundwater and surface water supply, Jonah Water SUD is projected to have a surplus throughout the planning period.

5.36.12 City of Leander

Description of Supply

The City of Leander is located in Williamson and Travis (Region K) County and obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and contracts with the Lower Colorado River Authority for water from the Highland Lakes (Lake Travis and Lake Buchanan). Based on the available groundwater and surface water supply, the City of Leander is projected to have a shortage through the year 2070. Leander is a participant in the Brushy Creek RUA project with Cedar Park and Round Rock and will obtain future supplies from the Highland Lakes. Balance and strategies in Table 5.36-11 represent the portion of Leander in Brazos G.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region K, the following water management strategy is recommended for the City of Leander. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

a. Brushy Creek RUA Water Supply Project
    - Cost Source: Volume II
    - Date to be Implemented: 2020
    - Project Cost $142,218,800 (city's portion of project shared with Liberty Hill)
    - Unit Cost: $1,321/acft

b. Contract Amendment with LCRA or Redistribution of Supplies through BCRUA
    - Cost Source: Volume II
    - Date to be Implemented: 2070
    - Project Cost: None. Existing infrastructure assumed sufficient
    - Unit Cost: $844/acft

Table 5.36-11. Recommended Plan Costs by Decade for the City of Leander

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,364)*	*(5,130)*	*(8,258)*	*(10,881)*	*(14,576)*	*(19,041)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*(1,364)*	*(5,130)*	*(8,258)*	*(10,881)*	*(14,576)*	*(19,041)*
Brushy Creek RUA Water Supply Project						
Supply From Plan Element (acft/yr)[1]	17,600	17,600	17,600	17,600	17,600	17,600
Annual Cost ($/yr)	$23,249,600	$23,249,600	$15,523,200	$15,523,200	$15,523,200	$15,523,200
Unit Cost ($/acft)	$1,321	$1,366	$882	$882	$882	$882
Contract Amendment with LCRA (Region K)						
Supply From Plan Element (acft/yr)	—	—	—	—	—	1,441
Annual Cost ($/yr)	—	—	—	—	—	$1,216,204
Unit Cost ($/acft)	—	—	—	—	—	$844

1- The total supply from the strategy is 24,000 acft/y of which the City is currently using 6,400 acft/yr.

5.36.13 Liberty Hill

Description of Supply

The City of Liberty Hill obtains its water supply from groundwater from the Trinity Aquifer and a contract with the City of Georgetown. They also have a BRA contract for 600 acft/yr out of the Highland Lakes (HB1437). Liberty Hill is a participant in the Brushy Creek RUA project with Leander, Cedar Park and Round Rock and will obtain future supplies from the Highland Lakes. The City of Liberty Hill is projected to have a shortage through the year 2070. Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of120 gpcd in 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region K, the following water management strategy is recommended for the City of Leander.

a. Brushy Creek RUA Water Supply Project

- Cost Source: Volume II
- Date to be Implemented: 2020
- Project Cost $4,848,400 (city's portion of project shared with Leander)
- Unit Cost: $1,32/acft

Table 5.36-12. Recommended Plan Costs by Decade for the City of Liberty Hill

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(90)*	*(90)*	*(90)*	*(90)*	*(90)*	*(90)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*(90)*	*(90)*	*(90)*	*(90)*	*(90)*	*(90)*
Brushy Creek RUA Water Supply Project						
Supply From Plan Element (acft/yr)	600	600	600	600	600	600
Annual Cost ($/yr)	$792,600	$792,600	$529,200	$529,200	$529,200	$529,200
Unit Cost ($/acft)	$1,321	$1,321	$882	$882	$882	$882

5.36.14 Manville WSC

Manville WSC is mostly located in Travis County (Region K); however a portion of the service area is in Williamson County. The WSC obtains its water supply from groundwater from the Edwards and Trinity Aquifers as well as other minor aquifers. No shortages are projected for Manville WSC in Brazos G. The full water plan for Manville WSC is discussed in the 2021 Region K Plan. Water Conservation is recommended.

Table 5.36-13. Recommended Plan Costs by Decade for Manville WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,151*	*794*	*439*	*24*	*2*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	172	293	335	396	474
Annual Cost ($/yr)	—	$96,320	$164,080	$187,600	$221,760	$265,440
Projected Surplus/(Shortage) after Conservation	*1,151*	*966*	*732*	*359*	*398*	*474*

5.36.15 Paloma Lake MUD 1

Paloma Lake MUD 1 receives its water supply from a "needs met" contract with the City of Round Rock. Based on the available supplies, Paloma Lake MUD 1 is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.16 Paloma Lake MUD 2

Paloma Lake MUD 2 receives its water supply from a "needs met" contract with the City of Round Rock. Based on the available supplies, Paloma Lake MUD 2 is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.17 City of Pflugerville

The City of Pflugerville obtains its supply from the Edwards (BFZ) Aquifer in Region K and from the Lower Colorado River Authority. No shortages are projected for the City of Pflugerville. The majority of the City is located in Region K and more details about supplies, needs and strategies are discussed in the 2021 Region K Plan. Conservation is recommended for Pflugerville in the 2021 Brazos G Plan. The City has informed Brazos G that a recently-completed planning effort has identified that the City should pursue purchasing water from the City of Round Rock on an interim (5-years) basis and construct an intake on Brushy Creek to divert wastewater effluent discharged from the Brushy Creek Wastewater Treatment Plant to Lake Pflugerville for subsequent treatment and use at the City's existing water treatment plant. Use of this wastewater in the Colorado River Basin would provide "no net loss" credits associated with the HB 1437 legislation authorizing sale of Colorado River Basin supplies to entities in the Brazos River Basin (see Volume II, Section 9.3). Ultimately, the City would construct a parallel pipeline from the Colorado River and purchase additional supplies from the Lower Colorado River Authority, as well as expand its existing water treatment plant.

Table 5.36-14. Recommended Plan Costs by Decade for Pflugerville

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*5*	*5*	*6*	*6*	*7*	*10*
Conservation						
Supply From Plan Element (acft/yr)	0	4	4	5	6	8
Annual Cost ($/yr)	—	$2,000	$2,000	$3,000	$3,000	$4,000
Projected Surplus/(Shortage) after Conservation	5	9	10	11	13	18

5.36.18 City of Round Rock

The City of Round Rock obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and contracts with the Brazos River Authority for water from Lake Georgetown and Stillhouse Hollow Reservoir. The City of Round Rock has contracted for 24,854 acft/yr of surface water supplies from the Brazos River Authority, which can supply 20,658 acft/yr in 2020 and 19,976 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. In addition the city utilizes reuse supplies and receives out of region supply from LCRA. Based on the available groundwater and surface water supply and existing contractual demands, the City of Round Rock is projected to have a shortage from 2030 through 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for the City of Round Rock.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: maximum of $2,814,560
    - Unit Cost: $560 / acft

b. Firm up BRA Little River Supplies
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: Costs borne by BRA
    - Unit Cost: Costs borne by BRA

c. Brushy Creek RUA Water Supply Project
    - Cost Source: Volume II
    - Date to be Implemented: Before 2030
    - Project Cost: $107,826,043 (city's portion)
    - Unit Cost: $768 / acft

d. Alternative: Alcoa Property Supplies
    - Cost Source: Volume II
    - Date to be Implemented: by 2030
    - Total Project Cost: $133,150,000
    - Unit Cost: maximum of $1,245/acft

e. Alternative: Williamson County Groundwater – South Option

Cost Source: Volume II

Date to be Implemented: by 2030

Total Project Cost: $392,793,000

Unit Cost: maximum of $3,434/acft

Table 5.36-15. Recommended Plan Costs by Decade for City of Round Rock

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,064*	*(2,762)*	*(8,830)*	*(16,038)*	*(16,280)*	*(16,566)*
Conservation						
Supply From Plan Element (acft/yr)	—	1,935	4,192	5,026	4,972	4,951
Annual Cost ($/yr)	—	$1,083,040	$2,347,520	$2,814,560	$2,784,320	$2,772,560
Projected Surplus/(Shortage) after Conservation	*2,064*	*(827)*	*(4,638)*	*(11,012)*	*(11,308)*	*(11,615)*
Additional Demands from Strategies Recommended for Others						
Supply to County-Other (acft/yr)	780	—	—	—	—	—
Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)	*1,284*	*(827)*	*(4,638)*	*(11,012)*	*(11,308)*	*(11,615)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	4,333	4,469	4,605	4,741	4,878
Annual Cost	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Brushy Creek RUA Project						
Supply From Plan Element (acft/yr)	17,647	17,510	17,374	17,238	17,102	16,965
Annual Cost	$13,552,896	$13,447,680	$9,312,464	$9,239,568	$9,166,672	$9,093,240
Unit Cost ($/acft)	$768	$768	$536	$536	$536	$536

5.36.19 Sonterra MUD

Sonterra MUD obtains its water supply from groundwater from Edwards BFZ Aquifer and surface water from the Brazos River Authority. Based on the available supplies, Sonterra MUD is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd. Note that Sonterra MUD has recently begun utilizing supply from the East Williamson County Regional Water System to improve water quality to its customers. Those supplies are not reflected in this plan.

5.36.20 City of Taylor

Description of Supply

The City of Taylor obtains its water supply from a contract with the Brazos River Authority for water from Lake Granger through the East Williamson County WTP. No shortages are projected for the City of Taylor. The Brazos River Authority has set aside 13,000 acft/yr of surface water supplies for the City of Taylor and other entities supplied from the East Williamson County Water System, which can supply 10,805 acft/yr in 2020 and 10,499 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Taylor.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Annual Cost: maximum of $323,680 in 2070
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Annual Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

Table 5.36-16. Recommended Plan Costs by Decade for the City of Taylor

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	215	466	490	530	578
Annual Cost ($/yr)	—	$120,400	$260,960	$274,400	$296,800	$323,680
Projected Surplus/(Shortage) after Conservation	*0*	*215*	*466*	*490*	*530*	*578*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	2,226	2,337	2,409	2,480	2,551
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.36.21 Walsh Ranch MUD

Description of Supply

Walsh Ranch MUD receives its water supply from a "needs met" contract with the City of Round Rock. Based on the available supplies, Walsh Ranch MUD is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Based on gpcd, conservation is recommended as a water management strategy.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Walsh Ranch MUD.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $41,218 in 2070
- Unit Cost: $560/acft

Table 5.36-17. Recommended Plan Costs by Decade for Walsh Ranch MUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	16	32	48	61	74
Annual Cost ($/yr)	—	$8,976	$18,052	$26,768	$34,090	$41,218
Projected Surplus/(Shortage) after Conservation	*0*	*16*	*32*	*48*	*61*	*74*

5.36.22 Williamson County MUD 9

Description of Supply

Williamson County MUD 9 obtains its water supply from the City of Round Rock. While the contract will supply enough water to meet the needs of Williamson County MUD 9, conservation is recommended to reduce the demand.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Williamson County MUD 9.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $95,115 in 2070
- Unit Cost: $560/acft

Table 5.36-18. Recommended Plan Costs by Decade for Williamson County MUD 9

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	45	90	131	169	170
Annual Cost ($/yr)	—	$25,423	$50,281	$73,161	$94,866	$95,115
Projected Surplus/(Shortage) after Conservation	*0*	45	90	131	169	170

5.36.23 Williamson County MUD 10

Description of Supply

Williamson County MUD 10 obtains its water supply from the City of Round Rock. While the contract will supply enough water to meet the needs of Williamson County MUD 10, conservation is recommended to reduce the demand.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Williamson County MUD 10.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $145,999 in 2070
- Unit Cost: $560/acft

Table 5.36-19. Recommended Plan Costs by Decade for Williamson County MUD 10

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	65	126	182	233	261
Annual Cost ($/yr)	—	$36,128	$70,774	$102,053	$130,288	$145,999
Projected Surplus/(Shortage) after Conservation	*0*	*0*	*0*	*0*	*0*	*0*

5.36.24 Williamson County MUD 11

Description of Supply

Williamson County MUD 11 obtains its water supply from the City of Round Rock. While the contract will supply enough water to meet the needs of Williamson County MUD 11, conservation is recommended to reduce the demand.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Williamson County MUD 11.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $148,771 in 2070
- Unit Cost: $560/acft

Table 5.36-20. Recommended Plan Costs by Decade for Williamson County MUD 11

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	73	142	206	264	266
Annual Cost ($/yr)	—	$40,648	$79,533	$115,348	$147,872	$148,771
Projected Surplus/(Shortage) after Conservation	*0*	*0*	*0*	*0*	*0*	*0*

5.36.25 Williamson County WSID 3

Williamson County WSID 3 obtains its water supply from Manville WSC. Based on the available supplies, Williamson County WSID 3 is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.26 Williamson-Travis Counties MUD 1

Williamson-Travis Counties MUD 1 has demand in Williamson and Travis (Region K) counties and obtains its water supply from the City of Cedar Park. Surpluses are projected through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.27 County-Other

Description of Supply

Entities in Williamson County-Other obtain water supply from groundwater from the Trinity and Edwards (BFZ) Aquifers as well as other minor aquifers. Williamson County-Other also obtains a portion of its water supply from the City of Round Rock, the City of Taylor, City of Austin, and run-of-river rights. A portion of County-Other demand is located in the Region K portion of Williamson County. Entities in Williamson County Other have contracted for 310 acft/yr of surface water supplies from the Brazos River Authority, which can supply 258 acft/yr in 2020 and 249 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Based on the available groundwater and surface water supply, Williamson County-Other is projected to have a shortage from 2020 through year 2070. Balance and strategies represented in Table 5.36-21 represent the cumulative totals for Williamson County-Other in both regions.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region K, the following water management strategies are recommended for Williamson County - Other.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Unit Cost: $560/acft
- Annual Cost: maximum of $2,397,334 in 2070

b. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: Costs borne by BRA
- Unit Cost: Costs borne by BRA

c. Purchase Supply from Round Rock
Supplies would be purchased by entities located proximate to Round Rock's service area. As future supplies are developed, these connections can revert to emergency connections and not be used for regular water supply.

- Cost Source: Volume II
- Date to be Implemented: 2020
- Annual Cost: maximum of $2,443,248
- Unit Cost: maximum of $912/acft

d. Purchase from SAWS Vista Ridge Project (Region L)

- Cost Source: Volume II
    - This project will contract to purchase 5,700 acft/yr from the Vista Ridge Project sponsored by the San Antonio Water System.
- Date to be Implemented: 2030
- Annual Cost:
- Unit Cost: $2,416/acft

e. Williamson County Groundwater Supply – South Option (purchase from BRA)

- Cost Source: Volume II
- Date to be Implemented: 2040
- Project Cost: $661,246,000
- Unit Cost: maximum of $1,703/acft

f. Lake Whitney Reallocation (Purchase from BRA)
These are project costs for intake, water treatment plant, pump station, and pipeline, but do not include BRA's costs for the reallocation water management strategy.

- Cost Source: Volume II
- Date to be Implemented: 2060
- Project Cost: $306,683,000
- Unit Cost: maximum of $1,617/acft

Table 5.36-21. Recommended Plan Costs by Decade for Williamson County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(780)*	*1,461*	*(3,627)*	*(8,231)*	*(23,882)*	*(37,798)*
Conservation						
Supply From Plan Element (acft/yr)	—	288	948	1,390	2,923	4,281
Annual Cost ($/yr)	—	$161,462	$530,658	$778,376	$1,636,995	$2,397,334
Projected Surplus/(Shortage) after Advanced Conservation	*(780)*	*1,749*	*(2,679)*	*(6,841)*	*(20,959)*	*(33,517)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	54	56	57	59	61
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Supply from Round Rock						
Supply From Plan Element (acft/yr)	780	—	—	—	—	—
Annual Cost ($/yr)	$711,360	—	—	—	—	—
Unit Cost ($/acft)	$912	—	—	—	—	—
Purchase from SAWS Vista Ridge (Region L)						
Supply From Plan Element (acft/yr)	—	5,700	5,700	5,700	5,700	5,700
Annual Cost ($/yr)	—	$13,771,200	$13,771,200	$13,771,200	$13,771,200	$13,771,200
Unit Cost ($/acft)	—	$2,416	$2,416	$2,416	$2,416	$2,416
Williamson County Groundwater Supply – South Option (Purchase BRA Supply)						
Supply From Plan Element (acft/yr)	—	—	2,679	2,679	2,679	2,679
Annual Cost ($/yr)	—	—	$206,283	$206,283	$206,283	$206,283
Unit Cost ($/acft)	—	—	$77	$77	$77	$77
Lake Whitney Reallocation (Purchase BRA Supply)						
Supply From Plan Element (acft/yr)	—	—	—	—	12,000	26,000
Annual Cost ($/yr)	—	—	—	—	$19,404,000	$42,042,000
Unit Cost ($/acft)	—	—	—	—	$1,617	$1,617

5.36.28 Manufacturing

Williamson County Manufacturing entities obtain water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and the Trinity Aquifer, as well as from several municipal WUGs, including Cedar Park, Georgetown, Round Rock, and Taylor. Based on the available supplies, Williamson County Manufacturing is projected to have adequate supplies through the year 2070, and no change in water supply is recommended.

5.36.29 Steam-Electric

There is no Steam-Electric demand or supply in Williamson County.

5.36.30 Mining

Description of Supply

Williamson County Mining obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and the Trinity Aquifer, and a small portion from the City of Round Rock. Based on the available supplies, Williamson County Mining is projected to have a shortage through the year 2070.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Williamson County-Mining. Associated costs are included for each strategy.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Leave Needs Unmet
   - Cost Source: Cost of not meeting needs – see Appendix G
   - Date to be Implemented: before 2030

Table 5.36-22. Recommended Plan Costs by Decade for Williamson County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(4,722)*	*(5,804)*	*(6,921)*	*(8,112)*	*(9,339)*	*(10,743)*
Conservation						
Supply From Plan Element (acft/yr)	155	313	516	599	685	783
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	(4,567)	(5,491)	(6,405)	(7,513)	(8,654)	(9,960)
Leave Needs Unmet (acft/yr)	*(4,567)*	*(5,491)*	*(6,405)*	*(7,513)*	*(8,654)*	*(9,960)*

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location.

5.36.31 Irrigation

Description of Supply

Williamson County Irrigation is supplied by groundwater from the Trinity and Edwards Aquifers and surface water from run of the river water rights. Williamson County Irrigation has contracted for 15 acft/yr of surface water supplies from the Brazos River Authority, which can supply 12 acft/yr in 2020 and 12 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Irrigation is projected to have shortages beginning in 2020.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Williamson County-Irrigation.

a. Conservation
    - Cost Source: Volume II, Chapter 2
    - Date to be Implemented: before 2030
    - Annual Cost: maximum of $32,730
    - Unit Cost: $1,404/acft

b. Firm Up BRA Little River Supplies
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: Costs borne by BRA
    - Unit Cost: Costs borne by BRA

c. Groundwater Development – Edwards Aquifer

Groundwater supplies from the Edwards Aquifer are available under the MAG in 2020-2040, but are not available after 2040.

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Project Cost: $675,000
- Unit Cost: maximum of $331 acft/yr

d. Leave Needs Unmet
    - Cost Source: Cost of not meeting needs – see Appendix G
    - Date to be Implemented: 2050 - 2070

Table 5.36-23. Recommended Plan Costs by Decade for Williamson County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(172)*	*(172)*	*(172)*	*(172)*	*(172)*	*(172)*
Conservation						
Supply From Plan Element (acft/yr)	10	17	23	23	23	23
Annual Cost ($/yr)	$14,040	$14,027	$23,379	$33,421	$33,421	$33,421
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(162)*	*(155)*	*(149)*	*(149)*	*(149)*	*(149)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	3	3	3	3	3
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Groundwater Development – Edwards Aquifer						
Supply From Plan Element (acft/yr)	172	155	149	—	—	—
Annual Cost ($/yr)	$56,932	$51,305	$49,319	—	—	—
Unit Cost ($/acft)	$331	$331	$52	—	—	—
Leave Needs Unmet (acft/yr)				*(149)*	*(149)*	*(149)*

ND – Not determined.

5.36.32 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.

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5.37 Young County Water Supply Plan

Table 5.37-1 lists each water user group in Young County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

Table 5.37-1. Young County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Baylor SUD	1	1	Projected surplus
Fort Belknap WSC	(51)	(93)	Projected shortage - see plan below.
City of Graham	(1,769)	(2,434)	Projected shortage - see plan below.
County-Other	48	9	Projected surplus
Manufacturing	50	68	Projected surplus
Steam-Electric	0	0	No projected surplus or shortage
Mining	(115)	8	Projected shortage - see plan below.
Irrigation	(456)	(456)	Projected shortage - see plan below.
Livestock	0	0	Projected shortage - see plan below.

5.37.1 Baylor SUD

The service area for Baylor SUD includes areas of Baylor, Archer, Throckmorton, Knox, and Young Counties. Only a portion of the service area within Knox, Throckmorton, and Young Counties is located within the Brazos G region. Baylor SUD is not projected to experience supply shortages through the planning period and no change in water supply is recommended by Brazos G, although Region B recommends that additional groundwater supplies be developed. Conservation is recommended to reduce the entity's usage to less than the selected goal of 140 gpcd. Conservation volumes shown here are the "Brazos G sponsored" portions, and include some conservation savings that are applied in Region B. Note that the Region B Plan also includes a small volume of conservation savings beginning in 2020 that are not shown here.

Table 5.37-2. Recommended Plan Costs by Decade for Baylor SUD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*1*	*1*	*1*	*1*
Conservation						
Supply From Plan Element (acft/yr)	—	23	45	68	76	76
Annual Cost ($/yr)	—	$12,880	$25,200	$38,080	$42,560	$42,560
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*23*	*46*	*69*	*77*	*77*

5.37.2 Fort Belknap WSC

Description of Supply

Fort Belknap WSC obtains its water supply through purchases of treated surface water under contract from the City of Graham, which is projected to provide 419 acft/yr of available supply. This WUG is located in multiple counties (Young, Palo Pinto, Throckmorton, and Stephens). The quantities shown in Table 5.37-1 represents the cumulative totals for Fort Belknap WSC. Water supply shortages are projected for Fort Belknap WSC throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for Fort Belknap WSC. Conservation was also considered, but the entity's usage is less than the selected goal of 140 gpcd.

a. Purchase Additional Water from City of Graham:

- Strategy requires implementation of New Throckmorton Reservoir (see City of Throckmorton) project and Treated Water Purchase and Conveyance project (see City of Graham)
- Cost Source: Volume II
- Date to be Implemented: before 2030
- Unit Cost: $880/acft
- Annual Cost: $83,600

Table 5.37-3. Recommended Plan Costs by Decade for Fort Belknap WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(37)*	*(47)*	*(51)*	*(62)*	*(77)*	*(93)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(37)*	*(47)*	*(51)*	*(62)*	*(77)*	*(93)*
Purchase Additional Water from City of Graham						
Supply From Plan Element (acft/yr)	95	95	95	95	95	95
Annual Cost ($/yr)	$83,600	$83,600	$83,600	$83,600	$83,600	$83,600
Unit Cost ($/acft)	$880	$880	$880	$880	$880	$880

5.37.3 City of Graham

Description of Supply

The City of Graham obtains its water supply through diversions of surface water from Lake Graham and Lake Eddleman authorized under water rights held by the City; these diversions are projected to provide 1,275 acft/yr in available supply at the beginning of the planning period and then decreasing to 675 acft/yr at the end. The City also contracts with the Brazos River Authority to purchase raw surface water which is projected to provide 1,000 acft/yr of water supply, based on water availability analyses prescribed under water planning guidelines. The City contracts to sell treated and raw water supply to Fort Belknap WSC, the City of Newcastle and Graham-East WSC which comprise a portion of the Young County-Other WUG, the City of Bryson which comprises a portion of Jack County-Other, and Young County Manufacturing and Steam-Electric entities. Supply shortages are projected during the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for the City of Graham. Conservation is recommended to reduce usage to a goal of 140 gpcd. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Annual Cost: $677,600 in 2070
    - Unit Cost: $560/acft

b. Treated Water Purchase and Conveyance (from Throckmorton)
    - Strategy requires implementation of New Throckmorton Reservoir
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: $30,875,000
    - Unit Cost: maximum $2,520/acft

Table 5.37-4. Recommended Plan Costs by Decade for the City of Graham

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,362)*	*(1,582)*	*(1,769)*	*(1,982)*	*(2,208)*	*(2,434)*
Conservation						
Supply From Plan Element (acft/yr)	—	231	463	708	962	1,210
Annual Cost ($/yr)	—	$129,360	$259,280	$396,480	$538,720	$677,600
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(1,362)*	*(1,351)*	*(1,306)*	*(1,274)*	*(1,246)*	*(1,224)*
Additional Needs in Recommended Strategies for Others						
Increase Contract to Fort Belknap WSC (acft/yr)	(95)	(95)	(95)	(95)	(95)	(95)
Projected Surplus/(Shortage) Including Recommended Strategies	*(1,457)*	*(1,446)*	*(1,401)*	*(1,369)*	*(1,341)*	*(1,319)*
Treated Water Purchase and Conveyance from Throckmorton (New Throckmorton Reservoir)						
Supply From Plan Element (acft/yr)	—	1,500	1,500	1,500	1,500	1,500
Annual Cost ($/yr)	—	$3,780,000	$3,780,000	$1,608,000	$1,608,000	$1,608,000
Unit Cost ($/acft)	—	$2,520	$2,520	$1,072	$1,072	$1,072

5.37.4 County-Other

Entities in Young County-Other obtain their water supply through groundwater production from the Cross Timbers Aquifer and through purchases of treated surface water from the City of Graham. Supplies available through local groundwater production are projected at 200 acft/yr, while purchased supply availability ranges from 175 acft/yr at the beginning of the planning period to 214 acft/yr at the end. No future shortages are projected and no changes in water supply are recommended. Conservation was also considered; however, entity's usage is less than the selected goal of 140 gpcd.

5.37.5 Manufacturing

Young County Manufacturing is supplied through purchases of treated surface water under contract from the City of Graham and the City of Olney and through purchases of groundwater produced by entities in Young County-Other. No shortages are projected and no changes in water supply are recommended.

5.37.6 Steam-Electric

Young County Steam-Electric entities obtain their water supply through purchases of raw surface water under contract from the City of Graham and the Brazos River Authority. No shortages are projected and no changes in water supply are recommended.

5.37.7 Mining

Description of Supply

Mining in Young County obtains water supply through local groundwater production form the Seymour and Cross Timbers Aquifers. Supply shortages are projected during the planning the period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Young County Mining. Associated costs are included for each strategy. Conservation is recommended. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: not determined

b. Groundwater Development – Cross Timbers Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $514,000
   - Unit Cost: maximum of $227/acft

Table 5.37-5. Recommended Plan Costs by Decade for Young County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(106)*	*(195)*	*(115)*	*(70)*	*(24)*	*8*
Conservation						
Supply From Plan Element (acft/yr)	6	14	14	11	7	5
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(100)*	*(181)*	*(101)*	*(59)*	*(17)*	*13*
Groundwater Development – Cross Timbers Aquifer						
Supply From Plan Element (acft/yr)	181	181	181	181	181	181
Annual Cost ($/yr)	$41,000	$41,000	$5,000	$5,000	$5,000	$5,000
Unit Cost ($/acft)	$227	$227	$28	$28	$28	$28

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

5.37.8 Irrigation

Description of Supply

Irrigation in Young County obtains water supply through groundwater production from the Cross Timbers and Seymour Aquifers, and through purchases of Cross Timbers groundwater sourced from Region B. Supply projections show shortages for Irrigation in Young County throughout the planning period.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Young County Irrigation. Associated costs are included for each strategy. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $7,304
- Unit Cost: $963/acft

b. Groundwater Development – Cross Timbers Aquifer

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $540,000
- Unit Cost: $102/acft

Table 5.37-6. Recommended Plan Costs by Decade for Young County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(456)*	*(456)*	*(456)*	*(456)*	*(456)*	*(456)*
Conservation						
Supply From Plan Element (acft/yr)	15	25	35	35	35	35
Annual Cost ($/yr)	$14,323	$23,872	$33,421	$33,421	$33,421	$33,421
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(441)*	*(431)*	*(421)*	*(421)*	*(421)*	*(421)*
Groundwater Development – Cross Timbers Aquifer						
Supply From Plan Element (acft/yr)	450	450	450	450	450	450
Annual Cost ($/yr)	$46,000	$46,000	$8,000	$8,000	$8,000	$8,000
Unit Cost ($/acft)	$102	$102	$18	$18	$18	$18

5.37.9 Livestock

Description of Supply

Livestock water supply in Young County is obtained primarily through local stock surface water impoundments. Livestock water supply is projected to meet demands through 2070, however groundwater development is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following plan is recommended for Young County Livestock. Associated costs are included for each strategy.

a. Groundwater Development – Cross Timbers Aquifer

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: $151,000
- Unit Cost: maximum of $1,091/acft

Table 5.37-7. Recommended Plan Costs by Decade for Young County – Livestock

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Groundwater Development – Cross Timbers Aquifer						
Supply From Plan Element (acft/yr)	11	11	11	11	11	11
Annual Cost ($/yr)	$12,000	$12,000	$1,000	$1,000	$1,000	$1,000
Unit Cost ($/acft)	$1,091	$1,091	$91	$91	$91	$91

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5.38 Wholesale Water Provider Supply Plans

Table 5.38-1 lists each wholesale water provider that is not also a WUG in the Brazos G Area and its corresponding surplus or shortage in years 2040 and 2070. A brief summary of the wholesale water provider (WWP) and the plan for the selected WWPs are presented in the following sub chapters. For each wholesale water provider with a projected shortage, a water supply plan has been developed and is presented in the following sub chapters. **Note that shortages shown reflect full contractual commitments compared to existing supplies.**

Table 5.38-1.Wholesale Water Provider Surplus/(Shortage)

Wholesale Water Provider	Surplus/(Shortage)[1,2]		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Brazos River Authority (Lake Aquilla System)	997	(503)	Projected shortage – see plan below
Brazos River Authority (Little River System)	(45,246)	(49,386)	Projected shortage – see plan below
Brazos River Authority (Main Stem System)[3]	0	0	No projected surplus or shortage – see plan below
Aquilla Water Supply District	1	(262)	Projected shortage – see plan below
Bell County WCID No. 1	6,056	(4,805)	Projected shortage – see plan below
Bluebonnet WSC	(317)	(453)	Projected shortage – see plan below
Central Texas WSC	342	144	Projected surplus – see plan below
Eastland County WSD	(955)	(1,045)	Projected shortage – see plan below
FHLM WSC	0	0	See plan below
North Central Texas MWA	(1,752)	(1,797)	Projected shortage – see plan below
Palo Pinto County MWD No. 1	(2,186)	(2,806)	Projected shortage – see plan below
Salt Fork Water Quality Corporation	0	0	See plan below
Upper Leon River MWD	708	602	Projected surplus – see plan below
West Central Texas MWD	1,823	1,523	Projected shortage – see plan below

1 - From Chapter 4.3 – Water Needs for Wholesale Water Providers
2 - Shortages shown above often include shortages from other WWPs. The shortages shown for individual WWPs should not be summed to a regional total.
3 - Includes demands from Region H.

5.38.1 Brazos River Authority (Lake Aquilla System)

Description of Supply

The Brazos River Authority (Lake Aquilla System) obtains water supply from Lake Aquilla. Based on the available surface water supply and contractual demands, the Lake Aquilla System is projected to have a surplus of 1,997 acft/yr in the year 2020 decreasing to a

shortage of 503 acft/yr by year 2070. Chapter 3 includes additional information on contracts and water supplies for the Lake Aquilla System. While the supply from Lake Aquilla is not adequate in 2060 and 2070 to meet the total contractual obligations, the supply is sufficient to meet all of the projected water demands of customers of the Lake Aquilla System and no change in water supply is recommended. Contractual demands and supplies are shown in Table 5.38-2.

Table 5.38-2. Supplies and Demands for the BRA Lake Aquilla System

	2020	2030	2040	2050	2060	2070
Existing Contractual Sales						
Cleburne	5,300	5,300	5,300	5,300	5,300	5,300
Hillco WSC	150	150	150	150	150	150
Aquilla WSD	5,953	5,953	5,953	5,953	5,953	5,953
Total Existing Demands	**11,403**	**11,403**	**11,403**	**11,403**	**11,403**	**11,403**
Total Supply	**13,400**	**12,900**	**12,400**	**11,900**	**11,400**	**10,900**
Projected Surplus/(Shortage) (acft/yr)	*1,997*	*1,497*	*997*	*497*	*(3)*	*(503)*

Water Supply Plan

Brazos G recommends that BRA pursue reallocation of a portion of the Lake Aquilla flood control storage to conservation storage. Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended for the Lake Aquilla System:

a. Lake Aquilla Reallocation

- Cost Source: Volume II
- Date to be Implemented: Before 2060
- Annual Cost: $2,158,000
- Unit Cost: Max of $869/acft

Table 5.38-3. Recommended Plan Costs by Decade for the BRA Lake Aquilla System

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,997*	*1,497*	*997*	*497*	*(3)*	*(503*
Lake Aquilla Reallocation						
Supply From Plan Element (acft/yr)					2,483	2,483
Annual Cost ($/yr)					$2,158,000	$2,158,000
Unit Cost ($/acft)					$869	$869

5.38.2 Brazos River Authority (Little River System)

Description of Supply

The Brazos River Authority Little River System obtains its water supply from Lake Proctor, Lake Belton, Stillhouse Hollow Reservoir, Lake Georgetown, and Lake Granger. Based on the available surface water supply, existing contractual commitments and recommended water management strategies, the Brazos River Authority Little River System is projected to have a shortage of 42,486 acft/yr in the year 2040 and 49,386 acft/yr in the year 2070. Shortages for the BRA Little River System are based on a comparison of supplies and current contractual commitments, not projected demands for those entities holding contracts with the BRA. Contractual demands and supplies are shown in Table 5.38-4.

Supplies from Lake Granger are allocated to meet BRA system demands, except for 13,000 acft/yr specifically allocated to the East Williamson County Water Treatment Plant (EWCWTP), which supplies water to the City of Taylor and is intended to supply other entities in eastern Williamson County and Bell County. Currently, between 3,279 acft/yr and 4,729 acft/yr of that supply is allocated to meet the demands of the City of Taylor and its wholesale customers, 2,136 acft/yr for Jarrell-Schwertner WSC in additional to another 1,000 acft/yr contract Jarrell-Schwertner WSC holds, and 2,744 acft/yr for Sonterra MUD. The remaining supply from the EWCWTP is available for other users as a water management strategy. Chapter 3 includes additional information on contracts and water supplies for the Little River System.

Note that the shortages shown are based on full contractual commitments. Actual full use of those contracts is unlikely to occur until later years of the planning period and the shortages shown are more likely to occur later than shown here.

Table 5.38-4. Supplies and Demands for the BRA Little River System

Plan Element	2020	2030	2040	2050	2060	2070
Existing Contractual Demands	**251,643**	**251,643**	**251,643**	**251,643**	**251,643**	**251,643**
Supply Sources						
Lake Proctor	13,300	12,660	12,020	11,380	10,740	10,100
Lake Belton	100,257	100,257	100,257	100,257	100,257	100,257
Lake Stillhouse Hollow	66,400	66,120	65,840	65,560	65,280	65,000
Lake Georgetown	11,600	11,580	11,560	11,540	11,520	11,500
Lake Granger	17,600	17,160	16,720	16,280	15,840	15,400
Total Existing Supplies	**209,157**	**207,777**	**206,397**	**205,017**	**203,637**	**202,257**
Projected Surplus/(Shortage) (acft/yr)	*(42,486)*	*(43,866)*	*(45,246)*	*(46,626)*	*(48,006)*	*(49,386)*

Note: Highland Lakes supplies (25,000 acft/yr) and contracts (22,128 acft/yr) pursuant to HB 1437 are not shown.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended to meet the projected shortages for BRA's Little River System. Needs for full contractual commitments remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA to their contractual customers.

a. Sell Remaining Highland Lakes Supplies to County-Other entities
    - Cost Source: Volume II
    - Date to be Implemented: before 2020
    - Total Project Cost: $0
    - Unit Cost: Max of $145/acft in 2020

b. Lake Granger ASR
    - Cost Source: Volume II
    - Date to be Implemented: before 2020
    - Total Project Cost: $99,820,000 (sum of 3 phases)
    - Unit Cost: Max of $1,291/acft in 2030

c. Belton to Stillhouse Pipeline – this strategy is for operational purposes and does not provide additional supply. For planning rules purposes, it is assumed to make 5,000 acft/yr available to Georgetown's contracted supply.
    - Cost Source: Volume II
    - Date to be Implemented: Before 2030
    - Total Project Cost: $67,993,000
    - Unit Cost: not applicable

d. Lake Granger Augmentation Phase II

    This strategy would overdraft Lake Granger and supplement supplies with an annual average of 15,920 acft/yr of groundwater from Milam, Burleson and/or Lee Counties (Williamson County groundwater supply project north or south option, or Milam County GW) (57,281 acft/yr maximum groundwater in a single year).
    - Cost Source: Volume II
    - Date to be Implemented: 2030
    - Total Project Cost: $845,564,000
    - Unit Cost: Max of $1,631/ acft in 2020

e. Williamson County Groundwater Supply – South Option

- Cost Source: Volume II
- Date to be Implemented: 2030
- Total Project Cost: $415,016,000
- Unit Cost: Max of $1,631/ acft in 2030

Table 5.38-5. Recommended Plan Costs by Decade for the BRA Little River System

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(42,286)*	*(43,866)*	*(45,246)*	*(46,626)*	*(48,006)*	*(49,386)*
Sell Remaining Highland Lakes Supply						
Supply From Plan Element (acft/yr)	2,872	2,872	2,872	2,872	2,872	2,872
Annual Cost ($/yr)	$832,880	$832,880	$832,880	$832,880	$832,880	$832,880
Unit Cost ($/acft)	$145	$145	$145	$145	$145	$145
Lake Granger ASR						
Supply From Plan Element (acft/yr)	—	7,600	11,900	11,900	11,900	11,900
Annual Cost ($/yr)	—	$6,493,000	$14,090,000	$14,090,000	$5,898,000	$5,898,000
Unit Cost ($/acft)	—	$854	$1,184	$1,184	$496	$496
Belton to Stillhouse Pipeline						
Supply From Plan Element (acft/yr)	—	5,000	5,000	5,000	5,000	5,000
Annual Cost ($/yr)	—	$6,545,000	$6,545,000	$1,761,000	$1,761,000	$1,761,000
Unit Cost ($/acft)	—	$1,309	$1,309	$352	$352	$352
Lake Granger Augmentation – Phase II						
Supply From Plan Element (acft/yr)	—	46,265	46,265	46,265	46,265	46,265
Annual Cost ($/yr)	—	$75,462,000	$75,462,000	$24,411,000	$24,411,000	$24,411,000
Unit Cost ($/acft)	—	$1,631	$1,631	$528	$528	$528
Williamson County Groundwater Supply – South Option						
Supply From Plan Element (acft/yr)	—	46,265	46,265	46,265	46,265	46,265
Annual Cost ($/yr)	—	$75,462,000	$75,462,000	$24,411,000	$24,411,000	$24,411,000
Unit Cost ($/acft)	—	$1,631	$1,631	$528	$528	$528

5.38.3 Brazos River Authority (Main Stem/Lower Basin System)

Description of Supply

The Brazos River Authority (Main Stem/Lower Basin System) obtains water supply from Possum Kingdom Reservoir, Lake Granbury, Lake Whitney, Lake Somerville, and Lake Limestone, and the BRA's System Operations Permit. Based on the available surface water supply, the Brazos River Authority Main Stem/Lower Basin System is projected to meet the projected contractual demands on the BRA Main Stem/Lower Basin System from Region O, Region H, Region C and Brazos G. Chapter 3 includes additional information on contracts and water supplies for the Main Stem/Lower Basin System. Contractual demands and supplies are summarized in Table 5.38-6. System yield modeling indicates that the full System Operations yield exceeds the contractual demands but is constrained for regional planning to meet just the contractual demands shown in Table 5.38-6.

Actual full use of the contracts shown is unlikely to occur until later years of the planning period. In addition to the System Operations Permit, the BRA has a System Order that allows BRA to divert from each individual reservoir an annual amount greater than the reservoir's authorized diversion and assign the difference to another reservoir in the system. While this does not increase the authorized supply from the BRA system, it provides operational flexibility within the BRA's system.

Table 5.38-6. Supplies and Demands for the BRA Main Stem/Lower Basin System

Plan Element	2020	2030	2040	2050	2060	2070
Contractual Demands						
System/Lakeside – Region O	961	961	961	961	961	961
System/Lakeside – Region C	1,600	1,600	1,600	1,600	1,600	1,600
System/Lakeside – Brazos G	213,504	213,504	213,504	213,504	213,504	213,504
System/Lakeside – Region H	163.450	163.450	163.450	163.450	163.450	163.450
System Operations – Brazos G	15,211	15,211	15,211	15,211	15,211	15,211
System Operations – Region H	79,785	79,785	79,785	79,785	79,785	79,785
Total Existing Contractual Demands	**474,511**	**474,511**	**474,511**	**474,511**	**474,511**	**474,511**
Supply Sources						
Possum Kingdom Reservoir	152,100	151,220	150,340	149,460	148,580	147,700
Lake Granbury	59,400	58,380	57,360	56,340	55,320	54,300
Lake Whitney	18,336	18,336	18,336	18,336	18,336	18,336
Lake Somerville	42,200	41,540	40,880	40,220	39,560	38,900
Lake Limestone	64,000	62,440	60,880	59,320	57,760	56,200
System Operations	138,475	142,595	146,715	150,835	154,955	159,075

Table 5.38-6. Supplies and Demands for the BRA Main Stem/Lower Basin System

Plan Element	2020	2030	2040	2050	2060	2070
Total Existing Supplies	**474,511**	**474,511**	**474,511**	**474,511**	**474,511**	**474,511**
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Additional Demands from Strategies Recommended for Others						
Supply to Williamson County-Other (acft/yr)					12,000	26,000
Total Needs Including Recommended Strategies (acft/yr)	*0*	*0*	*0*	*0*	*(12,000)*	*(26,000)*

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended to meet the projected shortages for the BRA Main Stem System:

a. Lake Whitney Reallocation
This strategy would reallocate storage in Lake Whitney from hydropower to other uses and would develop a total of 38,480 acft/yr of additional supply to the BRA. Williamson County-Other users will likely need up to 26,000 acft/yr by 2070.

- Cost Source: Volume II
- Date to be Implemented: before 2050
- Total Project Cost: $36,689,000
- Unit Cost: $70/acft
- This includes the reallocation of the power pool and unpermitted storage below elevation 520 ft-msl. Additionaly, the supply from Lake Whitney

Table 5.38-7. Recommended Plan Costs by Decade for the BRA Main Stem System

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*(12,000)*	*(26,000)*
Lake Whitney Reallocation						
Supply From Plan Element (acft/yr)				38,480	38,480	38,480
Annual Cost ($/yr)				$2,679,000	$2,679,000	$148,000
Unit Cost ($/acft)				$70	$70	$3
Alternative: Lake Whitney Overdrafting with Off-Channel Reservoir						
Supply From Plan Element (acft/yr)				5,200	5,200	5,200
Annual Cost ($/yr)				$12,879,000	$12,879,000	$79,000
Unit Cost ($/acft)				$2,477	$2,477	$1,125

5.38.4 Aquilla Water Supply District

Description of Supply

Aquilla WSD obtains raw water from Lake Aquilla through a contract with the BRA. The district supplies treated water to five wholesale customers. Chapter 3 includes additional information on contracts and water supplies for Aquilla WSD. Based on contractual commitments, a shortage is projected in 2020 for the District due to a short-term contract with Hillsboro and in 2070 due to sedimentation reducing the yield of Lake Aquilla. However, the water demands of the five wholesale customers are substantially less than the contractual obligations of the District, and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for Aquilla WSD. Needs for full contractual commitments remain unmet in 2020, but this will not result in unmet needs for contractual customers.

a. BRA to firm up supplies through Lake Aquilla reallocation

- Cost Source: Cost borne by BRA
- Date to be Implemented: Before 2060
- Total Project Cost: Cost borne by BRA
- Unit Cost: $0/acft

Table 5.38-8. Recommended Plan Costs by Decade for Aquilla WSD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(559)*	*1*	*1*	*1*	*1*	*(262)*
BRA to Firm Up Supplies through Lake Aquilla Reallocation						
Supply From Plan Element (acft/yr)						262
Annual Cost ($/yr)						$0
Unit Cost ($/acft)						$0

5.38.5 Bell County WCID No. 1

Description of Supply

Bell County WCID No. 1 obtains its water supply from Lake Belton through BRA contracts (62,509 acft/yr). The district's freshwater customers have year 2070 projected demands of 53,055 acft/yr that the District would be required to meet, compared to the district's total supply from the BRA of 50,241 acft/yr (the full 62,509 acft/yr is not currently firm, based on water availability analyses prescribed under water planning guidelines). Chapter 4 includes additional information on contracts and water supplies for Bell County WCID No.1. Therefore, the district has needs projected for its customers starting in 2060 based on

contractual commitments and in 2070 based on its customers' actual projected demands. BRA strategies for the Little River System will firm up contracts to provide the full amount of supply during drought of record conditions, therefore no change in water supply is recommended for Bell County WCID No. 1.

The District has entered into a contract to supply reuse supply to the City of Killeen. Bell County WCID is pursuing TCEQ Reclaimed Water Type I permits to utilize treated wastewater from wastewater treatment plants (WWTP) 1 and 2 and the South WWTP. The District has evaluated several wastewater reuse options as part of its Master Plan update. The reuse portion of the Master Plan identifies both near-term potential customers as well as other future customers that would utilize the total available reuse supply generated through the District's regional wastewater system.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for Bell County WCID No.1. Needs for full contractual commitments remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA.

a. Firm up Supplies through BRA Little River System Strategies
    - Cost Source: Volume II
    - Date to be Implemented: 2020
    - Total Project Cost: borne by BRA
    - Unit Cost: already contracted supplies
b. Water Treatment Plant Expansion (Lake Belton)
    - Cost Source: Volume II
    - Date to be Implemented: 2030
    - Total Project Cost: $28,964,000
    - Unit Cost: maximum of $1,116/acft
c. New Water Treatment Plant (Lake Stillhouse Hollow) (under construction in 2020)
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Total Project Cost: $93,404,000
    - Unit Cost: maximum of $1,172/acft

Table 5.38-9. Recommended Plan Costs by Decade for Bell County WCID No.1

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*13,118*	*9,777*	*6,056*	*2,424*	*(1,197)*	*(4,805)*
Firm up Supplies through BRA Little River System Strategies						
Supply From Plan Element (acft/yr)		10,896	11,239	11,582	11,925	12,268
Annual Cost ($/yr)		$0	$0	$0	$0	$0
Unit Cost ($/acft)		$0	$0	$0	$0	$0
Water Treatment Plan Expansion (Lake Belton)						
Supply From Plan Element (acft/yr)		1,680	1,680	1,680	3,360	3,360
Annual Cost ($/yr)		$1,875,000	$1,875,000	$856,000	$2,731,000	$2,731,000
Unit Cost ($/acft)		$1,116	$1,116	$510	$813	$813
New Water Treatment Plant (Lake Stillhouse Hollow)						
Supply From Plan Element (acft/yr)		9,521	9,521	9,521	9,521	9,521
Annual Cost ($/yr)		$11,159,000	$11,159,000	$4,587,000	$4,587,000	$4,587,000
Unit Cost ($/acft)		$1,172	$1,172	$482	$482	$482

Reuse Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected reuse water demands for Bell County WCID No.1:

a. North Reuse

- Cost Source: Volume II, Chapter 3
- Date to be Implemented: 2020
- Total Project Cost: $12,146,000
- Unit Cost: Max of $765 / acft in 2020

b. South Reuse

- Cost Source: Volume II, Chapter 3
- Date to be Implemented: 2020
- Total Project Cost: $6,529,000
- Unit Cost: Max of $930 / acft in 2020

Table 5.38-10. Recommended Plan Costs by Decade for Bell County WCID No. 1 for Reuse Supplies

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2,693)*	*(2,693)*	*(2,693)*	*(2,693)*	*(2,693)*	*(2,693)*
Bell County WCID #1-North Reuse (Volume II, Chapter 3)						
Supply From Plan Element (acft/yr)		1,945	1,945	1,945	1,945	1,945
Annual Cost ($/yr)		$1,472,625	$456,225	$456,225	$456,225	$456,225
Unit Cost ($/acft)		$765	$237	$237	$237	$237
Bell County WCID #1-South Reuse (Volume II, Chapter 3)						
Supply From Plan Element (acft/yr)		748	748	748	748	748
Annual Cost ($/yr)		$696,000	$150,000	$150,000	$150,000	$150,000
Unit Cost ($/acft)		$930	$201	$201	$201	$201

5.38.6 Bluebonnet Water Supply Corporation

Description of Supply

Bluebonnet Water Supply Corporation (WSC) obtains raw water from Lake Belton through contracts with the BRA totaling 8,301 acft; however, the firm supply of those contracts is 6,900 in 2020, and decreases over the planning period, based on water availability analyses prescribed under water planning guidelines. The WSC has projected shortages starting in 2020 based on contractual commitments. However, the BRA contractual amount, if firm, would be sufficient to meet all of Bluebonnet's contractual commitments. Based on actual projected customer demands, however, there is sufficient supply to meet all projected demands of Bluebonnet's customers. BRA strategies for the Little River System will firm up contracts to provide the full amount of supply during drought of record conditions and no change in water supply is recommended. Chapter 4 includes additional information on contracts and water supplies for Bluebonnet WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortages for Bluebonnet WSC. Needs for full contractual commitments remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA.

a. Firm up Supplies through BRA Little River System Strategies

- Cost Source: Volume II
- Date to be Implemented: 2020
- Total Project Cost: borne by BRA
- Unit Cost: already contracted supplies

Table 5.38-11. Recommended Plan Costs by Decade for Bluebonnet WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	(225)	(271)	(317)	(362)	(408)	(453)
Firm up Supplies through BRA Little River System Strategies						
Supply From Plan Element (acft/yr)		1,447	1,493	1,538	1,584	1,629
Annual Cost ($/yr)		$0	$0	$0	$0	$0
Unit Cost ($/acft)		$0	$0	$0	$0	$0

5.38.7 Central Texas Water Supply Corporation

Description of Supply

Central Texas WSC obtains its water supply from Lake Stillhouse Hollow through contracts with the BRA totaling 12,045 acft; however, the firm supply of those contracts is 10,011 in 2020, decreasing to 9,681 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Central Texas WSC also has recently constructed two wells in the Trinity Aquifer in Bell County that are counted as current supply as they will be online prior to 2020. Based on the available surface water and groundwater supply, currently contracted supplies, and projected demands for its current customers, Central Texas WSC is not projected to have shortages through 2070, assuming that all demands can be treated and delivered through current infrastructure. Chapter 4 includes additional information on contracts and water supplies for Central Texas WSC.

BRA strategies for the Little River System will firm up contracts to provide full amount of supply during drought of record.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for Central Texas WSC.

a. Firm up of Supplies through BRA Little River System Strategies

- Cost Source: Volume II
- Date to be Implemented: 2020
- Total Project Cost: borne by BRA
- Unit Cost: already contracted supplies

Table 5.38-12. Recommended Plan Costs by Decade for Central Texas WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	474	408	342	276	210	144
Firm up of Supplies through BRA Little River System Strategies						
Supply From Plan Element (acft/yr)		2,100	2,166	2,232	2,298	2,364
Annual Cost ($/yr)		$0	$0	$0	$0	$0
Unit Cost ($/acft)		$0	$0	$0	$0	$0

5.38.8 FHLM Water Supply Corporation

Description of Supply

Various utilities in Falls, Hill, Limestone and McLennan Counties are dealing with elevated levels of arsenic in groundwater supplies and several have been pursuing water management strategies through FHLM WSC. FHLM WSC has recently contracted with the BRA for 1,934 acft/yr that will eventually be used by member utilities to either replace or blend with existing groundwater supplies. FHLM WSC is also currently negotiating a water supply agreement with the City of Waco on behalf of EOL WSC and Axtel WSC, although the details of the potential agreement are not available. The projects to supply EOL and Axtel from the City of Waco are shown as water management strategies for those WUGs in the McLennan County section of this plan.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet future water demands for FHLM WSC participants.

a. BRA System Operations Supply

- Cost Source: Volume II
- Date to be Implemented: 2030
- Total Project Cost: $95,792,000 (2015 FHLM Regional Water Facility Planning Study)
- Unit Cost: $4,496 acft/yr (treated water cost delivered to customers)

Table 5.38-13. Recommended Plan Costs by Decade for FHLM WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	0	0	0	0	0	0
BRA System Operations Supply						
Supply From Plan Element (acft/yr)		1,934	1,934	1,934	1,934	1,934
Annual Cost ($/yr)		$8,696,000	$8,696,000	$2,688,260	$2,688,260	$2,688,260
Unit Cost ($/acft)		$4,496	$4,496	$1,390	$1,390	$1,390

5.38.9 Eastland County WSD

Eastland County WSD obtains its water supply from Lake Leon and Eastland Lake and provides water to the Cities of Eastland and Ranger, and to manufacturing interests in Eastland County. The supplies from these two sources are not sufficient to meet the District's contractual commitments but are ample to meet the projected demands for Eastland and Ranger, which are only about 20 percent of the contractual supplies. No changes in water supply are recommended. Chapter 4 includes additional information on contracts and water supplies for Eastland County WSD.

5.38.10 North Central Texas Municipal Water Authority

Description of Supply

North Central Texas MWA owns and obtains its water supply from Millers Creek Reservoir. Based on the available surface water supply, shortages are expected through 2070. Chapter 4 includes additional information on contracts and water supplies for North Central Texas Municipal Water Authority.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the North Central Texas MWA. Needs for full contractual commitments remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA.

a. Lake Creek Reservoir

- Cost Source: Volume II
  - Project requires a subordination agreement with the BRA, which is dependent on the BRA obtaining the System Operations permit
- Date to be Implemented: 2030
- Total Project Cost: $259,001,000
- Unit Cost: $1,657/acft

Table 5.38-14. Recommended Plan Costs by Decade for North Central Texas MWA

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	(1,722)	(1,737)	(1,752)	(1,767)	(1,782)	(1,797)
Lake Creek Reservoir						
Supply From Plan Element (acft/yr)		12,900	12,900	12,900	12,900	12,900
Annual Cost ($/yr)		$21,377,000	$21,377,000	$9,511,000	$9,511,000	$5,280,000
Unit Cost ($/acft)		$1,657	$1,657	$737	$737	$409

5.38.11 Palo Pinto County Municipal Water District No. 1

Description of Supply

Palo Pinto County Municipal Water District owns and operates Lake Palo Pinto, which is used to supply water to entities in Palo Pinto and Parker Counties. A portion of its supply is used in Region C. The district has rights to 18,500 acft/yr for municipal and steam electric power uses. Treated water is supplied to the City of Mineral Wells (and its customers) and Lake Palo Pinto Area Water Supply Corporation. Projected demands based on contractual commitments indicate shortages through 2070. However, based on projected customer demands associated with Mineral Wels (limited to contractual maximums), there will only be a supply shortage of 310 acft/yr in 2070. Chapter 4 includes additional information on contracts and water supplies for Palo Pinto County MWD No.1.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet the projected water shortage for the Palo Pinto County Municipal Water District No.1. Needs for full contractual commitments remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA.

a. Lake Palo Pinto Expansion (Turkey Peak Dam)

- Cost Source: Volume II
- Date to be Implemented: 2030
- Total Project Cost: $102,530,000 (includes $8,000,000 already expended for completed studies and legal assistance)
- Unit Cost: Max of $989 / acft in 2020

Table 5.38-15. Recommended Plan Costs by Decade for Palo Pinto County Municipal Water District No.1

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(1,751)*	*(1,991)*	*(2,186)*	*(2,397)*	*(2,608)*	*(2,806)*
Lake Palo Pinto Expansion (Turkey Peak Dam)						
Supply From Plan Element (acft/yr)		6,000	6,000	6,000	6,000	6,000
Annual Cost ($/yr)		$5,935,000	$5,935,000	$796,000	$796,000	$796,000
Unit Cost ($/acft)		$989	$989	$133	$133	$133

5.38.12 Salt Fork Water Quality Corporation

Description of Supply

The Salt Fork Water Quality Corporation (SFWQC) was formed to develop a project to reduce salinity in the Brazos River Basin by constructing a series of wells to intercept highly saline water that emerges in a series of seeps and springs in the upper Brazos Basin. The SFWQC is pursuing a project to develop the series of wells, desalt the water captured by the wells, make commercial application of the resulting salt and sell the fresh water produced to municipal utilities in the area. This water management strategy is evaluated in Volume II as the Upper Basin Chloride Control Project. The project would develop up to 949 acft/yr of fresh water that could be used by Jayton, Aspermont and the White River Municipal Water District (at Spur in Region O).

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG, the following water supply plan is recommended to meet the projected shortages for the BRA Main Stem System:

a. Upper Basin Chloride Control Project

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Total Project Cost: $106,537,000
- Unit Cost: $6,527 for fresh water supply developed. Cost benefits result from reduced treatment costs downstream. Cost benefits range from $65/acft in the upper basin to zero in the lower basin.

Table 5.38-16. Recommended Plan Costs by Decade for the Salt Fork Water Quality Corporation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Upper Basin Chloride Control Project						
Supply From Plan Element (acft/yr)	—	949	949	949	949	949
Annual Cost ($/yr)[1]	—	$6,194,000	$6,194,000	$0	$0	$0
Unit Cost ($/acft)	—	$6,527	$6,527	N/A	N/A	N/A

1 – Project consultants have prepared a pro forma analysis indicating that revenue from salt sales would cover all O&M costs after debt service is retired.

5.38.13 Upper Leon River Municipal Water District (MWD)

Description of Supply

Upper Leon River MWD obtains its water supply through a contract with the Brazos River Authority for 6,437 acft/yr of water from Lake Proctor; however the firm supply of those contracts is 5,350 acft/yr in 2020 and decreases to 5,174 acft/yr by 2070, based on water availability analyses prescribed under water planning guidelines. The MWD has projected surpluses throughout the planning period. BRA strategies for the Little River System will firm up contracts to provide the full amount of supply during drought of record conditions. Chapter 4 includes additional information on contracts and water supplies for Upper Leon River MWD.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet the projected water shortage for Upper Leon River MWD.

a. Firm up Supplies through BRA Little River System Strategies
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Total Project Cost: borne by BRA
   - Unit Cost: already contracted supplies

b. Trinity Groundwater from Pecan Orchard
   - Cost Source: Intended Use Plan Budget submitted to TWDB in support of DWSRF Application
   - Date to be Implemented: 2020
   - Total Project Cost: $5,347,000
   - Unit Cost: $319/acft

Table 5.38-17. Recommended Plan Costs by Decade for Upper Leon River MWD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	778	743	708	672	637	602
Firm up Supplies through BRA Little River System Strategies						
Supply From Plan Element (acft/yr)		1,122	1,157	1,193	1,228	1,263
Annual Cost ($/yr)		$0	$0	$0	$0	$0
Unit Cost ($/acft)		$0	$0	$0	$0	$0
Trinity Groundwater from Pecan Orchard						
Supply From Plan Element (acft/yr)	2,040	2,040	2,040	2,040	2,040	2,040
Annual Cost ($/yr)	$447,433	$447,433	$203,327	$203,327	$203,327	$203,327
Unit Cost ($/acft)	$319	$319	$100	$100	$100	$100

5.38.14 West Central Texas Municipal Water District

Description of Supply

West Central Texas MWD owns and obtains its water supply from Hubbard Creek Reservoir. Based on the available surface water supply constrained to a 2-year safe yield estimate, West Central Texas MWD is projected to have surplus supplies throughout the planning period. Chapter 4 includes additional information on contracts and water supplies for West Central Texas MWD.

Table 5.38-18. Supplies and Demands for the West Central Texas Municipal Water District

	2020	2030	2040	2050	2060	2070
Existing Contractual Sales						
Abilene	13,077	13,077	13,077	13,077	13,077	13,077
Albany	1,400	1,400	1,400	1,400	1,400	1,400
Anson	1,600	1,600	1,600	1,600	1,600	1,600
Breckenridge	1,900	1,900	1,900	1,900	1,900	1,900
Total Existing Demands	**17,977**	**11,403**	**11,403**	**11,403**	**11,403**	**11,403**
Total Supply	**20,000**	**19,900**	**19,800**	**19,700**	**19,600**	**19,500**
Projected Surplus/(Shortage) (acft/yr)	*2,023*	*1,923*	*1,823*	*1,723*	*1,623*	*1,523*

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to supplement water supplies for West Central Texas MWD.

a. BRA System Operations Supply

The District is in the process of negotiating a contract to purchase 774 acft/yr from the Brazos River Authority's System Operations supply.

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Total Project Cost: Infrastructure already exists
- Unit Cost: $76.50/acft

Table 5.38-19. Recommended Plan Costs by Decade for West Central Texas MWD

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,023*	*1,923*	*1,823*	*1,723*	*1,623*	*1,523*
BRA System Operations Supply						
Supply From Plan Element (acft/yr)	774	774	774	774	774	774
Annual Cost ($/yr)	$59,211	$59,211	$59,211	$59,211	$59,211	$59,211
Unit Cost ($/acft)	$76.50	$76.50	$76.50	$76.50	$76.50	$76.50

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5.39 Water Conservation Recommendations

Regional water planning guidelines require each regional water planning group to consider water conservation to meet projected shortages. The Brazos G RWPG adopted the following water conservation recommendations for the 2021 Plan which are further described in Volume II, Section 2.

- Municipal water user groups (WUGs) with per capita rates exceeding 140 gallons per person per day (gpcd) were recommended to reduce per capita consumption by 1% annually through 2070 until a 140 gpcd rate is attained. This recommendation applies to all municipal water user groups with and without projected water supply needs (shortages). For WUGs in Williamson County, a more aggressive conservation goal of 120 gpcd by 2070 is recommended. Conservation can be achieved through a variety of best management practices, many of which are listed in Section 2 of Volume II.
- Irrigation water user groups with identified needs were recommended to reduce water use by 3% by 2020, 5% by 2030, and 7% from 2040-2070. A list of best management practices is included in Volume II, Section 2.
- Manufacturing and mining water user groups with identified needs were recommended to reduce water use by 3% by 2020, 5% by 2030, and 7% from 2040-2070. A list of best management practices is included in Volume II, Section 2.
- Conservation recommendations were not made for steam-electric users due to the widely differing water use amongst the different facilities.
- Conservation recommendations were not made for livestock water user groups.

Expected savings from the above water conservation recommendations can be seen for each water user group in the preceding individual county and WWP plans (Sections 5.1 through 5.38) and in Volume II, Section 2.

The Brazos G RWPG suggests that WUGs in the region review the lists of BMPs and look to identify WUGs at a relevant size with similar water supply type and consider voluntary implementation of those best management practices, if applicable.

TCEQ has prepared model water conservation plans (WCPs) for municipal public water suppliers, wholesale providers, industrial and mining entities, and agricultural users to provide guidance and suggestions to entities with regard to the preparation of water conservation plans. Not all items in the model plan will apply to every system's situation, but the overall model plan can be used as a starting point for most entities. For WUGs wishing to develop a new WCP, Brazos G suggests considering best management practices from local water conservation plans for entities similar in size, as discussed previously, in addition to the TCEQ Model WCPs. The TCEQ model water conservation plans can be found on TCEQ's website at the following link:

https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/conserve.html

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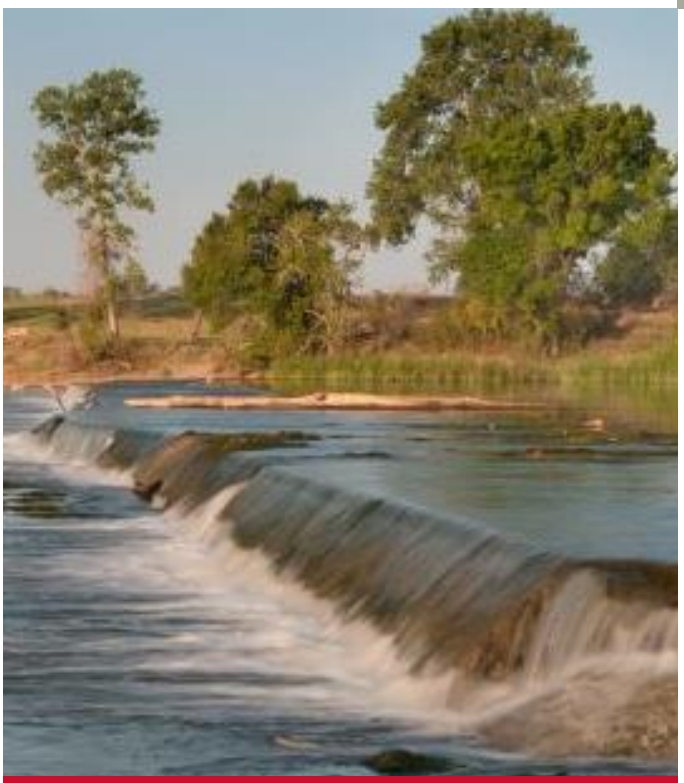

6

Consistency with Long Term Protection of the State's Water, Agricultural, and Natural Resources

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6 Consistency with Long-Term Protection of the State's Water, Agricultural, and Natural Resources

The 2021 Plan is consistent with long-term protection of the state's water resources, agricultural resources, and natural resources and is developed based on guidance principles outlined in the Texas Administrative Code Chapter 358 – State Water Planning Guidelines. The 2021 Plan was produced with an understanding of the importance of orderly development, management, and conservation of water resources and is consistent with all laws applicable to water use for the state and regional water planning areas. Furthermore, the plan was developed according to principles governing surface water and groundwater rights. Availability of water for new surface water supplies considered environmental flow needs as defined by the environmental flow standards adopted in the Brazos Basin and incorporated into the Texas Commission on Environmental (TCEQ) Brazos Water Availability Model (WAM Run 3), and protection of existing water rights. For groundwater, the 2021 Plan recognizes principles for groundwater management in Texas, and estimates of groundwater availability take into the Modeled Available Groundwater (MAG) as determined by the Texas Water Development Board (TWDB).

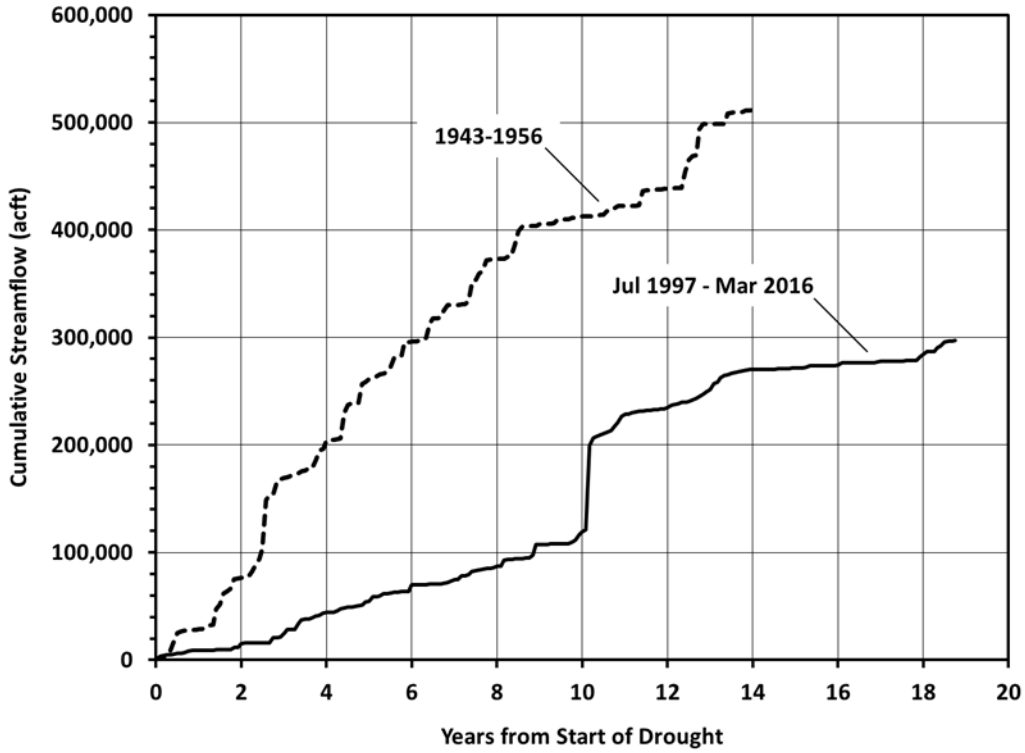
The 2021 Plan identifies actions and policies necessary to meet the Brazos G Area's near and long-term water needs by developing and recommending water management strategies to meet needs with reasonable cost, good water quality, and sufficient protection of agricultural and natural resources of the state. The Brazos G Regional Water Planning Group (RWPG) has recommended water management strategies that consider the public interest of the state, wholesale water providers, protection of existing water rights, and opportunities that encourage voluntary transfers of water resources while balancing economic, social, and ecological viability. When needs could not be met economically with water management strategies, a socioeconomic impact analysis was performed to estimate the economic loss associated with not meeting these needs. This analysis is shown in the final plan in (Appendix G).

The 2021 Plan considers environmental information resulting from site-specific studies and ongoing development of water projects when evaluating water management strategies. Cumulative effects of water management strategies on Brazos River instream flows and inflows to the Gulf of Mexico were considered, as documented later in this chapter. A list of endangered and threatened species in the Brazos G Area for each county was obtained from the U.S. Fish and Wildlife Service and possible impacts to these species and/or their habitats were considered for each water management strategy evaluated.

The 2021 Plan consists of initiatives to respond to continuing drought conditions in the western part of the region, and makes use of relatively low-impact strategies such as reuse of wastewater return flows and the Brazos River Authority's System Operations to increase supplies. As a further drought protection provision, the Brazos G RWPG adopted use of safe yield analyses for purposes of determining water supply for municipal supply reservoirs upstream of Possum Kingdom Reservoir. The use of safe yield analyses anticipates that a future drought may occur that is greater in severity than the worst drought of record and reserves a certain amount of water in storage (i.e., a 6-month, or 1- or 2-

year supply) for such an event. Use of safe yield in the upper Brazos Basin is justified based on the severity of the recent drought. Figure 6-1 presents the cumulative gaged streamflow for the USGS gage located on the Clear Fork of the Brazos River near Nugent, TX. The figure shows how flows during the recent drought beginning in 1997 are significantly less than those of the previous drought of record (1950's drought). When the recent drought cumulative streamflows are compared to the 1950s droughts at the 14 years mark from the beginning of the drought, total streamflow is 53 percent of the total streamflow for the 1950s. Additionally, the duration of the recent drought is more than 4 years longer than the 1950s drought.

Figure 6-1. Cumulative Gaged Flows at Clear Fork of the Brazos near Nugent



The Brazos G RWPG conducted numerous meetings during the 2021 planning cycle, which were open to the public, and decisions were based on accurate, objective, and reliable information. The Brazos G RWPG coordinated water planning activities with local, regional and state agencies, and was committed to facilitating the initiatives and addressing the concerns of local and regional entities.

The Brazos G RWPG developed policy recommendations regarding State water policy after extensive consideration and deliberation, and these are presented in Chapter 8 of this report. The Brazos G RWPG considered recommendations of stream segments with unique ecological value by Texas Parks and Wildlife and sites of unique value for construction of reservoirs. At this time, the Brazos G RWPG recommends that no stream segments be designated as unique; and recommends that reservoir sites be recommended as unique if recommended as water management strategies and not previously recommended as unique (Chapter 8).

Other than small watercraft used primarily for recreation on lakes and rivers, the BGRWPA includes no use of water for navigation. No water management strategy considered by the BGRWPG will affect navigation, either in the BGRWPA or in adjacent regions.

6.1 Cumulative Hydrologic Effects of Implementing the Brazos G Regional Water Plan

The following sections describe in more detail the hydrologic effects of the recommended water management strategies on surface water and groundwater resources.

6.1.1 Surface Water

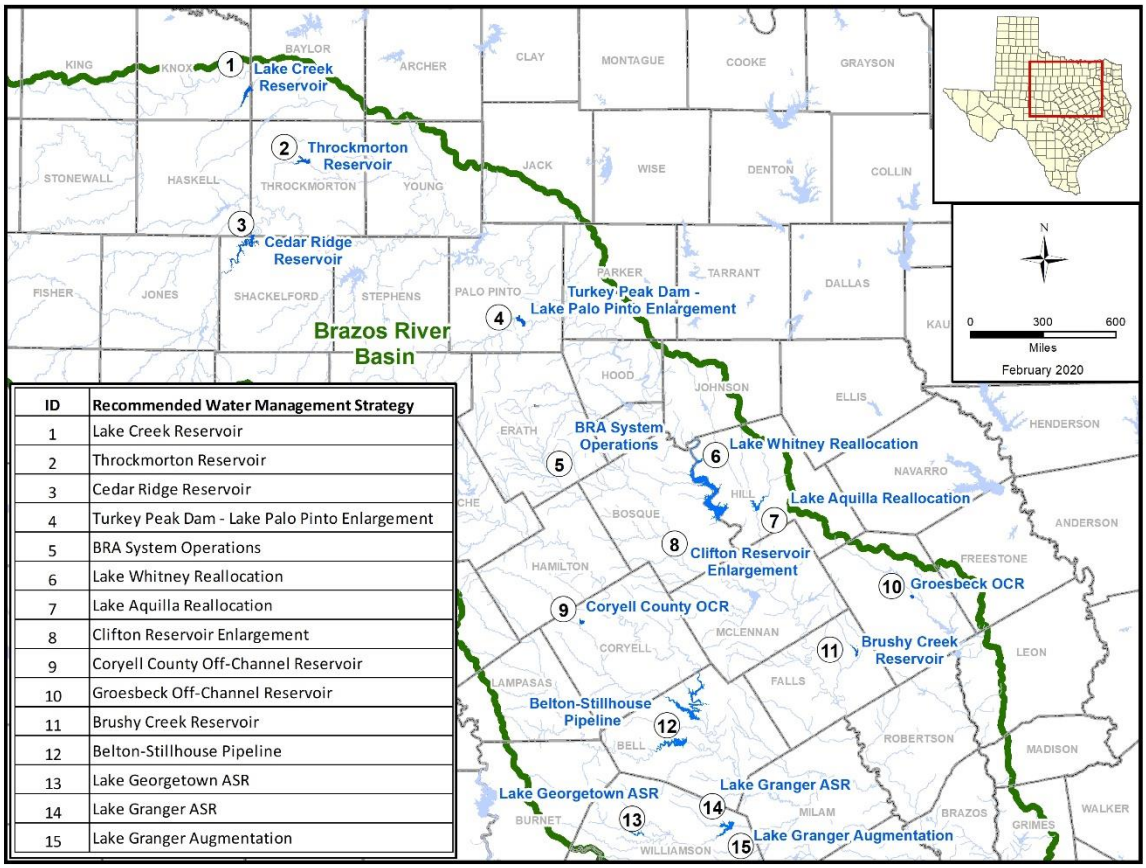
Sophisticated hydrologic models have been employed to quantify the cumulative effects of implementation of the 2021 Plan through the year 2070. Surface water effects were quantified using the TCEQ Brazos WAM Run 3 which, as per the TWDB planning guidelines, was the standard tool utilized to evaluate surface water strategies in the region. The Brazos WAM Run 3 assumptions include no return flows (unless included as a specific component to a strategy), as-permitted diversions and reservoir contents, BRA System Operations, and the environmental flow standards adopted by the TCEQ for the Brazos Basin.

The cumulative effects of the plan can be quantified by comparing conditions prior to implementation of the plan (base condition) to conditions with the plan in place. The base condition against which to compare conditions with the plan in place was streamflow computed by the Brazos WAM under the Run 3 assumptions.

The conditions with the plan in place include the base condition assumptions, with the addition of any recommended strategies that could measurably affect streamflows, i.e., those that result in development of additional water supply. The recommended water management strategies, shown in Figure 6-2 and listed in Table 6-1, were incorporated into the model. Specific strategies not included in the analysis are direct reuse projects, conservation, strategies transferring water from one entity to another through new or increased purchases, and development of additional groundwater. The base condition assumes full utilization of water rights, and conservation or transfers of water will not impact the assumption of full utilization of water rights. Surface water/groundwater interactions are difficult to quantify, but reductions in streamflow due to increased utilization of groundwater resources are expected to be small. As a result, the Control of Naturally Occurring Salinity recommended strategy in the upper Brazos River Basin is not anticipated to significantly impact streamflow and is not included in the cumulative effects analysis.

The cumulative effects of the 2021 Plan on streamflows were evaluated at the eight locations presented in Table 6-2. Each selected location is located in the Brazos G portion of the Brazos River Basin, except the Brazos River at Richmond site. This location was included in the analysis to illustrate the impacts of Brazos G strategies on the lower part of the basin.

Figure 6-2. Location of Recommended Water Management Strategies Included in the Cumulative Impacts Analysis



ID	Recommended Water Management Strategy
1	Lake Creek Reservoir
2	Throckmorton Reservoir
3	Cedar Ridge Reservoir
4	Turkey Peak Dam - Lake Palo Pinto Enlargement
5	BRA System Operations
6	Lake Whitney Reallocation
7	Lake Aquilla Reallocation
8	Clifton Reservoir Enlargement
9	Coryell County Off-Channel Reservoir
10	Groesbeck Off-Channel Reservoir
11	Brushy Creek Reservoir
12	Belton-Stillhouse Pipeline
13	Lake Georgetown ASR
14	Lake Granger ASR
15	Lake Granger Augmentation

Table 6-1. Recommended Water Management Strategies Included in the Cumulative Impacts Analysis

Recommended Water Management Strategy	WUG or WWP
Lake Creek Reservoir	North Central Texas Municipal Water Authority
Throckmorton Reservoir	City of Throckmorton
Cedar Ridge Reservoir	City of Abilene
Turkey Peak Dam – Lake Palo Pinto Enlargement	Palo Pinto County MWD No.1
BRA System Operations	BRA - Multiple
Lake Whitney Reallocation	BRA - Multiple
Lake Aquilla Reallocation	BRA – Multiple

Table 6-1. Recommended Water Management Strategies Included in the Cumulative Impacts Analysis

Recommended Water Management Strategy	WUG or WWP
Bosque County Regional Project – Clifton Reservoir Enlargement	BRA - Multiple
Coryell County Off-Channel Reservoir	BRA - Multiple
Groesbeck Off-Channel Reservoir	City of Groesbeck
Brushy Creek Reservoir	City of Marlin
Lake Belton to Lake Stillhouse Pipeline	BRA - Multiple
Lake Georgetown Aquifer Storage and Recovery	BRA - Multiple
Lake Granger Aquifer Storage and Recovery	BRA - Multiple
Lake Granger Augmentation	BRA - Multiple

Table 6-2. Locations for Evaluating the Effects of Recommended Strategies on Streamflow and Inflows to the Brazos River Estuary

Location	WAM Control Point Identifier	Region Location (G/H)
Brazos River at South Bend	BRSB23	G
Brazos River near Glen Rose	BRGR30	G
Brazos River near Aquilla	BRAQ33	G
Bosque River near Waco	BOWA40	G
Little River near Cameron	LRCA58	G
Brazos River near Bryan	BRBR59	G
Brazos River near Hempstead	BRHE68	H
Brazos River at Richmond	BRRI70	H
Brazos River at Gulf of Mexico	BRGM73	H

Strategies requiring a new water right permit were simulated junior to all other appropriations in the Brazos River Basin including the BRA System Operations Permit. It was assumed during evaluation of most of the strategies that some form of priority calls agreement would be required between the BRA and the entity developing a new water supply project to more fully realize the yield potential of a project. These agreements were not included for new strategies in the cumulative impacts analysis, unless the entity sponsoring a strategy already has an agreement with the BRA. In all cases, the priorities of BRA's existing rights were honored, as simulated under system operations.

The existing priority calls agreements with the BRA and other water right holders were considered in this model run. The inclusion or exclusion of the subordination agreements does not affect the resulting streamflows at the selected locations in a substantive manner.

The cumulative effects of the recommended water management strategies on regulated streamflow were evaluated by comparing descriptive streamflow statistics for the base condition with those from the plan condition at the selected evaluation locations.

Figure 6-3 through Figure 6-11 present these comparisons for regulated streamflow at each of the evaluation locations. Regulated flow is the total streamflow remaining in the stream after all existing water rights have been exercised and other water management activities have taken place. It represents the total flow passing a location (control point) after all water rights have appropriated the flows to which they are entitled.

Many locations exhibit slightly larger median monthly flows with the implementation of the 2021 Plan than with the base condition. This is due primarily to altering of releases being made from upstream BRA reservoirs as part of the BRA System Operations due to the implementation of the recommended strategies.

The Brazos River near South Bend is the only location where the median streamflow would decrease in every month from the base conditions with the full implementation of the plan. These reductions are the result of the implementation of the Cedar Ridge, Lake Creek, and Throckmorton Reservoirs. The largest decrease would occur in April at 17% with all other months decreasing less than 10%. However, the streamflow frequency plot shows that the overall change to the flow regime is minor.

The Brazos River near Aquilla location shows decreases in median streamflow for 9 of the 12 months. The range of differences at this location is a 29% decrease in September to a 23% increase in March. Again, these differences are primarily attributed to the alteration of BRA System Operations reservoir releases and have a minor impact to the overall flow regime as shown in the streamflow frequency figure. The Bosque River near Waco location controls a relatively small watershed compared to the other locations investigated in this analysis. Changes associated with this location are relatively negligible. The Little River near Cameron location reflects changes from projects recommended for implementation in the Little River watershed, specifically the Lake Granger ASR and Augmentation strategies and the Lake Georgetown ASR strategy. While monthly median flows exhibit increases up to 46% in August, little difference is apparent in the overall frequency of flows.

The four most downstream locations, Brazos River near Bryan, Brazos River near Hempstead, Brazos River at Richmond, and the Brazos River at the Gulf of Mexico are all located on the main stem of the Brazos River and the changes in streamflow at these locations show similar trends. These locations are located downstream in the basin and downstream from the majority of the recommended water management strategies. These locations have the potential to be impacted by the implementation of any of the proposed strategies. New reservoir and diversion projects will tend to reduce streamflow at these locations, while alterations in the BRA System Operations tends to increase streamflows as releases from upstream reservoirs pass these locations to satisfy demands at downstream locations. The Bryan location shows decreases in median streamflow for all 12 months by as much as 41% and Hempstead sees 11 months with decrease in median streamflow by as much as 30%. At the Richmond location, all 12 months have a decrease

in median flow by as much as 18%. As with the middle and upper basin streamflow locations, there is little difference in the overall frequency of flows at the lower basin locations. The Brazos River at the Gulf of Mexico location shows very little change in streamflow as streamflow at this location is already heavily regulated by industrial water rights located upstream.

Overall the cumulative effects of the implemented plan will have a slight to modest effect on streamflows in the Brazos Basin with both increases and decreases. Locations below new reservoirs or reservoirs with augmented supplies will generally experience reduced streamflows; although generally not to a significant level, and the detrimental effects of these reductions can be minimized with proper consideration of reservoir pass-through requirements to maintain flows necessary to meet the needs of the environment. In summary, none of the locations will experience significantly different streamflows with implementation of the recommended water management strategies in the 2021 Plan.

6.1.2 Groundwater

Recommended water management strategies involving additional development of groundwater would increase total groundwater usage by entities in the Brazos G Area by slightly more than 101,045 acft/yr by 2070. The greatest increase occurs in the Carrizo-Wilcox Aquifer where strategies involving groundwater development for Brazos G entities would increase pumping by about 24,720 acft/yr 2070 over what is considered to be existing supplies. In the Carrizo-Wilcox, strategies include an additional 21,469acft/yr of pumping by 2070. Overall, the amount of groundwater identified for water management strategies is rather modest in comparison to the amount from all the other water management strategies. However, the development of groundwater is likely to be concentrated in a few areas, which could experience noticeable declines in groundwater levels. However, none of the strategies increase projected groundwater pumpage beyond the Modeled Available Groundwater (MAG) established by county and aquifer. Thus, projected groundwater conditions are expected to be within the Desired Future Conditions (DFC) and within a range that the local groundwater conservation districts consider manageable.

Figure 6-3. Effects of Plan Implementation on Streamflows – Brazos River at South Bend

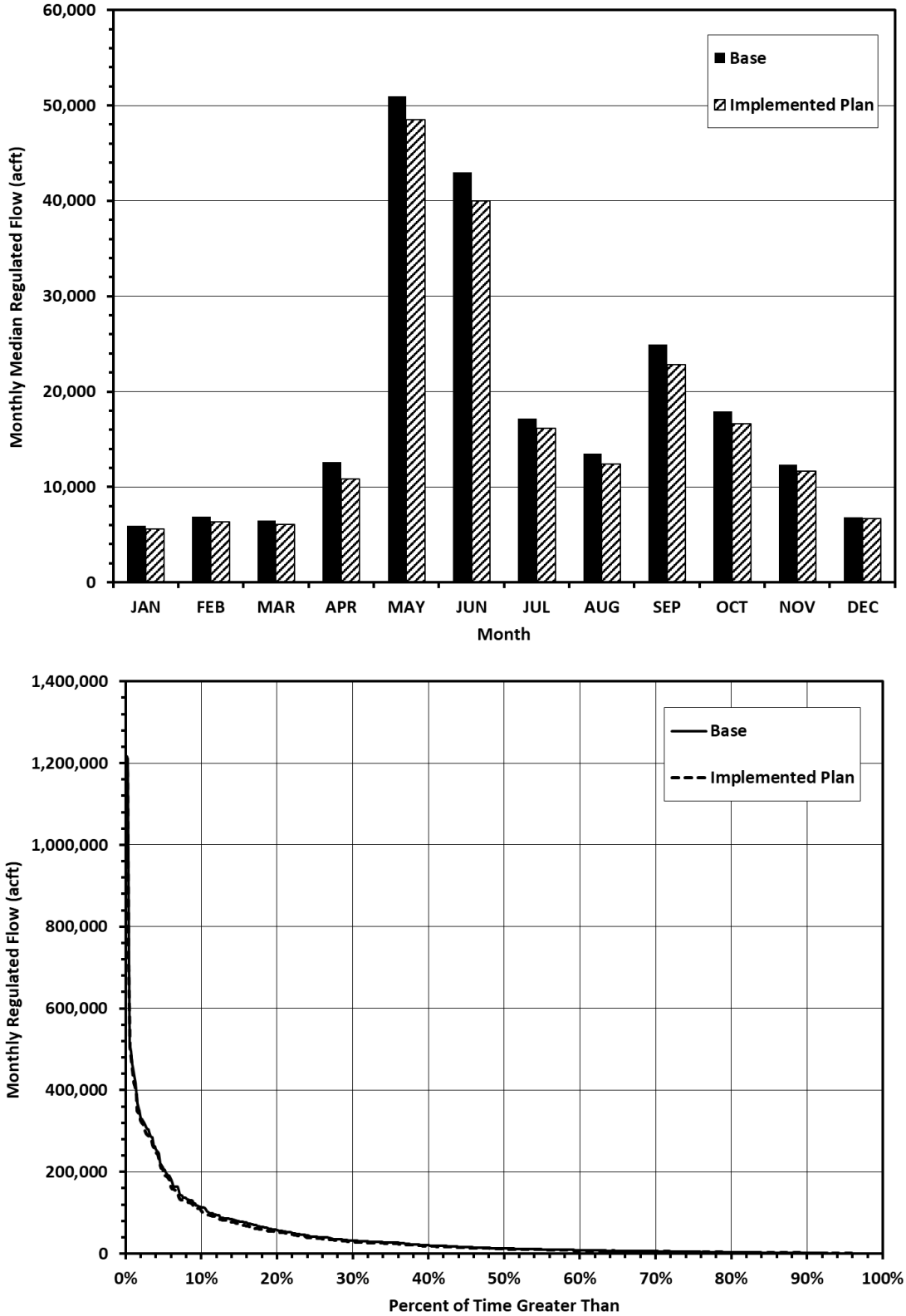


Figure 6-4. Effects of Plan Implementation on Streamflows – Brazos River near Glen Rose

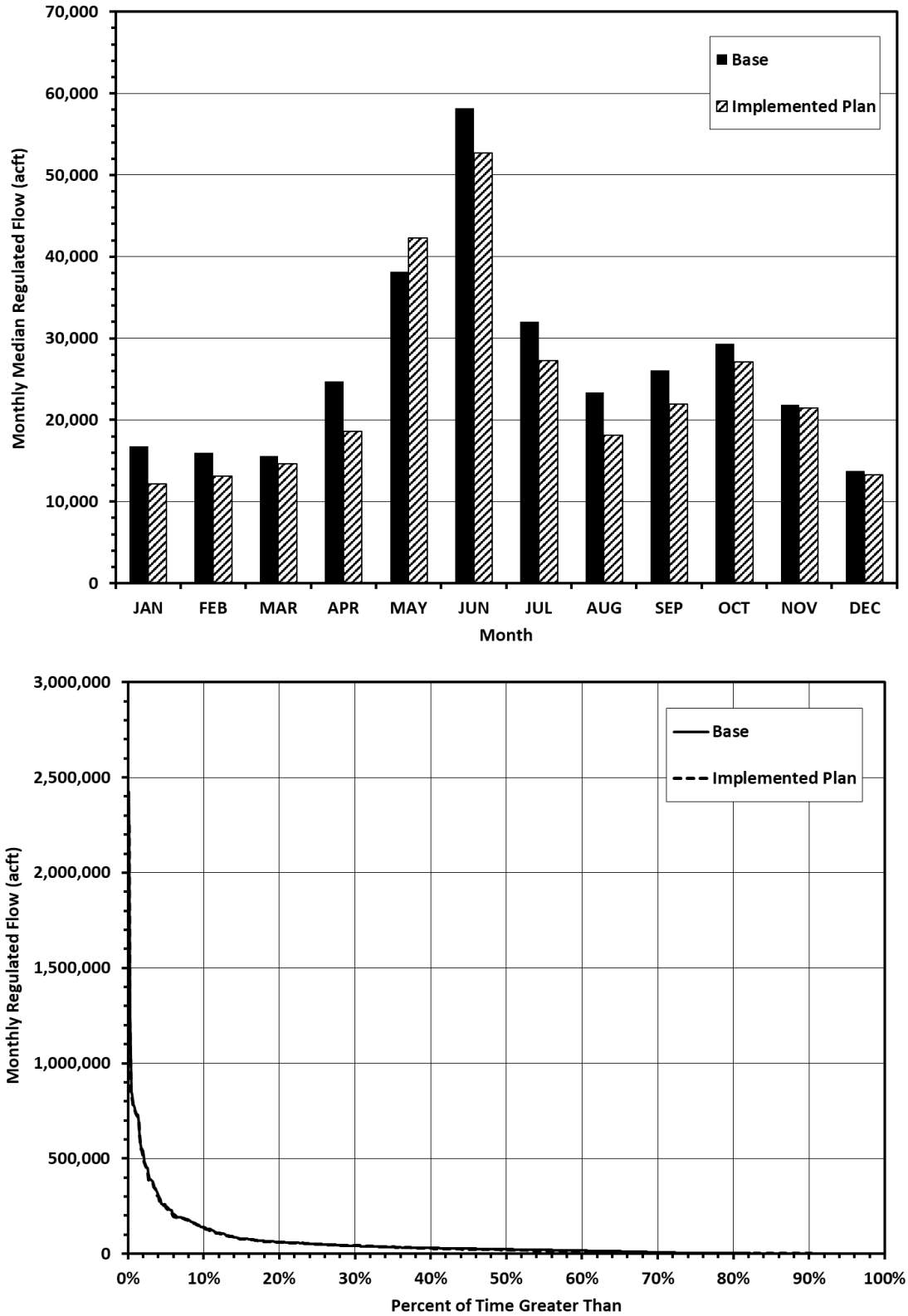
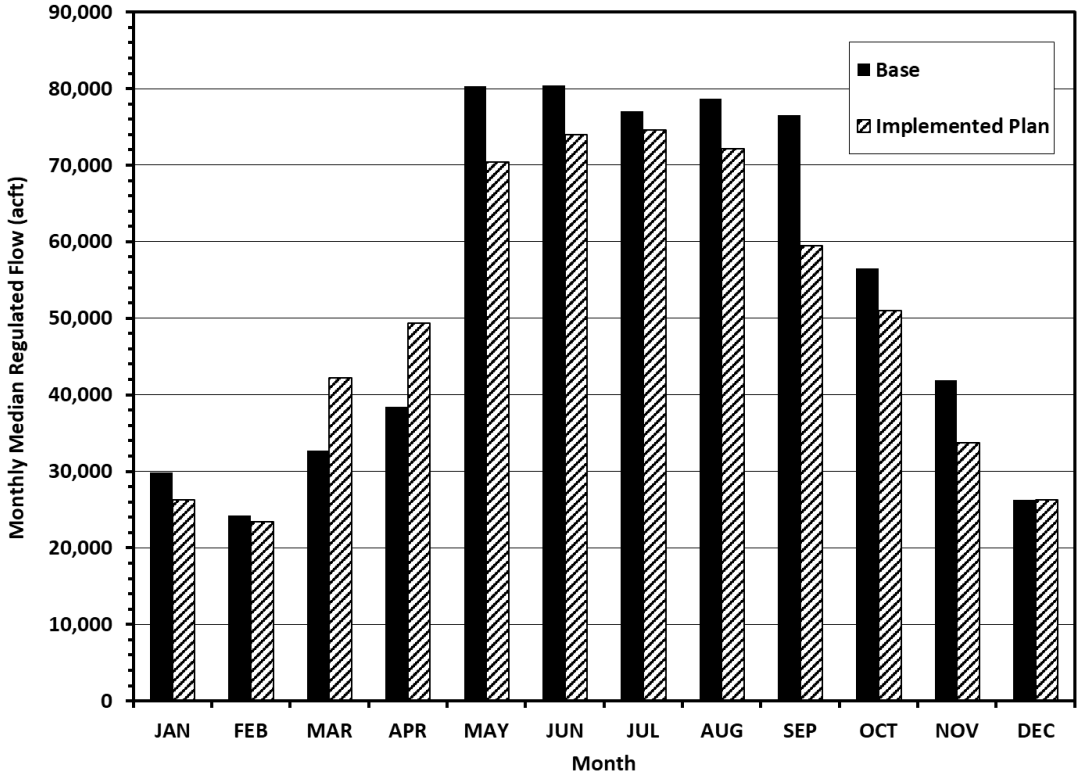


Figure 6-5. Effects of Plan Implementation on Streamflows – Brazos River near Aquilla



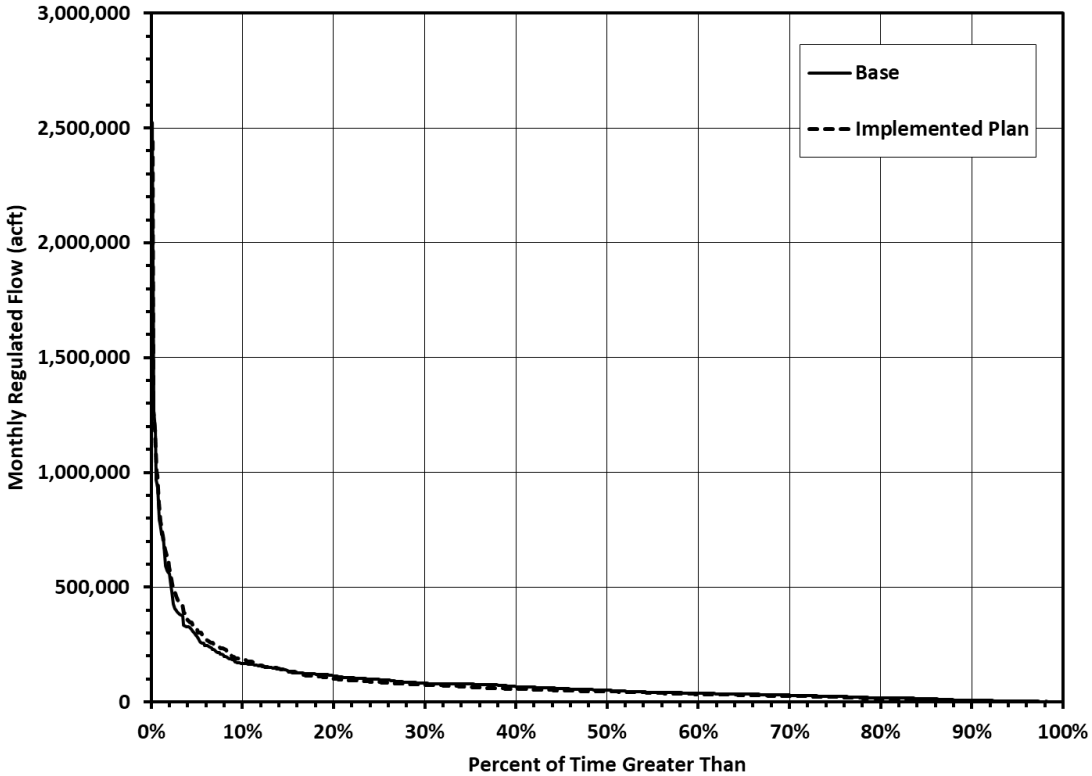


Figure 6-6. Effects of Plan Implementation on Streamflows – Bosque River near Waco

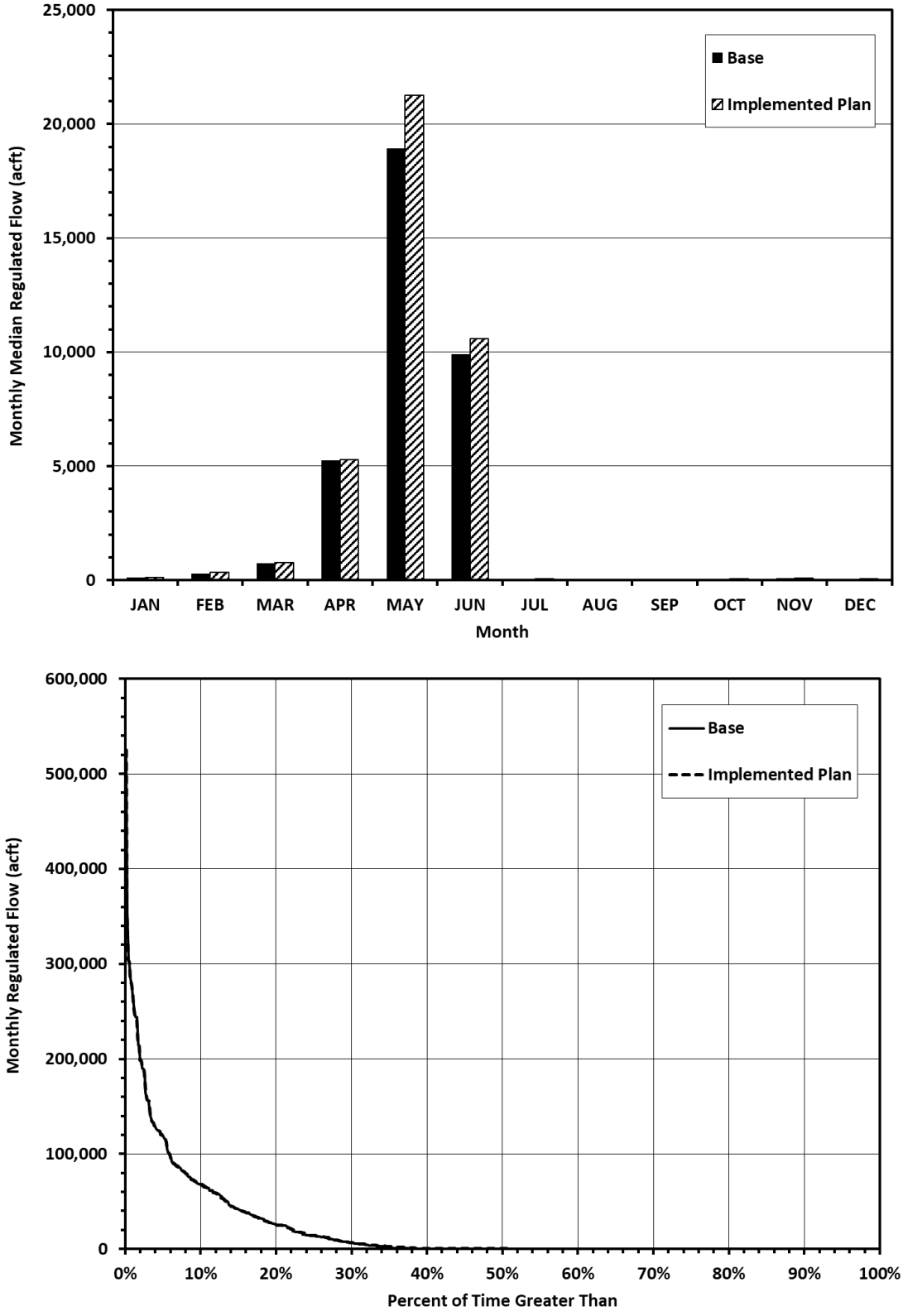


Figure 6-7. Effects of Plan Implementation on Streamflows – Little River near Cameron

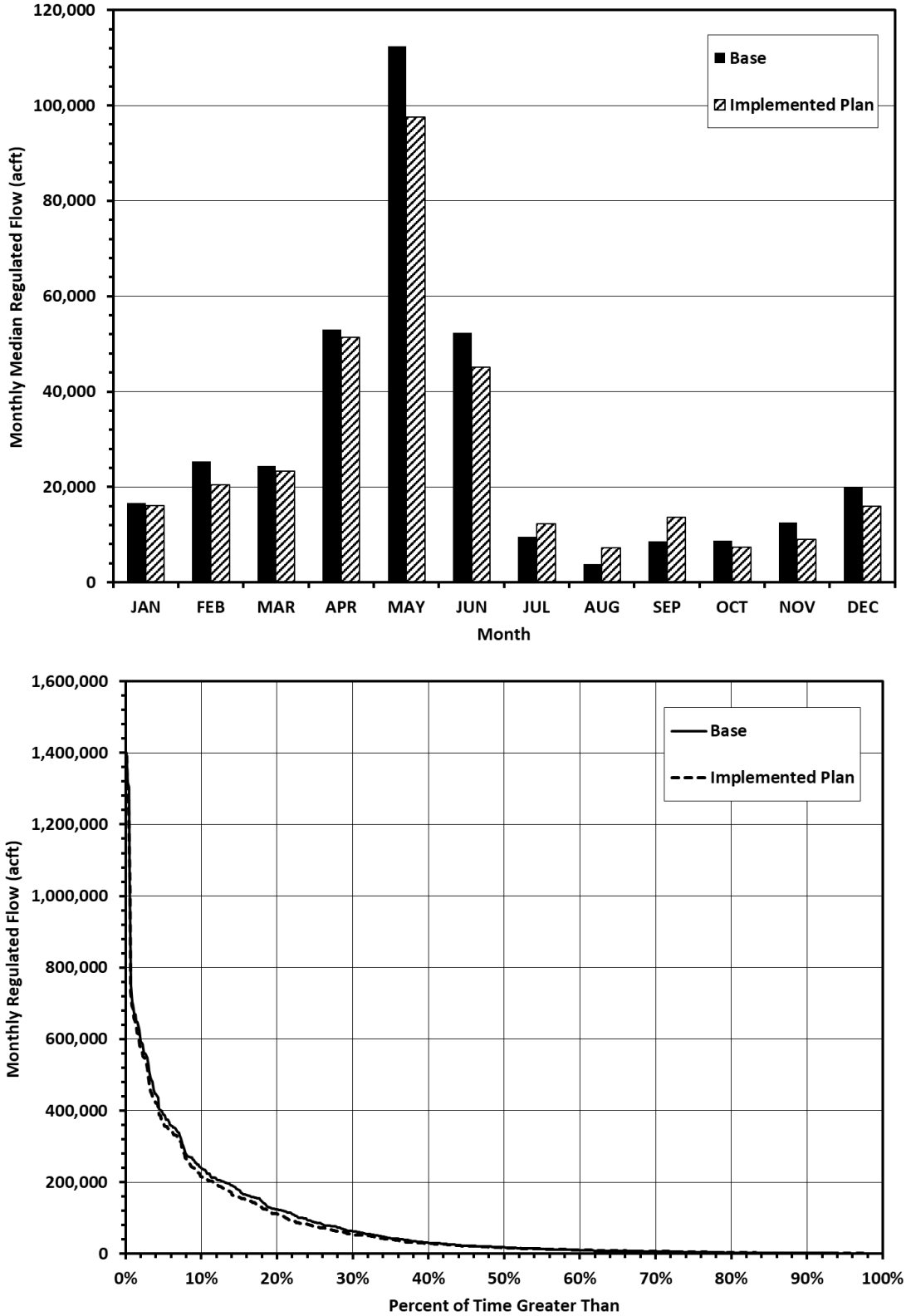


Figure 6-8. Effects of Plan Implementation on Streamflows – Brazos River near Bryan

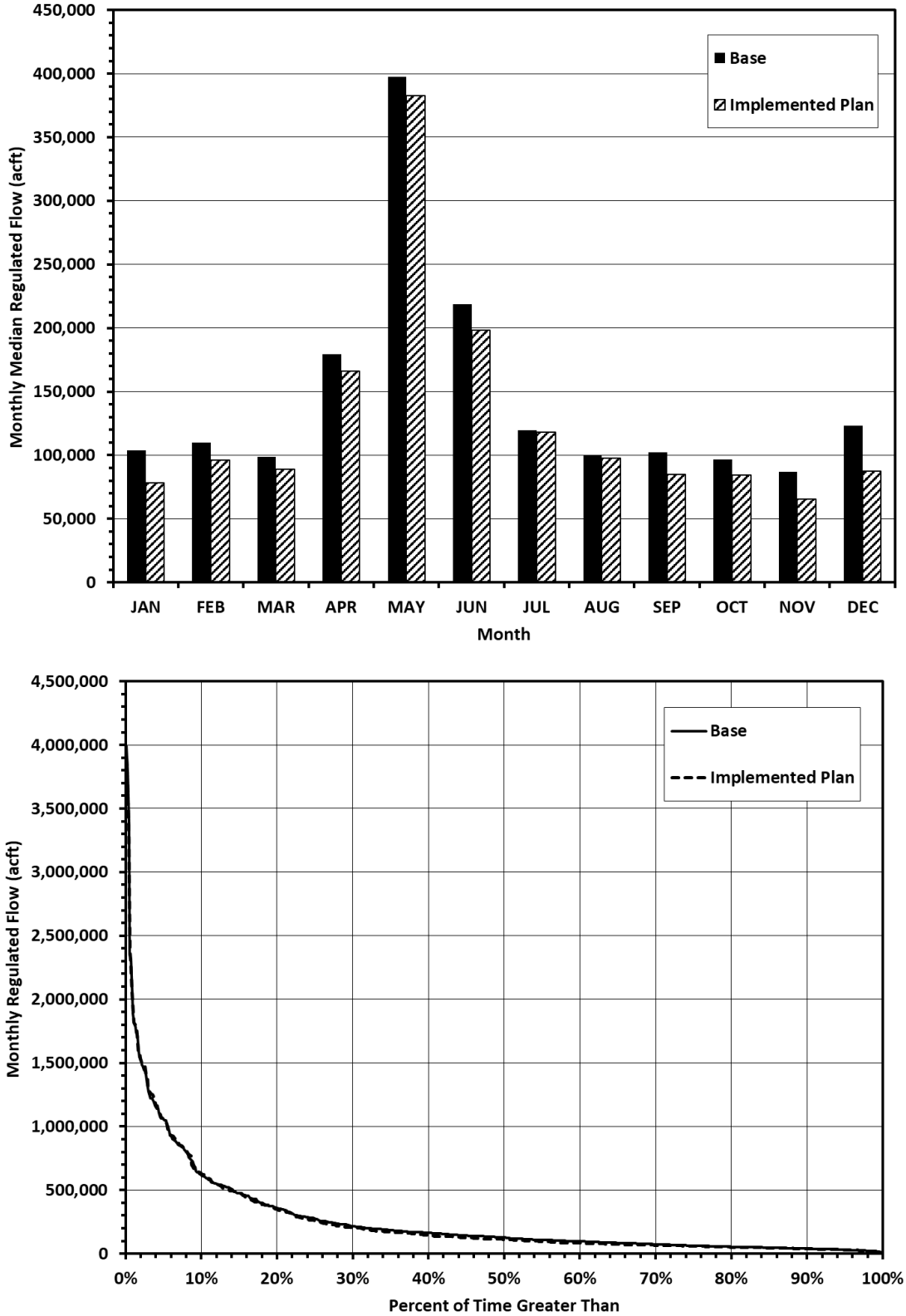


Figure 6-9. Effects of Plan Implementation on Streamflows – Brazos River near Hempstead

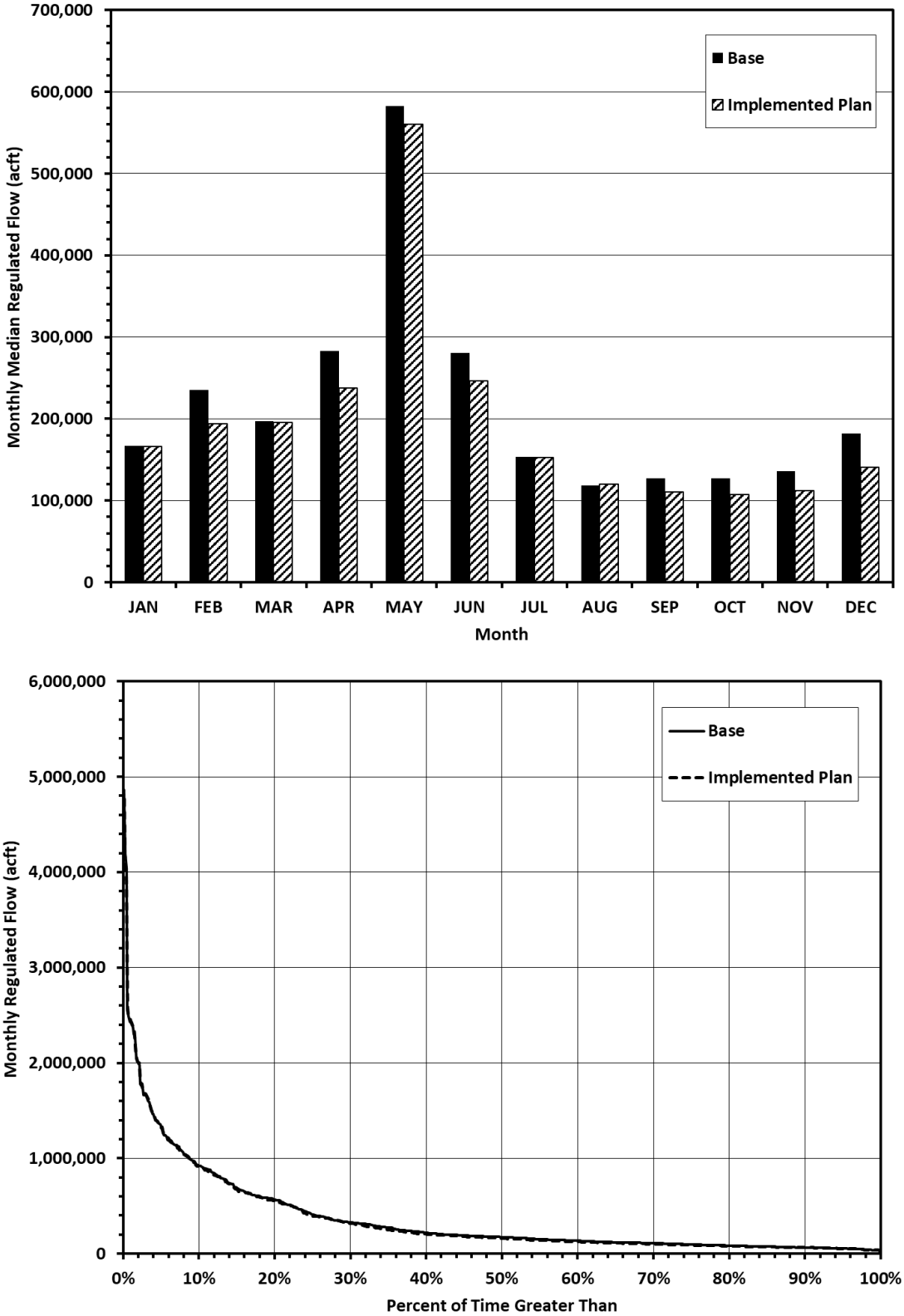


Figure 6-10. Effects of Plan Implementation on Streamflows – Brazos River at Richmond

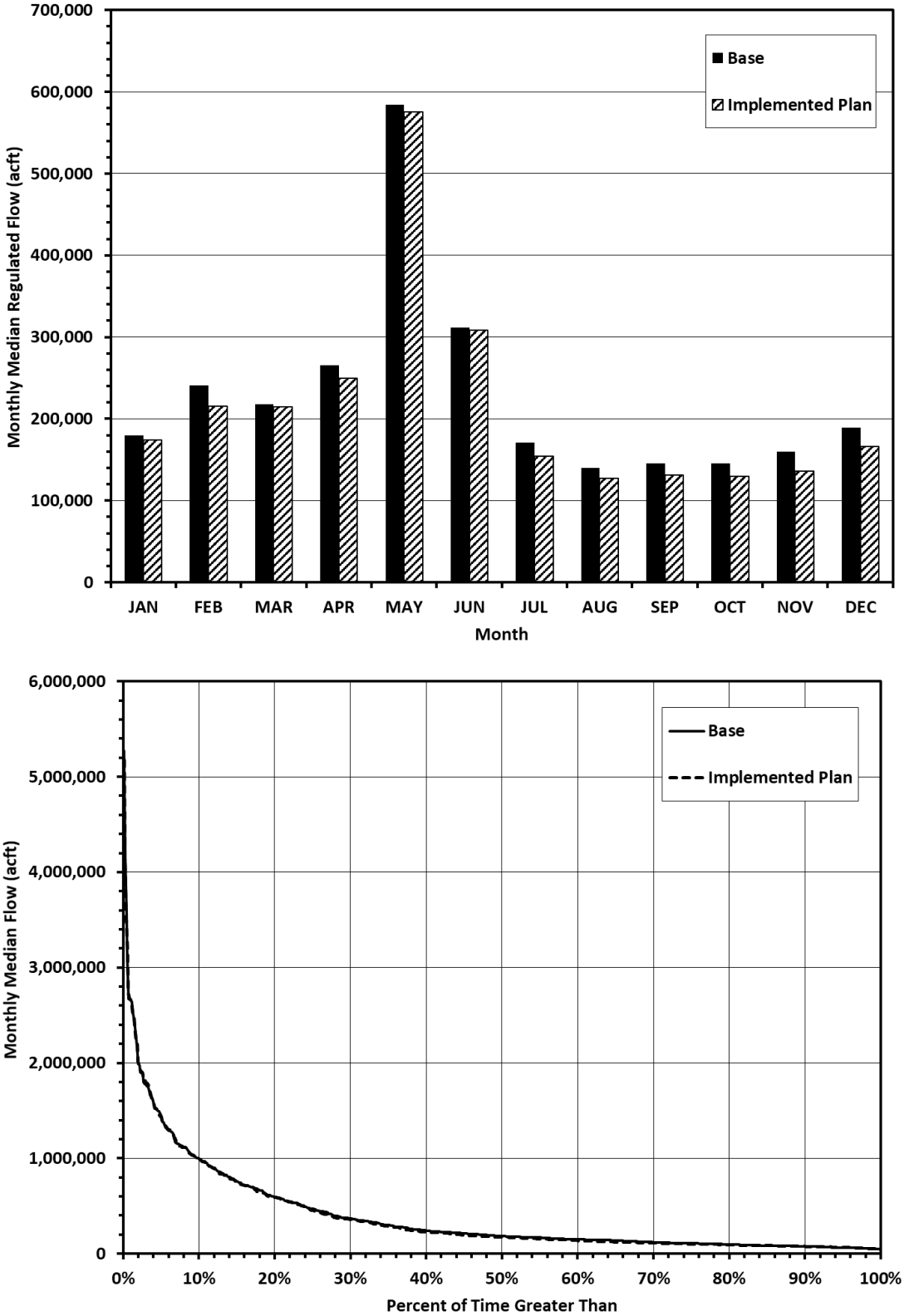
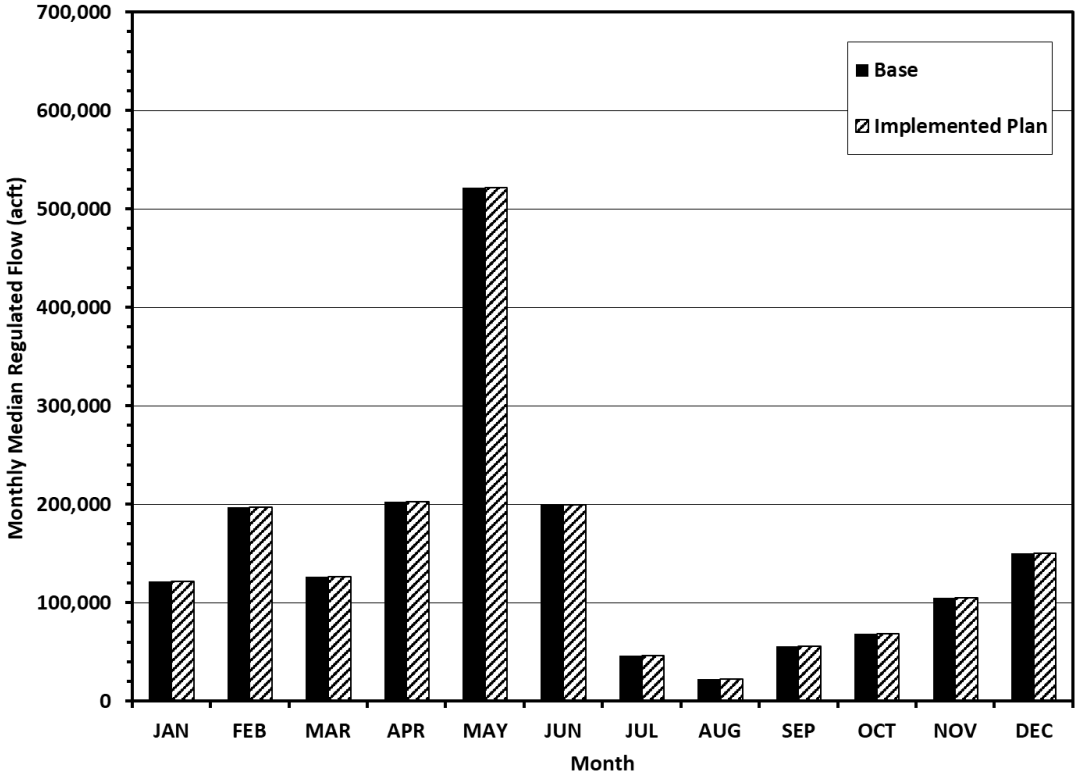
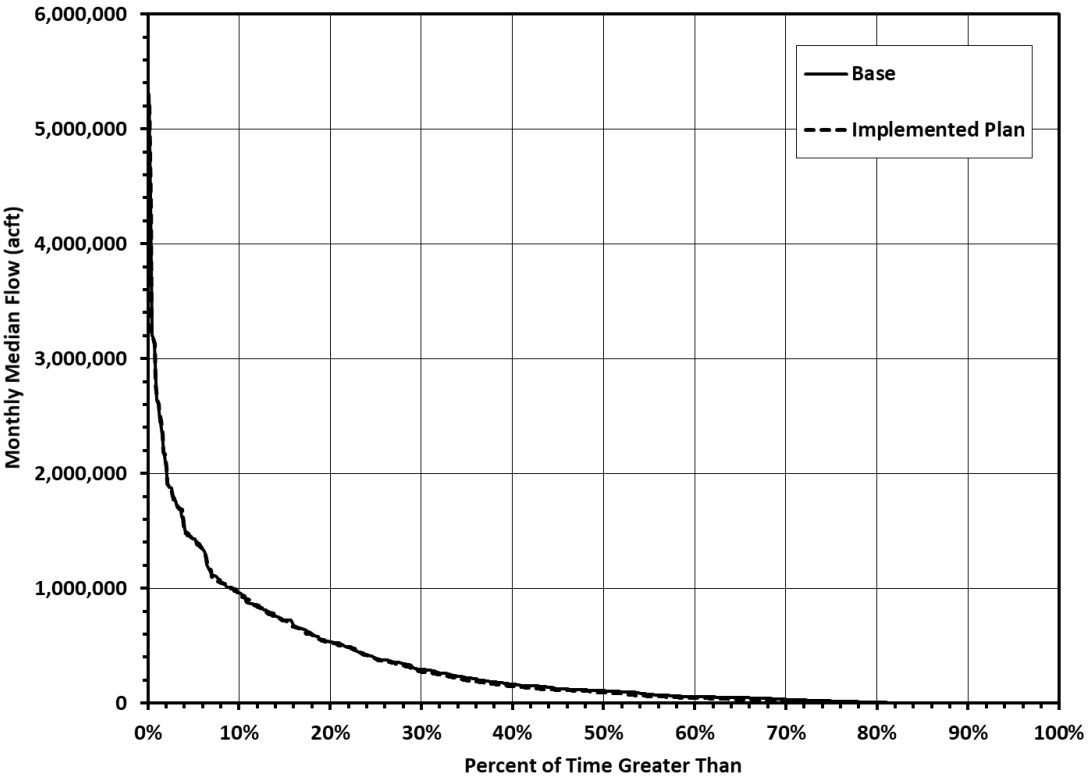


Figure 6-11. Effects of Plan Implementation on Streamflows – Brazos River at Gulf of Mexico





6.2 Summary of the Environmental Effects of the 2021 Brazos G Regional Water Plan

Overall, the strategies recommended in the 2021 Plan will have limited negative effects on the environment. The largest localized impacts will be from new reservoirs. New reservoirs recommended as strategies in the 2021 Plan (Lake Creek Reservoir, Cedar Ridge Reservoir, Throckmorton Reservoir, Lake Palo Pinto Enlargement, Clifton Reservoir Enlargement, Coryell County Off-Channel Reservoir, City of Groesbeck Off-Channel, and Brushy Creek Reservoir) will inundate more than 12,600 acres, reducing wildlife habitat, bottomland hardwood forestland and cultivated farmland as documented in the individual strategy evaluations (Volume II). Permitting for these projects will require mitigation land of at least equal ecological value, reducing the negative environmental consequences of the projects. Streamflows immediately downstream from these projects will decrease, but permit requirements will also specify reservoir pass-through flows necessary to maintain ecological health in the downstream receiving stream.

Many elements of the 2021 Plan augment existing resources and delay or eliminate the need for new constructed projects. For example, the BRA's System Operations will make better use of existing reservoir facilities and make available additional supply that previously would have only been made available through construction of a major water supply project. Utilization of water from the Colorado River Basin's Highland Lakes System in Williamson County reduces the need for new major water supply projects to serve Williamson County needs. The utilization of reuse water by several WUGs and WWPs will extend supplies and could delay the need for new raw water projects. Augmentation of Lake Granger through conjunctive use with an Aquifer Storage and Recovery (ASR) project maximizes the use of the existing reservoir facility.

Overall the strategies recommended in the 2021 Plan maximize use of existing resources and reduce the need for several large, costly reservoir projects, minimizing impacts to the environment.

6.3 Impacts of Recommended Water Management Strategies on Key Parameters of Water Quality and Moving Water from Rural and Agricultural Areas

The guidelines for 2021 Regional Water Plans include describing major impacts of recommended water management strategies on key parameters of water quality identified by the regional water planning group and consideration of third party social and economic impacts associated with voluntary redistribution of water from rural and agricultural areas.

6.3.1 Impacts of Water Management Strategies on Key Parameters of Water Quality

The Brazos G RWPG has identified the following eleven key parameters of water quality to consider for recommended water management strategies:

- Chlorides,
- Sulfates,

- Total Dissolved Solids (TDS),
- Total Suspended Solids (TSS),
- Dissolved Oxygen,
- pH Range,
- Indicator Bacteria (Escherichia coli or fecal coliform),
- Temperature,
- Nitrates,
- Total Phosphorous, and
- Total Nitrogen- ammonia.

The selection of key water quality parameters is based on Texas Surface Water Quality Standards Chapter 307, current water quality concerns identified in the Brazos River Authority's Basin Highlights Report, water user concerns expressed during Brazos G RWPG meetings, and regional water quality studies. Total Phosphorous and Total Nitrogen were selected based on nutrient concerns in the North Bosque Watershed and will be considered throughout the Brazos G Area.

The major impacts of recommended water management strategies on key parameters of water quality were identified by the Brazos G RWPG pursuant to Texas Administrative Code Chapter 357-Regional Water Planning Guidelines. The recommended water management strategies for the Brazos G Area and effects of the key water quality parameters are presented in Table 6-3.

Water quality concerns affecting existing supplies are described in greater detail in Chapter 3.3, which also includes a summary of special water quality studies and activities in the Brazos River Basin. These identified water quality concerns present challenges that may need to be overcome before a water management strategy can be used as a water supply. For water quality parameters that cannot be fully addressed due to lack of available information or inconclusive water quality studies, the Brazos G RWPG recommends further studies prior to implementing a water management strategy.

6.3.2 Impacts of Voluntary Redistribution of Water from Rural and Agricultural Areas

Several opportunities for voluntary redistribution exist for the Brazos G Area, such as supplying groundwater from the Carrizo-Wilcox Aquifer in Lee County to water users in Milam County. If there is increased groundwater pumping it could result in lowering of artesian levels in the Carrizo-Wilcox Aquifer and, consequently, may increase costs to pump water for water supply for rural and agricultural users.

The remaining water management strategies recommended to meet water needs (Chapter 5) do not include transferring significant quantities of water needed by rural and agricultural users and, therefore, are not considered to impact them.

Table 6-3. Summary of Water Management Strategies, Potential Water Quality Concerns, and WUGs Potentially Affected

Recommended WMS	Project Origination	Beneficiaries of Project	Potential Water Quality Concerns Affecting Use of Supply
Treated Effluent Reuse	Bell, Brazos, Grimes, Johnson, McLennan	Manufacturing (McLennan County) Steam-Electric (Brazos, Bell, Johnson and Grimes Counties) Municipal (Cities of Round Rock, Bryan, College Station, Cleburne, Waco, Bellmead, Lacy-Lakeview, Hewitt, Lorena, , Harker Heights, and Killeen and 439 WSC)	Indicator bacteria
Water Conservation	Varies	All municipal, industrial, and agricultural users with projected needs (shortages)*	Total dissolved solids, sulfates, and chlorides
Interbasin Transfer of Surface Water from Lower Colorado River Basin (Region K)			
BCRUA	Varies	Municipal (Leander, Liberty Hill, Round Rock and Cedar Park)	None identified
New Reservoirs			
Brushy Creek Reservoir	Falls	Municipal (City of Marlin)	None identified
Cedar Ridge Reservoir	Clear Fork	Municipal (City of Abilene)	None identified
Coryell County OCR	Coryell	Municipal (Gatesville and Multi-County WSC)	None identified
Groesbeck OCR	Limestone	Municipal (City of Groesbeck)	None identified
Lake Creek Reservoir	Throckmorton and Baylor	Municipal (North Central Texas Municipal Water Authority)	Total dissolved solids, sulfates, and chlorides from Brazos River diversion
Throckmorton Reservoir	Throckmorton	Municipal (City of Throckmorton)	None identified
Augmentation of Existing Surface Water Supplies			
Lake Aquilla Reallocation	Hill	BRA	None identified
Lake Whitney Reallocation	Bosque/Hill	BRA	None identified

Table 6-3. Summary of Water Management Strategies, Potential Water Quality Concerns, and WUGs Potentially Affected

Recommended WMS	Project Origination	Beneficiaries of Project	Potential Water Quality Concerns Affecting Use of Supply
Lake Granger ASR	Williamson	BRA	Increasing trends in sulfates, chlorides, elevated nutrients, and sedimentation from total suspended solids
Lake Granger Augmentation	Williamson	BRA	Increasing trends in sulfates, chlorides, elevated nutrients, and sedimentation from total suspended solids
Lake Georgetown ASR	Williamson	BRA	Increasing trends in sulfates, chlorides, elevated nutrients, and sedimentation from total suspended solids
Turkey Peak Dam – Lake Palo Pinto Enlargement	Palo Pinto	Municipal (Palo Pinto County MWD No. 1)	None identified
System Approaches			
BRA System Operations	Varies	Manufacturing (Bosque and Hill Counties); Steam/Electric (Bosque and Somervell Counties); Municipal (Bell County WCID #1, Bosque County-Other, Brandon-Irene WSC, City of Hillsboro, White Bluff community WS and Woodrow-Osceola WSC)	Chlorides, total dissolved solids, total suspended solids, and nutrients
Lake Belton-Lake Stillhouse Pipeline	Bell	BRA	None identified
Groundwater Development			
Blaine Aquifer	Stonewall, Knox	Mining (Stonewall, Knox counties); Irrigation (Knox County)	Chlorides and total dissolved solids
Brazos River Alluvium	McLennan	Mining, Irrigation	Chlorides and total dissolved solids
Carrizo-Wilcox Aquifer	Brazos, Lee, Robertson, Coryell, Erath, Falls, Limestone, Grimes	Mining (Limestone, Grimes counties); Irrigation (Robertson County); Municipal (West Brazos WSC, Tri-County SUD, Robertson County-Other, Bryan, Bistone MWSD, Heart of Texas)	Iron and manganese and temperature (deep wells only)
Dockum Aquifer	Fisher	Manufacturing; Mining	None identified

Table 6-3. Summary of Water Management Strategies, Potential Water Quality Concerns, and WUGs Potentially Affected

Recommended WMS	Project Origination	Beneficiaries of Project	Potential Water Quality Concerns Affecting Use of Supply
Edwards Aquifer	Bell, Nolan, Williamson	Irrigation (Williamson County); Manufacturing (Bell County); Mining (Bell and Nolan counties); Municipal (Bell County-Other, Brushy Creek MUD, Florence)	None
Trinity Aquifer	Bell, Bosque, Callahan, Comanche, Coryell, Erath, Hamilton, Hood, Somervell, McLennan, Lampasas, Eastland, Williamson	Mining (Callahan, Hamilton, Hood, Somervell, Comanche, Eastland, Coryell, Lampasas, Bell counties); Irrigation (Hamilton, Bosque, McLennan, Lampasas, Comanche, Eastland, Bell counties); Municipal (Bartlett, Florence, Comanche County-Other, Coryell County-Other, Erath County-Other, Hood County-Other	Chlorides and total dissolved solids
Gulf Coast Aquifer	Grimes, Brazos, Washington	Manufacturing (Brazos and Washington County); Steam-Electric (Grimes County);	None identified
Seymour Aquifer	Knox	Irrigation	Chlorides and total dissolved solids
Sparta Aquifer	Burleson	Manufacturing; Mining	Iron and manganese
Woodbine Aquifer	Hill, Johnson	Mining (Hill and Johnson counties); Municipal (Godley, Rio Vista, Hill County-Other)	Chlorides, total dissolved solids, iron and manganese
Yegua-Jackson Aquifer	Brazos	College Station	Chlorides and total dissolved solids

*For municipal users with shortages, additional conservation was recommended only for WUGs exceeding 140 gallons per capita per day

6.4 Social and Economic Impacts of Not Meeting Projected Water Needs

Section 357.7(4) of the rules for implementing Senate Bill 1 requires that the social and economic impacts of not meeting regional water supply needs be evaluated by regional water planning groups. The Texas Water Development Board (TWDB) has provided technical assistance by conducting the required analysis for the Brazos G Area using a methodology similar to that used for other regions.

The purpose of this element of Senate Bill 1 planning is to provide an estimate of the social and economic importance of meeting projected water needs or, conversely, to provide estimates of potential costs of not meeting the projected needs of each WUG. The social and economic effects of not meeting a projected water need can be viewed as the potential benefit to be gained from implementing a strategy to meet the particular need. The summation of all the impacts provides a view of the ultimate magnitude of the economic impacts of not meeting all the projected needs.

The analysis conducted by the TWDB is summarized in a report included in Appendix G. Note that the needs upon which the TWDB analysis is based are those needs identified in the water planning database as of September 4, 2019. Needs have changed in a few instances since that date as estimates of supplies and contractual commitments were refined during the planning process based on information provided by WUGs and WWPs after September 4, 2019. However, those changes are unlikely to have made a significant difference in the TWDB's analysis.

6.5 Needs Left Unmet in the 2021 Brazos G Regional Water Plan

6.5.1 Municipal Needs Unmet in 2020

For a water management strategy or project to meet needs in the first planning decade (2020), TWDB guidance requires that it be possible to implement prior to January 2023. In the 2021 Brazos G Regional Water Plan, needs remain unmet in 2020 for several municipal water user groups because the water management strategies and projects recommended for them cannot come online prior to January 2023. These are shown in Table 6-4.

For a regional water plan to be approved by the TWDB with any unmet municipal needs, Texas Administrative Code 357.50(j)(1-3) states that the regional water planning group includes adequate justification, including the following requirements:

"(1) documents that the RWPG considered all potentially feasible WMSs, including Drought Management WMSs and contains an explanation why additional conservation and/or Drought Management WMSs were not recommended to address the need;"

The BGRWPG identified no potentially feasible strategies that could be implemented prior to 2023 for these municipal WUGs.

The BGRWPG does not recommend advanced water conservation in 2020 because the benefits of such conservation practices will not be readily apparent in such a short period of time, i.e., prior to 2023, and would be unrealistic to include as a recommended strategy. In addition, conservation savings alone would be unable to meet these projected needs in 2020.

The BGRWPG also does not recommend Drought Management as a recommended water management strategy to meet needs. Drought management measures reduce water demands during times of drought, and do not make more efficient use of existing resources, as does conservation. Applying drought management measures is equivalent to not meeting the projected water demands, per our explanation in Chapter 7 (section 7.6), and the BGRWPG prefers to show the needs projected for municipal WUGs in 2020 as not being met during a drought equivalent to the drought of record rather than artificially showing them as met by reducing demands during drought.

"*(2) describes how, in the event of a repeat of the Drought of Record, the municipal WUGs associated with the unmet need shall ensure the public health, safety, and welfare in each Planning Decade that has an unmet need; and*"

While the BGRWPG does not recommend Drought Management as a water management strategy to meet projected needs for municipal WUGs, the BGRWPG recognizes that such measures will be implemented by utilities as outlined in their individual Drought Contingency Plans. These measures can prolong supply and reduce impacts to communities by limiting water use to only essential water uses in order to protect public health, safety and welfare.

The Brazos G Area is vast with many relatively isolated communities with limited water supply alternatives. If Drought Management were to be recommended, this could provide a false sense of security that "needs are met", when, in actuality, projected water demands would not be met. In the event of a drought worse than the drought of record, this approach could further imperil a community because the benefits of drought management have already been realized in the plan and there are no additional management strategies that can be employed in response to the drought.

"*(3) explains whether there may be occasion, prior to development of the next IPP, to amend the RWP to address all or a portion of the unmet need.*"

There will be limited opportunity or need to amend the 2021 Plan prior to development of the next initially prepared plan to address the unmet municipal needs. The 2021 Brazos G Regional Water Plan includes unmet municipal needs only in 2020. Any amendments would have to be accomplished and include strategies that would come online prior to 2023, and identification of those strategies is unlikely.

6.5.2 Non-Municipal Needs Unmet

The Brazos G RWPG has opted to leave certain projected needs unmet for some county-aggregated non-municipal WUGs in the 2021 Brazos G Regional Water Plan for the following reasons. Table 6-4 lists those unmet non-municipal needs.

Irrigation

- No economically viable supply can be developed.

Manufacturing

- Small need in 2020 only.

Mining

- No reasonable supply can be developed.
- Small need in 2020 or 2030 only.

Steam-Electric

- Small need in 2020 only.
- Water demand overstated due to shut down of facilities (Milam County).
- Plans for new generation facility abandoned (Hill County, Somervell County).

Table 6-4. Needs for WUGs Left Unmet in the 2021 Brazos G Regional Water Plan

County	Water User Group	Needs Left Unmet (acft/yr)					
		2020	2030	2040	2050	2060	2070
Municipal WUGs							
Stonewall	Aspermont	39					
McLennan	County-Other	222					
Williamson	County-Other	32					
Coryell	Fort Gates	260					
Coryell	Gatesville	1,041					
Bell and Williamson	Georgetown	10,307					
Young	Graham	1,457					
Limestone	Groesbeck	688					
Haskell	Haskell	477					
McLennan	Hewitt	480					
Williamson	Hutto	907					
Knox	Knox City	226					
Lampasas	Lampasas	128					
Palo Pinto	Mineral Wells	342					
Knox	Munday	242					
Brazos	Texas A&M University	99					
Throckmorton	Throckmorton	135					

Table 6-4. Needs for WUGs Left Unmet in the 2021 Brazos G Regional Water Plan

County	Water User Group	Needs Left Unmet (acft/yr)					
		2020	2030	2040	2050	2060	2070
Non-Municipal WUGs							
Comanche	Irrigation	14,114	12,382	11,707	11,739	11,707	11,738
Haskell	Irrigation	14,932	13,881	10,540	10,809	11,711	11,825
Knox	Irrigation	13,160	14,678	10,394	8,418	7,954	10,147
Nolan	Irrigation	7,890	7,659	7,428	7,428	7,428	7,428
Robertson	Irrigation	10,476	12,222	11,521	12,106	12,217	12,309
Stephens	Irrigation	86	83	80	80	80	80
Wiliamson	Irrigation				146	146	146
Bell	Manufacturing	123					
Bosque	Mining	360	414	207	188	152	141
Haskell	Mining	90	87	77	69	61	55
Hill	Mining	187					
Lee	Mining	1					
Limestone	Mining	6,849	6,271	6,016	6,457	6,891	7,467
Shackelford	Mining	336	501	309	201	95	16
Somervell	Mining		44				
Stephens	Mining	3,323	3,295	2,557	1,968	1,440	990
Taylor	Mining	245					
Williamson	Mining	4,567	5,493	6,407	7,515	8,656	9,962
Hill	Steam-Electric	4,120	4,120	4,120	4,120	4,120	4,120
Milam	Steam-Electric	32,254	32,254	32,254	32,254	32,254	32,254
Somervell	Steam-Electric	35,387	34,783	34,879	34,975	35,071	35,167
Total Municipal		**17,082**					
Total Irrigation		**60,658**	**60,905**	**51,670**	**50,726**	**51,243**	**53,673**
Total Manufacturing		**123**					
Total Mining		**15,958**	**16,105**	**15,573**	**16,398**	**17,295**	**18,631**
Total Steam-Electric		**71,761**	**71,157**	**71,253**	**71,349**	**71,445**	**71,541**
Total Brazos G		**165,582**	**148,167**	**138,496**	**138,473**	**139,983**	**143,845**

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7

Drought Response Information, Activities and Recommendations

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7 Drought Response Information, Activities and Recommendations

Droughts are of great importance to the planning and management of water resources in Texas. Although droughts can occur in all climatic zones, they have the greatest potential to become catastrophic in dry or arid regions such as West and Central Texas. It is not uncommon for mild droughts to occur over short periods of time in Texas; however, there is no certain way to predict how long or severe a drought will be while it is occurring. The only defense available in drought prone areas such as the Brazos G Area is proper planning and preparation for worst case scenarios. This requires understanding of drought patterns and the historical droughts in the region.

Due to significant population growth throughout Texas, which is expected to continue in the Brazos G Area based on Texas Water Development Board (TWDB) projections, the demand for water has increased. With growing demand and the threat of climate change contributing to water scarcity, planning is even more important to prevent shortages, deterioration of water quality and lifestyle/financial impacts on water suppliers and users. This chapter presents information on drought preparedness in the Brazos G Area, including regional droughts of record, current example drought contingency plans, emergency interconnects, and responses to local drought conditions, and methods to estimate available water supplies in the region.

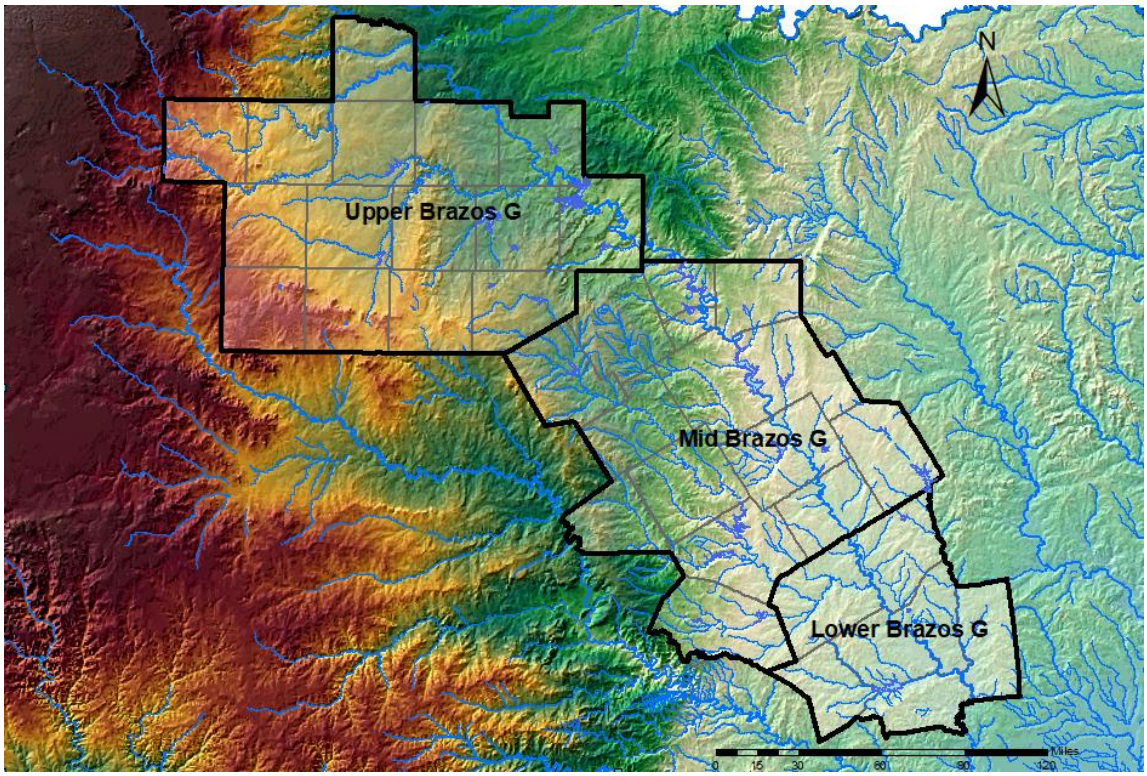
7.1 Droughts of Record in the Brazos G Area

7.1.1 Background

One of the best tools in drought preparedness is a thorough understanding of the drought of record (DOR), or the worst drought to occur for a particular area during the available period of hydrologic data. However, there are many ways that the “worst drought” can be defined (degree of dryness/severity, duration, relative soil moisture content, agricultural impacts, socioeconomic impacts, etc.). Regional water planning focuses on hydrological drought, which is typically the type of drought associated with the largest shortfalls in surface and/or subsurface water supply. The frequency and severity of hydrological drought is often defined on a watershed or river basin scale, although it could be different from one area to the next, even within a planning region.

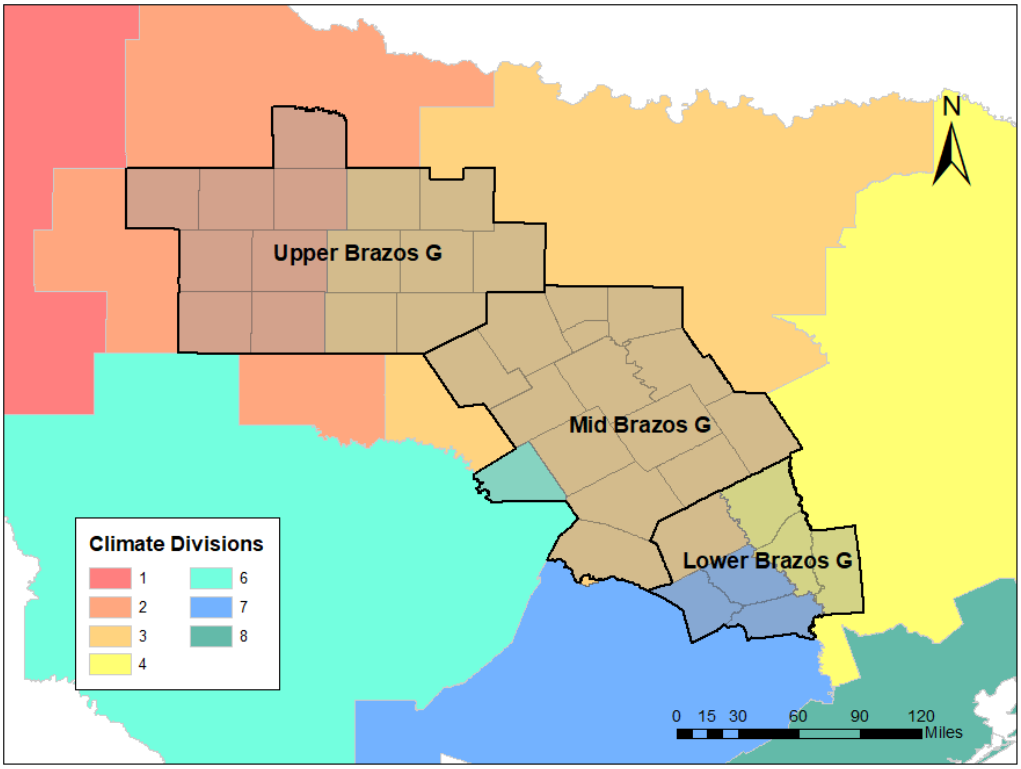
The Brazos G Area encompasses all or parts of 37 counties and stretches from Kent County in the northwest to Grimes County in the Southeast, this means that it is a very hydrologically, geographically, and physiographically diverse area. Due to this, Brazos G was divided into three smaller areas to assess the drought of record. The northernmost area, referred to as Upper Brazos G, is made up of Palo Pinto, Stephens, and Eastland counties, and all counties to their northwest. The middle area, referred to as Mid Brazos G, contains all of the counties south of Stephens and Palo Pinto, and north of Milam and Robertson. The southernmost area, referred to as Lower Brazos G, is made up of Milam, Robertson, Lee, Burleson, Brazos, Washington, and Grimes counties. Figure 7-1 depicts these three areas.

Figure 7-1. Map of Brazos G Sub-Areas



Texas is divided into ten climate divisions by the National Oceanic and Atmospheric Administration (NOAA), which are regions with consistent climatological behaviors. Figure 7-2 shows Brazos G in relationship to these climate divisions with the majority lying within Climate Division 3, but also intersecting Divisions 2, 4, 6, and 7. It is necessary to consider these divisions as numerous drought indices are calculated based on these divisions.

Figure 7-2. Map of Brazos G Climate Divisions



7.1.2 Current Drought of Record

In terms of severity and duration, the devastating drought of the 1950s generally is considered the drought of record for most of Texas, including most of the Brazos G Area. By 1956, 244 of the 254 counties in the state were considered disaster areas. At that time, the 1950s' drought included the 2nd, 3rd, and 8th driest years on record (1956, 1954, and 1951, respectively). This drought lasted almost a decade in many places and affected numerous states across the nation. The 1950s' drought kick-started Texas's water supply planning effort and has been used by water resource engineers and managers as a benchmark drought for water supply planning. However, Texas has experienced two recent droughts centered around 2006 and 2011 that were significant enough to necessitate considering them as DORs for the Brazos G Area. In 2011, severely decreased precipitation resulted in substantial declines in streamflow throughout Texas. Record high temperatures also occurred June through August leading to an increase in evaporation rates. The evaporation was so great that by August 4, 2011, state climatologist John Nielson-Gammon declared 2011 to be the worst 1-year drought on record in Texas. The 2011 water year statewide annual precipitation was 11.27 inches, more than 2 inches less than the previous record low of 13.91 inches in 1956.

7.1.3 Drought Indicators

Several techniques can be used to assess the effect of a drought assessing parameters such as severity, duration and spatial extent. As previously mentioned, there are numerous ways that the "worst drought" can be defined, and it is important to consider multiple methods of assessing a drought. The Palmer Drought Severity Index, analysis of results

from water availability modeling, analysis of historical naturalized streamflows, and evaluation of parameters used to develop groundwater availability models can be incorporated into planning efforts and are discussed in more detail below.

Palmer Drought Severity Index (PDSI)

The Palmer Drought Severity Index (PDSI), first published in 1965, was one of the first comprehensive efforts using precipitation and temperature for estimating the moisture of a region. Using monthly temperature and precipitation data along with the moisture capacity of soils, the PDSI takes into account previous months water balance to more accurately track drought over time. NOAA publishes weekly and monthly PDSI maps by climate division for the Contiguous United States, going as far back as 1895. This makes it a widely used and robust tool to monitor long term drought conditions. PDSI values can range from -10 to 10, with negative values indicating dry conditions. Ranges assigned to drought levels are summarized in Table 7-1.

Table 7-1. PDSI Value Ranges

PDSI Value Range	Drought/Moisture Level
Less than -4	Extreme Drought
-4 to -3	Severe Drought
-3 to -2	Moderate Drought
-2 to 2	Mid-Range
2 to 3	Moderately Moist
3 to 4	Very Moist
Greater than 4	Extremely Moist

As stated earlier, most of Brazos G lies in Texas Climate Division 3. Figure 7-3 shows annual PDSI values for Texas Climate Division 3. While the 1908 and the more recent drought in the early 21st century were severe, the drought of the 1950s was the most intense over a longer period of time, supporting the continued use of this drought as the drought of record for Brazos G. However, the eight most upstream counties in Brazos G are in Texas Climate Division 2. Figure 7-4 shows that while the drought of the 1950s has, to this point, lasted longer than the most recent drought, the PDSI in 2011 is more severe than the PDSI in 1956. The available information is not strong enough to change the drought of record, but it is worth noting the intensity of 2011.

Figure 7-3. Historical Palmer Drought Severity Indices: Division 3

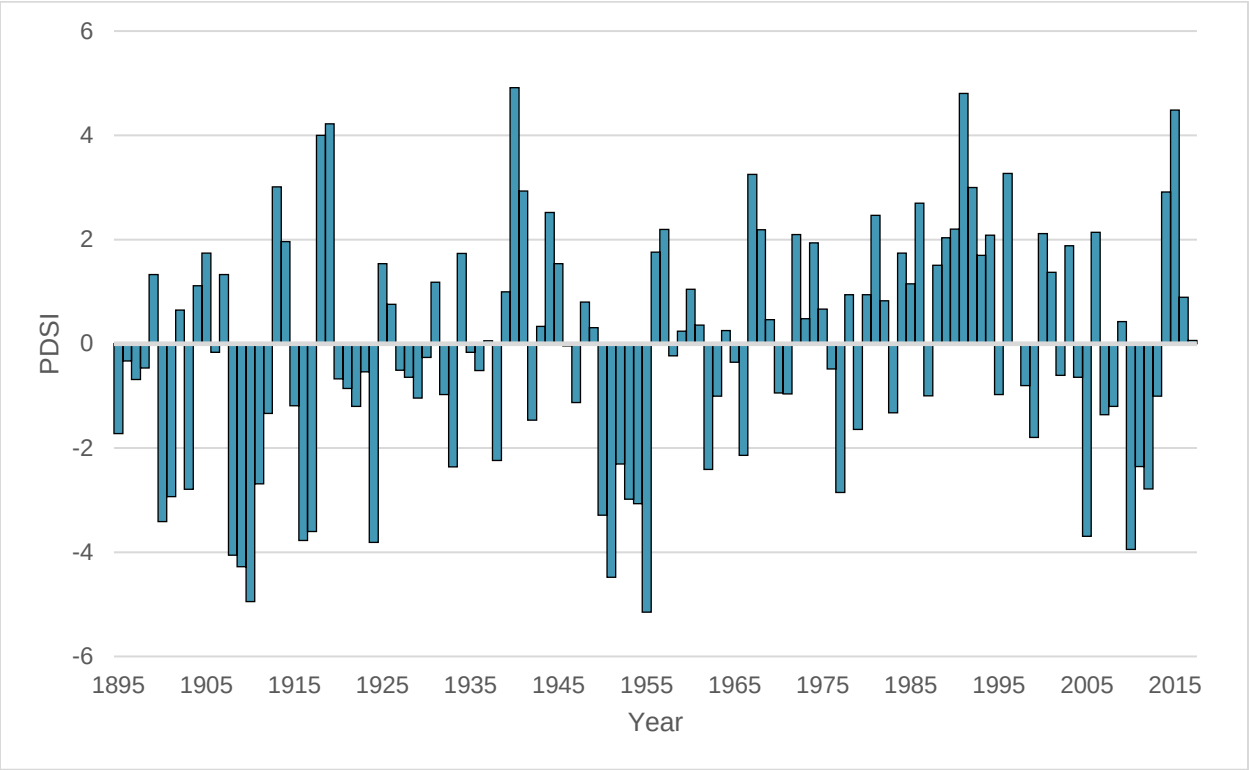
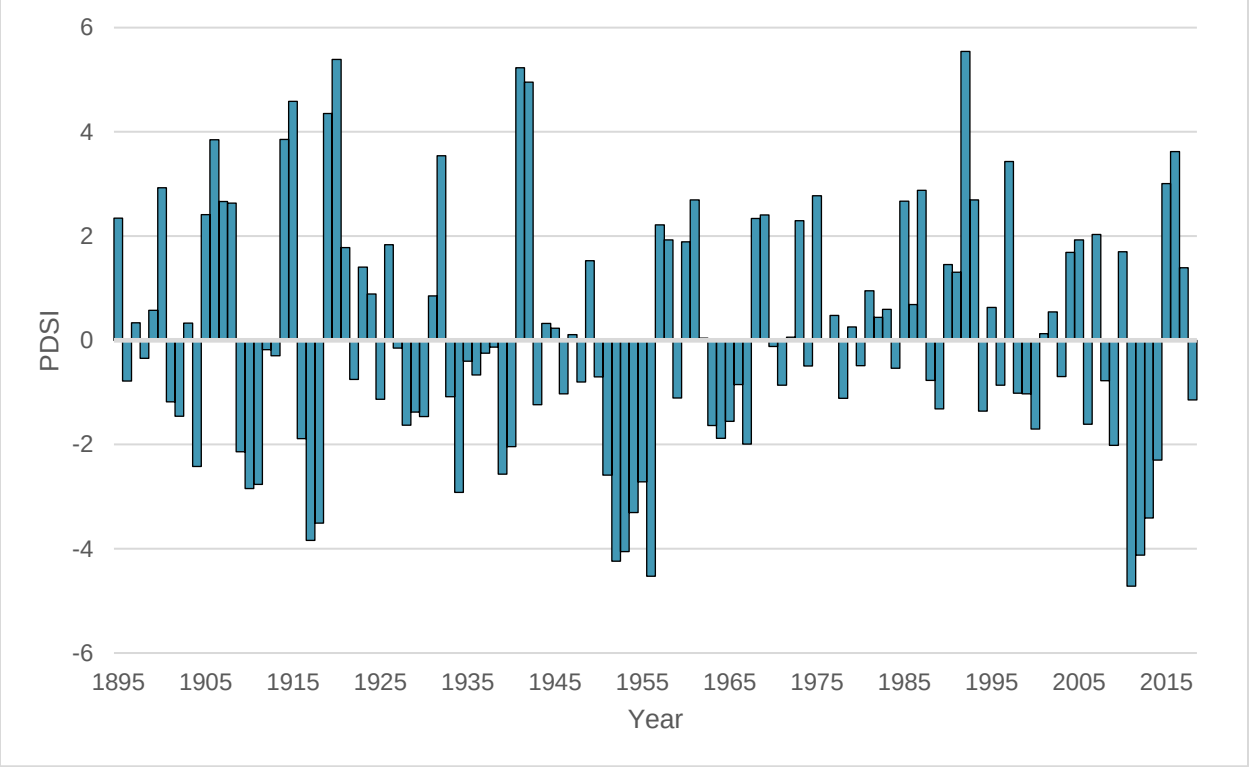


Figure 7-4. Historical Palmer Drought Severity Indices: Division 2



The differences between the two climate divisions further emphasizes the importance of dividing Brazos G into sub-areas. One way to address varying Climate Divisions and sub-regions is to incorporate a weighted average of Climate Division PDSI values within the sub-areas. Figure 7-5, Figure 7-6 and Figure 7-7 show the historical weighted PDSI values by sub-area. As can be seen in all of the sub-areas, the 1950s drought is longer and more intense than any other drought period. This indicates that the 1950s drought should be used as the drought of record when considering the PDSI.

Figure 7-5. Historical Weighted Average Palmer Drought Severity Indices: Upper Brazos G

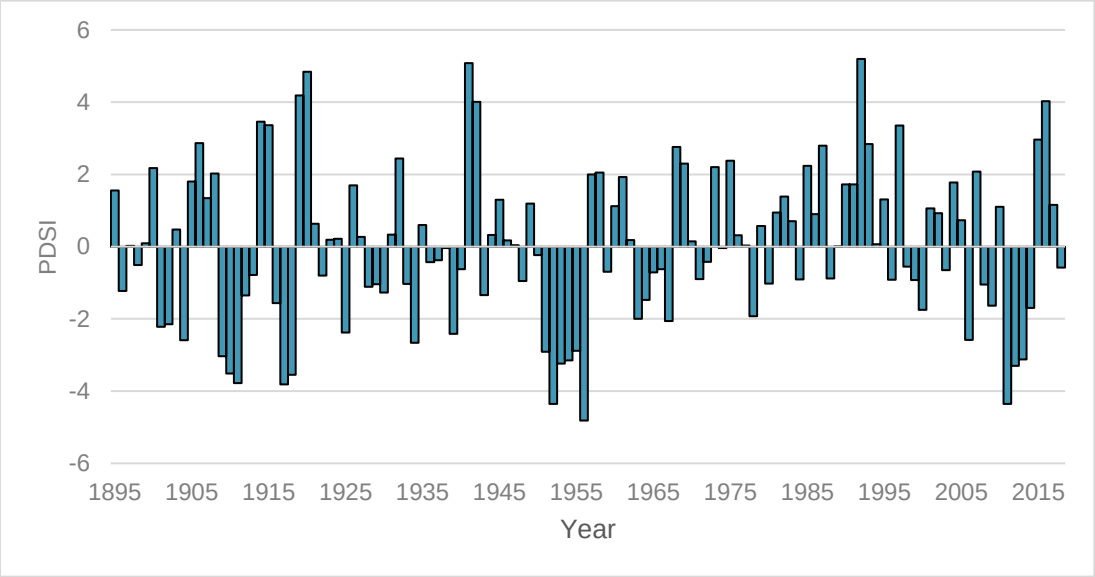


Figure 7-6. Historical Weighted Average Palmer Drought Severity Index: Mid Brazos G

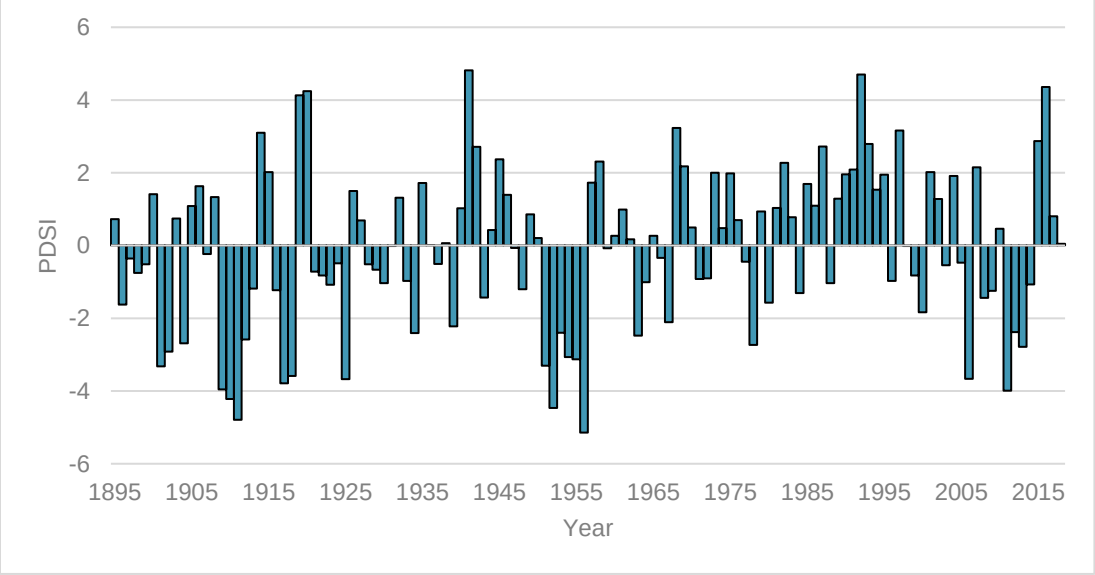
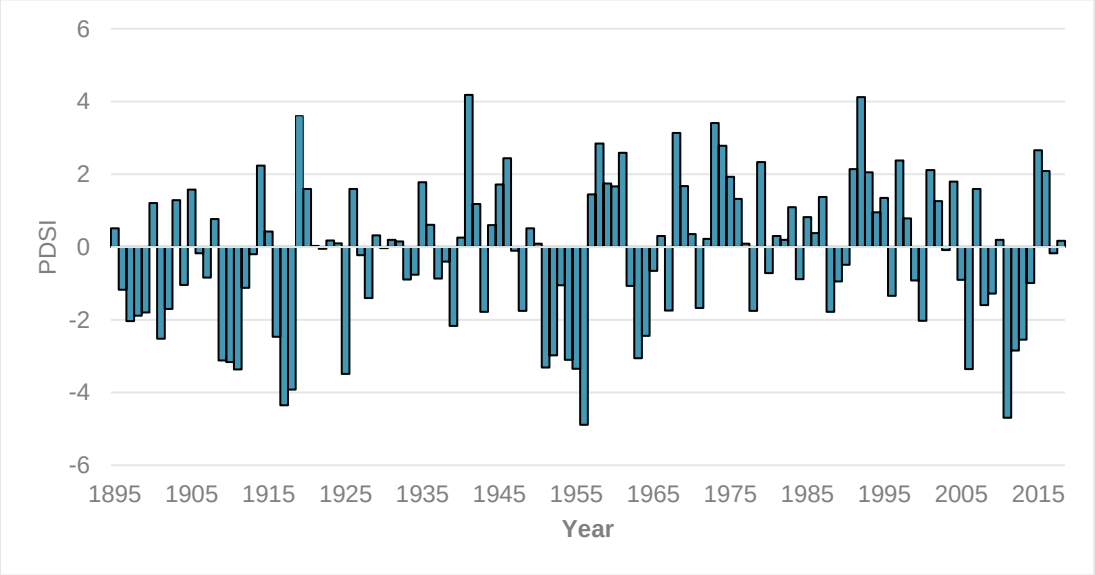


Figure 7-7. Historical Weighted Average Palmer Drought Severity Index: Lower Brazos G



Water Availability Modeling

Engineers and planners often use surface water models to demonstrate the effects of historical droughts on water supply. Effects can be more readily observed on surface water than groundwater. Reservoir supplies that were not in place during historic droughts can be assessed using historic hydrology and these modeling tools. The primary tool used in regional planning in Texas to observe the performance of reservoirs under historic drought conditions is the Texas Commission on Environmental Quality (TCEQ) water availability model (WAM). The WAM is the tool used to determine the available flow, firm yield, and safe yield of surface water projects in the regional water plan. The Brazos River Basin WAM (Brazos WAM) was updated to include hydrologic information from 1940 through 2015, and is referred to as the Brazos G WAM.

The extended Brazos G WAM was used to analyze the DOR for each reservoir in the Brazos G Area, as shown in Table 7-2. The DOR is considered for a reservoir as the period in which the critical month (month with lowest storage) occurs during a firm yield simulation. In the Middle Brazos G Area, twelve out of fourteen reservoirs still have the 1950s' drought as their DOR and in the Lower Brazos G Area, four out of six have the 1950s' drought as their DOR. This supports the continued use of the 1950s' drought as the DOR for reservoirs in the Lower and Middle Brazos G Areas. However, with the extended years of data of the Brazos G WAM, the most recent drought that broke in 2015 is supported as the DOR for the Upper Brazos G Area. In the Upper Brazos G area, nine out of fourteen reservoirs indicate the 2015 drought as their DOR and zero of the reservoirs indicated the 1950s' drought as their DOR. This indicates that the 1950s' drought is no longer the best representation of the DOR for the Upper Brazos G Area.

Table 7-2. Drought of Record Based on Reservoir Firm Yield Analysis

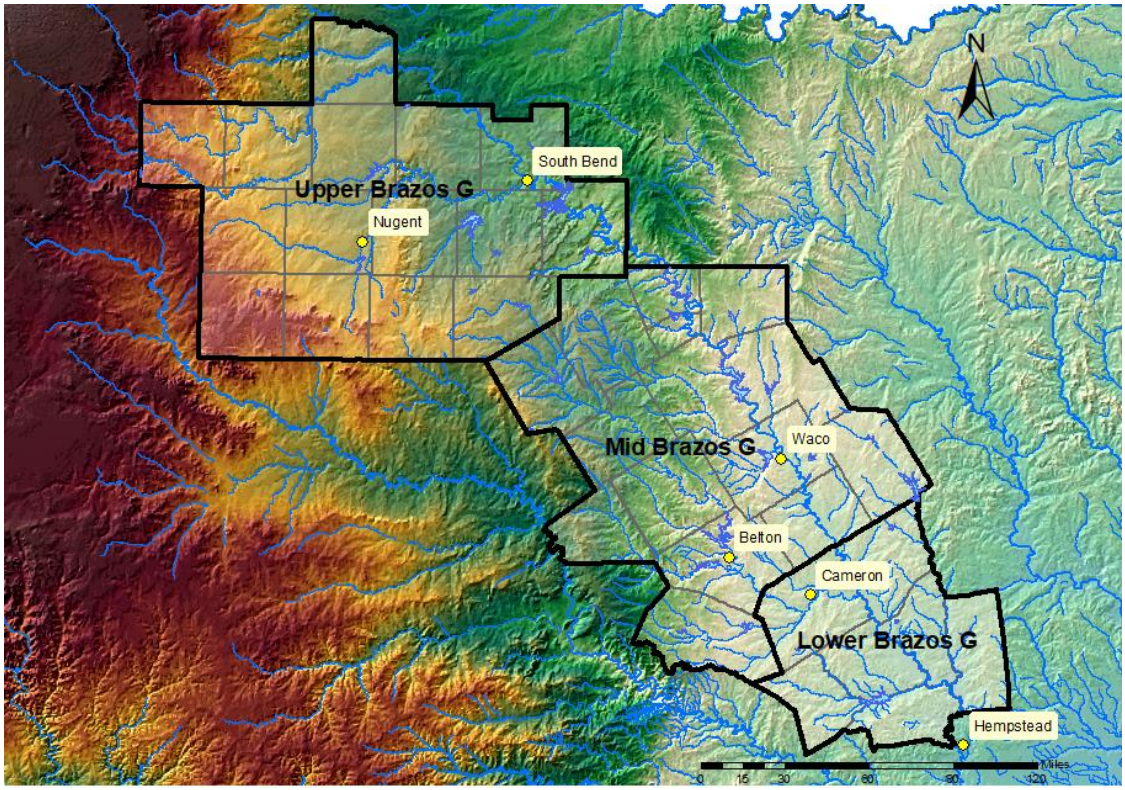
	Reservoir	County	Critical Year	Critical Month	New DOR?
Upper Brazos G	Hubbard Creek Reservoir	Shackelford, Stephens	2015	4	Yes
	Lake Abilene	Taylor	2014	12	Yes
	Lake Cisco	Eastland	1981	9	Yes
	Lake Daniel	Stephens	2004	10	Yes
	Lake Davis	Knox	2004	11	Yes
	Lake Fort Phantom Hill	Jones	2015	4	Yes
	Lake Graham	Young	2004	10	Yes
	Lake Kirby	Taylor	2014	12	Yes
	Lake Leon	Eastland	2015	4	Yes
	Lake Palo Pinto	Palo Pinto	2015	2	Yes
	Lake Stamford	Haskell	2014	4	Yes
	Lake Sweetwater	Nolan	2015	2	Yes
	Millers Creek Reservoir	Throckmorton, Baylor	2004	11	Yes
	Possum Kingdom Lake	Stephens, Young, Palo Pinto	2015	3	Yes
Middle Brazos G	Aquilla Lake	Hill	1957	3	No
	Belton Lake	Bell, Coryell	1957	2	No
	Granger Lake	Williamson	1957	2	No
	Lake Creek Lake	McLennan	1957	1	No
	Lake Georgetown	Williamson	1957	2	No
	Lake Granbury	Hood	2015	2	Yes
	Lake Mexia	Limestone	1952	1	No
	Lake Pat Cleburne	Johnson	1957	2	No
	Lake Waco	McLennan	1957	2	No
	Lake Whitney	Bosque, Hill, Johnson	1952	10	No
	Proctor Lake	Comanche	2015	2	Yes
	Squaw Creek Reservoir	Somervell, Hood	1957	3	No
	Stillhouse Hollow Lake	Bell	1957	2	No
	Tradinghouse Creek Reservoir	McLennan	1957	2	No
Lower Brazos G	Lake Limestone	Robertson, Leon, Limestone	1964	12	Yes
	Alcoa Lake	Milam	1956	10	No
	Gibbons Creek Reservoir	Grimes	1956	11	No
	Somerville Lake	Washington, Lee, Burleson	1957	2	No
	Twin Oak Reservoir	Robertson	1957	4	No

Naturalized Streamflow

Naturalized streamflow data can be used as an indicator of drought. Streamflow as an indicator tends to be more sensitive to short-term drought than reservoir modeling due to its lack of storage. To analyze the health of runoff-dependent streams in the basin, naturalized streamflows were obtained from the Brazos WAM at the six locations shown in Figure 7-8. Naturalized flows represent flows that would have been in the stream naturally without the influences of water management activities such as diversions, reservoir operations and wastewater discharges.

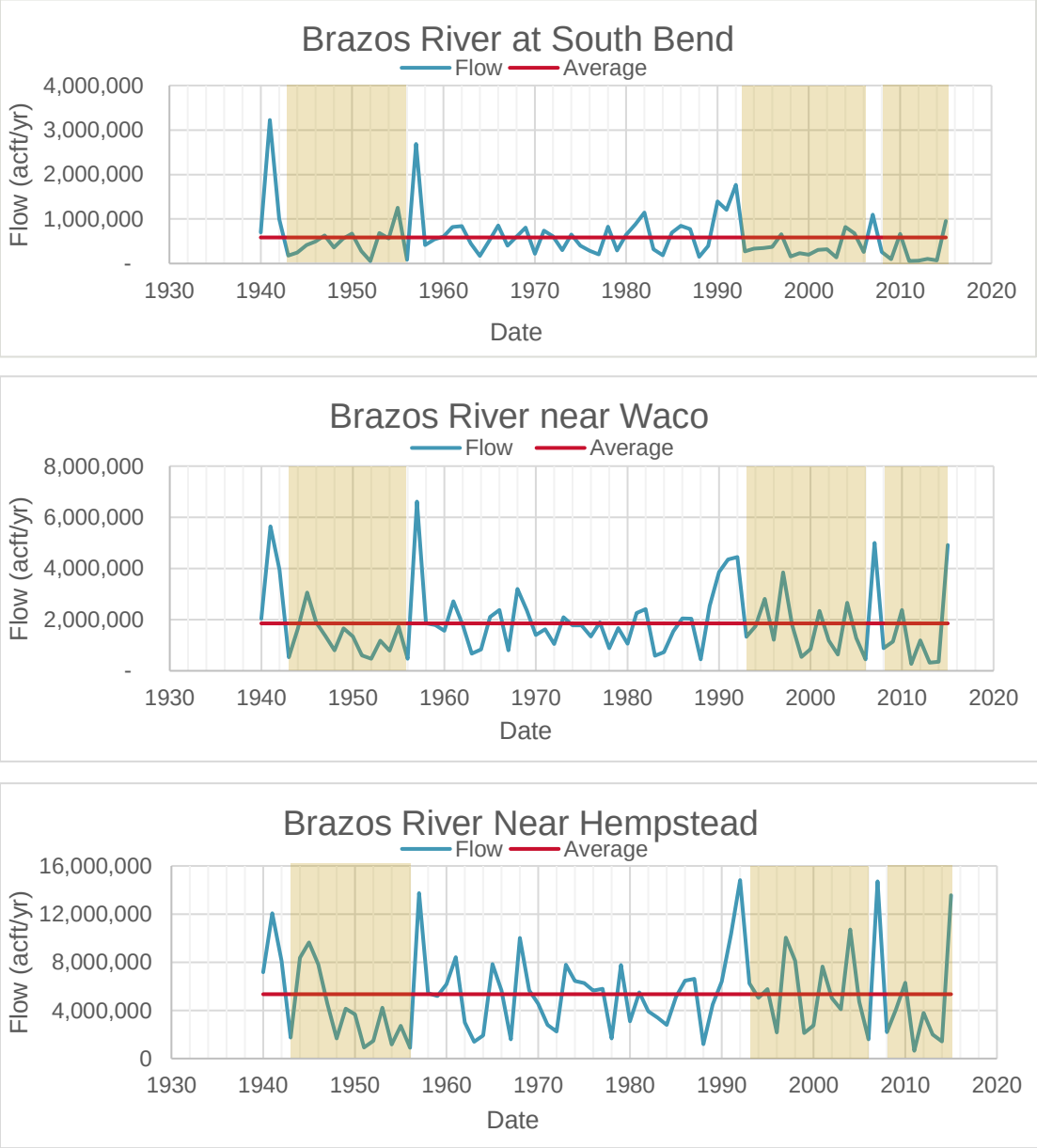
Two monitoring sites were chosen in each of the three Brazos G sub-areas. In each area, one site is a tributary and one is on the main stem of the Brazos River. In Upper Brazos G, sites were chosen on the Clear Fork at Nugent, and on the Brazos River near South Bend. Sites were chosen on the Leon River near Belton and on the Brazos River at Waco for Mid Brazos G. For Lower Brazos G, sites were chosen on the Little River at Cameron and on the Brazos River near Hempstead. These specific sites were selected due to the completeness of the USGS gage data upon which the flow naturalization is based.

Figure 7-8. Sites Selected for Naturalized Streamflow Analysis



Annual naturalized flows at the three main stem sites are shown graphically in Figure 7-9 and numerically in Table 7-3. These graphs and table compare annual flows to the mean flow for the entire time period (1940-2015). The graphs illustrates the amount of time the streams spent below the long-term mean flow during the three severe drought periods identified. In the Upper, Lower, and Middle Brazos G areas the 2010s' drought is the one for which the Brazos River spent the highest percentage of time below the long-term mean flow, indicating that a greater severity than the other two drought periods. However, the 2010s' drought was much shorter than both the 1950s' drought and the 2000s' drought. In Upper Brazos G, the 2000s' drought had the most total time spent below the long-term average while in the Mid and Lower Brazos G Areas, the 1950s' drought had the most total time spent below the long-term average.

Figure 7-9. Annual Naturalized Flows at Three Sites on the Main Stem of the Brazos River



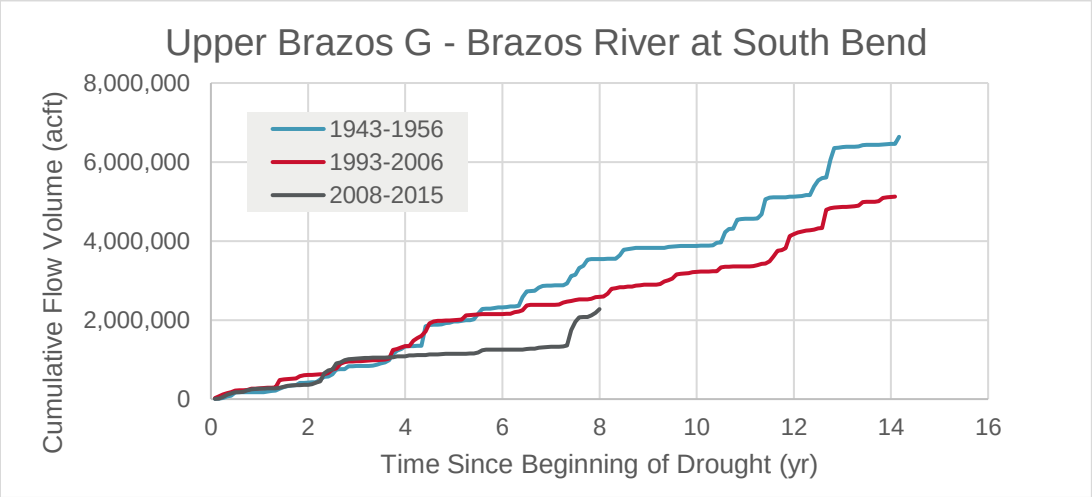
Note: Shaded regions correspond to the 1950s', 2000s', and 2010s' droughts

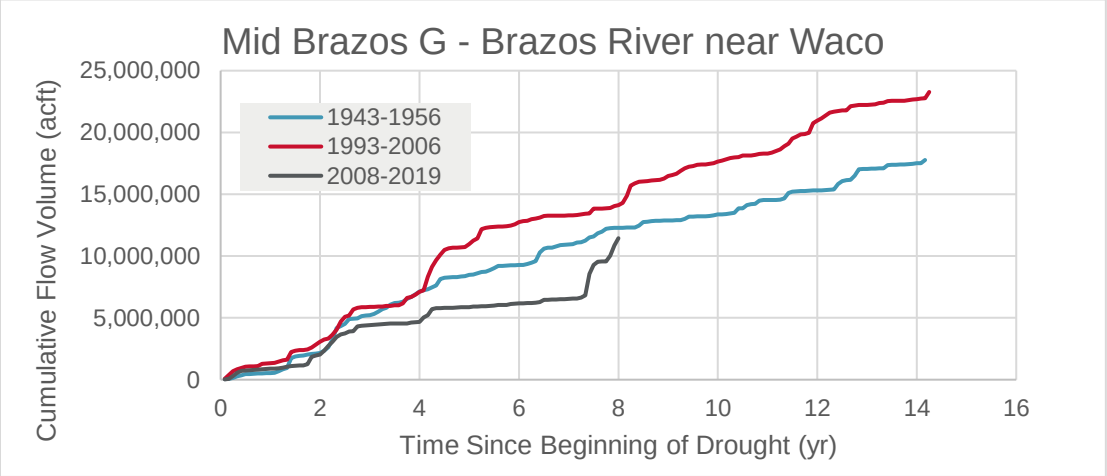
Table 7-3. Percent of Time the Brazos River is Below Mean Annual Flow for Three Drought Periods

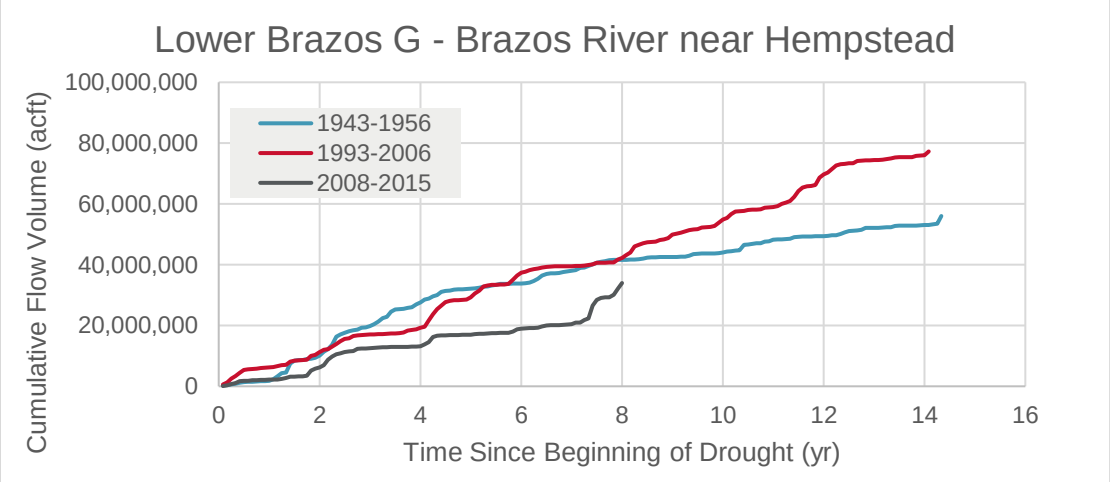
Brazos G Sub-Area	Location	1950s drought	2000s Drought	2010s Drought
Upper	Brazos River at South Bend	78.8%	84.8%	93.9%
Middle	Brazos River near Waco	77.6%	71.5%	84.1%
Lower	Brazos River near Hempstead	75.8%	65.8%	82.9%

The severity of each drought is illustrated in Figure 7-10, which presents cumulative streamflows measured at each of the aforementioned locations. In the figure, cumulative streamflows since drought initiation are compared for three drought periods: 1943 – 1956, 1993 – 2006, and 2008 – 2015. While the 2011 drought year and recent years were very severe and can provide helpful information to water planners and managers throughout the state, it broke in May of 2015 after only seven years. The duration of the 1950s' drought (13 years) combined with the overall severity of it in the Brazos G Area suggests that it is still a valid choice as the DOR for regional planning purposes in the Lower and Middle Brazos G areas. For the Upper Brazos G Area, cumulative streamflow data suggests that the drought ending in 2006 was dryer and lasted just as long as the 1950s drought, indicating that it should be considered to be the new drought of record for streamflow (useful for evaluating run-of-river water rights) in the Upper Brazos G area.

Figure 7-10. Cumulative Naturalized Streamflow for Three Drought Periods for Upper, Mid, & Lower Brazos G

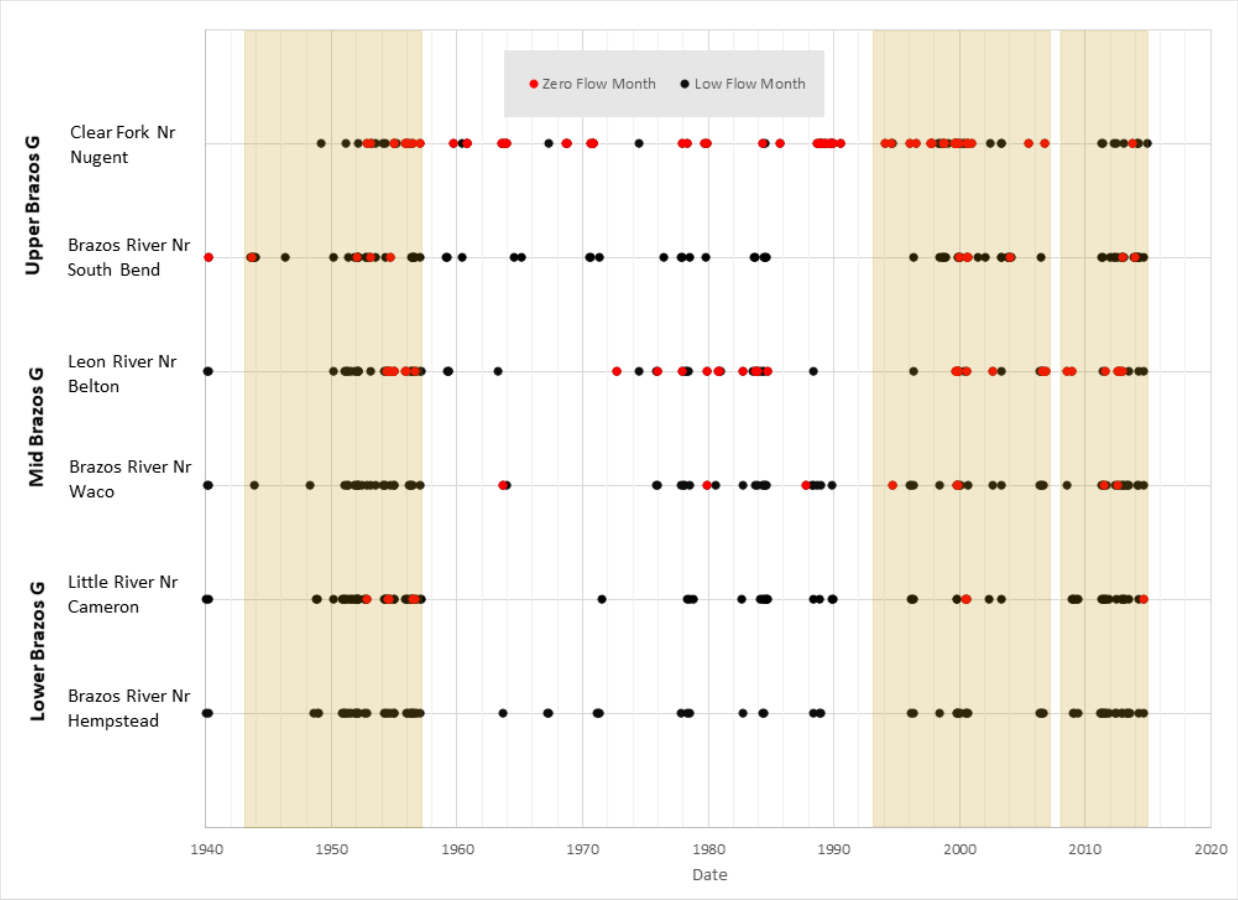






A comparison of low-flow periods for each of the six selected stream locations was also performed and is shown in Figure 7-11 below. For this graph, a low-flow period is a month below the ten percent of the average flow for each month. This comparison highlights each of the drought periods, shows which sites spent the most time in low-flow conditions, and which site spent the most time at zero flow. For all of the streams selected in Lower and Mid Brazos G, the 1950s' drought was the most severe. In Upper Brazos G the Clear Fork at Nugent's most severe period was the drought from 1993-2006 and the Brazos River near Southbend had its most severe period during the 1950s' drought. This further supports the use of the 1950s' drought as the DOR in the Lower and Mid regions and is inconclusive as to which drought should be used as the DOR in the upper region.

Figure 7-11. Comparison of Low-Flow Periods for Six Selected Locations



Note: Shaded regions correspond to the 1950s', 2000s', and 2010s' droughts

Groundwater

Groundwater systems continually adjust to changes in climate, water withdrawal, and land use. Certain aquifers are more drought sensitive than others based on a multitude of factors including land type, recharge rates, and discharge rates. Sensitivity analyses can provide information on how different variables affect aquifer conditions. An aquifer is susceptible to drought if a small change in the inflow or outflow greatly affects the water level of the aquifer. Sensitivities to drought for aquifers in Brazos G range from very low to high. A very low sensitivity implies that small changes in the inflow or outflow do not cause a significant change in aquifer conditions while a high sensitivity implies that small changes

in the inflow or outflow cause a significant change aquifer conditions. Table 7-4 presents drought sensitivity assessments obtained from the TWDB groundwater availability modeling (GAM) reports. The Edwards BFZ, Seymour, Trinity, Brazos River Alluvium, and Woodbine aquifers were found to be the most drought susceptible with sensitivities ranging from moderate to high.

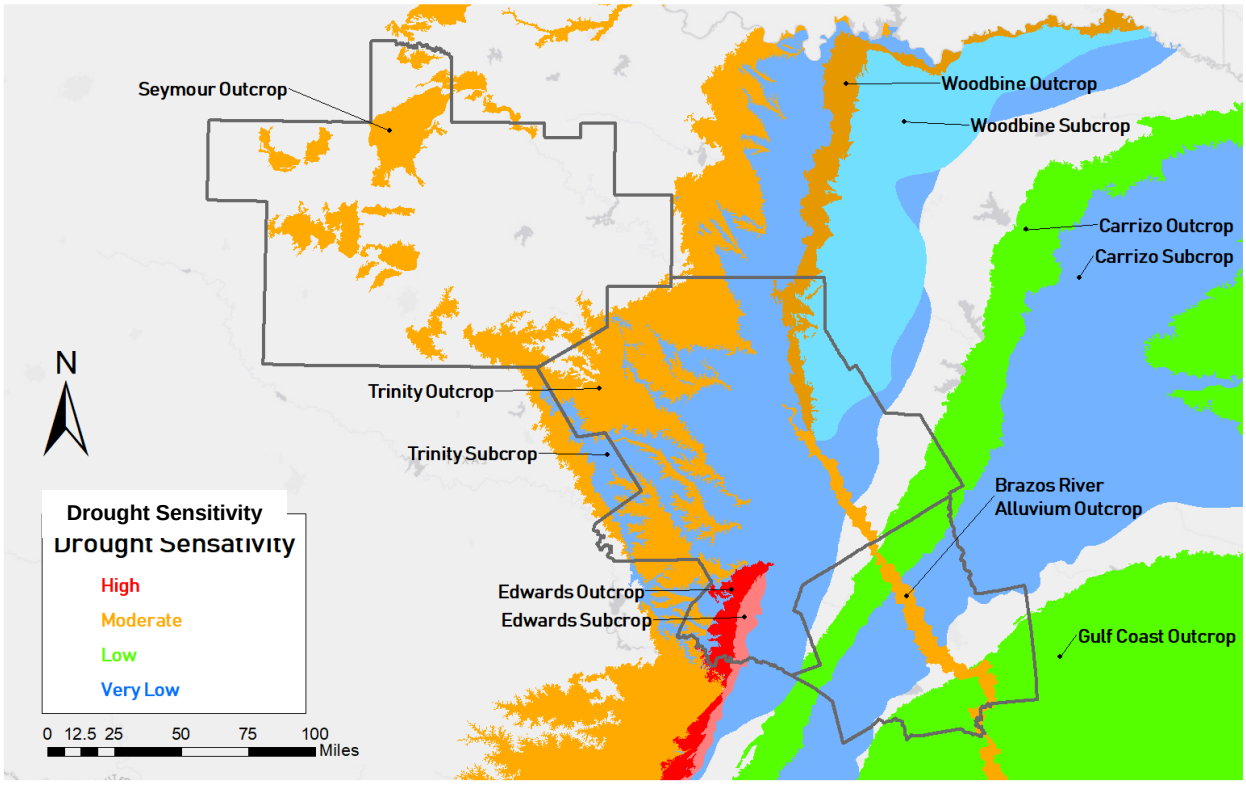
Table 7-4. Drought Sensitivity of Brazos G Aquifers

Aquifer Name	Aquifer Type	Drought Sensitivity		Counties	GMAs
		Outcrop	Subcrop		
Carrizo-Wilcox	Major	Low	Very Low	Brazos, Burleson, Falls, Grimes, Lee, Limestone, Milam, Robertson, Williamson	11, 12, 13, 14, 15, 16
Edwards (BFZ)	Major	High	High	Bell, Williamson	8, 9, 10, 13
Edwards-Trinity (Plateau)	Major	Low	Very Low	Nolan, Taylor	2, 3, 4, 7, 8, 9, 10
Gulf Coast	Major	Low	--	Brazos, Grimes, Washington	11, 12, 13, 14, 15, 16
Seymour	Major	Moderate	--	Fisher, Haskell, Jones, Kent, Knox, Stonewall, Throckmorton, Young	1, 6, 7
Trinity	Major	Moderate	Very Low	Bell, Bosque, Callahan, Comanche, Coryell, Eastland, Erath, Falls, Hamilton, Hill, Hood, Johnson, Lampasas, Limestone, McLennan, Milam, Palo Pinto, Somervell, Taylor, Williamson	6, 7, 8, 9, 11, 12, 13
Blaine	Minor	Low	Very Low	Fisher, Haskell, Jones, Kent, Knox, Nolan, Stonewall	1, 6, 7
Brazos River Alluvium	Minor	Moderate	--	Bosque, Brazos, Burleson, Falls, Grimes, Hill, McLennan, Milam, Robertson, Washington	8, 12, 14
Dockum	Minor	Low	Very Low	Fisher, Kent, Nolan	1, 2, 3, 6, 7
Ellenburger-San Saba	Minor	Very Low	Very Low	Lampasas	7, 8, 9
Marble Falls	Minor	Low	--	Lampasas	7, 8, 11
Queen City	Minor	Low	Very Low	Brazos, Burleson, Grimes, Lee, Milam, Robertson, Washington	11, 12, 13, 14, 15
Sparta	Minor	Very Low	Very Low	Brazos, Burleson, Grimes, Lee, Robertson, Washington	11, 12, 13, 14, 16
Woodbine	Minor	Moderate	Very Low	Hill, McLennan	8
Yegua-Jackson	Minor	Low	--	Brazos, Burleson, Grimes, Lee, Washington	11, 12, 13, 14, 15, 16

Note: "--" indicates information not available

The subcrop and outcrop areas of Brazos G aquifers are shown in Figure 7-12. The colors on the map represent the drought sensitivities with blue representing least sensitive and red representing most sensitive. The Edwards BFZ is the only Brazos G aquifer with a high sensitivity to drought in both its subcrop and outcrop. The Seymour Aquifer, Trinity Outcrop, Brazos River Alluvium Outcrop, and Woodbine Outcrop have a moderate sensitivity to drought. The remaining aquifers in Brazos G have a low or very low sensitivity to drought.

Figure 7-12. Drought Sensitivity of Brazos G Aquifers



7.1.4 Recent Droughts and New DORs

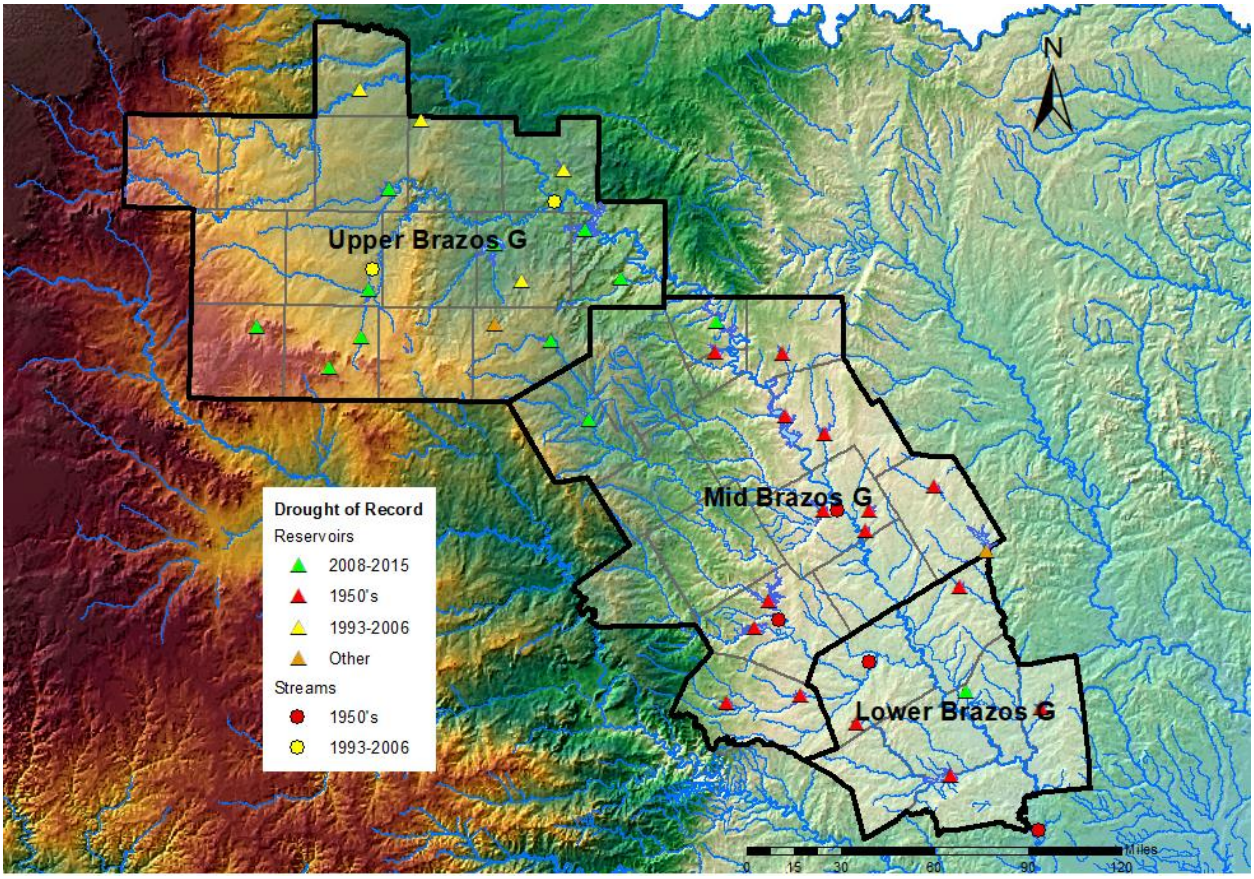
Three separate droughts were considered in this drought of record analysis: the 1950s' drought, the drought that lasted from 1993-2006, and the 2008-2015 drought. The 1950s' drought was arguably the most devastating drought ever recorded in Texas and has been used by water planners and engineers as the drought of record for many years. It included three of the driest years on record at the time it occurred: 1956 (2nd), 1954 (3rd), and 1951 (8th). However, due to concerns that the drought conditions experienced from 1993-2006 and 2008-2015 were more severe than those of the 1950s' drought, these droughts were also considered as potential DORs.

The Brazos WAM was used to evaluate the firm yields of the major reservoirs in the Brazos G Area. The analysis indicates that a new drought of record has occurred for each reservoir in Upper Brazos G, with 9 out of 14 having the 2008-2015 drought as their DOR, 4 out of 14 with 1993-2006 as the DOR, and one having the critical year occur in 1981. This indicates that the 1950s' drought should no longer be used as the DOR in Upper Brazos G and that the 2008-2015 drought should be used instead. In Mid Brazos G, 12 out of 14

reservoirs still had the 1950s' drought as their DOR and 2 out of 14 had the 2008-2015 drought as their DOR. In Lower Brazos G, 4 out of the 6 reservoirs had the 1950s' drought as their DOR, one had the 2008-2015 drought as the DOR, and one had its critical year in 1964. This indicates that the 1950s' drought should still be considered as the DOR in Mid and Lower Region G.

Three different metrics were used to evaluate six different stream segments, 2 in each subregion (Upper, Mid, and Lower), to determine the DOR for run-of-river flows. The three metrics used were cumulative flows for each stream site, annual flow data, and an evaluation of which drought period contained the most low-flow months (flow below 10% of the average annual flow) and zero flow months. Both the cumulative flows and annual flows indicate that Upper Brazos G has a new DOR while the 1950s' drought is still the DOR for Mid and Lower Brazos G. The low-flow month analysis indicated that the 1950s' drought should be considered the DOR in Mid and Lower Brazos G but was inconclusive for Upper Brazos G.

Figure 7-13. Map of DOR for Reservoirs and Streams



7.2 Current Drought Preparations and Response

7.2.1 Current Drought Preparations and Response

Water User Group Level Planning

Water user groups (WUGs) in Brazos G can prepare for drought by participating in the regional planning process. The regional planning process attempts to meet projected water demands during a drought of severity equivalent to the drought of record. WUGs that provide accurate information to the planning group and TWDB and consider recommendations accepted by the regional planning group should be able to supply water through drought periods. In addition, all wholesale water providers (WWPs) and most municipalities develop individual drought contingency plans or emergency action plans to be implemented at various stages of a drought.

Basin Responses

Throughout Texas, including the Brazos River Basin, water rights are issued under the prior appropriation system. During times of shortage, curtailment of water rights has become necessary in recent droughts. Dow Chemical made priority water rights calls in the Brazos River Basin in 2009, 2011, 2012, and 2013. When a priority call is made, upstream water rights that are junior in priority to the water right making the call are required to forgo diversions and impoundment of water and allow streamflows to pass downstream to honor the priority of downstream senior rights. The priority calls affected most water rights in the basin. Partly in response to the priority calls and in response to the ongoing drought, the Brazos Watermaster Program was established by petition and subsequent order issued by the TCEQ Commissioners on April 21, 2014. The program has jurisdiction over the Lower Brazos River Basin including and below Possum Kingdom Reservoir. The Brazos Watermaster will monitor water use and streamflow, and coordinate with water rights holders when flows need to be passed to honor senior water rights.

7.2.2 Assessment of Local Drought Contingency Plans

Predicting the timing, severity and length of a drought is an inexact science; however, it is safe to assume that it is an inevitable component of the Texas climate. For this reason, it is critical to plan for these occurrences with policy outlining adjustments to the use, allocation and conservation of water in response to drought conditions. Drought and other circumstances that interrupt the reliable supply or water quality of a source often lead to water shortages. During a drought period, there generally is a greater demand on the already decreased supply as individuals attempt to maintain landscape vegetation through irrigation because less rainfall is available. This can further exacerbate a water supply shortage situation.

In accordance with the requirements outlined in the Texas Water Code (TWC) Chapter 11 and the Texas Administrative Code §288(b), WWPs suppliers, retail public water suppliers (serving 3,300 connections or more), and irrigation districts must submit a revised and adopted drought contingency plan to TCEQ every five years for approval. Retail public water systems with less than 3,300 connections must have their drought contingency plans

(DCPs) available during TCEQ inspections, but they are not required to submit their plan to TCEQ. The most recent deadline to submit updated DCPs to TCEQ was May 1, 2019.

TCEQ has developed model DCPs for wholesale and retail water providers to use as a guidance tool when preparing their respective drought contingency plans. Although the model DCPs might not be applicable to every water system, it can serve as a starting point and an example for most entities to follow. Important DCP components that should be addressed in the plan include the following:

- Specific and quantified goals targeted for water use reduction;
- Drought response stages, including triggers to initiate and terminate each stage;
- Descriptions of drought indicators along with supply/demand management measures;
- Notification and enforcement procedures, including variance for granting exceptions;
- Public education and input into the plan; and
- Coordinating with regional water planning groups.

In order to minimize or mitigate the impact of water shortages due to emergency situations, including severe drought and equipment failure, the structure of DCPs is based on a variety of triggers that initiate a variety of responses depending on the 'stage' or severity of the situation. Stage one of a DCP typically represents a situation of mild water shortage, which results in initiating water conservation measures on a voluntary basis. The last stage of a DCP usually represents an emergency water situation for a community and triggers an extreme water shortage.

Local DCP information adopted by 10 wholesale and 57 retail water providers, as well as 13 groundwater conservation districts in the region was reviewed and summarized for each stage, including drought triggers used for initiating specific drought responses. The total number of DCPs reviewed was 80, which also included the 24 entities' DCPs reviewed during the previous planning cycle. Brazos River Authority provided the Brazos G team with copies of DCPs received from approximately 32 wholesale and retail water providers; however, follow-up calls were made to many of those entities along with the remaining 33 wholesale and retail water providers to obtain copies of their recently updated DCPs. Approximately 82 percent of the wholesale and retail water providers adopted revised DCPs during 2018-2019.

A summary of drought triggers evaluated during the review of each DCP, included the following:

- Natural/Manmade Contamination;
- Demand/Capacity Based;
- Mechanical Failure;
- Groundwater Level;
- Groundwater Production Rate;
- Reservoir Level;
- Supply Based;

- Time Period;
- Wholesale Provider (initiated by); and
- Other (i.e. Contractual Obligation, Natural Disaster, Notification by Executive Leadership).

In addition, the following drought responses were reviewed based on the drought stage and associated triggers of the DCP:

- Assessment and Identification of Situation;
- Water Rate Change or Surcharge;
- Irrigation Schedule;
- Mandatory Reduction;
- Notification of Public Agencies or Specific Users;
- Prohibited Use;
- Public Notification;
- Discontinue Water Diversions;
- Suspend Service;
- Water Allocation; and
- Other (i.e. Additional Fees, Temporary Variance).

Water User Groups

Based on TWDB guidance outlined in this regional water planning cycle, drought triggers used for initiating drought responses are summarized for 55 retail water providers and presented in Table 7-5.

Wholesale Water Providers

Drought contingency plans for 10 of the 12 WWPs in the Brazos G Area were also evaluated. Since the WWPs typically serve a number of cities and entities in the region, they play a different role than the retail providers in how they monitor the onset of drought, as well as respond to their wholesale customers to address drought conditions. In addition, telephone discussions were conducted with a majority of the WWPs to better understand their plans on how they would address the impact of severe drought or contamination of their water supplies. A summary of their DCP triggers and responses is presented below in Table 7-6.

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Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers									Responses												Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
City of Thrall	2003	1								√					√	√			√				√		
		2		√		√									√			√	√				√		
		3		√		√									√			√	√				√		√
		4		√		√									√			√	√				√		
		Emerg.	√		√							√					√	√	√				√		
City of Harker Heights	2019	1		√							√				√				√				√		
		2		√					√		√				√		√	√	√				√	√	
		3		√					√		√						√	√	√				√		
		4 - Emerg.	√	√	√				√			√				√	√	√	√		√	√	√		
City of Sweetwater	2019	1		√			√	√											√				√		
		2		√			√	√							√		√	√	√				√		
		3		√			√	√							√		√	√	√				√	√	√
		4		√			√	√						√	√		√	√	√			√	√		
		Emerg.		√	√				√			√	√	√		√	√	√	√						
City of Comanche	2011	1		√				√				√			√	√	√		√				√		
		2		√				√				√			√	√	√		√				√	√	
		3		√				√				√			√	√	√	√	√				√		
		Emerg.	√	√	√			√				√		√	√		√		√			√	√		
City of Robinson	2019	1								√		√					√		√				√		
		2						√	√	√		√			√		√		√				√		
		3		√				√	√	√		√			√		√	√	√				√		
		4		√				√	√	√		√			√		√	√	√				√	√	√
		5		√	√			√	√	√		√			√		√	√	√				√		
		6						√	√			√			√		√	√	√				√		
		7 - Emerg.	√		√				√			√		√		√	√	√	√			√	√		
City of Mexia	2019	1		√					√		√				√		√		√						
		2		√					√		√				√		√	√	√				√	√	√
		3		√					√		√			√		√	√	√	√			√	√		
		4 - Emerg.	√		√								√			√	√		√						
City of Lampasas	2019	1		√							√	√			√				√				√		
		2		√							√	√			√		√	√	√				√		
		3		√							√	√			√		√	√	√				√	√	
		4		√							√	√			√		√	√	√				√		
		5 - Emerg.	√		√						√	√				√	√	√	√			√	√		

Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers									Responses												Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
Bethesda WSC	2019	Dry										√			√				√				√		
		1		√							√	√			√		√	√	√				√	√	√
		2		√					√		√	√			√		√	√	√				√		
		3	√	√	√				√		√	√				√	√	√	√				√		
City of Hearne	2001	1					√									√	√		√				√		
		2					√								√	√	√		√				√		
		3					√								√	√	√		√				√		√
		4					√								√	√	√		√				√		
		5 - Emerg.	√		√												√		√						
City of Georgetown	2019	1		√		√		√	√			√			√		√	√	√				√		
		2		√		√		√	√			√			√		√	√	√				√	√	√
		3 - Emerg.		√					√			√				√	√	√	√				√		
		4	√	√	√				√			√	√			√	√	√	√			√	√		
Tri-County SUD	2019	1		√															√				√		
		2		√										√	√		√	√	√			√	√		
		3		√										√	√		√	√	√			√	√		√
		4		√										√	√		√	√	√			√	√		
		5 - Emerg.	√		√							√				√	√	√	√		√	√			
City of Taylor	2019	1		√											√				√				√		
		2		√											√		√	√	√				√		
		3		√											√		√	√	√				√	√	
		4		√											√		√	√	√				√		
		5 - Emerg.	√	√	√				√			√					√	√	√				√		
		6 - Wtr Alloc.		√										√			√	√	√			√	√		
City of Copperas Cove	2015	1		√							√				√		√	√	√				√		
		2		√							√				√		√	√	√				√	√	
		3		√							√				√		√	√	√				√		
		4 - Emerg.	√		√							√				√	√	√	√		√	√	√		
City of Anson	2011	1		√				√									√		√						
		2		√				√								√	√		√					√	
		3		√				√						√		√	√	√	√			√	√		
		4 - Emerg.	√		√								√				√						√		

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Manville WSC	2016	1		√			√								√		√		√				√	√	√
		2		√			√		√						√		√	√	√				√		
		3		√	√		√		√			√				√	√	√	√				√		
		4 - Emerg.	√		√							√	√				√		√			√	√		
Stephens Regional SUD	2019	1		√				√	√			√			√				√				√	√	
		2		√				√	√			√			√		√	√	√				√		
		3		√	√			√	√			√				√	√	√	√				√		
		4 - Emerg.			√			√	√			√	√	√		√	√	√	√			√	√		
City of Rule	2013	1									√				√								√	√	√
		2									√				√			√					√		
		3									√				√			√					√		
		4 - Emerg.	√		√									√				√				√	√		
Block House MUD	2019	1									√	√			√				√				√	√	
		2		√					√		√	√			√		√	√	√				√		
		3	√	√					√		√	√			√		√	√	√				√		
		4 - Emerg.							√		√	√			√		√	√	√		√	√	√		
City of Stamford	2012	1						√	√														√	√	
		2		√				√	√					√	√			√					√		
		3		√				√	√					√	√			√					√		
		4		√	√			√	√			√		√				√				√	√		
City of Killeen	2019	1		√				√	√		√	√			√				√				√	√	
		2		√				√	√		√	√			√		√	√	√				√		
		3		√				√	√		√	√			√		√	√	√				√		
		4		√				√	√		√	√			√		√	√	√				√		
		5 - Emerg.	√		√						√	√					√	√	√				√		
City of Gatesville	2018	1		√					√		√				√				√				√	√	
		2		√							√				√		√	√	√				√		
		3 - Emerg.	√		√						√	√				√	√	√	√				√		
		4 - Pro Rata									√	√		√			√		√			√	√		
City of Abilene	2019	Voluntary								√					√				√				√	√	
		1		√				√	√			√			√		√	√	√				√		
		2		√	√			√	√			√			√		√	√	√				√		
		3 - Emerg.		√	√			√	√			√		√		√	√	√	√			√	√		
		4 - Wtr Crisis	√		√							√		√		√	√	√	√			√	√		

Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers								Responses											Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
City of Cedar Park	2019	1										√			√				√				√	√	
		2		√				√	√		√	√			√		√	√	√				√		
		3	√	√				√	√		√	√			√		√	√	√				√		
		4 - Emerg.									√	√				√	√	√	√		√	√	√		
City of Leander	2014	1		√					√	√					√				√					√	
		2		√					√		√				√	√	√	√	√				√		
		3		√					√		√	√			√	√	√	√	√				√		
		4 - Emerg.	√	√	√				√		√	√				√	√	√	√				√		
City of Belton	2019	1		√				√	√		√	√			√				√				√	√	
		2		√				√	√		√	√			√		√	√	√				√		
		3		√				√	√		√	√			√		√	√	√				√		
		4						√	√		√	√			√		√	√	√				√		
		5 - Emerg.	√		√						√	√		√		√	√	√	√			√	√		
City of Liberty Hill	2012	1		√					√			√			√				√				√	√	√
		2		√					√			√			√		√	√	√				√		
		3	√	√	√				√		√	√				√	√	√	√				√		
City of Acton	2019	1		√								√			√				√				√	√	√
		2		√								√			√		√	√	√				√		
		3		√								√			√		√	√	√				√		
		4							√			√			√		√	√	√				√		
		5 - Emerg.	√		√		√		√			√				√	√	√	√				√		
		6 - Wtr Alloc.		√								√		√			√		√			√	√		
City of Albany	2019	1						√	√		√				√				√				√	√	
		2						√	√		√				√		√	√	√				√		
		3						√	√		√			√			√	√	√			√	√		
		4 - Emerg.	√		√			√	√		√		√			√	√	√	√				√		
Bold Springs WSC	2018	1								√		√			√				√				√		√
		2					√					√			√			√	√				√		
		3					√					√				√		√	√				√		
		4					√					√				√	√	√	√			√	√		
		5 - Emerg.	√		√							√				√	√	√	√			√	√		

Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers								Responses											Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
City of Breckenridge	2019	1			√			√	√			√					√		√				√	√	
		2			√			√	√			√			√		√	√	√				√		
		3			√			√	√			√				√	√	√	√			√	√		
		4 - Emerg.	√		√			√				√	√			√	√	√	√			√	√		
City of Bryan	2019	1								√		√			√				√				√		
		2		√								√			√		√	√	√						√
		3	√	√	√		√		√			√				√	√	√	√			√			
City of Cisco	2019	1						√	√			√			√		√		√				√		
		2						√	√			√			√		√	√	√			√	√	√	
		3 - Emerg.						√	√			√		√		√	√	√	√			√	√		
City of Cleburne	2019	1		√	√			√	√			√			√		√	√	√				√		
		2		√	√			√	√			√			√		√	√	√				√	√	√
		3		√	√			√	√			√				√	√	√	√				√		
		4 - Emerg.	√		√							√			√	√	√	√	√		√		√		
City of College Station	2019	1		√	√					√	√	√			√		√	√	√				√		
		2		√					√			√			√		√	√	√			√	√		√
		3 - Emerg.	√		√							√				√	√	√	√		√	√	√		
City of Waco	2019	1						√				√					√	√	√				√		
		2						√	√			√			√		√	√	√				√	√	
		3						√	√			√			√		√	√	√				√		
		4 - Emerg.						√	√			√				√	√	√	√				√		
Fort Belknap WSC	2019	1		√					√			√			√		√	√	√				√		
		2		√					√							√	√	√	√				√	√	
		3	√	√	√				√		√	√				√	√	√	√			√	√		
Gholson WSC	2019	1		√								√							√				√		
		2		√								√		√	√		√	√	√				√		
		3		√								√		√	√		√	√	√				√		√
		4		√								√		√	√		√	√	√				√		
		5 - Emerg.	√		√							√				√	√	√	√		√	√	√		
City of Graham	2019	1		√				√				√			√				√				√		
		2		√				√	√			√			√		√	√	√				√		
		3		√				√	√			√			√		√	√	√				√	√	
		4		√				√	√			√			√		√	√	√			√	√		
		5 - Emerg.	√		√			√	√			√				√	√	√	√			√	√		

Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers									Responses												Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
City of Granbury	2019	1		√											√		√		√				√	√	√
		2		√											√		√	√	√				√		
		3		√											√		√	√	√				√		
		4							√						√		√	√	√				√		
		5 - Emerg.	√		√		√		√			√		√		√	√	√	√			√			
Hill County WSC	2018	1					√								√		√		√				√	√	√
		2					√								√		√	√	√				√		
		3					√								√		√	√	√				√		
		4					√								√		√	√	√				√		
		5 - Emerg.	√		√							√				√	√	√	√				√		
		6 - Wtr Alloc.					√					√		√		√	√		√			√	√		
City of Midlothian	2019	1	√	√	√			√	√		√	√			√		√	√	√				√	√	
		2	√	√	√			√	√		√	√			√		√	√	√				√		
		3	√	√	√			√	√		√	√				√	√	√	√			√	√		
		Emerg.	√	√	√							√		√		√	√	√	√			√	√		
Paloma Lake MUD No. 2	2019	1								√	√	√			√		√	√	√			√	√	√	
		2	√	√	√				√		√	√			√		√	√	√			√	√		
		3 - Emerg.	√	√	√				√		√	√				√	√	√	√			√	√		
Possum Kingdom WSC	2019	1		√				√	√	√	√	√			√				√				√	√	
		2		√				√	√		√	√		√	√		√	√	√			√	√		
		3 - Emerg.		√	√			√	√		√	√		√		√	√	√	√			√	√		
City of Rockdale	2019	1		√								√			√		√		√				√		√
		2		√								√			√		√	√	√				√		
		3		√								√			√		√	√	√				√		
		4		√								√			√		√	√	√				√		
		5 - Emerg.	√	√	√							√				√	√	√	√				√		
City of Round Rock	2015	1		√				√	√	√	√	√			√		√		√				√	√	√
		2		√				√	√		√	√			√		√	√	√						
		3		√				√	√		√	√				√	√	√	√						
Somervell County Water District	2019	1	√	√	√			√	√			√					√		√				√	√	
		2	√	√	√			√	√			√			√	√	√	√	√			√	√		
		3	√	√	√			√	√			√				√	√	√	√			√	√		
		4 - Emerg.			√							√				√	√	√	√			√	√		

Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers									Responses												Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
Sonterra MUD	2019	Voluntary								√					√				√				√		
		1		√											√			√	√				√		
		2		√					√			√			√			√	√				√		√
		3		√					√			√			√			√	√				√		
		4 - Emerg.	√		√							√				√	√	√	√			√	√		
Southwest Milam WSC	2019	1		√					√			√			√				√				√		
		2		√					√									√	√				√		√
		3	√	√	√				√		√	√				√	√	√	√			√	√		
Sportsman's World MUD	2019	1		√											√				√				√		
		2		√											√			√	√				√		
		3		√										√	√		√	√	√				√	√	
		4 - Emerg.										√		√		√	√	√	√						
City of Temple	2019	1								√					√				√				√		
		2		√							√	√			√		√	√	√				√	√	
		3		√							√	√			√		√	√	√				√		
		4 - Emerg.	√		√						√	√				√	√	√	√			√	√		
Vista Oaks MUD	2019	Voluntary								√					√		√		√				√		
		1			√						√	√			√		√	√	√				√	√	
		2			√						√	√			√		√	√	√				√		
		3	√		√						√	√				√	√	√	√		√	√	√		
Williamson County MUD No. 10	2019	Voluntary								√					√				√				√		
		1	√	√	√			√	√		√	√			√		√	√	√				√	√	
		2	√	√	√			√	√		√	√			√		√	√	√				√		
		3 - Emerg.	√	√	√			√	√		√	√				√	√	√	√				√		
Williamson County MUD No. 11	2019	Voluntary								√					√				√				√		
		1	√	√	√			√	√		√	√			√		√	√	√				√	√	
		2	√	√	√			√	√		√	√			√		√	√	√				√		
		3 - Emerg.	√	√	√			√	√		√	√				√	√	√	√				√		
Williamson County MUD No. 22	2019	1		√			√			√	√				√				√				√		
		2		√			√		√		√				√		√	√	√				√		√
		3		√	√		√		√		√				√		√	√	√				√		
		4 - Emerg.	√		√						√					√	√	√	√				√		

Table 7-5. Summary of DCPs for WUGs in the Brazos G Area

Entity Name	DCP Date	Stage Number	Triggers								Responses											Water Supplies	
			Contamination	Demand/Capacity Based	Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Time	Wholesale Provider	Other[1]	Assessment and Identification	Water Rate Change or Surcharge	Irrigation Schedule	Mandatory Reduction	Notification of Public Agencies or Specific Users	Prohibited Use	Public Notification	Discontinue Water Diversions	Suspend Service	Water Allocation	Other[2]	SW	GW
City of Hubbard	2018	1				√			√						√				√				√	√	√
		2				√			√						√		√	√	√				√		
		3				√			√						√		√	√	√				√		
		4				√			√						√		√	√	√				√		
		5 - Emerg.	√		√									√			√	√	√			√			
City of Gordon	2014	1		√				√									√		√					√	
		2		√				√								√	√		√						
		3 - Emerg.		√				√								√	√		√			√			
RMS WSC	2019	1		√								√			√		√		√				√		√
		2		√								√			√		√	√	√				√		
		3		√								√			√		√	√	√			√	√		
		4 - Emerg.	√		√							√				√	√	√	√			√			

NOTES:

[1] Additional triggers: any unforeseen conditions that may occur, including extended period of low rainfall/drought conditions; executive leadership declares critical shortage

[2] Water use restrictions on: watering with handheld hose, use of greywater, hotel/motel/restaurant water use, pools, fountains, golf courses, athletic fields, parks, car washes

Table 7-6. Summary of DCPs for WWPs in the Brazos G Area

Entity Name	DCP Date	Primary Water Supply Source	Stage Number	Triggers									Responses											Water Supplies	
				Contamination	Demand/WTP Capacity	Duration Period	Equipment out of Service or Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Raw Water Provider	Weather Conditions	Other[1]	Review System Ops/Make Repairs	Initiate Measures from Raw Water Provider	Irrigation Schedule	Mandatory Reduction	Notify Wholesale Customers &/or Emerg.	Notify Board Members & Public	Discontinue Water Diversions	Water Allocation	Water Rate Change or Surcharge	SW	GW
Central Texas WSC	2018	Lake Stillhouse	1		√					√		√			√				√	√				√	√
			2		√					√		√			√	√		√	√	√		√			
			3		√					√		√			√	√		√	√	√		√	√		
			4 - Emerg.	√			√			√		√			√	√		√	√	√	√				
Upper Leon River MWD	2014	Lake Proctor	1							√	√	√	√		√	√			√	√				√	
			2							√	√	√	√		√	√		√	√	√					
			3 - Emerg.	√			√			√	√	√	√		√	√		√	√	√		√	√		
North Central Texas Municipal Water Authority	2019	Millers Creek Reservoir	1							√	√				√				√	√				√	√
			2							√	√				√			√	√	√					
			3							√	√				√			√	√	√		√	√		
			4 - Emerg.	√			√								√			√	√	√	√	√	√		
Aquilla WSD	2019	Lake Aquilla	1		√	√				√	√	√	√		√	√	√		√	√				√	
			2		√	√				√	√	√	√		√	√	√	√	√	√					
			3	√	√	√	√			√	√	√	√	√	√	√		√	√	√		√			
			4 - Emerg.	√			√			√	√	√	√	√	√	√		√	√	√		√			
Bistone MWSD[2]	2019	Lake Mexia; Carrizo-Wilcox Aquifer	1		√	√		√		√	√						√		√	√				√	√
			2		√	√		√		√	√						√	√	√	√					
			3 - Emerg.		√	√	√	√		√	√							√	√	√		√	√		
Eastland County WSC	2019	Lake Leon	1		√	√				√							√		√	√				√	
			2		√	√				√								√	√	√		√	√		
			3		√	√				√								√	√	√		√	√		
			4 - Emerg.			√	√			√	√			√	√			√	√	√		√	√		
West Central TX MWD	2019	Hubbard Creek Reservoir	1							√	√		√			√			√	√				√	
			2							√	√		√		√	√		√	√	√					
			3							√	√		√		√	√		√	√	√		√			
			4							√	√		√		√	√		√	√	√		√			
			5 - Emerg.				√							√	√	√		√	√	√					
Bell County WCID No. 1	2019	Lake Belton & Lake Stillhouse	1		√	√				√	√	√	√		√	√			√	√		√	√	√	
			2		√	√	√			√	√	√	√		√	√		√	√	√		√	√		
			3	√	√	√	√			√	√	√	√	√	√	√		√	√	√		√	√		
Bluebonnet WSC	2019	Lake Belton	1							√		√	√		√	√			√	√				√	
			2							√		√	√		√	√		√	√	√					
			3							√		√	√		√	√		√	√	√					
			4 - Emerg.							√		√	√		√	√		√	√	√		√	√		

Table 7-6. Summary of DCPs for WWPs in the Brazos G Area

Entity Name	DCP Date	Primary Water Supply Source	Stage Number	Triggers									Responses											Water Supplies	
				Contamination	Demand/WTP Capacity	Duration Period	Equipment out of Service or Failure	Groundwater Level	Production Rate	Reservoir Level	Supply Based	Raw Water Provider	Weather Conditions	Other[1]	Review System Ops/Make Repairs	Initiate Measures from Raw Water Provider	Irrigation Schedule	Mandatory Reduction	Notify Wholesale Customers &/or Emerg.	Notify Board Members & Public	Discontinue Water Diversions	Water Allocation	Water Rate Change or Surcharge	SW	GW
Palo Pinto County MWD No. 1	2014	Lake Palo Pinto	1							√					√				√	√				√	
			2							√					√				√	√					
			3				√			√					√				√	√		√	√		
			4 - Emerg.	√			√				√			√	√			√	√	√		√	√		
Brazos River Authority	2019	Multiple reservoirs	1	√	√	√	√		√	√			√	√	√				√	√				√	
			2	√	√	√	√		√	√			√	√	√			√	√	√					
			3	√	√	√	√		√	√			√	√	√			√	√	√	√	√			
			4 – Pro-rata Curtailment	√	√	√	√		√	√			√	√	√			√	√	√	√	√			

NOTES:

[1] Additional triggers: any unforeseen conditions that may occur, such as acts of God or man.

[2] Bistone MWSD is both a WUG and WWP, but the DCP is more similar to those provided by WWPs and is included here instead of the WUG table.

Groundwater Conservation Districts

According to the Texas Water Code, Section 36.1071(a), groundwater conservation districts (GCDs) are required to adopt management plans that addresses natural resource issues, drought conditions, conservation, recharge enhancement, rainwater harvesting, and precipitation enhancement/brush control, as well as include desired future conditions (DFCs). Since GCDs are water regulators and not water suppliers, their role is to provide scientific information to those entities with permits to help them make informed decisions during emergency conditions. As a result, drought response measures are typically addressed within a GCD's Management Plan instead of a separate drought contingency plan. Of the thirteen GCDs located in the Brazos G Area, the following Districts have developed a separate DCP in conjunction with their Management Plan: Brazos Valley GCD, Clearwater Underground Water Conservation District, and Middle Trinity GCD. A summary of their DCP triggers and responses are summarized below in Table 7-7.

Table 7-7. Summary of Groundwater Conservation District DCPs in the Brazos G Area

Groundwater Conservation District	Major Aquifer(s)	Stage Number	Drought Triggers	District's Responses
Brazos Valley GCD	Carrizo-Wilcox, Queen City, Sparta, Yegua-Jackson & Brazos River Alluvium	1-Mild	NOAA 30-day rain node deficit from avg rainfall; PDSI shows mild drought.	Conduct water conservation public education; keep up-to-date drought information (PDSI) and other helpful drought indicators on website.
		2-Moderate	NOAA 30-day rain node deficit from avg rainfall; PDSI shows moderate level of drought for 6 mo.	Conduct water conservation public education; keep up-to-date drought information (PDSI) and other helpful drought indicators on website; review and confirm permit holders are enforcing their DCPs.
		3-Severe	NOAA 30-day rain node deficit from avg rainfall; or PDSI shows severe level of drought; natural or man-made contamination of water supply source(s); or declaration by State or Federal Gov't of disaster due to drought condition in a county served by District; or unforeseen events cause health/safety risks to the public.	Conduct water conservation public education; keep up-to-date drought information (PDSI) and other helpful drought indicators on website; review and confirm permit holders are enforcing their DCPs; monitor well levels frequently basis after consulting District's hydrologist.
		4-Extreme	NOAA 30-day rain node deficit from avg rainfall; or PDSI shows extreme level of drought for 12 mo.; water level monitoring indicates significant decrease in water levels to affect GW production of permit holders; natural or man-made contamination of water supply source(s); or declaration by State or Federal Gov't of disaster due to drought condition in a county served by District; or unforeseen events cause health/safety risks to the public.	Conduct water conservation public education; keep up-to-date drought information (PDSI) and other helpful drought indicators on website; review and confirm permit holders are enforcing their DCPs; monitor well levels frequently basis after consulting District's hydrologist; designate DMZ under Rule 7.2 as appropriate and/or restrict GW production by permittees.

Table 7-7. Summary of Groundwater Conservation District DCPs in the Brazos G Area

Groundwater Conservation District	Major Aquifer(s)	Stage Number	Drought Triggers	District's Responses
Clearwater Underground Water CD	Edwards BFZ	1-Aware	*PDI 70 to 79%; Spring Discharge 900 to 701 ac-ft/month* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days; Spring Discharge monitored with daily max discharge values averaged over 5 consecutive days on running 5-day basis)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments w/total capacity of more than 50,000 gallons except for PWSs (goal to achieve 10% reduction in water usage)
		2-Concern	*PDI 60 to 69%; Spring Discharge 700 to 401 ac-ft/month* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days; Spring Discharge monitored with daily max discharge values averaged over 5 consecutive days on running 5-day basis)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments w/total capacity of more than 50,000 gallons except for PWSs (goal to achieve 20% reduction in water usage); limit outdoor watering to once every 5-7 days bet. 7pm and 7am (ag/horticulture operations exempted but encouraged to reduce watering by 20%); wash vehicles at car wash only as needed; water livestock in leak-proof troughs if possible.
		3-Serious	*PDI 50 to 59%; Spring Discharge 400 to 201 ac-ft/month* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days; Spring Discharge monitored with daily max discharge values averaged over 5 consecutive days on running 5-day basis)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments w/total capacity of more than 50,000 gallons except for PWSs (goal to achieve 30% reduction in water usage); limit outdoor watering to once every 5-7 days bet. 7pm and 7am (ag/horticulture operations exempted but encouraged to reduce watering by 30%); wash vehicles at car wash only as needed; water livestock in leak-proof troughs if possible; fountains/swimming pools/décor. ponds covered where possible; water for dust control when req'd by law.
		4-Critical	*PDI < 50%; Spring Discharge 200 ac-ft/month or less* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days; Spring Discharge monitored with daily max discharge values averaged over 5 consecutive days on running 5-day basis)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments (goal to achieve 40% reduction in water usage); no outdoor watering (ag/horticulture operations exempted but encouraged to reduce watering by 40%); no vehicle washing; water livestock in leak-proof troughs if possible; water for dust control when req'd by law.

Table 7-7. Summary of Groundwater Conservation District DCPs in the Brazos G Area

Groundwater Conservation District	Major Aquifer(s)	Stage Number	Drought Triggers	District's Responses
Clearwater Underground Water CD	Trinity	1-Aware	*PDI 70 to 79%;* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments w/total capacity of more than 50,000 gallons except for PWSs (goal to achieve 10% reduction in water usage)
		2-Concern	*PDI 60 to 69%;* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments w/total capacity of more than 50,000 gallons except for PWSs (goal to achieve 20% reduction in water usage); limit outdoor watering to once every 5-7 days bet. 7pm and 7am (ag/horticulture operations exempted but encouraged to reduce watering by 20%); wash vehicles at car wash only as needed; water livestock in leak-proof troughs if possible.
		3-Serious	*PDI 50 to 59%;* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments w/total capacity of more than 50,000 gallons except for PWSs (goal to achieve 30% reduction in water usage); limit outdoor watering to once every 5-7 days bet. 7pm and 7am (ag/horticulture operations exempted but encouraged to reduce watering by 30%); wash vehicles at car wash only as needed; water livestock in leak-proof troughs if possible; fountains/swimming pools/décor. ponds covered where possible; water for dust control when req'd by law.
		4-Critical	*PDI < 50%;* (PDI monitored daily on running-year basis & based on NEX-RAD rainfall data; PDI trigger cond. must be exceeded 28 consecutive days)	Continue or increase voluntary reduction; check for plumbing leaks; no filling of ponds, lakes, tanks, reservoirs, swimming pools or other surface impoundments (goal to achieve 40% reduction in water usage); no outdoor watering (ag/horticulture operations exempted but encouraged to reduce watering by 40%); no vehicle washing; water livestock in leak-proof troughs if possible; water for dust control when req'd by law.

Table 7-7. Summary of Groundwater Conservation District DCPs in the Brazos G Area

Groundwater Conservation District	Major Aquifer(s)	Stage Number	Drought Triggers	District's Responses
Middle Trinity GCD	Trinity	0	*PDSI > 80%; soil moisture index*	N/A
		1	*PDSI 70 to 80%; soil moisture index*	Reduction of pumping by 10% on voluntary basis; information posted on District's website
		2	*PDSI 60 to 70%; soil moisture index*	Reduction of pumping by 20% on voluntary basis; information posted on District's website
		3	*PDSI 50 to 60%; soil moisture index*	Reduction of pumping by 30% on voluntary basis; information posted on District's website
		4	*PDSI < 50%; soil moisture index*	Reduction of pumping by 40% on voluntary basis; information posted on District's website

Also, GCDs are generally more concerned about long-term pumping (decades usage) than short-term drought conditions. All of the GCDs use either the PDSI or Precipitation Deficit Index (PDI) to monitor the severity of drought conditions. Based on PDSI or PDI readings, the GCDs then notify all of their permitted public water suppliers to implement their respective DCPs. Also, each of the GCDs focus on their respective DFCs based on specific aquifer characteristics within their management area (i.e. Carrizo-Wilcox versus the Trinity Aquifer).

7.3 Existing and Potential Emergency Interconnects

In the event of a severe and prolonged drought, interruption or contamination of an existing water supply, it is important for municipal water user groups (WUGs) to have a back-up plan and alternative source of supply available. In fact, TCEQ requires all public water systems (PWSs) to have a plan in place based on the guidelines outlined in 30 TAC, Chapter 290, Subchapter F. Interconnects between two municipal WUGs are an acceptable alternative for emergency water supply in lieu of trucking in treated drinking water to a community.

The TCEQ Texas Drinking Water Watch database (TCEQ database) was the primary source used to identify existing emergency interconnect information for the Brazos G Area. The availability of each PWS water source is categorized as Permanent, Seasonal, Interim or Emergency in the TCEQ database; however, details on existing interconnect supply capacity or location is not provided. As a result, numerous emergency users and providers were contacted by phone to obtain infrastructure details about each interconnect, such as meter size, pipeline diameter and capacity; information regarding future emergency interconnects was also collected. In many cases, an understanding or agreement is already in place between the interconnect provider and user about the transfer volume of water supply in the event of an emergency. According to Texas Water Code §16.053(r), confidential information regarding the location coordinates of each of the emergency interconnect was not gathered or included in the regional plan.

A summary of the number of existing and future emergency interconnects in the Brazos G Area, including who is connected to whom, principal county served, infrastructure details and the emergency provider's source of supply, is presented in Table 7-8. During this planning cycle, 125 interconnects were identified compared to 32 interconnects in the 2016 Brazos G Plan. A few of the WUGs, including the Cities of Bryan, College Station and Round Rock, had more than one interconnect with particular WUGs.

Forty-four of the potential emergency providers have a single source of water supply. If this source became contaminated or no longer available for the emergency user, then other alternatives or arrangements would be necessary. Twenty-one of the WUG providers have two supply sources, and four of the listed WUG providers have three or more sources of supply.

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Table 7-8. Summary of Emergency Interconnects in the Brazos G Area

Emergency User [A]	Emergency Provider [B]	Provider's Sources [C]		
		Source #1	***Source #2***	***Source # 3***
ACTON MUD	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
CITY OF ALVARADO	JOHNSON COUNTY SUD	MANSFIELD (SW)	BRA-LAKE GRANBURY (SW)	JOHNSON COUNTY (GW)
AQUA WSC	CITY OF WACO	LAKE WACO (SW)	MCLENNAN COUNTY (GW)	
AXTELL WSC	EOL WSC	MCLENNAN COUNTY (GW)		
CITY OF BAIRD	CALLAHAN COUNTY WSC	CLYDE (SW)	BAIRD(SW)	
CITY OF BAIRD	CITY OF CLYDE	LAKE CLYDE (SW)	ABILENE (SW)	
BEACHVIEW ACRES WATER ASSOCIATION	LAKESHORE WATER SYSTEM	HILL COUNTY (GW)		
BELL MILAM FALLS WSC	EAST BELL WSC	CENTRAL TEXAS WSC (SW)	BELL COUNTY (GW)	
CITY OF BELTON	CENTRAL TEXAS WSC	STILLHOUSE HOLLOW (SW)	BELL COUNTY (GW)	
BENTWATER ON LAKE GRANBURY	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
BETHANY SUD	BETHESDA WSC	FORT WORTH (SW)	JOHNSON COUNTY (GW)	
BLOCK HOUSE MUD	CITY OF LEANDER	LCRA-LAKE TRAVIS (SW)		
BLUE WATER OAKS ESTATES	JOHNSON COUNTY SUD	BRA-LAKE GRANBURY (SW)	MANSFIELD (SW)	JOHNSON COUNTY (GW)
BOLD SPRINGS WSC	CITY OF WEST	WACO (SW)	MCLENNAN COUNTY (GW)	
BRAZOS RIVER ACRES	RIVER COUNTRY ACRES	HOOD COUNTY (GW)		
CITY OF BREMOND	TRI COUNTY SUD	FALLS COUNTY (GW)	ROBERTSON COUNTY (GW)	
BRUSHY CREEK MUD	CITY OF ROUND ROCK	BRA-LAKE GEORGETOWN (SW)	WILLIAMSON COUNTY (GW)	
CITY OF BRYAN	CITY OF COLLEGE STATION	BRAZOS COUNTY (GW)		
CITY OF BRYAN	WICKSON CREEK SUD	BRAZOS COUNTY (GW)		
CANYON CREEK ADDITION	ACTON MUD	BRA-LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
CEDRON CREEK RANCH WATER SUPPLY	STEELE CREEK HARBOR	BOSQUE COUNTY (GW)		
CHALK BLUFF WSC	ROSS WSC	MCLENNAN COUNTY (GW)	WACO (SW)	
CITY OF COLLEGE STATION	CITY OF BRYAN	BRAZOS COUNTY (GW)		
CITY OF COLLEGE STATION	TEXAS A&M UNIVERSITY MAIN CAMPUS	BRAZOS COUNTY (GW)		
CITY OF COLLEGE STATION	WELLBORN SUD	NAVASOTA RIVER (SW)	BRAZOS (GW)	
COMANCHE COVE	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	

Table 7-8. Summary of Emergency Interconnects in the Brazos G Area

Emergency User [A]	Emergency Provider [B]	Provider's Sources [C]		
		Source #1	***Source #2***	***Source # 3***
COTTONWOOD WSC	CITY OF WEST	WACO (SW)	MCLENNAN COUNTY (GW)	
CROSS COUNTRY WSC	HIGHLAND PARK WSC	BOSQUE COUNTY (GW)		
CROSS COUNTRY WSC	PATRICK WSC	MCLENNAN COUNTY (GW)		
CROWN RANCH SUBDIVISION	DOBBIN PLANTERSVILLE WSC 1	MONTGOMERY COUNTY (GW)		
DOBBIN PLANTERSVILLE WSC 2	DOBBIN PLANTERSVILLE WSC 1	MONTGOMERY COUNTY (GW)		
EAST BELL WSC	BELL MILAM FALLS WSC	CENTRAL TEXAS WSC (SW)	BELL MILAM FALLS WSC (GW)	
EAST BELL WSC	CITY OF TEMPLE	LEON RIVER (SW)		
EOL WSC	AXTELL WSC	MCLENNAN COUNTY (GW)		
EOL WSC	PRAIRIE HILL WSC	LIMESTONE COUNTY (GW)		
EULA WSC	CITY OF CLYDE	LAKE CLYDE (SW)	ABILENE (SW)	
FALCON CREST ADDITION	NORTHCREST ADDITION	JOHNSON COUNTY (GW)		
CITY OF FLORENCE	CITY OF GEORGETOWN	BRA-LAKE GEORGETOWN (SW)	WILLIAMSON COUNTY (GW)	
CITY OF GEORGETOWN	CITY OF LEANDER	LCRA-LAKE TRAVIS (SW)		
CITY OF GEORGETOWN	CITY OF ROUND ROCK	BRA-LAKE GEORGETOWN (SW)	WILLIAMSON COUNTY (GW)	
CITY OF GEORGETOWN (FUTURE)	CITY OF ROUND ROCK	LCRA-LAKE TRAVIS (SW)	WILLIAMSON COUNTY (GW)	
CITY OF GEORGETOWN (FUTURE)	CITY OF ROUND ROCK	LCRA-LAKE TRAVIS (SW)	WILLIAMSON COUNTY (GW)	
GLEN OAKS MOBILE HOME PARK	WICKSON CREEK SUD	BRAZOS COUNTY (GW)		
CITY OF GODLEY	JOHNSON COUNTY SUD	BRA-LAKE GRANBURY (SW)	MANSFIELD (SW)	JOHNSON COUNTY (GW)
CITY OF GRANBURY	BRAZOS REGIONAL PUA	BRA-LAKE GRANBURY (SW)		
GRANBURY ACRES	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
GUN & ROD ESTATES	CITY OF BRENHAM	LAKE SOMERVILLE (SW)		
HAMILTON INN	CITY OF HAMILTON	UPPER LEON MWD (SW)		
HILLTOP WSC	BOLD SPRINGS WSC	MCLENNAN COUNTY (GW)		
CITY OF HUBBARD	POST OAK SUD	DAWSON (SW)	CORSICANA (SW)	
JARRELL SCHWERTNER WSC	SONTERRA MUD	WILLIAMSON COUNTY (GW)	BRA-LONE STAR RWA (SW)	
JONAH WATER SUD	CITY OF GEORGETOWN	BRA-LAKE GEORGETOWN (SW)	WILLIAMSON COUNTY (GW)	

Table 7-8. Summary of Emergency Interconnects in the Brazos G Area

Emergency User [A]	Emergency Provider [B]	Provider's Sources [C]		
		Source #1	***Source #2***	***Source # 3***
CITY OF KILLEEN	CENTRAL TEXAS WSC	STILLHOUSE HOLLOW (SW)	BELL COUNTY (GW)	
LAGUNA VISTA SUBDIVISION	LAGUNA TRES SUBDIVISION	HOOD COUNTY (GW)		
LAKESHORE WATER SYSTEM 2	LAKESHORE WATER SYSTEM	HILL COUNTY (GW)		
LATHAM SPRINGS BAPTIST ENCAMPMENT	GHOLSON WSC	HILL & MCLENNAN COUNTY (GW)		
CITY OF LEANDER	CITY OF CEDAR PARK	LCRA-LAKE TRAVIS (SW)		
LEE COUNTY FWSD #1	LEE COUNTY WSC	LEE COUNTY (GW)		
LEON JUNCTION WSC	FLAT WSC	GATESVILLE (SW)		
LINCOLN WSC	LEE COUNTY WSC	LEE COUNTY (GW)		
CITY OF LORENA	CITY OF HEWITT	MCLENNAN COUNTY (GW)	WACO (SW)	LORENA (SW/GW)
LTG WSC	PURE WSC	MCLENNAN COUNTY (GW)		
MALLARD POINTE	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
MANVILLE WSC	130 REGIONAL WSC	EPCOR 130 PROJECT (GW)	BURLESON COUNTY (GW)	
MESA GRANDE WSC	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
METROPLEX HOMESTEADS WATER SUPPLY	JOHNSON COUNTY SUD	JOHNSON COUNTY (GW)	BRA-LAKE GRANBURY (SW)	MANSFIELD (SW)
CITY OF MEXIA	BISTONE MWSD	LIMESTONE COUNTY (GW)	LAKE MEXIA (SW)	
MINERVA WSC	SOUTHWEST MILAM WSC	MILAM COUNTY (GW)		
CITY OF MINGUS	CITY OF STRAWN	LAKE TUCKER (SW)		
CITY OF MOUNT CALM	BIROME WSC	HILL COUNTY (GW)		
MURRAY HILL WATER SYSTEM	HILL COUNTY WSC	AQUILLA WSD (SW)		
NOLAN COUNTY FWSD #1	CITY OF SWEETWATER	OAK CREEK LAKE, LAKES SWEETWATER & TRAMMELL (SW)	NOLAN COUNTY (GW)	
NORTH MILAM WSC	CITY OF CAMERON	LITTLE RIVER (SW)		
OAK HILL WATER SYSTEM	HILL COUNTY WSC	AQUILLA WSD (SW)		
OAKVIEW FARMS SUBDIVISION	BETHESDA WSC	FORT WORTH (SW)	JOHNSON COUNTY (GW)	
CITY OF OGLESBY	CORYELL CITY WSD	GATESVILLE (SW)		
PRAIRIE HILL WSC	EOL WSC	MCLENNAN COUNTY (GW)		
PURE WSC	LTG WSC	MCLENNAN COUNTY (GW)		

Table 7-8. Summary of Emergency Interconnects in the Brazos G Area

Emergency User [A]	Emergency Provider [B]	Provider's Sources [C]		
		Source #1	***Source #2***	***Source # 3***
RIDGE CREST ADDITION & MISTY HOLLOW	BETHESDA WSC	FORT WORTH (SW)	JOHNSON COUNTY (GW)	
CITY OF RIESEL	TRI COUNTY SUD	FALLS COUNTY (GW)	ROBERTSON COUNTY (GW)	
CITY OF RIO VISTA	JOHNSON COUNTY SUD	BRA-LAKE GRANBURY (SW)	MANSFIELD (SW)	JOHNSON COUNTY (GW)
RIVER COUNTRY ACRES	BRAZOS RIVER ACRES	HOOD COUNTY (GW)		
CITY OF ROCKDALE	SOUTHWEST MILAM WSC	MILAM COUNTY (GW)		
CITY OF ROGERS	BELL MILAM FALLS WSC	CENTRAL TEXAS WSC (SW)	BELL COUNTY (GW)	
CITY OF ROUND ROCK	CITY OF AUSTIN	LCRA-LAKE TRAVIS (SW)	LCRA-LAKE AUSTIN (SW)	
CITY OF ROUND ROCK	CITY OF GEORGETOWN	BRA-LAKE GEORGETOWN (SW)		
CITY OF ROUND ROCK (FUTURE)	CITY OF GEORGETOWN	LCRA-LAKE TRAVIS (SW)		
CITY OF ROUND ROCK (FUTURE)	CITY OF GEORGETOWN	LCRA-LAKE TRAVIS (SW)		
CITY OF ROUND ROCK	BRUSHY CREEK MUD	BRA-LAKE GEORGETOWN (SW)		
SHADY HILLS ESTATES WATER SYSTEM	BETHESDA WSC	FORT WORTH (SW)	JOHNSON COUNTY (GW)	
SHADY MEADOWS ESTATES	OAKVIEW FARMS SUBDIVISION	JOHNSON COUNTY (GW)		
SONTERRA MUD	JARRELL SCHWERTNER WSC	WILLIAMSON COUNTY (GW)	CENTRAL TEXAS WSC (SW)	SALADO WSC (GW)
SOUTH BOSQUE WSC	CITY OF WACO	LAKE WACO (SW)	MCLENNAN COUNTY (GW)	
SOUTH SAN GABRIEL RANCHES	HIGH GABRIEL WSC	WILLIAMSON COUNTY (GW)		
SOUTHWEST MILAM WSC	CITY OF ROCKDALE	MILAM COUNTY (GW)		
STEPHENS REGIONAL SUD	CITY OF BRECKENRIDGE	WEST CENTRAL TEXAS MWD (SW)	LAKE DANIELS (SW)	LAKE HUBBARD (SW)
SUNDANCE ADDITION	JOHNSON COUNTY SUD	MANSFIELD (SW)	BRA-LAKE GRANBURY (SW)	MANSFIELD (SW)
SYLVESTER MCCAULLEY WSC	CITY OF HAMLIN	ABILENE (SW)		
TEXAS A&M UNIVERSITY MAIN CAMPUS	CITY OF COLLEGE STATION	BRAZOS COUNTY (GW)		
CITY OF THROCKMORTON	FORT BELKNAP WSC	CITY OF GRAHAM (SW)		
TWIN CREEK SUBDIVISION	BETHESDA WSC	FORT WORTH (SW)	JOHNSON COUNTY (GW)	
CITY OF WACO	BLUEBONNET WSC	LAKE BELTON (SW)		
WELLBORN SUD	CITY OF BRYAN	BRAZOS COUNTY (GW)		
WELLBORN SUD	CITY OF COLLEGE STATION	BRAZOS COUNTY (GW)		

Table 7-8. Summary of Emergency Interconnects in the Brazos G Area

Emergency User [A]	Emergency Provider [B]	Provider's Sources [C]		
		Source #1	***Source #2***	***Source # 3***
WELLBORN SUD	TEXAS A&M UNIVERSITY MAIN CAMPUS	BRAZOS COUNTY (GW)		
WEST BELL COUNTY WSC	CITY OF KILLEEN	BELL COUNTY WCID 1 (SW)		
WEST BRAZOS WSC	CITY OF WACO	LAKE WACO (SW)	MCLENNAN COUNTY (GW)	
WESTERN HILLS	CITY OF GRANBURY	LAKE GRANBURY (SW)	HOOD COUNTY (GW)	
WESTSIDE RURAL WSC	BETHESDA WSC	FORT WORTH (SW)	JOHNSON COUNTY (GW)	
CITY OF WHITNEY	HILL COUNTY WSC	AQUILLA WSD (SW)		
WICKSON CREEK SUD	CITY OF BRYAN	BRAZOS COUNTY (GW)		
WICKSON CREEK SUD	WELLBORN SUD	NAVASOTA RIVER (SW)	BRAZOS (GW)	
WILLIAMSON COUNTY WSID 3	CITY OF ROUND ROCK	BRA-LAKE GEORGETOWN (SW)	WILLIAMSON COUNTY (GW)	
WORTH RANCH	PALO PINTO WSC	MINERAL WELLS (SW)		
*Emergency interconnect users/providers listed in TCEQ Drinking Water Watch Database; infrastructure details provided by email and/or via phone discussions.				

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7.4 Emergency Responses to Local Drought Conditions or Loss of Water Supply

As a result of the severe drought experienced during 2015 and 2016, the state water planning process encourages entities to plan for this potential emergency condition based on the drought of record. It is especially important for small entities that rely on a sole source of supply to have a back-up plan in case they experience a local drought, infrastructure/equipment failure or water supply contamination. Although many entities and WWPs have adopted DCPs, it is less common for the smaller municipalities or those included in County-Other to have these types of emergency plans in place.

All municipal WUGs in the region were evaluated regarding their potential emergency response to local drought conditions or loss of existing water supplies. Based on TWDB's template for this task, the emergency response alternatives included both temporary and/or permanent solutions. For the purpose of the evaluation, it was assumed that the entities being evaluated had approximately 180 days or less of water supply remaining. Municipal WUGs using groundwater supplies also considered implementing desalination of brackish groundwater, depending on the aquifers located in the area, as an alternative source of supply. MAG availability was not included in the analysis/alternative of drilling additional wells since the emergency supply would be used on a temporary basis. Municipal WUGs using surface water supplies were analyzed for curtailment of junior water rights and for releases from upstream reservoirs; additional yield availability was not analyzed for reservoir releases.

A high-level review and analysis were performed for (1) small WUGs having 2010 Census populations of less than 7,500 and relying on a sole source of water supply; and (2) all County-Other WUGs in the Brazos G Area regardless of population or number of sources. Several of the small WUGs are split by county, but it is the total WUG population that includes them on the list for having a total population of less than 7,500. If a WUG relied on surface water from an intake structure or a specific reservoir, then it was considered to have a sole source of supply, regardless of the number of contracts in place. A WUG that had a contract for purchasing treated water from Brazos River Authority (BRA) was not considered to have a sole source of supply due to BRA's system operations. WUGs using both groundwater and surface water supplies were not included in the evaluation, with the exception of County-Other entities.

Many of the WWPs in the Brazos G Area are also looking for ways to diversify their water supply portfolio in case a severe drought or loss of water supply; examples of water supply initiatives that have been identified or implemented are highlighted below.

Table 7-9. Alternative Water Supply Initiatives for WUG/WWPs in the Brazos G Area

WUG/WWP	Alternative Water Supply Initiative(s)
Bluebonnet WSC	Contracted with the Cities of Waco, Woodway and McGregor to construct a 16-inch diameter line/interconnect (serves both directions) as an alternative water supply source in case of an emergency.
Bistone MWD	Secured dual water supply sources, including Carrizo-Wilcox groundwater wells and water rights in Lake Mexia.
Bell County WCID No. 1	In the process of constructing a new water treatment plant at Lake Stillhouse and will tie it into their Lake Belton water system in order to incorporate redundancy into their water supply.
Palo Pinto County MWD No. 1	Secured an alternative source from Hilltop Reservoir in case they experience high turbidity or contamination of their current water supplies (primarily blend and treat water from the Brazos River and Lake Palo Pinto); Hilltop Reservoir is located adjacent to the Palo Pinto County MWD No. 1 water treatment plant and provides an additional 90-day water supply in case of an emergency.
City of Bryan	Considering Gibbons Creek as an alternative surface water supply along with their Aquifer Storage and Recovery (ASR) project to diversify their groundwater portfolio.
West Central Texas MWD	Secured an additional source of supply, Possum Kingdom Reservoir, in case the District experiences severe drought or emergency conditions impacting their primary water supply from Lake Hubbard.
City of Stamford	Identified additional groundwater supplies from property owners located north of the city, as well as additional surface water supplies from Cedar Ridge Reservoir.
Central Texas WSC	Will be able to supplement and firm up their water supply as a result of the Lake Granger Augmentation Project.
North Central Texas MWA	Drilled nine wells in the Seymour Aquifer during 2015 to provide back-up groundwater supplies for the Authority.

A nearby entity that could provide supply in the case of an isolated incident was identified for each WUG and existing interconnects were noted based on information listed in the TCEQ database. For the small WUGs split by county, a nearby entity was identified for that particular county if possible. In addition, trucking in water was considered as a supply option under severe circumstances. A total of 197 WUG entries (including small WUGs split by county) were researched and analyzed using the TCEQ database, including 37 County-Other WUGs. Over twice as many WUG entries were evaluated during this planning cycle compared to the 2016 Brazos G Regional Water Plan; the results of this effort are summarized below in Table 7-10.

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
BELL COUNTY-OTHER	BELL	5,166	870		X	X	X	X	X		KILLEEN			Well, Pipeline, Transportation
BARTLETT	BELL	827	158			X		X	X		HOLLAND			Well, Pipeline, Transportation
BELL COUNTY WCID 3	BELL	7,403	1,207					X	X		NOLANVILLE			Pipeline, Transportation
CENTRAL TEXAS COLLEGE DISTRICT	BELL	70	12					X	X		COPPERAS COVE			Pipeline, Transportation
DOG RIDGE WSC	BELL	5,211	724			X		X	X		HARKER HEIGHTS			Well, Pipeline, Transportation
ELM CREEK WSC	BELL	2,257	241			X		X	X		MOODY			Well, Pipeline, Transportation
HOLLAND	BELL	1,100	108			X		X	X		BARTLETT			Well, Pipeline, Transportation
JARRELL SCHWERTNER WSC	BELL	2,264	308		X	X		X	X	SONTERRA MUD	BRA-LONE STAR RWA			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
MORGANS POINT RESORT	BELL	5,077	582		X	X		X	X		TEMPLE			Well, Pipeline, Transportation
ROGERS	BELL	1,343	177			X		X	X	BELL MILAM FALLS WSC	BELTON			Well, Pipeline, Transportation
THE GROVE WSC	BELL	1,218	177			X		X	X		MOODY			Well, Pipeline, Transportation
WEST BELL COUNTY WSC	BELL	4,911	758			X		X	X		KILLEEN			Well, Pipeline, Transportation
BOSQUE COUNTY-OTHER	BOSQUE	5,645	899			X		X	X		CLIFTON			Well, Pipeline, Transportation
CHILDRESS CREEK WSC	BOSQUE	2,226	343			X		X	X		CLIFTON			Well, Pipeline, Transportation
HIGHLAND PARK WSC	BOSQUE	415	118			X		X	X		CLIFTON			Well, Pipeline, Transportation
MUSTANG VALLEY WSC	BOSQUE	2,104	2,104			X		X	X		MERIDIAN			Well, Pipeline, Transportation
SMITH BEND WSC	BOSQUE	751	99			X		X	X		CLIFTON			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
VALLEY MILLS	BOSQUE	1,370	267			X		X	X		CLIFTON			Well, Pipeline, Transportation
BRAZOS COUNTY-OTHER	BRAZOS	2,687	429			X	X	X	X		COLLEGE STATION			Well, Pipeline, Transportation
BURLESON COUNTY-OTHER	BURLESON	5,502	800			X	X	X	X		CALDWELL			Well, Pipeline, Transportation
CALDWELL	BURLESON	4,896	1,027			X		X	X		ROCKDALE			Well, Pipeline, Transportation
DEANVILLE WSC	BURLESON	3,186	411			X		X	X		CALDWELL			Well, Pipeline, Transportation
MILANO WSC	BURLESON	1,774	201			X		X	X		ROCKDALE			Well, Pipeline, Transportation
SNOOK	BURLESON	865	288			X	X	X	X		CALDWELL			Well, Pipeline, Transportation
SOMERVILLE	BURLESON	1,530	273			X	X	X	X		CALDWELL			Well, Pipeline, Transportation
CALLAHAN COUNTY-OTHER	CALLAHAN	2,887	267	X	X	X		X	X		CLYDE			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
CALLAHAN COUNTY WSC	CALLAHAN	2,097	179			X		X	X		CLYDE			Well, Pipeline, Transportation
CROSS PLAINS	CALLAHAN	1,134	193			X		X	X		CLYDE			Well, Pipeline, Transportation
POTOSI WSC	CALLAHAN	79	12			X		X	X		CLYDE			Well, Pipeline, Transportation
COMANCHE COUNTY-OTHER	COMANCHE	7,715	355	X	X	X		X	X		COMANCHE			Well, Pipeline, Transportation
COMANCHE	COMANCHE	4,491	520		X	X		X	X		DE LEON			Well, Pipeline, Transportation
DE LEON	COMANCHE	2,296	219		X	X		X	X		COMANCHE COUNTY WSC			Well, Pipeline, Transportation
CORYELL COUNTY-OTHER	CORYELL	2,474	614	X	X	X	X	X	X		COPPERAS COVE			Well, Pipeline, Transportation
CENTRAL TEXAS COLLEGE DISTRICT	CORYELL	710	120					X	X		COPPERAS COVE			Pipeline, Transportation
ELM CREEK WSC	CORYELL	395	42			X		X	X		OGLESBY			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
FLAT WSC	CORYELL	467	100			X		X	X		GATESVILLE			Well, Pipeline, Transportation
FORT GATES WSC	CORYELL	1,913	380			X		X	X		GATESVILLE			Well, Pipeline, Transportation
MULTI-COUNTY WSC	CORYELL	2,445	236			X		X	X		GATESVILLE			Well, Pipeline, Transportation
MUSTANG VALLEY WSC	CORYELL	28	6			X		X	X		GATESVILLE			Well, Pipeline, Transportation
OGLESBY	CORYELL	645	53			X				CORYELL CITY WSD	GATESVILLE			Well, Pipeline, Transportation
THE GROVE WSC	CORYELL	181	26			X		X	X		OGLESBY			Well, Pipeline, Transportation
EASTLAND COUNTY-OTHER	EASTLAND	5,211	470	X	X	X		X	X		EASTLAND			Well, Pipeline, Transportation
CISCO	EASTLAND	4,108	729	X		X		X	X		EASTLAND			Well, Pipeline, Transportation
EASTLAND	EASTLAND	3,946	622	X		X		X	X		CISCO			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

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Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
FORT GRIFFIN SUD	EASTLAND	12	2	X		X		X	X		CISCO			Well, Pipeline, Transportation
GORMAN	EASTLAND	1,082	94			X		X	X		CARBON			Well, Pipeline, Transportation
RISING STAR	EASTLAND	867	99			X		X	X		GORMAN			Well, Pipeline, Transportation
STAFF WSC	EASTLAND	1,269	128			X		X	X		GORMAN			Well, Pipeline, Transportation
STEPHENS REGIONAL SUD	EASTLAND	140	15	X		X		X	X	BRECKENRIDGE	EASTLAND			Well, Pipeline, Transportation
ERATH COUNTY-OTHER	ERATH	18,611	3,333		X	X		X	X		STEPHENVILLE			Well, Pipeline, Transportation
DUBLIN	ERATH	4,449	418		X	X		X	X		STEPHENVILLE			Well, Pipeline, Transportation
GORDON	ERATH	31	7		X	X		X	X		STEPHENVILLE			Well, Pipeline, Transportation
FALLS COUNTY-OTHER	FALLS	6,108	776		X	X	X	X	X		MARLIN			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
CEGO-DURANGO WSC	FALLS	1,054	176			X		X	X		MARLIN			Well, Pipeline, Transportation
FISHER COUNTY-OTHER	FISHER	655	76			X	X	X	X		ROTAN			Well, Pipeline, Transportation
BITTER CREEK WSC SOUTH	FISHER	1,013	134			X	X	X	X		ROTAN			Well, Pipeline, Transportation
GRIMES COUNTY-OTHER	GRIMES	8,833	1,251			X	X	X	X		NAVASOTA			Well, Pipeline, Transportation
NAVASOTA	GRIMES	7,529	1,474			X		X	X		COLLEGE STATION			Well, Pipeline, Transportation
TDCJ LUTHER UNITS	GRIMES	1,478	289			X	X	X	X		NAVASOTA			Well, Pipeline, Transportation
TDCJ W PACK UNIT	GRIMES	1,687	397			X	X	X	X		NAVASOTA			Well, Pipeline, Transportation
HAMILTON COUNTY-OTHER	HAMILTON	3,609	450			X		X	X		HAMILTON			Well, Pipeline, Transportation
HAMILTON	HAMILTON	2,991	512			X		X	X		MULTI COUNTY WSC			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
HICO	HAMILTON	1,387	180			X		X	X		HAMILTON			Well, Pipeline, Transportation
MULTI COUNTY WSC	HAMILTON	575	55			X		X	X		HAMILTON			Well, Pipeline, Transportation
HASKELL COUNTY-OTHER	HASKELL	2,640	360		X	X	X	X	X		HASKELL			Well, Pipeline, Transportation
HASKELL	HASKELL	3,239	504			X	X	X	X		STAMFORD			Well, Pipeline, Transportation
STAMFORD	HASKELL	34	9			X	X	X	X		HASKELL			Well, Pipeline, Transportation
HILL COUNTY-OTHER	HILL	1,974	163	X	X	X	X	X	X		HILLSBORO			Well, Pipeline, Transportation
CHATT WSC	HILL	726	95			X		X	X		HILLSBORO			Well, Pipeline, Transportation
FILES VALLEY WSC	HILL	2,538	389			X		X	X		HILLSBORO			Well, Pipeline, Transportation
GHOLSON WSC	HILL	677	89			X	X	X	X		AQUILLA	X		Well, Pipeline, Transportation

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Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
ITASCA	HILL	1,727	152			X		X	X		HILLSBORO			Well, Pipeline, Transportation
POST OAK SUD	HILL	898	66			X		X	X		HUBBARD			Well, Pipeline, Transportation
WHITNEY	HILL	2,570	492			X		X	X	HILL COUNTY WSC	AQUILLA			Well, Pipeline, Transportation
WOODROW-OSCEOLA WSC	HILL	3,406	311			X		X	X		HILLSBORO			Well, Pipeline, Transportation
HOOD COUNTY-OTHER	HOOD	25,280	798	X	X	X		X	X		GRANBURY			Well, Pipeline, Transportation
LIPAN	HOOD	946	115			X		X	X		GRANBURY			Well, Pipeline, Transportation
SANTO SUD	HOOD	55	7			X		X	X		GRANBURY			Well, Pipeline, Transportation
TOLAR	HOOD	1,026	143			X		X	X		GRANBURY			Well, Pipeline, Transportation
JOHNSON COUNTY-OTHER	JOHNSON	8,874	2,988	X	X	X		X	X		BURLESON			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
GODLEY	JOHNSON	1,009	102			X		X	X	JOHNSON COUNTY SUD	CLEBURNE			Well, Pipeline, Transportation
GRANDVIEW	JOHNSON	1,755	182			X		X	X		ALVARADO			Well, Pipeline, Transportation
RIO VISTA	JOHNSON	1,117	154			X		X	X	JOHNSON COUNTY SUD	CLEBURNE			Well, Pipeline, Transportation
JONES COUNTY-OTHER	JONES	2,853	290	X	X	X	X	X	X		ABILENE			Well, Pipeline, Transportation
ANSON	JONES	2,565	365			X	X	X	X		STAMFORD			Well, Pipeline, Transportation
HAMLIN	JONES	2,254	423			X	X	X	X		STAMFORD			Well, Pipeline, Transportation
STAMFORD	JONES	3,305	840			X	X	X	X		ANSON			Well, Pipeline, Transportation
KENT COUNTY-OTHER	KENT	116	15			X	X	X	X		JAYTON			Well, Pipeline, Transportation
JAYTON	KENT	682	118			X	X	X	X		ASPERMONT			Well, Pipeline, Transportation

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Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
KNOX COUNTY-OTHER	KNOX	1,255	139		X	X	X	X	X		MUNDAY			Well, Pipeline, Transportation
KNOX CITY	KNOX	1,147	237			X		X	X		MUNDAY			Well, Pipeline, Transportation
MUNDAY	KNOX	1,327	253			X		X	X		GOREE			Well, Pipeline, Transportation
LAMPASAS COUNTY-OTHER	LAMPASAS	1,119	206			X	X	X	X		LAMPASAS			Well, Pipeline, Transportation
LAMPASAS	LAMPASAS	7,852	1265			X		X	X		LOMETA	X		Well, Pipeline, Transportation
LEE COUNTY-OTHER	LEE	1,286	156			X	X	X	X		GIDDINGS			Well, Pipeline, Transportation
GIDDINGS	LEE	5,792	1154			X	X	X	X		THRALL			Well, Pipeline, Transportation
LEXINGTON	LEE	1,373	244			X		X	X		GIDDINGS			Well, Pipeline, Transportation
LIMESTONE COUNTY-OTHER	LIMESTONE	3,270	539	X	X	X	X	X	X		MEXIA			Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

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GROESBECK	LIMESTONE	4,377	688	X	X			X	X		MEXIA			Pipeline, Transportation
MART	LIMESTONE	5	1			X	X	X	X		MEXIA	X		Well, Pipeline, Transportation
MEXIA	LIMESTONE	8,458	568			X		X	X	BISTONE MWD	SLC WSC			Well, Pipeline, Transportation
POST OAK SUD	LIMESTONE	152	11			X		X	X		TEHUACANA	X		Well, Pipeline, Transportation
PRAIRIE HILL WSC	LIMESTONE	846	140			X	X	X	X	EOL WSC	MEXIA	X		Well, Pipeline, Transportation
SLC WSC	LIMESTONE	1,229	107			X		X	X		MEXIA			Pipeline, Transportation
MCLENNAN COUNTY-OTHER	MCLENNAN	9,914	1,175	X	X	X		X	X		WACO			Well, Pipeline, Transportation
AXTELL WSC	MCLENNAN	1,378	166			X	X	X	X	EOL WSC	WACO	X		Well, Pipeline, Transportation
CHALK BLUFF WSC	MCLENNAN	2,646	268			X	X	X	X	ROSS WSC	WACO	X		Well, Pipeline, Transportation

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Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
CRAWFORD	MCLENNAN	727	148		X	X		X	X		MCGREGOR			Well, Pipeline, Transportation
EAST CRAWFORD WSC	MCLENNAN	967	328			X		X	X		WOODWAY			Well, Pipeline, Transportation
ELM CREEK WSC	MCLENNAN	1,807	193			X		X	X		BRUCEVILLE-EDDY			
EOL WSC	MCLENNAN	1,894	231			X	X	X	X	AXTELL WSC & PRAIRIE HILL WSC	WACO	X		Well, Pipeline, Transportation
GHOLSON	MCLENNAN	1,760	232			X	X	X	X		WACO	X	X	Well, Pipeline, Transportation
H & H WSC	MCLENNAN	1,607	188			X	X	X	X		TRI COUNTY SUD	X		Well, Pipeline, Transportation
HIGHLAND PARK WSC	MCLENNAN	170	48			X		X	X		WACO, GHOLSON WSC			Well, Pipeline, Transportation
LACY LAKEVIEW	MCLENNAN	6,831	745			X		X	X		WACO			Well, Pipeline, Transportation
LEVI WSC	MCLENNAN	912	107			X		X	X		LORENA			

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MART	MCLENNAN	2,370	351			X	X	X	X		WACO	X		Well, Pipeline, Transportation
MCGREGOR	MCLENNAN	5234	801			X		X	X		MOODY			Well, Pipeline, Transportation
MCLENNAN COUNTY WCID 2	MCLENNAN	1762	273			X	X	X	X		WACO	X		Well, Pipeline, Transportation
NORTH BOSQUE WSC	MCLENNAN	2,229	566			X		X	X		WACO			Well, Pipeline, Transportation
PRAIRIE HILL WSC	MCLENNAN	611	101			X	X	X	X	EOL WSC	WACO	X		Well, Pipeline, Transportation
RIESEL	MCLENNAN	1,241	163			X	X	X	X	TRI COUNTY SUD	RMS WSC	X	X	Well, Pipeline, Transportation
TEXAS STATE TECHNICAL COLLEGE	MCLENNAN	579	888			X		X	X		LACY LAKEVIEW			
VALLEY MILLS	MCLENNAN	23	4			X		X	X		WACO			Well, Pipeline, Transportation
WINDSOR WATER	MCLENNAN	636	104			X		X	X		WOODWAY			Well, Pipeline, Transportation

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MILAM COUNTY-OTHER	MILAM	1,050	160		X		X	X	X		CAMERON			Pipeline, Transportation
CAMERON	MILAM	5,904	1363			X		X	X		MILANO WSC			Well, Pipeline, Transportation
MILANO WSC	MILAM	1,841	209			X		X	X		CAMERON			Well, Pipeline, Transportation
ROCKDALE	MILAM	6,004	1173			X		X	X	SOUTHWEST MILAM WSC	CAMERON			Well, Pipeline, Transportation
THORNDALE	MILAM	1,415	183			X		X	X		ROCKDALE			Well, Pipeline, Transportation
NOLAN COUNTY-OTHER	NOLAN	1,074	140		X	X		X	X		SWEETWATER			Well, Pipeline, Transportation
ROSCOE	NOLAN	1,402	199			X		X	X		SWEETWATER			Well, Pipeline, Transportation
BITTER CREEK WSC SOUTH	NOLAN	1,462	193			X		X	X		ROSCOE			Well, Pipeline, Transportation
PALO PINTO COUNTY-OTHER	PALO PINTO	3,021	92	X	X			X	X		MINERAL WELLS			Pipeline, Transportation
GORDON	PALO PINTO	636	140	X		X		X	X		STRAWN			

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LAKE PALO PINTO AREA WSC	PALO PINTO	1004	106	X				X	X		SANTO SUD			
NORTH RURAL WSC	PALO PINTO	1631	158	X	X			X	X		PALO PINTO WSC			
PALO PINTO WSC	PALO PINTO	864	115	X	X			X	X		NORTH RURAL WSC			
POSSUM KINGDOM WSC	PALO PINTO	1946	834	X	X			X	X		GRAFORD			
SANTO SUD	PALO PINTO	2028	254	X		X		X	X		GORDON			
SPORTSMANS WORLD MUD	PALO PINTO	123	122	X	X			X	X		PALO PINTO WSC			
STEPHENS REGIONAL SUD	PALO PINTO	43	5	X		X		X	X	BRECKENRIDGE	POSSUM KINGDOM WSC			
STRAWN	PALO PINTO	753	145	X	X			X	X		MINERAL WELLS			Pipeline, Transportation
STURDIVANT PROGRESS WSC	PALO PINTO	2,606	240	X	X			X	X		PALO PINTO WSC			
ROBERTSON COUNTY-OTHER	ROBERTSON	1,353	155			X	X	X	X		HEARNE			Well, Pipeline, Transportation

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BETHANY HEARNE WSC	ROBERTSON	323	43			X	X	X	X		CALVERT			
BREMOND	ROBERTSON	989	181			X	X	X	X	TRI COUNTY SUD	HEARNE			Well, Pipeline, Transportation
CALVERT	ROBERTSON	1,193	190			X	X	X	X		HEARNE			Well, Pipeline, Transportation
FRANKLIN	ROBERTSON	1,851	274			X	X	X	X		HEARNE			Well, Pipeline, Transportation
HEARNE	ROBERTSON	4,474	759			X	X	X	X		FRANKLIN			Well, Pipeline, Transportation
ROBERTSON COUNTY WSC	ROBERTSON	2,849	424			X	X	X	X		HEARNE			Well, Pipeline, Transportation
TWIN CREEK WSC	ROBERTSON	1,496	265			X	X	X	X		FRANKLIN			Well, Pipeline, Transportation
SHACKELFORD COUNTY-OTHER	SHACKELFORD	247	25	X	X			X	X		ALBANY			Pipeline, Transportation
CALLAHAN COUNTY WSC	SHACKELFORD	55	5	X		X		X	X		MORAN			

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
FORT GRIFFIN SUD	SHACKELFORD	635	96	X		X		X	X		MORAN			
STEPHENS REGIONAL SUD	SHACKELFORD	16	2	X		X		X	X	BRECKENRIDGE	ALBANY			
SOMERVELL COUNTY-OTHER	SOMERVELL	5,289	644	X	X			X	X		GLEN ROSE			Pipeline, Transportation
GLEN ROSE	SOMERVELL	2,836	605			X		X	X		TOLAR			Well, Pipeline, Transportation
STEPHENS COUNTY-OTHER	STEPHENS	453	55			X		X	X		BRECKENRIDGE			Well, Pipeline, Transportation
FORT BELKNAP WSC	STEPHENS	50	6			X		X	X		BRECKENRIDGE			
FORT GRIFFIN SUD	STEPHENS	679	102	X		X		X	X		BRECKENRIDGE			
POSSUM KINGDOM WSC	STEPHENS	80	34	X	X			X	X		BRECKENRIDGE			
STAFF WSC	STEPHENS	415	42			X		X	X		BRECKENRIDGE			
STEPHENS REGIONAL SUD	STEPHENS	2,347	257	X		X		X	X	BRECKENRIDGE	ALBANY			

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
STONEWALL COUNTY-OTHER	STONEWALL	576	70			X	X	X	X		ASPERMONT			Well, Pipeline, Transportation
TAYLOR COUNTY-OTHER	TAYLOR	5,769	573		X			X	X		ABILENE			Pipeline, Transportation
POTOSI WSC	TAYLOR	5,187	801			X		X	X		ABILENE			
STEAMBOAT MOUNTAIN WSC	TAYLOR	4,410	376			X		X	X		ABILENE			
TYE	TAYLOR	1,319	184			X		X	X		ABILENE			
VIEW CAPS WSC	TAYLOR	1,593	195			X		X	X		ABILENE			
THROCKMORTON COUNTY-OTHER	THROCKMORTON	317	99		X			X	X		THROCKMORTON			Pipeline, Transportation
FORT BELKNAP WSC	THROCKMORTON	185	20			X		X	X		THROCKMORTON			
FORT GRIFFIN SUD	THROCKMORTON	128	19	X		X		X	X		THROCKMORTON			
STEPHENS REGIONAL SUD	THROCKMORTON	155	17	X		X		X	X	BRECKENRIDGE	THROCKMORTON			
THROCKMORTON	THROCKMORTON	846	185		X			X	X	FORT BELKNAP WSC	GRAHAM			Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
WASHINGTON COUNTY-OTHER	WASHINGTON	10,687	1,381			X	X	X	X		BRENHAM			Well, Pipeline, Transportation
CENTRAL WASHINGTON COUNTY WSC	WASHINGTON	1,990	254			X	X	X	X		BRENHAM			
CHAPPELL HILL WSC	WASHINGTON	922	141			X	X	X	X		BRENHAM			
WILLIAMSON COUNTY-OTHER	WILLIAMSON	39,226	5,376	X	X	X	X	X	X		ROUND ROCK			Well, Pipeline, Transportation
BARTLETT	WILLIAMSON	1,047	200			X	X	X	X		ROUND ROCK			Well, Pipeline, Transportation
BLOCK HOUSE MUD	WILLIAMSON	6,419	846			X		X	X	LEANDER	ROUND ROCK			
FERN BLUFF MUD	WILLIAMSON	5,793	1187			X		X	X		BRUSHY CREEK MUD			
FLORENCE	WILLIAMSON	1,357	1357			X		X	X	GEORGETOWN	ROUND ROCK		X	Well, Pipeline, Transportation
GRANGER	WILLIAMSON	1,551	209			X	X	X	X		ROUND ROCK		X	Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
JARRELL-SCHWERTNER WSC	WILLIAMSON	4786	650		X	X		X	X	SONTERRA MUD	GEORGETOWN			
PALOMA LAKE MUD 1	WILLIAMSON	2339	305			X		X	X		GEORGETOWN		X	Well, Pipeline, Transportation
PALOMA LAKE MUD 2	WILLIAMSON	2058	245			X		X	X		GEORGETOWN		X	Well, Pipeline, Transportation
THORNDALE	WILLIAMSON	3	0			X	X	X	X		ROUND ROCK		X	Well, Pipeline, Transportation
WALSH RANCH MUD	WILLIAMSON	714	199			X		X	X		BRUSHY CREEK MUD			
WILLIAMSON COUNTY MUD 10	WILLIAMSON	3,402	727			X		X	X		GEORGETOWN		X	Well, Pipeline, Transportation
WILLIAMSON COUNTY MUD 11	WILLIAMSON	4,074	820			X		X	X		GEORGETOWN		X	Well, Pipeline, Transportation
WILLIAMSON COUNTY MUD 9	WILLIAMSON	2,724	548			X		X	X		GEORGETOWN		X	Well, Pipeline, Transportation

Table 7-10. Potential Emergency Water Supplies for Small and County-Other WUGs Facing Loss of Supply

Entity				Potential Emergency Water Supply Sources							Implementation Requirements			
Water User Group	County	2020 Population	2020 Demand (AF/yr)	Release From Upstream Reservoir	Curtailment of Upstream/Downstream Water Rights	Local Groundwater Well	Brackish Groundwater Desalination	Truck in Water	Supply from Nearby Entity	Existing Emergency Interconnect	Potential Entity Providing Supply	Other Local Entities Required to Participate/Coordinate	Emergency Agreements/Arrangements Already in Place?	Type of Infrastructure Required
WILLIAMSON TRAVIS COUNTIES MUD 1	WILLIAMSON	4,596	598			X		X	X		GEORGETOWN		X	Well, Pipeline, Transportation
YOUNG COUNTY-OTHER	YOUNG	1,718	334		X	X		X	X		GRAHAM			Well, Pipeline, Transportation
FORT BELKNAP WSC	YOUNG	3,883	430			X		X	X		OLNEY	X		Well, Pipeline, Transportation

7.5 Region-Specific Drought Response Recommendations and Model Drought Contingency Plans

Brazos G acknowledges that DCPs are a useful drought management tool for entities with both surface and groundwater sources and recommends that all entitles consider adopting a DCP in preparation for drought conditions. The region also recommends that in accordance with TCEQ guidelines, entities update their DCPs every five years as triggers can change as wholesale and retail water providers reassess their contracts and supplies.

7.5.1 Drought Response Recommendations for Surface Water

Surface water accounts for approximately 75% of projected 2070 municipal supplies in Brazos G. Surface water supply is sold by more than 25 WUG/WWPs and comes from over 50 lakes and numerous river intakes. With such a variety of supply sources it is difficult to create a set of triggers and responses that fit the needs of each WUG in the regional planning area. Brazos G recognizes that supplies are understood best by the operators and suggests that WUGs without DCPs look to the DCPs of their water providers as examples, if available.

For entities without DCPs which supply themselves with local surface water, Brazos G suggests reviewing the drought responses and recommendations used by similar entities in the region. An example of triggers and responses from the DCP for the City of Waco is presented below (Table 7-11). Waco was selected as a representative example because they provide water to several entities throughout the Brazos G Area and rely on a single source of surface water, i.e., Lake Waco. The DCP includes four water stages ranging from “Water Alert” to “Water Crisis”. The triggers depend on parameters such as treatment plant use, storage levels, reservoir elevations, and system failures. The responses include categories ranging from home irrigation limits to commercial and industrial use reductions.

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Table 7-11. Waco Surface Water Drought Contingency Response

Drought Stage	Trigger	Actions	Goals
Stage 1 – MILD Water Shortage	• Lake Waco reservoir level decreases to 455 feet msl (about 72% of capacity) • Weather forecasts and streamflow conditions warrant restrictions, based on opinion of the city manager	Mandatory restrictions: • Limit water use to activities necessary to maintain public health, safety and welfare and any computer-controlled irrigation systems that incorporate evapotranspiration data in setting irrigation run times. • Monitor “excessive watering” and issue notifications to customers. “Excessive watering” defined as run-off extending greater than ten feet from the owner’s property, or washing or hosing down of buildings, sidewalks, driveways, patios, porches, parking surfaces or other paved surfaces. Criminal penalties do NOT apply during Stage 1.	• Reduction of previous 3-year average daily use by 1%
Stage 2 – MODERATE Water Shortage	• Lake Waco reservoir level decreases to 452 feet msl (about 60% capacity) • Inability to recover approximately 90 percent of water stored in all storage facilities within a 24-hour period • Weather forecasts and streamflow conditions warrant restrictions, based on opinion of the city manager	Mandatory restrictions: • Landscape irrigation and other outdoor water used limited to twice per week, with water days based on street address. Criminal penalties DO apply during Stage 2. Note: Watering of newly installed landscaping is exempt from Stage 2 for no more than one month from date of planting	• Reduction of previous 3-year average daily use by 5%
Stage 3 – SEVERE Water Shortage	• Lake Waco reservoir level decreases to 452 feet msl (about 60% capacity) • Weather forecasts and streamflow conditions warrant restrictions, based on opinion of the city manager • Total water available is determined to be less than a 24-month supply	Mandatory restrictions: • Landscape irrigation and other outdoor water used limited to once per week, with water days based on street address • Swimming pools, spas, ornamental ponds and fountains replenished by hand-held holes to maintain operational purposes only • Permitting of new swimming pools, hot tubs, spas, ponds and ornamental fountains prohibited. Facilities under construction at time of Stage 3 announcement may be completed and filled to 75% capacity • Excessive water run-off is prohibited. • Washing or hosing down of buildings, sidewalks, driveways, patios, porches, parking areas or other paved surfaces is prohibited. Note: Exemptions apply to commercial nurseries, certain commercial car washes, and golf courses using evapotranspiration data to set irrigation run times.	• Reduction of previous 3-year average daily use by 7%
Stage 4 – EMERGENCY Water Shortage	• Lake Waco reservoir level decreases to 445 feet msl (about 40% capacity) • City manager determines that catastrophically decreasing lake levels and/or delivery capabilities with an inability to recover to provide necessary services • Weather forecasts and streamflow conditions warrant restrictions, based on opinion of the city manager • Total water available is determined to be less than a 12-month supply	Mandatory restrictions: • Any and all outdoor/landscape water usage is prohibited, including all metered water users using the city’s public water supply • Water used for municipal purposes shall be limited to only those activities necessary to maintain the public health and safety • Use of water from fire hydrants is prohibited except for firefighting and other health and safety related activities	• Reduction of previous 3-year average daily use by 10%

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7.5.2 Drought Response Recommendations for Groundwater

Groundwater accounts for approximately 25 percent of projected 2070 municipal supplies. Entities in Brazos G use both brackish and non-brackish wells from over 15 aquifers or formations. With such a variety of supply sources it is difficult to create a set of triggers and responses that fit the needs of each WUG in the regional planning area. Brazos G recognizes that supplies are understood best by the operators and suggests that WUGs without DCPs look to the DCP's of their water providers and groundwater conservation districts as examples, if available.

For entities without DCPs supplying themselves with local groundwater, Brazos G suggests reviewing the drought responses and recommendations used by similar nearby entities. An example of triggers and responses from the DCP for the City of Thrall is presented below (Table 7-12). Thrall was selected as a representative example because they are a small WUG using local groundwater like many of the groundwater reliant WUGS who have not yet developed a DCP. The DCP includes four water stages ranging from "Mild" to "Water Emergency". The triggers depend on parameters such as season, ground storage levels, contamination, and system failures. The responses include categories ranging from residential irrigation limits to commercial and industrial use reductions. Note that Thrall is in the process of updating this DCP.

Table 7-12. Thrall Groundwater Drought Contingency Response

Drought Stage	Trigger	Actions
Stage I – MILD	Yearly: May 1st – September 30th.	• City reduces water main flushing • Voluntary limit on irrigation to 2 days a week at designated times • City of Thrall should adhere to Stage 2 restrictions below • Customers are requested to minimize or discontinue non-essential water use
Stage II – MODERATE	Ground Storage does not gain over 20ft.	• Mandatory limit on irrigation to 2 days a week at designated times or by hand held hose or 5 gallon bucket • Vehicle washing allowed only with hand held bucket or hose • Filling of pools or Jacuzzis limited to watering days/times • Non-circulating ponds or fountains are prohibited unless supporting aquatic life. • Use of water from fire hydrants shall be limited to firefighting activities or other activities necessary to maintain public health, safety and welfare. • All restaurants are prohibited from serving water unless requested • Non-essential uses are prohibited
Stage III – SEVERE	Ground Storage does not gain over 15 ft.	• All actions listed in Stage II • Irrigation limited to hand held hose or less than 5 gallons of faucet water is used during designated watering days and times. • The use of water for construction from designated hydrants under special permit is discontinued.

Table 7-12. Thrall Groundwater Drought Contingency Response

Drought Stage	Trigger	Actions
Stage IV – CRITICAL	Ground Storage does not gain over 10 ft	• All actions listed in Stages II and III • Only washing of mobile equipment in the critical interest of the public health or safety is allowed. Commercial car washes can be used during designated hours. • Filling of swimming pools or fountains is prohibited • No applications for new, additional or expanded water service infrastructure shall be approved
Stage V – EMERGENCY	• Infrastructure breaks • Contamination • System outage	• All actions described in previous stages • Irrigation of landscaped areas is absolutely prohibited • Use of water to wash any vehicle is absolutely prohibited

7.5.3 Model Drought Contingency Plans

TCEQ has prepared model drought contingency plans for wholesale and retail water suppliers and irrigation districts to provide guidance and suggestions to entities with regard to the preparation of drought contingency plans. Not all items in the model will apply to every system's situation, but the overall model can be used as a starting point for most entities. Brazos G suggests that the TCEQ Model DCPs should be used in conjunction with drought contingency measures such as those listed above for Waco and Thrall for entities wishing to develop a new DCP. The DCPs for Waco and Thrall can be found in Appendix J.

The TCEQ model drought contingency plans can be found on TCEQ's website at the following link:

https://www.tceq.texas.gov/permitting/water_rights/wr_technical-resources/contingency.html#additional

7.6 Drought Management WMS

The regional water plan is developed to meet projected water demands during a drought of severity equivalent to the drought of record. Brazos G sees the purpose of the planning as ensuring that sufficient supplies are available to meet future water demands. For this reason, drought management recommendations have not been made by Brazos G as a water management strategy for specific WUG needs. Reducing water demands during a drought as a defined water management strategy does not ensure that sufficient supplies will be available to meet the projected water demands; but simply eliminates the demands. While Brazos G encourages entities in the region to promote demand management during a drought, it should not be identified as a "new source" of supply. Recommending demand reductions as a water management strategy is antithetical to the concept of planning to meet projected water demands. It does not make more efficient use of existing supplies as does conservation, but instead effectively turns the tap off when the water is needed most. It is planning to not meet future water demands.

While Drought Management WMS are not recommended as water management strategies by the BGRWPG, DCPs are encouraged for all entities and the region supports the implementation of the drought responses outlined in these DCPs when corresponding triggers occur. While the relief provided from these DCP responses can prolong supply and reduce impacts to communities, they are not considered to be reliable for all entities under all potential droughts.

7.7 Drought Preparedness Council Report

The Drought Preparedness Council provided a letter to the BGRWPG on August 1, 2019. In this letter, the Council offered two recommendations to Brazos G:

1. "Follow the outline template for Chapter 7 provided to the regions by Texas Water Development Board staff in April of 2019, making an effort to fully address the assessment of current drought preparations and planned responses, as well as planned responses to local drought conditions or loss of municipal supply."

Brazos G Response: Brazos G has utilized the Chapter 7 template provided by TWDB staff, and has reviewed and summarized drought contingency plans in the Brazos G Area.

2. "Develop region-specific model drought contingency plans for all water use categories in the region that account for more than 10 percent of water demands in any decade over the 50-year planning horizon."

Brazos G Response: Municipal use represents between 36% and 50% of water use in the Brazos G Area. Brazos G has included two model drought contingency plans for municipal utilities.

Irrigation and Steam-electric power generation also represent more than 10% of water use in the Brazos G Area. Situations regarding water supply shortages caused by drought can vary widely across a regional water planning area as large and diverse as Brazos G. Therefore, no region-specific model drought contingency plan can be developed that would provide a useable set of recommended actions that would be applicable across the regional water planning area for irrigation or steam-electric water uses. Brazos G encourages local irrigators and operators of steam-electric generating facilities to evaluate the vulnerability of their individual water supplies and identify individual actions they should take when water supplies are reduced by drought.

7.8 Other Drought Recommendations

7.8.1 Model Updates

It is of upmost importance that regional water planning groups have the most up to date information available to make decisions. The Brazos G WAM is used to determine both the drought of record and the firm yield of reservoirs, but has not been updated in almost 20 years. The Brazos G Regional Water Planning Group appreciates that the Texas legislature has directed TCEQ to update the Brazos WAM.

7.8.2 Counterproductive Variations in Drought Response Strategies

Review of drought contingency plans in the Brazos G Area identified instances where:

1. Neighboring utilities relying on the same source utilize different drought triggers, and
2. Neighboring utilities relying on different sources utilize the same trigger due to the convenience of the media sources available from the larger market (usually smaller suburban communities following the lead of the larger urban community).

Both of these situations can be counterproductive during times of drought, and require education of utility customers regarding their source(s) of supply.

7.8.3 Recommendations to the Drought Preparedness Council

Brazos G offers no recommendations to the Drought Preparedness Council nor any recommendations regarding the State Drought Preparedness Plan.

7.8.4 Monitoring and Assessment

Brazos G recommends that all entities monitor the drought situation around the state and locally in order to prepare for and facilitate decisions. Several state and local agencies are monitoring and reporting on conditions with up to date information. More information can be found at these local, state and federal resources.

- Brazos River Authority Drought Information:

  https://www.brazos.org/About-Us/Water-Supply/Drought
- Palmer Drought Severity Index:

  http://www.ncdc.noaa.gov/temp-and-precip/drought/historical-palmers/
- TWDB Drought Information:

  http://waterdatafortexas.org/drought/
- TCEQ Drought Information:

  https://www.tceq.texas.gov/response/drought
- Drought Annex: State of Texas Emergency Management Plan (2014, updated 2016):

  https://waterdatafortexas.org/drought/twdb-reports/state_of_texas_drought_annex_2016.pdf
- National Drought Mitigation Center:

  https://drought.unl.edu/droughtplanning/StatePlanning.aspx?st=TX
- National Integrated Drought Information System:

  https://www.drought.gov/drought/states/texas

8

Recommendations for Unique Stream Segments, Unique Reservoir Sites, and Other Legislative Policy Recommendations

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8 Recommendations for Unique Stream Segments, Unique Reservoir Sites, and Other Legislative Policy Recommendations

8.1 Recommendations Concerning River and Stream Segments Having Unique Ecological Value

Regional water planning groups (RWPGs) are given the option of designating stream segments having "unique ecological value" within their planning areas. Five criteria are used to identify such segments:

1. Biological Function:
    - Quantity (acreage or areal extent of habitat), and
    - Quality (biodiversity, age, uniqueness).
2. Hydrologic Function:
    - Water Quality,
    - Flood Attenuation and Flow Stabilization, and
    - Groundwater Recharge and Discharge.
3. Occurrence of Riparian Conservation Areas.
4. Occurrence of High Water Quality, Exceptional Aquatic Life or High Aesthetic Value.
5. Occurrence of Threatened or Endangered Species and/or Unique Communities.

The Brazos G RWPG (Brazos G) has chosen not to designate any stream segments as having unique ecological value.

8.2 Recommendations Concerning Sites Uniquely Suited for Reservoir Construction

Brazos G has previously identified the following sites as uniquely suited for reservoir construction. Each site was associated with a request by a potential local project sponsor to include the project as a recommended or alternative water management strategy in the 2016 Plan.

- Cedar Ridge Reservoir (City of Abilene),
- Turkey Peak Reservoir (Palo Pinto County Municipal Water District No. 1),
- Millers Creek Off-Channel Reservoir (North Central Texas Municipal Water Authority) (now known as Lake Creek Reservoir),
- Brushy Creek Reservoir (City of Marlin), and
- Coryell County Off-Channel Reservoir (Coryell County).

Texas Water Code, 16.051(g-1) states "The designation of a unique reservoir site under this subsection terminates on September 1, 2015, unless there is an affirmative vote by a proposed project sponsor to make expenditures necessary in order to construct or file applications for permits required in connection with the construction of the reservoir under federal or state law."

Brazos G recommends re-designation of the Millers Creek Off-Channel Reservoir (known as Lake Creek Reservoir) and the Coryell County Off-Channel Reservoir, for which the unique designation appears to have terminated.

Brazos G recommends no change in designation for the previously-designated sites for Cedar Ridge Reservoir, Turkey Peak Reservoir and Brushy Creek Reservoir, as those designations have not terminated because sufficient action has been taken prior to September 1, 2015 regarding their development to meet the requirements of Texas Water Code 16.051(g-1).

Brazos G does not recommend designation of any additional sites as uniquely suited for reservoir construction.

8.3 Legislative and Policy Recommendations

Brazos G established a Water Policy Workgroup to discuss various issues concerning State water policy and to formulate proposed positions for the planning group to consider for recommendation to the Texas Water Development Board (TWDB) and the Texas Legislature. As the population and economic demands grow, water supplies become more stressed. These developments coupled with recent drought conditions make it increasingly important for water planning groups to consider diverse water management strategies.

Regional water planning rules require use of the Texas Commission on Environmental Quality (TCEQ) water availability models (WAMs) in determining surface water supply availability. The period of record for most existing TCEQ WAMs ends with the year 1997. In portions of the Brazos River Basin, drought conditions since 1997 are worse than conditions experienced prior to 1997. Therefore, firm water availability from existing surface water supply sources and from new surface water supply strategies may be overstated. As a result, water shortages may exist that are not apparent in the regional and State water plans. Brazos G considers it prudent to explore alternatives to the historic drought of record for water planning purposes. As more diverse water management planning strategies are developed alternative water planning measurements may include firm yield, safe yield and/or operational yield as appropriate. In addition, the water planning process requires coordination with agencies such as the TCEQ and the TWDB. These agencies need sufficient funding and staffing in order to assist water planning groups in fulfilling their water planning mission. Brazos G applauds the Texas Legislature's decision to fund an update to the hydrology of the Brazos Basin WAM that will account for the more recent droughts experienced in the Brazos Basin and urges the Texas Legislature to provide additional funding for regular maintenance updates.

Brazos G will promote water development policies that support efforts to protect both groundwater and surface water sources by encouraging sound practices that will not adversely affect water supply or quality. We support other agencies and organizations in their efforts to encourage responsible land management and will oppose any practice or action in our watersheds or recharge zones that could adversely affect our water resources. Maintaining our watershed health, economic sustainability, and community viability are all critical elements in our water planning efforts. Protecting source water and sensible stewardship of the areas adjacent to and around river basins, sensitive sub- basins, aquifers, and recharge zones is essential for maintaining these resources for present and future needs.

During development of the 2021 Plan, the Water Policy Workgroup revisited several legislative and water policy recommendations incorporated into the 2016 Plan and developed additional recommendations. All recommendations identified by the workgroup were presented for consideration by the full Brazos G RWPG. After deliberation, Brazos G offers the following specific recommendations concerning State water policy to the TWDB and the Texas Legislature.

8.3.1 Issue #1: Streamlining the Processes for Project Implementation

"Brazos G recommends that the Texas Legislature direct all State agencies involved in planning, reviewing, and/or permitting water projects to develop defined outcomes and measures of the process for evaluating, approving, permitting, coordinating and funding in order to allow timely project implementation. Processing timelines are critical factors in the development of new resources. The timely development of new sources, consistent with adopted plan strategies, is a major element of meeting the State's water demands. The amount of time required to gain approval for surface water projects is just one example of the need for more structured and cost-effective processes."

8.3.2 Issue #2: Plan Implementation

"Brazos G recognizes the need for expeditious implementation of the State Water Plan facilitated by the use of the State Water Implementation Fund for Texas (SWIFT)."

8.3.3 Issue #3: Coordination between Regional Water Planning Groups and Groundwater Conservation Districts

"Brazos G is committed to working cooperatively with Groundwater Conservation Districts (GCDs) and Groundwater Management Areas (GMAs) when developing the Regional Plan. The GCDs are requested to review population and water demand projections for their respective Districts and comment accordingly.

Brazos G recognizes modeled available groundwater (MAG) as the amount of water that the TWDB Executive Administrator determines may be produced on

an average annual basis to maintain or achieve the desired future conditions (DFCs) adopted by the GCDs within a GMA. "Desired future condition" means a quantitative description of the desired condition of the groundwater resources in a management area at one or more specified future times.

GMAs are tasked with the joint planning of groundwater resources as prescribed in Texas Water Code Chapter 36.108. DFCs proposed must provide a balance between the highest practicable level of groundwater production and the conservation, preservation, protection, recharging, and prevention of waste of groundwater and control of subsidence in the management area. Regional water plans are required to use the MAGs in place at the time of adoption of TWDB's state water plan in the next regional water planning cycle or, at the option of the regional water planning group, established subsequent to the adoption of the most recent plan. TWDB revised its planning rules to include a MAG Peak Factor that ensures regional water plans have the ability to fully reflect how, under current statute, GCDs anticipate managing groundwater production under drought conditions. However, additional work and efforts to implement regional water plan projects into the groundwater availability model pumping dataset would further assist and benefit uniform, comprehensive joint planning by both groups, further defining the potential impacts and outlook for the future.

Planning of and management to DFCs as a view of the health of aquifers without unreasonably depleting aquifers is consistent with Brazos G's historical policy not to support water management strategies that would substantially deplete aquifers.

Brazos G recognizes and supports the protection of local aquifer systems accomplished through planning and management by groundwater conservation districts and those entities, at present or in the future, invested in groundwater production. Maintaining fluidity and flexibility of the planning processes is in everyone's best interest for setting goals for the future."

8.3.4 Issue #4: System Operation of Water Facilities

"Brazos G recognizes the inherent benefit of system operations of existing water supply sources and recommends that State water planning as well as permitting continue to promote such water management strategies. System operation involves coordinated operation of two or more water supply sources (including surface water reservoirs, run-of-river diversions and aquifers) such that the system yield is greater than the sum of the individual sources.

System operation provides several significant benefits to the State, including more effective utilization of existing infrastructure; efficient use of water supplies to meet water demand; delay or avoidance of expensive new water supply infrastructure; and reduced negative environmental impacts potentially resulting from major new projects."

8.3.5 Issue #5: Interbasin Transfers of Surface Water

"Brazos G recognizes that Interbasin Transfers (IBTs) have been a critical component of water management in the Brazos G Area and are a necessary component of overall State water management strategies. The automatic assignment of junior rights to an interbasin water transfer is a deterrent and suppresses the development of interbasin water supply projects. We recommend the re-evaluation of the junior water rights provision that is automatically assigned to interbasin transfers. We also recommend that statutory rules, policies and administrative code be reviewed, and the permitting and review process be streamlined to eliminate any unnecessary obstacles to IBTs."

8.3.6 Issue #6: Rule of Capture

"While Brazos G recognizes that the Rule of Capture remains valid law in Texas, we also recognize that advances in science, changes in water marketing, Texas Supreme Court and case law rulings, and increasing pressures on groundwater add complexity to this issue.

The groundwater supply is being tapped to its limits, and in many instances, landowners risk loss due to depletion by over-pumping. Local management through checks and balances can most effectively and fairly regulate usage and protect individual property rights. GCDs are appropriate mechanisms to provide local management of groundwater, to fairly preserve historic use, ensure future sustainability, and protect private property rights – both the rights of those pumping groundwater, and their neighbors. In areas without a GCD and their modification of the Rule of Capture, it is vital to engage individual local entities utilizing the resource in the current and future planning of the resource through the regional water planning group and GMA.

As such, Brazos G supports the continued management of fresh, brackish, and saline groundwater by GCDs. Planning for these groundwater resources should be continued by GCDs and TWDB in defining brackish groundwater zones."

8.3.7 Issue #7: Conjunctive Use of Groundwater and Surface Water

"Brazos G recognizes conjunctive use as an important management strategy to maximize use of available resources to meet water demands of the State Water Plan. As conjunctive use projects are identified, they should be recommended water management strategies for the regional water plan because Brazos G encourages development of conjunctive use projects. Conjunctive use is the systematic utilization of groundwater and surface water to optimize the combined yield from both sources. Conjunctive use seeks to maximize the advantages and minimize the disadvantages of each source when both are utilized together. Construction of surface water reservoirs, which provide new sources of water, along with judicial use of groundwater resources, which can be of finite quantity, will provide an integrated solution for the water needs of the future. Brazos G also encourages consideration of applicable water quality and environmental issues related to conjunctive use."

8.3.8 Issue #8: Aquifer storage and recovery (ASR) and Aquifer Recharge Project (ARP)

"ASR projects have the potential to store large amounts of water, eliminate evaporative losses of stored water, reduce impacts to groundwater and surface water resources in times of peak demand, and minimize the impact on surface owners when compared to large reservoir projects. However, it is important to note the significant time component of ASR projects regarding injection and withdrawal. ASR historically is associated with water injection in the winter months, or times of high supply and low demand, and recovered in the following summer months, times of low supply and high demand. The longer the injected water is left in place, the greater potential for the injected water to migrate and disintegrate with the native water source. While ASR projects could be beneficial, there are a number of questions regarding ownership of the injected water, percentage of injected water that is recoverable over time, impact to existing groundwater users, and the quality to which injected water must be treated. An improved legal/public policy framework is needed to address these issues and enhance adoption. Further, we recommend that these water management strategies include sufficient hydrologic study to protect receiving aquifers.

An ARP means a project involving the intentional recharge of an aquifer by means of an injection well or other means of infiltration, including actions designed to reduce declines in the water level of the aquifer, supplement the quality of groundwater available, improve water quality in an aquifer, and improve spring flows and other interactions between groundwater and surface water and/or mitigate subsidence. ARPs have the potential to provide another avenue for water resource stewardship to benefit local and regional water supplies. Quantity and quality reporting for these projects will be vital for use in regional water planning activities to fully account for supplies available during times of drought. Brazos G encourages the use and development of ARPs to enhance and protect water resources available in our region."

8.3.9 Issue #9: Municipal Per Capita Water Use

"Brazos G recommends the regional water planning process be changed to separate non-residential and residential water use and look at both separately. The current practice of using a WUG's overall gallons per capita per day (gpcd) does not take into account the variation of land use or density of WUG service areas. Adopting better definitions and metrics for water planning beyond the limitations of gpcd would improve the water supply planning process as well as allow for more useful comparisons between WUGs. An example of this could be allocating expected water use per acre based on customer type, (e.g. Residential, Commercial, Institutional, and Industrial). Also, there needs to be consistency in all water use calculations, and better guidance as to whether regional planning groups are to use raw water delivered or treated water provided in calculating water use for resource planning."

8.3.10 Issue #10: Reservoir Water Management

"Brazos G recognizes that the primary purpose of conservation storage capacity in Texas reservoirs authorized for water supply is, in fact, water supply. Although recreational and aesthetic benefits of these reservoirs may provide economic impacts locally, these are secondary incidental benefits. Therefore, we recommend that appropriate state agencies and state legislative bodies uphold the critically important primary purpose of Texas water supply reservoirs to ensure long-standing agreements and contracts are honored and deliveries are not jeopardized by secondary interests. Further, consideration of providing educational programs regarding reservoir purpose and management and other appropriate assistance for businesses and others impacted is recommended.

Additionally, Brazos G recommends that appropriate state agencies and state legislative bodies protect water supply reservoirs from future policies or rules that could cause a conversion from water supply purposes to flood control purposes (i.e. mandates of pre-releases, seasonal drawdown protocols, re-allocation of conservation storage, etc.)."

8.3.11 Issue #11: Watershed Planning/Source Water Protection

"Brazos G will promote water development policies that support efforts to protect both groundwater and surface water sources by encouraging sound practices that will not adversely affect water supply or quality. We support other agencies and organizations in their efforts to encourage responsible land management and will oppose any practice or action in our watersheds or recharge zones that could adversely affect our water resources. Maintaining our watershed health, economic sustainability and community viability are all critical elements in our water planning efforts. Sensible stewardship of the areas adjacent to and around river basins, sensitive sub-basins, aquifers and re-charge zones is essential for maintaining these resources. Through source water protection, Texas can promote equitable costs for present and future water sources. Furthermore, Brazos G encourages all governmental agencies, when making regulatory/ permitting decisions or influencing decisions regarding land and resource use, to give preference to alternatives to protect or enhance the quality of water so that such water resources may be utilized for beneficial use."

8.3.12 Issue #12: Water Pricing and Conservation

"Acknowledging that water providers must protect a limited resource, pricing signals for both retail and wholesale water should incentivize conservation. Brazos G encourages water providers to seriously consider implementing appropriate rate structures that would be consistent with best management practices for the water industry. State agencies responsible for regulating these rate structures should provide water providers with the ability to not only cover the cost of service but allow water rate structures to act as a tool in recovering the known future costs of developing or acquiring the next available resource."

8.3.13 Issue #13: Reuse of Wastewater Effluent

"Brazos G promotes the full development of municipal wastewater effluent as a resilient water resource that can be responsibly used to help meet the water needs of the State of Texas. We further support state agencies and organizations in their efforts to develop technologies and permit the storage and reuse of wastewater effluent as a resilient water source."

8.3.14 Issue #14: Education

"Brazos G believes strongly that water education is important and supports water conservation and public awareness programs at the state and local level. Research indicates that there is a strong relationship between knowledge of water sources and a willingness to conserve. Conservation can be a cost-effective means of securing future water supply."

8.3.15 Issue #15: Effects of the Federal Safe Drinking Water Act (SDWA) on Water Supply Systems

"Brazos G recognizes the difficulty in meeting the standards of the Federal Safe Drinking Water Act for some water supply systems. Therefore, we encourage the regionalization of these systems, and/or education and proactive planning."

8.3.16 Issue #16: Planning Process Improvements

"In order to realize the value of the planning process, Brazos G recommends the Texas Legislature provide funding and direct the TWDB to adopt policies in the following areas:

- Strategic Initiatives. TWDB should provide funds for studies deemed important by the regional water planning groups as strategic initiatives that should be pursued. These would be similar to the Phase 1 studies performed during the third cycle of the regional water planning process prior to development of the 2011 regional water plans.
- Planning Support for Small Systems. Small systems are often at higher risk of losing water supply during drought, and the TWDB should provide support and funding for closer coordination with small systems through subregional planning.
- Mid-cycle Legislative Requirements. The Texas Legislature should not change the requirements of the regional water plans after the current planning cycle has commenced without also providing additional funding for increased requirements."

8.3.17 Issue #17: Consistency of Water Planning Rules with Texas Administrative Code

"Planning guidelines promulgated by the TWDB often appear to exceed the requirements of the Texas Administrative Code, and planning funds might better be utilized focused on the development of plans to provide the water supplies necessary to meet projected demands during severe droughts and not on ancillary, albeit important, issues."

8.4 Brazos G – A Valuable Texas Resource

Brazos G is one the most diverse regional water planning areas in Texas, covering 37 counties along the Brazos River Basin. The geographic area extends from Kent, Stonewall and Knox counties in the northwest to Washington and Lee Counties in the southeast.

Since its inception, Brazos G has been an important platform in regional water planning. Its central mission is to develop a regional water plan. The planning process is the true added value. Bringing together perspectives from agriculture, industries, municipalities, counties, small business, water utilities, the public, electric utilities, groundwater management representatives, environmental interests, and river authorities has helped to enhance the overall water planning process.

Brazos G does not operate in a vacuum. We use resources such as our consultant, HDR Engineering, Inc., and its subconsultants, to collect reliable data to include in our regional water plan. We reach out to constituents in the 37 counties as we develop the regional water plan. We engage with other stakeholders in addressing water planning issues. Our planning group meetings are forums for vetting ideas for or against water planning ideas. This process encourages transparency.

Brazos G serves an important role as an entry point for public engagement in the water planning process. This role also makes it a good resource for the Texas Legislature as it grapples with the realities of an ongoing drought, a burgeoning population, and strong economic development.

We welcome such a role and stand ready to assist.

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9

Infrastructure Financing

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9 Infrastructure Financing

9.1 Introduction

Senate Bill 2 (77th Texas Legislature) requires that an Infrastructure Financing Report (IFR) be incorporated into the regional water planning process. In order to meet this requirement, each regional water planning group (RWPG) is required to examine the funding needed to implement the water management strategies and projects identified and recommended in the planning area's 2021 regional water plan.

9.2 Objectives of the Infrastructure Financing Survey

The primary objective of the Infrastructure Financing Survey is to determine the financing options proposed by political subdivisions to meet future water infrastructure needs in the Brazos G Area (including the identification of any State funding sources considered).

9.3 Methods and Procedures

For the Brazos G Regional Water Planning Area, all municipal water user groups (except County-Other) and wholesale water providers having water needs and recommended water management strategies with an associated capital cost in the initially prepared regional plan were surveyed using a questionnaire provided by the TWDB. Mining, Irrigation, Livestock and Steam-Electric WUGs were also not mailed a survey. Individual municipalities and wholesale water providers were mailed the survey in early August and asked to return the surveys no later than August 31st.

For each project with an identified capital cost, the survey respondents were asked to enter only the amounts that they wish to receive from the TWDB program listed below:

- Planning, Design, Permitting and Acquisition: Costs were entered into this category if the entity wanted to participate in the TWDB programs offering subsidized interest and deferral of principal and interest for planning, design, permitting, and acquisition costs.
- Construction Funding: Costs were entered into this category if the entity wants to obtain subsidized interest for all project costs, including planning, design, and construction.
- State Participation: Percentages of costs were entered into this category if the entity wanted to participate in the State Participation Program. State Participation funding offers partial interest and principal deferral for the incremental cost of project elements which are designed and built to serve needs beyond 10 years.

9.4 Survey Responses

The Brazos G RWPG sent letters to 125 municipal water user groups and wholesale water providers and as of September 16, 2020, had received 15 responses, a 12 percent response rate. Of those 125 surveys sent, 70 contain only a conservation WMS. The Brazos River Authority (BRA) is not included in the survey responses received; however,

the BRA did provide correspondence indicating that based on the current status and timelines of the strategies represented within the Initially Prepared 2021 Brazos G Regional Water Plan, that it was premature to establish potential funding amounts that may be requested through the various TWDB financial assistance programs.

As shown in Table 9-1, the 15 responses represent about 31 percent of the estimated capital costs of water management strategies included as part of this survey. Of those responding, for which total capital costs are $1,458,856,093, the survey shows that approximately $1.265 billion would be sought through the state funding programs. It is unclear how the remaining 69 percent of the capital costs for those entities not responding would be financed. Georgetown, North Central Texas MWA and Palo Pinto MWD #1 indicated some financing through state participation in owning excess capacity.

The survey responses presented are related to water management strategies and capital costs included in the Initially Prepared 2021 Plan. As a result of public and agency comments on the Initially Prepared 2021 Plan, some strategies and capital costs have been modified in the final 2021 Plan, and those changes are not reflected here. Responses are as of September 16, 2020.

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
ABILENE	CEDAR RIDGE RESERVIOR	$283,646,000	No Response				
ABILENE	EXPAND WTP (23.2 MGD) – ABILENE	$61,665,000	No Response				
ABILENE	MUNICIPAL WATER CONSERVATION – ABILENE	$12,241,000	No Response				
ACTON MUD	EXPAND WTP SWATS – ACTON MUD	$23,934,000	No Response				
ACTON MUD	TRINITY AQUIFER DEVELOPMENT – ACTON MUD	$965,000	No Response				
ALBANY	MUNICIPAL WATER CONSERVATION – ALBANY	$1,295,000	No Response				
ARMSTRONG WSC	MUNICIPAL WATER CONSERVATION – ARMSTRONG WSC	$209,000	No Response				
ASPERMONT	MUNICIPAL WATER CONSERVATION – ASPERMONT	$496,000	No Response				
BARTLETT	MUNICIPAL WATER CONSERVATION – BARTLESS	$599,000	No Response				
BELL COUNTY WCID #1	BELL COUNTY WCID #1 – NORTH REUSE	$15,186,000	No Response				
BELL COUNTY WCID #1	BELL COUNTY WCID #1 – SOUTH REUSE	$11,578,000	No Response				
BELL COUNTY WCID #2	TRINITY AQUIFER DEVELOPMENT – BELL COUNTY WCID #2	$979,000	No Response				
BELL COUNTY WCID #3	MUNICIPAL WATER CONSERVATION – BELL COUNTY WCID #3	$120,000	No Response				

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
BELL MILAM FALLS WSC	MUNICIPAL WATER CONSERVATION – BELL MILAM FALLS WSC	$26,000	No Response				
BELLMEAD	REUSE – BELLMEAD/LACY LAKEVIEW	$8,038,000	No Response				
BELTON	EXPAND WTP (2.1 MGD) – BELTON	$9,158,000	No Response				
BELTON	MUNICIPAL WATER CONSERVATION – BELTON	$2,142,000	No Response				
BETHESDA WSC	CONSERVATION, IRRIGATION RESTRICTION – BETHESDA WSC	$8,576	No Response				
BETHESDA WSC	CONSERVATION, WATER LOSS CONTROL – BETHESDA WSC	$197,156	No Response				
BETHESDA WSC	MUNICIPAL WATER CONSERVATION – BETHESDA WSC	$12,420,000	No Response				
BISTONE MWSD	CARRIZO AQUIFER DEVELOPMENT – BISTONE MWSD	$1,772,000	No Response				
BISTONE MWSD	MUNICIPAL WATER CONSERVATION – BISTONE MWSD	$577,000	No Response				
BRAZOS RIVER AUTHORITY	ALLENS CREEK RESERVOIR	$109,633,890	Response received, but no data provided				
BRAZOS RIVER AUTHORITY	BELTON TO STILLHOUSE PIPELINE – BRA	$67,993,000	Response received, but no data provided				
BRAZOS RIVER AUTHORITY	LAKE AQUILLA REALLOCATION – BRA	$24,353,000	Response received, but no data provided				
BRAZOS RIVER AUTHORITY	LAKE GRANGER ASR	$116,431,000	Response received, but no data provided				
BRAZOS RIVER AUTHORITY	LAKE GRANGER AUGMENTATION – PHASE 1 – BRA	$96,685,000	Response received, but no data provided				
BRAZOS RIVER AUTHORITY	LAKE GRANGER AUGMENTATION – PHASE 2 – BRA	$845,564,000	Response received, but no data provided				
BRAZOS RIVER AUTHORITY	LAKE WHITNEY REALLOCATION TO WILLIAMSON COUNTY	$253,824,000	Response received, but no data provided				
BRECKENRIDGE	MUNICIPAL WATER CONSERVATION - BRECKENRIDGE	$282,000	No Response				
BREMOND	MUNICIPAL WATER CONSERVATION – BREMOND	$133,000	No Response				
BRENHAM	GULF COAST AQUIFER DEVELOPMENT – BRENHAM	$2,958,000	No Response				
BRENHAM	MUNICIPAL WATER CONSERVATION – BRENHAM	$9,182,000	No Response				
BRUCEVILLE-EDDY	MUNICIPAL WATER CONSERVATION – BRUCEVILLE-EDDY	$764,000	No Response				
BRUSHY CREEK MUD	MUNICIAPL WATER CONSERVATION – BRUSHY CREEK MUD	$1,467,000	$0	N/A	$0	N/A	0%

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
BRYAN	BRYAN ASR (CARRIZO-WILCOX) – PHASE 1	$36,202,000	$2,000,000	2021	$13,655,000	2021	0%
BRYAN	BRYAN ASR (CARRIZO-WILCOX) – PHASE 2	$36,202,000	$2,500,000	2030	$27,500,000	2030	0%
BRYAN	CARRIZO GW DEVELOPMENT FOR BRYAN IN BRAZOS COUNTY	$34,718,000	$2,500,000	2030	$17,500,000	2035	0%
BRYAN	MUNICIPAL WATER CONSERVATION – BRYAN	$13,868,000	$0	N/A	$0	N/A	0%
BRYAN	REUSE – BRYAN (OPTION 1)	$11,092,000	$0	N/A	$0	N/A	0%
BRYAN	REUSE – MIRAMONT	$3,894,000	$0	N/A	$0	N/A	0%
BURLESON	BURLESON – ADDITIONAL INFRASTRUCTURE FROM FT WORTH	$4,688,000	No Response				
BURLESON	CONSERVATION, WATER LOSS CONTROL – BURLESON	$132,685	No Response				
CALDWELL	MUNICIPAL WATER CONSERVATION – CALDWELL	$1,369,000	No Response				
CAMERON	MUNICIPAL WATER CONSERVATION – CAMERON	$2,593,000	No Response				
CEDAR PARK	BRUSHY CREEK RUA WATER SUPPLY	$73,104,263	$10,965,639	2021	$62,138,624	2021	0%
CEDAR PARK	MUNICIPAL CONSERVATION – CEDAR PARK	$3,932,000	$786,400	2025	$3,145,000	2026	0%
CEDAR PARK	MUNICIPAL WATER CONSERVATION – CEDAR PARK	$38,089,000	$7,617,800	2025	$30,471,200	2026	0%
CEDAR PARK	REUSE – CEDAR PARK	$7,184,000	$1,436,800	2023	$5,747,200	2024	0%
CEGO-DURANGO WSC	MUNICIPAL WATER CONSERVATION – CEGO-DURANGO WSC	$35,000	No Response				
CENTRAL TEXAS COLLEGE DISTRICT	MUNICIPAL WATER CONSERVATION – CENTRAL TEXAS COLLEGE DISTRICT	$37,000	No Response				
CENTRAL WASHINGTON COUNTY WSC	GULF COAST AQUIFER DEVELOPMENT – CORIX UTILITIES TEXAS INC	$1,853,359	No Response				
CHILDRESS CREEK WSC	BOSQUE COUNTY REGIONAL WATER SUPPLY PROJECT	$5,744,000	No Response				
CISCO	MUNICIPAL WATER CONSERVATION – CISCO	$292,000	No Response				
CLEBURNE	MUNICIPAL WATER CONSERVATION – CLEBURNE	$7,253,000	$1,160,000	2022	$6,092,000	2023	0%
CLEBURNE	REUSE – CLEBURNE	$29,803,000	$4,769,000	2020	$23,034,000	2021	0%
CLIFTON	BOSQUE COUNTY REGIONAL WATER SUPPLY PROJECT	$7,506,000	No Response				
CLIFTON	MUNICIPAL WATER CONSERVATION – CLIFTON	$425,000	No Response				

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
COLLEGE STATION	CARRIZO GW DEVELOPMENT FOR COLLEGE STATION IN BRAZOS COUNTY	$43,914,000	No Response				
COLLEGE STATION	COLLEGE STATION – DPR	$84,177,000	No Response				
COLLEGE STATION	COLLEGE STATION ASR (REUSE)	$86,514,000	No Response				
COLLEGE STATION	MUNICIPAL WATER CONSERVATION – COLLEGE STATION	$1,305,000	No Response				
COLLEGE STATION	REUSE – COLLEGE STATION	$3,553,000	No Response				
COOLIDGE	MUNICIPAL WATER CONSERVATION – COOLIDGE	$24,000	No Response				
CORYELL CITY WATER SUPPLY DISTRICT	MUNICIPAL WATER CONSERVATION – CORYELL CITY WATER SUPPLY DISTRICT	$108,000	No Response				
CRAWFORD	MUNICIPAL WATER CONSERVATION – CRAWFORD	$156,000	No Response				
CROSS COUNTY WSC	MUNICIPAL WATER CONSERVATION – CROSS COUNTRY WSC	$129,000	$0	N/A	$0	N/A	0%
CROSS PLAINS	MUNICIPAL WATER CONSERVATION – CROSS PLAINS	$54,000	No Response				
DOUBLE DIAMOND UTILITIES	MUNICIPAL WATER CONSERVATION – DOUBLE DIAMOND UTILITIES	$891,000	No Response				
EAST CRAWFORD WSC	MUNICIPAL WATER CONSERVATION – EAST CRAWFORD WSC	$916,000	No Response				
FERN BLUFF MUD	MUNICIPAL WATER CONSERVATION – FERN BLUFF MUD	$2,130,000	No Response				
FILES VALLEY WSC	CONSERVATION, WATER LOSS CONTROL – FILES VALLEY WSC	$2,291	No Response				
FLAT WSC	MUNICIPAL WATER CONSERVATION – FLAT WSC	$221,000	No Response				
FORT GATES WSC	MUNICIPAL WATER CONSERVATION – FORT GATES WSC	$615,000	No Response				
FORT HOOD	MUNICIPAL WATER CONSERVATION – FORT HOOD	$11,038,000	No Response				
GATESVILLE	EXPAND WTP (1.2 MGD) – GATESVILLE	$9,577,000	$1,000,000	2030	$15,000,000	2035	0%
GATESVILLE	MUNICIPAL WATER CONSERVATION – GATESVILLE	$13,327,000	$0	N/A	$2,570,000	2021	0%
GEORGETOWN	EXPAND WTP (21 MGD) – GEORGETOWN	$85,760,000	$12,864,000	2021	$72,896,000	2022	50%
GEORGETOWN	LAKE GEORGETOWN ASR	$306,276,000	$45,941,400	2022	$260,334,600	2026	75%
GEORGETOWN	MUNICIPAL CONSERVATION – GEORGETOWN	$579,000	$86,850	2022	$492,150	2024	50%

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
GEORGETOWN	MUNICIPAL WATER CONSERVATION – GEORGETOWN	$162,839,000	$24,425,850	2024	$138,413,150	2026	50%
GEORGETOWN	REUSE – GEORGETOWN	$6,270,000	$940,500	2025	$5,329,500	2027	50%
GIDDINGS	MUNICIPAL WATER CONSERVATION – GIDDINGS	$1,336,000	No Response				
GLEN ROSE	MUNICIPAL WATER CONSERVATION – GLEN ROSE	$1,026,000	No Response				
GODLEY	TRINITY AQUIFER DEVELOPMENT – GODLEY	$1,101,000	No Response				
GORDON	MUNICIPAL WATER CONSERVATION – GORDON	$240,000	No Response				
GRAHAM	MUNICIPAL WATER CONSERVATION – GRAHAM	$6,742,000	No Response				
GRANBURY	NORTH WTP	$45,500,000	$4,000,000	2026	$41,500,000	2027	0%
GROESBECK	GROESBECK OFF CHANNEL RESERVOIR – GROESBECK	$23,599,000	No Response				
HAMILTON	MUNICIPAL WATER CONSERVATION – HAMILTON	$168,000	No Response				
HAMLIN	MUNICIPAL WATER CONSERVATION – HAMLIN	$323,000	No Response				
HARKER HEIGHTS	INTERCONNECT FROM KILLEEN TO HARKER HEIGHTS	$2,580,000	No Response				
HARKER HEIGHTS	MUNICIPAL WATER CONSERVATION – HARKER HEIGHTS	$10,133,000	No Response				
HEARNE	MUNICIPAL WATER CONSERVATION – HEARNE	$238,000	No Response				
HEWITT	MUNICIPAL WATER CONSERVATION – HEWITT	$1,437,000	No Response				
HEWITT	REUSE – BULLHIDE CREEK	$7,349,000	No Response				
HIGHLAND PARK WSC	MUNICIPAL WATER CONSERVATION – HIGHLAND PARK WSC	$418,000	No Response				
HIGHLAND PARK WSC	TRINITY AQUIFER DEVELOPMENT – HIGHLAND PARK WSC	$1,829,000	No Response				
HILLSBORO	MUNICIPAL WATER CONSERVATION – HILLSBORO	$2,911,000	No Response				
JAYTON	MUNICIPAL WATER CONSERVATION – JAYTON	$45,000	No Response				
JAYTON	NEW WTP (0.4 MGD) – JAYTON	$3,555,000	No Response				
JOHNSON COUNTY SUD	CONSERVATION, WATER LOSS CONTROL – JOHNSON COUNTY SUD	$6,197	No Response				
JOHNSON COUNTY SUD	EXPAND WTP SWATS – JOHNSON COUNTY SUD	$8,814,000	No Response				

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
JOHNSON COUNTY SUD	TRINITY AQUIFER DEVELOPMENT – JOHNSON COUNTY SUD	$9,306,000	No Response				
JONAH WATER SUD	MUNICIPAL WATER CONSERVATION – JONAH WATER SUD	$467,000	No Response				
KEMPNER WSC	EXPAND WTP (1.8 MGD) – KEMPNER WSC	$10,821,000	No Response				
KEMPNER WSC	MUNICIPAL CONSERVATION – KEMPNER WSC	$519,000	No Response				
KEMPNER WSC	MUNICIPAL WATER CONSERVATION – KEMPNER WSC	$1,386,000	No Response				
KNOX CITY	MUNICIPAL WATER CONSERVATION – KNOX CITY	$299,000	No Response				
LACY LAKEVIEW	REUSE – BELLMEAD/LACY LAKEVIEW	$8,038,000	No Response				
LAWN	MUNICIPAL WATER CONSERVATION – LAWN	$130,000	No Response				
LEANDER	BRUSHY CREEK RUA WATER SUPPLY	$142,186,421	No Response				
LEXINGTON	MUNICIPAL WATER CONSERVATION – LEXINGTON	$125,000	No Response				
LIBERTY HILL	BRUSHY CREEK RUA WATER SUPPLY	$3,676,679	No Response				
LITTLE ELM VALLEY WSC	MUNICIPAL WATER CONSERVATION – LITTLE ELM VALLEY	$261,000	No Response				
LORENA	MUNICIPAL WATER CONSERVATION – LORENA	$18,000	No Response				
LORENA	REUSE – BULLHIDE CREEK	$7,349,000	No Response				
MARLIN	BRUSHY CREEK RESERVOIR – MARLIN	$33,229,000	No Response				
MARLIN	MUNICIPAL WATER CONSERVATION – MARLIN	$4,066,000	No Response				
MART	INTERCONNECT FROM WACO TO MART	$7,105,372	No Response				
MERIDIAN	BOSQUE COUNTY REGIONAL WATER SUPPLY PROJECT	$4,432,000	No Response				
MINERAL WELLS	CONSERVATION, IRRIGATION RESTRICTION – MINERAL WELLS	$8,576	No Response				
MINERAL WELLS	CONSERVATION, WATER LOSS CONTROL – MINERAL WELLS	$7,493	No Response				
MINERAL WELLS	MUNICIPAL WATER CONSERVATION – MINERAL WELLS	$187,000	No Response				
MULTI COUNTY WSC	CORYELL COUNTY OFF-CHANNEL RESERVIOR	$82,584,000	No Response				
MUNDAY	MUNICIPAL WATER CONSERVATION – MUNDAY	$201,000	No Response				

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
MUSTAND VALLEY WSC	MUNICIPAL WATER CONSERVATION – MUSTANG VALLEY WSC	$769,000	No Response				
NAVASOTA	MUNICIPAL WATER CONSERVATION – NAVASOTA	$1,348,000	No Response				
NORTH BOSQUE WSC	INTERCONNECT FROM WACO TO NORTH BOSQUE	$2,428,000	No Response				
NORTH BOSQUE WSC	MUNICIPAL WATER CONSERVATION – NOTH BOSQUE WSC	$2,300,000	No Response				
NORTH CENTRAL TEXAS MWA	LAKE CREEK RESERVOIR	$259,001,000	$38,850,000	2035	$220,151,000	2040	50%
NORTH MILAM WSC	MUNICIPAL WATER CONSERVATION – NORTH MILAM WSC	$108,000	No Response				
PALO PINTO COUNTY MWD #1	TURKEY PEAK RESERVOIR	$102,530,000	$0	N/A	$77,430,000	2025	25%
PARKER WSC	TRINITY AQUIFER DEVELOPMENT – PARKER WSC	$1,045,000	No Response				
POSSUM KINGDOM WSC	MUNICIPAL WATER CONSERVATION – POSSUM KINGDOM WSC	$2,212,000	No Response				
PRAIRIE HILL WSC	MUNICIPAL WATER CONSERVATION – PRAIRIE HILL WSC	$34,000	No Response				
PRAIRIE HILL WSC	UPGRADE WTP FOR ARSENIC – PRAIRIE HILL WSC	$1,408,000	No Response				
RANGER	MUNICIPAL WATER CONSERVATION – RANGER	$224,000	No Response				
ROBERTSON COUNTY WSC	CARRIZO AQUIFER DEVELOPMENT – ROBERTSON COUNTY WSC	$3,440,000	No Response				
ROBINSON	EXPAND WTP (4 MGD) – ROBINSON	$16,813,000	No Response				
ROBINSON	MUNICIPAL WATER CONSERVATION – ROBINSON	$3,743,000	No Response				
ROBY	MUNICIPAL WATER CONSERVATION – ROBY	$81,000	$12,000	2021	$68,000	2021	0%
ROCKDALE	CARRIZO AQUIFER DEVELOPMENT – ROCKDALE	$5,086,000	$762,900	2023	$4,323,100	2025	0%
ROCKDALE	MUNICIPAL WATER CONSERVATION – ROCKDALE	$1,164,000	$174,600	2024	$989,400	2025	0%
ROUND ROCK	BRUSHY CREEK RUA WATER SUPPLY	$107,826,043	$5,000,000	2022	$65,000,000	2022	0%
ROUND ROCK	MUNICIPAL CONSERVATION – ROUND ROCK	$69,787	$0	N/A	$0	N/A	0%
ROUND ROCK	MUNICIPAL WATER CONSERVATION – ROUND ROCK	$28,008,000	$0	N/A	$0	N/A	0%
SALADO WSC	MUNICIPAL WATER CONSERVATION – SALADO WSC	$5,986,000	No Response				

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
SALT FORK WATER QUALITY CORP.	CHLORIDE CONTROL PROJECT	$106,537,000	No Response				
SNOOK	MUNICIPAL WATER CONSERVATION – SNOOK	$719,000	No Response				
SOMERVILLE	MUNICIPAL WATER CONSERVATION – SOMERVILLE	$171,000	No Response				
SONTERRA MUD	EAST WILLIAMSON COUNTY WATER PROJECT	$10,289,903	No Response				
SOUTHWEST MILAM WSC	CARRIZO AQUIFER DEVELOPMENT – SOUTHWEST MILAM WSC	$5,080,000	No Response				
SOUTHWEST MILAM WSC	MUNICIPAL WATER CONSERVATION – SOUTHWEST MILAM WSC	$472,000	No Response				
SPORTSMANS WORLD MUD	MUNICIPAL WATER CONSERVATION – SPORTSMANS WORLD MUD	$328,000	No Response				
STAMFORD	MUNICIPAL WATER CONSERVATION – STAMFORD	$1,907,000	No Response				
STEPHENVILLE	TRINITY AQUIFER DEVELOPMENT – STEPHENVILLE	$7,344,000	No Response				
STRAWN	MUNICIPAL WATER CONSERVATION – STRAWN	$133,000	No Response				
STRAWN	TRINITY AQUIFER DEVELOPMENT – STRAWN	$2,447,000	No Response				
SWEETWATER	INTERCONNECT FROM ABILENE TO SWEETWATER	$21,667,019	No Response				
TAYLOR	MUNICIPAL WATER CONSERVATION – TAYLOR	$3,221,000	No Response				
TDCJ LUTHER UNITS	MUNICIPAL WATER CONSERVATION – TDCJ LUTHER UNITS	$369,000	No Response				
TDCJ W PACK UNIT	MUNICIPAL WATER CONSERVATION – TDCJ W PACK UNIT	$923,000	No Response				
TEMPLE	EXPAND WTP (4.2 MGD) – TEMPLE	$35,666,000	No Response				
TEMPLE	MUNICIPAL WATER CONSERVATION – TEMPLE	$69,470,000	No Response				
TEXAS A&M UNIVERSITY	CARRIZO AQUIFER DEVELOPMENT – TEXAS A&M UNIVERSITY	$4,931,000	$1,000,000	2038	$3,931,000	2039	0%
TEXAS A&M UNIVERSITY	MUNICIPAL WATER CONSERVATION – TEXAS A&M UNIVERSITY	$13,455,000	$0	N/A	$0	N/A	0%
TEXAS STATE TECHNICAL COLLEGE	MUNICIPAL WATER CONSERVATION – TEXAS STATE TECHNICAL COLLEGE	$2,599,000	No Response				
THROCKMORTON	MUNICIPAL WATER CONSERVATION – THROCKMORTON	$247,000	No Response				
THROCKMORTON	THROCKMORTON RESERVOIR – THROCKMORTON	$68,103,000	No Response				

Table 9-1. Summary of Responses to the Infrastructure Financing Survey

Sponsor	Project Name	Capital Cost	Planning, Design, Permitting and Acquisition		Construction		Percent State Participation in Owning Excess Capacity
			Funding Amount	Year	Funding Amount	Year	
TWIN CREEK WSC	MUNICIPAL WATER CONSERVATION – TWIN CREEK WSC	$137,000	No Response				
VALLEY MILLS	BOSQUE COUNTY REGIONAL WATER SUPPLY PROJECT	$5,490,000	No Response				
VALLEY MILLS	MUNICIPAL WATER CONSERVATION – VALLEY MILLS	$270,000	No Response				
VENUS	CONSERVATION, IRRIGATION RESTRICTION – VENUS	$8,576	No Response				
VENUS	MUNICIPAL WATER CONSERVATION – VENUS	$907,000	No Response				
WACO	CONSERVATION – METER ENHANCEMENT PROGRAM – WACO	$15,282,000	No Response				
WACO	MCLENNAN COUNTY ASR (WACO)	$65,954,000	No Response				
WACO	MUNICIPAL WATER CONSERVATION – WACO	$69,284,000	No Response				
WACO	REUSE – FLAT CREEK	$20,014,000	No Response				
WACO	REUSE – WMARSS CHINA SPRING	$25,888,000	No Response				
WACO	REUSE – WMARSS I-84	$28,249,000	No Response				
WALSH RANCH MUD	MUNICIPAL WATER CONSERVATION – WALSH RANCH MUD	$410,000	No Response				
WELLBORN SUD	MUNICIPAL WATER CONSERVATION – WELLBORN SUD	$4,183,000	No Response				
WEST	MUNICIPAL WATER CONSERVATION – WEST	$116,000	No Response				
WHITNEY	MUNICIPAL WATER CONSERVATION – WHITNEY	$429,000	No Response				
WILLIAMSON COUNTY MUD 10	MUNICIPAL WATER CONSERVATION – WILLIAMSON COUNTY MUD 10	$1,452,000	No Response				
WILLIAMSON COUNTY MUD 11	MUNICIPAL WATER CONSERVATION – WILLIAMSON COUNTY MUD 11	$1,480,000	No Response				
WILLIAMSON COUNTY MUD 9	MUNICIPAL WATER CONSERVATION – WILLIAMSON COUNTY MUD 9	$946,000	No Response				
WINDSOR WATER	MUNICIPAL WATER CONSERVATION – WINDSOR WATER	$13,000	No Response				
WOODWAY	MUNICIPAL WATER CONSERVATION – WOODWAY	$9,639,000	$0	N/A	$0	N/A	0%
	Total	**$4,705,520,286**	**$168,793,739**		**$1,097,710,724**		

10

Public Participation and Adoption of Plan

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10 Public Participation and Adoption of Plan

10.1 Public Participation

The Brazos G Regional Water Planning Group (BGRWPG) provided considerable opportunity for the public to participate in the planning process. Notices and meeting agendas were posted prior to each meeting in accordance with State law, and these and other meeting materials were posted on the BGRWPG website (www.brazosgwater.org) as they became available prior to each meeting. The public was invited to speak during public comment periods during each planning group and committee meeting. In addition, stakeholders were often invited to participate in planning group and committee meetings (as formal items of the meeting agenda) to present information to the planning group that was pertinent to issues the planning group was considering.

The BGRWPG formally adopted its process for identifying, evaluating and selecting water management strategies on February 7, 2018 and included opportunities for public input during the development of the scope of work to develop the 2021 Plan.

The BGRWPG held three sub-regional meetings in January 2020 to solicit comments on the draft WUG and WWP plans prior to development of the Initially Prepared Plan. These meetings were held in College Station on January 21, 2020 (Lower Subregion), in Waco on January 22, 2020 (Middle Subregion), and in Abilene on January 23, 2020 (Upper Subregion).

The BGRWPG held a public hearing on June 3, 2020 to receive comments from the public on the Initially Prepared Plan.

The BGRWPG complied with all Texas Open Meetings Act and Public Information Act requirements during the development of the 2021 Brazos G Regional Water Plan.

10.2 Brazos G Regional Water Planning Group Website (www.brazosgwater.org)

The BGRWPG has directed the Brazos River Authority (BRA) to maintain a website where meeting notices, agendas, and presentation materials may be viewed by the public. In addition to meeting materials, the 2001, 2006, 2011 and 2016 Brazos G Regional Water Plans are posted for public viewing and download, as well as documents from the planning process for the 2021 Plan. The website offers other features including member contact information, planning area maps, planning data, and audio transcripts of meetings.

10.3 Coordination with Water User Groups and Wholesale Water Providers

The BGRWPG coordinated with multiple water user groups, wholesale water providers, groundwater conservation districts, groundwater management areas, county judges, and councils of governments in the Brazos G Area regarding population and water demand projections developed by the Texas Water Development Board (TWDB), groundwater and

surface water availability estimates, proposed water management strategies, and recommendations for sites uniquely suited for reservoir construction.

A survey was disseminated in May 2017 to water user group, wholesale water providers, groundwater conservation districts, and county judges to obtain input regarding draft population and water demand projections and current sources of supply.

Draft plans for each water user group and wholesale water provider were presented to water user groups and wholesale water providers at the three subregional meetings held in January 2020. In addition, the Initially Prepared 2021 Brazos G Regional Water Plan will be provided to county libraries and county clerks in all Brazos G counties and posted on the Brazos G website for public review and comment.

10.4 Coordination with Other Planning Regions

Coordination with other planning regions was accomplished primarily through the technical consultants, who coordinated data and shared information that was later reported to the planning groups. Coordination was accomplished with the technical consultants from Regions B, C, F, H, K, L and O. Other coordination was accomplished through the participation of planning group members as liaisons with other planning groups.

10.5 Brazos G Regional Water Planning Group Meetings

The BGRWPG held 32 public meetings during the 2021 planning cycle, between April 4, 2016 and October 28, 2020, including regular meetings of the full planning group; three sub-regional meetings; periodic meetings of the Executive, Scope of Work, and Finance Committees; and periodic meetings of the Water Policy Workgroup.

10.6 Public Hearing and BGRWPG Responses to Public and Agency Comments on the Initially Prepared Plan

The BGRWPG held a public hearing on June 3, 2020 to receive comments from the public on the Initially Prepared Plan. In response to the COVID-19 pandemic, this public hearing was held via teleconference instead of in person, per the guidelines issued by the Governor of Texas. A total of 42 individuals, including individuals associated with Brazos G as planning group members, administrative staff and consultants, attended the hearing via telephone. No comments were offered from the public during the hearing.

Written comments were received from the public for 60 calendar days following the public hearing. Agency comments were received for 90 calendar days following the public hearing.

Following the June 3, 2020 public hearing, written public comments were received by the planning group through August 2, 2020. Agency comments were received through September 1, 2020. Written comments were received from the Texas Water Development Board, Texas State Soil and Water Conservation Board, Brazos River Authority, City of Cameron, and the Texas Parks and Wildlife Department. No comments were received from federal agencies.

The following section summarizes the public and agency comments received and the responses of the BGRWPG. TWDB comments are addressed in Section 10.7. Comments are summarized in *italics*, with the response from the BGRWPG following in regular type. The following section does not include the entirety of each written comment, but instead summarizes the key points for brevity. Copies of the written comments received are included in Appendix H.

Comments Received from the Brazos River Authority

1. *Subordination. The feasibility of several recommended water management strategies depends upon a subordination agreement with BRA. BRA reiterates their previous requests that the 2021 Plan include a caveat in the evaluation of each water management strategy that assumes a subordination agreement with BRA that clearly states that subordination may not be possible.*

   The caveat will be added to those strategies that assume subordination of BRA rights.

2. *Lake Granger Augmentation. BRA has developed the first phase of the Lake Granger Augmentation Strategy, which has been a recommended water management strategy since the 2011 Plan. Due to TWDB regional water planning rules, in some cases viable water supply projects that produce actual supply and meet real demands cannot be recommended in the final Regional and State Water Plans. This results in those projects not being eligible for State Participation funding and highlights the disconnect between TWDB Regional Water Planning rules and reality. BRA notes that TWDB rules required a re-evaluation of the Lake Granger strategy because of rules on use of modeled available groundwater, but at the time of writing their comments had not been provided the opportunity to fully review the proposed re-evaluation of the Lake Granger Augmentation Strategy.*

   The BGRWPG shares the BRA's concerns that certain TWDB Regional Water Planning rules will create situations where viable water supply projects will not be eligible for inclusion in the Regional and State Water Plans. Our technical consultant, HDR, has re-evaluated the strategy, which has resulted in Phase 1 being removed from the final plan, and a greatly reduced supply being developed by Phase 2. However, all individual components of the Phase 2 strategy remain in the plan, albeit with a greatly reduced supply and consequently a much larger annual unit cost of water.

3. *Volume I, Chapter 4, Table 4.6. Page 4-13, Water Needs Projected for Wholesale Water Providers: Footnote 2 of this table refers to the water available and contracted per HB 1437, not HB 1763.*

   Corrected.

4. *Volume I, Chapter 5, Section 5.7.5, Page 5.7-7, City of Gatesville: BRA recommends deletion of the text "The contracted supply volume is for 5,898 acft/yr; however, this contract is projected to be prorated and only provide a maximum of 4,902 acft/yr during the planning period." BRA water supply agreements are firm commitments.*

   Supplies available to surface water rights are based on projected reservoir sedimentation and specific application of the TCEQ WAMs according to TWDB Regional Water Planning rules. The analyses indicate that not all BRA rights are firm in the Little River System, and consequently cannot supply the entire contracted supply. The supplies from the Little River System to BRA's customers are prorated, based on full contract amounts. The language is included in the plan to explain why supplies from BRA contracts are not shown at the full contract amounts. Brazos G recognizes that BRA intends to supply the full contract amounts to BRA's customers

and is taking steps to have the necessary supplies available in advance of customer demands.

5. *Volume I, Chapter 5, Section 5.17.5, Page 5.17-4, City of Cleburne: BRA recommends deletion of the following text in the second sentence in this section, "....and a contract with BRA that ranges from 2,971 acft/yr to 885 acft/yr at 2020 to 2070, respectively." BRA water supply agreements are firm commitments.*

   Please refer to our previous comment.

6. *Volume I, Chapter 5, Section 5.24.20, Page 5.24-15, City of McGregor: BRA recommends removing the following text from the first sentence... and BRA from 518 to 473 acft/yr from 2020 to 2070, respectively." BRA water supply agreements are firm commitments.*

   Please refer to our previous comment.

7. *Volume I, Chapter 5, Section 5.18.5 - City of Stamford, Pg. 5.18-2: Recommended removing the text and BRA at 809 to 1,209acft/yr." The City has a contract with the BRA to compensate BRA for the reduction in yield of its System as the result of the City's upstream diversion. BRA does not supply water to the City.*

   Corrected.

8. *Volume I, Chapter 5, Section 5.38, Various locations: References of the BRA System Rate at $76.50/acft is incorrect. The BRA System Rate for FY2020 is $79.00/acft.*

   Costing in the 2021 Plan is based on September 2018 prices, not the most current costs. The BRA's System Rate in September 2018 was $76.50/acft.

9. *Page 5.38-18: Unit Cost needs to be updated in the following locations: 5.38.14 West Central Texas Municipal Water District, Water Supply Plan, a. BRA Systems Operation Supply, Unit Cost: $79.00/acft, and in Table 5.38-19.*

   Please refer to our previous comment.

10. *Volume I, Executive Summary, Page ES-13, and Volume II, Section 10.3: "Lake Whitney Hydropower Reallocation" should be renamed "Lake Whitney Reallocation" to be consistent with nomenclature in other references to Lake Whitney Reallocation Volume I.*

    Corrected.

11. *Volume I, Chapter 5, Section 5.38.13, Page 5.38-16 — Upper Leon River Municipal Water District: Second sentence under Description of Supply, the reference to WSD should be changed to MWD.*

    Corrected.

12. *Volume II, Section 9.5.2, Page 9.5-3, Lake Belton to Lake Stillhouse Hollow Pipeline: The last sentence in the first paragraph under "Available Yield" states that, The supply for this project is authorized under the existing BRA water right for Lake Belton and from the recently approved System Operation Permit." BRA recommends to remove "...and from the recently approved System Operation Permit." The Lake Belton to Lake Stillhouse Hollow Pipeline is authorized under BRA's reservoir water rights at Lakes Belton and Stillhouse Hollow not the System Operation Permit.*

    Corrected.

Comments Received from the Texas State Soil and Water Conservation Board

1. *The letter received from the TSSWCB describes the agency's role in water conservation as the lead agency for planning, implementing, and managing coordinated natural resource conservation programs that lead to protection of water quality and more efficient use of water for agricultural and sivicultural purposes.*

   Brazos G appreciates the long-standing tradition of leadership from the TSSWCB in providing resources for private landowners to protect Texas's natural resources.

2. *Page ES-4, Table ES-1 and Page 1-5, Table 1-1. Under Interest Group, under Non-Voting Member, include Texas State Soil and Water Conservation Board (TSSWCB), Rusty Ray.*

   The non-voting members who have contributed to the 2021 Plan will be acknowledged in the final plan in the tables located in the Executive Summary and Chapter 1.

Comment Received from the City of Cameron

1. *The City of Cameron has identified the need to relocate its surface water intake and pump station to address channel migration concerns and requests inclusion of the Little River Pump Station in the plan and in the project prioritization process.*

   The Cameron Little River Intake will be added to the plan as a recommended water management strategy project using the technical information you provided.

Comments Received from the Texas Parks and Wildlife Department

1. *Requests that all WMS evaluations be updated to the March 30, 2020 updates of state-listed species, including review and amendment of all tables listing Endangered, Threatened, Candidate, and Species of Concern for each WMS in Volume II.*

   The listings of species in the tables are based on the best available information at the time the documents were developed, many more than a year prior to the March 2020 update. This list maintained by TPWD is dynamic and is updated regularly. We will remove the tables in the strategy evaluations and provide a reference link to the TPWD website where these data are available on an up-to-date basis, so that the information in the plan does not become outdated. In lieu of the tables, the plan will direct the reader to the following link:

   https://tpwd.texas.gov/gis/rtest/

2. *Notes that several tables have species listed in areas they are not known to occur, misspellings, or missing habitat descriptions.*

   Please see our previous response.

3. *Requests inclusion of additional information regarding springs located in Brazos G, specifically with regard to occurrence and their importance to wildlife.*

   The description of springs as resources described in Chapter 1 (pages 1-17, 1-18 and 1-38) accurately characterizes the occurrence and importance of springs in the Brazos G Area. The text on page 1-38 does note the importance of springflows to maintaining vegetation and wildlife habitat. No changes will be made.

4. *Water Management Strategies. TPWD cites the general nature of environmental impacts of the various water management strategies, and states that this lack of specificity underrepresents the threats to fish and wildlife.*

a. The methodology used to determine levels of impacts are not described.

A table has been added to the text of the plan summarizing the numerical values upon which the rating system is based.

b. Summaries of impacts change little between project descriptions seemingly not taking into account site-specific considerations.

The purpose of the environmental assessments of water management strategies in the regional water planning process is not to be an exhaustive, detailed evaluation of each project, just as the supply analyses and costing analyses both do not provide the detail necessary for a project sponsor to devote considerable resources to a project's development without further study. The environmental assessments in the regional water planning process are intended to be a screening mechanism, which identifies in a general sense the impacts of a proposed strategy that is consistent with the level of detail of the other analyses conducted during the evaluation. The local, state, and federal permitting processes are the venues in which additional detailed environmental impact information will be developed and assessed for a given project.

c. TPWD identifies specific water management strategies for which more site-specific information is requested to be provided.

<u>Wastewater Reuse.</u> TPWD states that wastewater discharges often produce a consistent supply of instream flows and direct reuse projects will reduce these flows by diverting water that would have otherwise been discharged to a water course.

While holders of wastewater discharge permits are typically not required to continue discharging effluent, i.e., they are free to reuse the effluent in lieu of discharging the flows if they obtain additional authorizations, it is generally recognized that discharge of effluent provides a consistent source of base and subsistence flows, particularly during dry periods when naturally occurring flows may be limited. Table 3.2-2 notes this impact of wastewater reuse on Environmental Water Needs / Instream Flows: "Possible low impact on in-stream flows due to deceased effluent return flows; possible increased water quality to remaining stream flows."

<u>Reservoirs.</u> TPWD states that reservoir projects have the potential to further fragment streams and alter hydrology and water quality, which can impact fish and wildlife resources. TPWD then offers mitigation measures include equipping new reservoirs with fish passage structures and outlet works that can release from different reservoir levels to mitigate temperature and water quality issues. Specific issues addressed by TPWD include include:

***Freshwater inflows to the Brazos River Estuary**. The cumulative effects analysis presented in Chapter 6 includes the Brazos River at Richmond as its lowest control point, which fails to include inflows to the Brazos River Estuary.*

Graphics documenting flow changes at the furthest downstream primary control point have been added to Chapter 6 to address changes in freshwater flows to the Gulf of Mexico.

***South Bend Reservoir**. TPWD express concerns that the impacts of the proposed South Bend Reservoir are not documented or discussed as fully as they should be.*

Language has been added that the proposed South Bend Reservoir would inundate habitat critical to the Smalleye Shiner and Sharpnosed Shiner and would further fragment the Brazos River channel upstream of Possum Kingdom Reservoir.

Note that the South Bend Reservoir is not a recommended or alternative water management strategy in the 2021 Brazos G Regional Water Plan.

***Cedar Ridge Reservoir**. TPWD expresses concern that the habitat within the proposed Cedar Ridge Reservoir will not support populations of the Brazos Water Snake.*

The evaluation of the proposed Cedar Ridge Reservoir includes information provided by the project sponsor related to the Brazos River Water Snake and other environmental considerations. Per Brazos G's earlier comment, the evaluations of the potential environmental impacts of water management strategies are not intended to be detailed, exhaustive analyses, but are to be considered screening level evaluations. More detailed evaluations of the environmental impacts and mitigation measures for specific water management strategies are more appropriately pursued during the state and federal permitting processes for the projects.

***South Bend Reservoir and Cedar Ridge Reservoir**. TPWD expressed concern for the cumulative impacts of the two projects to increase the chance for golden algae blooms and to increase salinities downstream, which would increase treatment for public water supplies.*

Given that the South Bend Reservoir is only considered to be potentially feasible and is not a recommended or alternative water management strategy, concern for the cumulative impacts of the two projects is overstated.

While increases in salinity and increased risk of golden algae blooms downstream from the proposed Cedar Ridge Reservoir are possible, evaluations of those potential impacts are beyond the scope of the regional water planning process.

<u>Chloride Control Projects</u>. The IPP should acknowledge potential impacts of these strategies to the State Threatened Red River Pupfish as well as to the federal and state-listed Endangered Smalleye Shiner and Sharpnose Shiner and the designated Critical Habitat for these shiners. Other fishes emblematic of the upper Brazos River prairie stream ecosystem could also be impacted including State Threatened Chub Shiner.

These potential impacts to the smalleye and sharpnose shiners are discussed on Volume II, page 11-37 of the plan. Reference has been added to the red river pupfish and chub shiner as requested.

5. *Invasive and Exotic Species. Zebra mussels should be identified as an issue affecting water supply and water quality in the Brazos G Area.*

   The introduction of zebra mussels has been added to section 1.10 Threats and Constraints to Water Supply, and a link to the TPWD website listing occurrences has been provided, in addition to listing those reservoirs currently "infested" or "positive" in the Brazos G Area.

6. *Aquatic Resource Relocation Plans. The need for Aquatic Resource Relocation Plan and a relocation permit should be identified in the list of state and federal permits potentially required to construct certain water management strategies.*

   The information has been added where appropriate to the water management strategy evaluations.

7. *Ecologically Unique Stream Segments. TPWD supports regional water planning groups in recommending ecologically unique river and stream segments. The nomination of stream segments is an opportunity to demonstrate a regional commitment towards the long-term protection of natural resources. TPWD offers to support an update if Brazos G would find it beneficial in deciding to recommend a river or stream segment as unique.*

Brazos G thanks the TPWD for the offer to support identifying and recommending unique stream segments. We acknowledge the support of TPWD in previous planning cycles. For the 2021 Plan, the BGRWPG has opted not to offer a recommendation. However, we will revisit this issue during the next planning cycle.

8. *Please the change the non-voting representative from Dan Opdyke to Jennifer Bronson Warren and add David Young as an alternative non-voting representative for TPWD.*

   Mr. Opdyke is not identified in the Initially Prepared 2021 Plan because the list of non-voting members was omitted. However, the list of non-voting members will be added to the final plan and Ms. Bronson Warren will be included in the list, as she was included in the 2016 Plan. We will not add Mr. Young, as alternates are not listed, only actual voting and non-voting members.

10.7 TWDB Comments on the Initially Prepared Plan and BGRWPG Responses

The following section summarizes the comments received from the TWDB and the responses of the BGRWPG. Level 1 comments are required to be addressed in order to meet statutory, agency rule, and/or contract requirements. Level 2 comments and suggestions are suggested for consideration to clarify or enhance the plan.

10.7.1 Level 1 TWDB Comments

1. *Volume II and the State Water Planning Database (DB22). The plan includes the following recommended water management strategies (WMS) by WMS type, providing supply in 2020 (not including demand management): 18 groundwater wells & other, two aquifer storage and recovery, 13 other direct reuse, six new major reservoir, two conjunctive use, and 24 other surface water, including the Groesbeck minor reservoir.* ***Strategy supply with an online decade of 2020 must be constructed and delivering water by January 5, 2023****.*
   a) *Please confirm that all strategies shown as providing supply in 2020 are expected to be providing water supply by January 5, 2023. [31 § TAC 357.10(21); Contract Exhibit C, Section 5.2]*
   b) *Please provide the specific basis on which the planning group anticipates that it is feasible that the two aquifer storage and recovery, six new major reservoir, two conjunctive use, and 24 other surface water WMSs will all actually be online and providing water supply by January 5, 2023. For example, provide information on actions taken by sponsors and anticipated future project milestones that demonstrate sufficient progress toward implementation. [31 § TAC 357.10(21); Contract Exhibit C, Section 5.2]*
   c) *In the event that the resulting adjustment of the timing of WMSs in the plan results in an increase in near-term unmet water needs, please update the related portions of the plan and DB22 accordingly, and also indicate whether 'demand management' will be the WMS used in the event of drought to address such water supply shortfalls or if the plan will show these as simply 'unmet'. If municipal shortages are left 'unmet' and without a 'demand management' strategy to meet the shortage, please also ensure that adequate justification is included in accordance with 31 TAC § 357.50(j). [TWC § 16.051(a); 31 § TAC 357.50(j); [31 TAC § 357.34(i)(2); Contract Exhibit C, Section 5.2]*
   d) ***Please be advised that, in accordance with Senate Bill 1511, 85th Texas Legislature, the planning group will be expected to rely on its next***

planning cycle budget to amend its 2021 Regional Water Plan during development of the 2026 Regional Water Plan, if recommended WMSs or projects become infeasible, for example, due to timing of projects coming online. *Infeasible WMSs include those WMSs where proposed sponsors have not taken an affirmative vote or other action to make expenditures necessary to construct or file applications for permits required in connection with implementation of the WMS on a schedule in order for the WMS to be completed by the time the WMS is needed to address drought in the plan. [TWC § 16.053(h)(10); 31 TAC § 357.12(b)]*

a. The timing of the strategies in question have been adjusted so that all start in 2030 and not 2020.

b. The timing of the strategies in question have been adjusted so that all start in 2030 and not 2020.

c. In several cases, municipal needs will remain unmet in 2020. Language has been added to the plans for those WUGs noting that those needs will occur during a drought equivalent to the drought of record and demand management will be required to reduce demands prior to the recommended strategies coming online.

d. We stand advised.

2. *Section 2.3.9, Table 2.13. Major Water Provider (MWP) demands presented in Table 2.13 are not presented by category of use. Please report demands for MWPs by decade and category of use in the final, adopted regional water plan. [31 TAC § 357.31(b); 31 TAC § 357.31(f)]*

   The final 2021 Plan will include a table showing the demands for MWPs presented by decade and category of use.

3. *Section 3.4, page 3-63. Table 3.9 represents groundwater availability, however values in Table 3.9 for most counties does not represent modeled available groundwater (MAG) volumes. For example, the MAG for the Trinity Aquifer, Bell County ranges from 9,267 ac-ft/yr in 2020 to 9,241 ac-ft/yr in 2070 and is presented as 3,984 ac-ft/yr in 2020 to 4,270 ac-ft/yr in 2070, in Table 3.9. In some cases, aquifers are listed for counties where those aquifers do not exist. Please update Table 3.9 with the correct MAG volumes for all counties and verify that aquifers exist where they are listed in the final, adopted regional water plan. [31 TAC § 357.32(d)]*

   Table 3.9 has been corrected.

4. *Section 3.4.1, page 3-61, second paragraph and Table 3.9. The plan discusses the use of an approved MAG Peak Factor for the Carrizo-Wilcox aquifer in Brazos County; however, the values in Table 3.9 for the Carrizo-Wilcox Aquifer in Brazos County are not equal to MAG volumes with the MAG Peak Factor applied. Please update Table 3.9 with the correct MAG Peak Factor volumes for the Carrizo-Wilcox Aquifer in Brazos County. [31 TAC § 357.32(d)(3)]*

   Table 3.9 has been corrected.

5. *Section 3.4, Table 3.9, pages 3-63 to 3-66. The groundwater availability values listed in Table 3.9 for the Carrizo-Wilcox Aquifer in Brazos County represent neither the unmodified MAG nor the availability with the MAG Peak Factor applied. Please update Table 3.9 to represent groundwater availability for the Carrizo-Wilcox Aquifer in Brazos*

County with the MAG Peak Factor applied, and also report the unmodified MAG volumes, in the final, adopted regional water plan. [Contract Exhibit C, Section 3.6.1]

Table 3.9 has been corrected.

6. *Chapter 3, Table 3.9, pages 3-63 to 3-66, and Appendix B. The groundwater availability for aquifer areas with no desired future conditions (DFC) appear to be inconsistent with the source availability values presented in DB22. Additionally, some non-MAG volumes appear to be missing from Table 3.9, for example, the Brazos River Alluvium Aquifer in Bosque County. Please update Table 3.9 with groundwater availability consistent with DB22 in the final, adopted regional water plan. [Contract Exhibit C, Section 3.5.2]*

   Table 3.9 and Appendix B have been corrected.

7. *Chapter 3, Table 3.9, pages 3-63 to 3-66, and Appendix B. It is not clear what groundwater availability methodologies have been utilized for aquifers with no DFCs. For example, Appendix B (page B-4) states availability for aquifers with no DFC "are based on results from groundwater modeling during the development of the MAGs for other aquifers", suggesting that the values of "not-relevant DFC compatible availability" from the MAG run were used. However, the availability values with Table 3.9 do not support confirmation of these methodologies. Please clarify the methodologies utilized for aquifer areas with no DFCs in the final, adopted regional water plan. [Contract Exhibit C, Section 3.5.2]*

   The following text has been added to both Chapter 3 and Appendix B.

   > "For aquifers without an adopted MAG, the TWDB provided "total availability" estimates that are based on results from groundwater modeling during the development of the MAGs for other aquifers. For other aquifers, Brazos G utilized the groundwater availability estimate carried forward from the 2016 Brazos G Regional Water Plan; these were determined based on a variety of sources, predominately information from historical TWDB groundwater reports and the TWDB groundwater database. The Brazos G technical consultant requested specific groundwater availability estimates based on the above information, and coordinated closely with the TWDB staff to finalize the non-MAG groundwater availability estimates for aquifers in counties and river basins for which an official MAG has not been adopted."

   This is identical to the description provided in the Technical Memorandum submitted and approved by the TWDB September 2018. The final non-MAG groundwater availability estimates were determined through close coordination with TWDB staff in 2018. No changes to those non-MAG groundwater availability estimates have been made since those values were coordinated with TWDB.

8. *Chapter 3. The plan does not appear to include the evaluation results of existing supplies for MWPs. Please report existing supplies for MWP by decade and category of use in the final, adopted regional water plan. [31 TAC § 357.32(g)]*

   A table presenting existing supplies for MWPs by decade and category of use will be included in the final plan.

9. *Chapter 3. Please include the methodology used to determine local surface water supplies and clarify whether the local surface water supplies are firm supplies under drought of record conditions in the final, adopted regional water plan. [Contract Exhibit C, Section 3.2 and Section 3.7]*

   The following clarification text has been added to Chapter 3 in the final plan.

   > "These supplies are firm and would be available through a drought of record given that they are supported by local, shallow groundwater sources when groundwater-based, and when surface water-based are reflected in the State's water availability models through the underlying streamflow gage data upon which the naturalized streamflows are based."

10. *Chapter 3 and Chapter 5 (Sections 5.13, 5.19, 5.22). Please provide justification for setting existing water supplies equal to demands during the planning period, for example Manufacturing, Hamilton County, County-Other, Kent County, and Aqua WSC, Lee County in the final, adopted regional water plan. [Contract Exhibit C, Section 3.7 item 4]*

    The notes in the summary tables do not imply that demand was set equal to supply. The notes state that the supplies evaluated happen to equal the demands for those specific WUGs. This could be based on any number of factors including well capacities, or contractual purchases whereby the seller agrees to meet the buyers demands. The notes in the final plan have been changed to "No projected surplus or shortage."

11. *Appendix B, MAG tables. In some cases for counties which are split between more than one basin, the MAG totals in the MAG tables include the total for only one basin. In addition, for some aquifers, for example the Marble Falls and the Woodbine aquifers, the MAG totals appear to be incorrect. Please review the tables in Appendix B for each aquifer and county, verify the data presented, and update as necessary in the final, adopted regional water plan. [31 TAC § 357.32(d)]*

    Appendix B has been corrected.

12. *Chapter 4. The plan does not appear to include identified water need volumes for MWPs reported by category of use including municipal, mining, manufacturing, irrigation, steam electric, mining, and livestock. Please report the results of the needs analysis for MWPs by categories of use as applicable in the region in the final, adopted regional water plan. [31 TAC § 357.33(b)]*

    A table presenting needs for MWPs by decade and category of use will be included in the final plan.

13. *Chapter 4. While the results of the secondary needs analysis is presented in Appendix A for WUGs, please add a discussion of this needs analysis to Chapter 4 or reference the current location in the final, adopted regional water plan. [31 TAC § 357.33(e)]*

    Agreed. A reference to the secondary needs presented in the appendix will be included in Chapter 4.

14. *Chapter 4. The plan does not appear to include a secondary needs analysis for MWPs Please present the results of the secondary needs analysis by decade for MWPs in the final, adopted regional water plan. [31 TAC § 357.33(e)]*

A table presenting the secondary needs analyses for MWPs by decade will be included in the final plan.

15. *Chapter 5. The plan does not appear to discuss the region's assessment of significant water needs relating to the assessment of aquifer storage and recovery potential for meeting the identified significant water needs. Please include at a minimum, how the region determined the threshold of significant water needs for this requirement in the final, adopted regional water plan. [TWC § 16.053(e)(10); 31 TAC § 357.34(h)]*

    On August 12, 2020, the BGRWPG identified the threshold of significant water needs for consideration of aquifer storage and recovery projects to be 10,000 acre-feet per year or greater. A section has been added to the final plan Volume 2, Chapter 1 describing how aquifer storage and recovery was considered for each of the 15 water user groups having needs exceeding this threshold. Aquifer storage and recovery is identified as a recommended water management strategy for seven of those, either specifically or as a strategy for a wholesale water provider that provides supply.

16. *Volume II, Chapter 3. The plan in some instances appears to include infrastructure components that are not required to increase the volume of supply for the WUG but are associated with internal distribution systems, which are ineligible per contract Exhibit C, Section 5.5.3. For example, but not limited to, page 3.3-5 states the North Reuse Project will include branch pipelines and page. 3.7-2 states that Cleburne Reuse Project will serve future commercial developments. Please make clear in the plan that evaluations for all Reuse WMSs does not include reuse distribution lines directly to residences or commercial businesses in the final, adopted regional water plan. [Contract Exhibit C, Section 5.5.3]*

    Specific branch components of the reuse strategies related to direct sales have been removed for the City of Cleburne. The reuse strategy for the City of College Station has been removed. The Miramont Reuse strategy for the City of Bryan has been removed. The remainder of the components for the reuse strategies and projects recommended in the 2021 Brazos G Regional Water Plan are not related to direct retail or commercial use and include no internal distribution of reuse.

    Brazos G recommends that the TWDB reconsider this interpretation of the rules disallowing “internal distribution” components for direct reuse projects. Typically, direct reuse supplies are delivered directly from the wastewater treatment facility to the end use and are by TWDB definition “distributing” the reuse supplies. However, that reuse supply would not be made available without the so-called “distribution” components, because those components comprise the entirety of the reuse project. Continuation of this interpretation related to direct reuse has the potential to eliminate multiple viable reuse projects from consideration, such as was required for the strategy recommended for College Station.

17. *Volume II, Section 9.5. Table 9.5-2 presents the available project yield for the Lake Belton to Lake Stillhouse Hollow Pipeline WMS as 30,000 ac-ft/yr, however the yield reported in DB22 is zero ac-ft/yr in all decades. The WMS appears to move existing supply to areas of need more efficiently and does not appear to make new supply available to any WUGs. Please clarify whether the WMS increases the volume of water supply delivered to WUGs. If so, the volume of water supply must be represented in DB22 in at least one planning decade. If not, the WMS must be removed as a*

recommended WMS from DB22, and the WMS evaluation must be presented in a separate section in the final, adopted regional water plan. [31 TAC § 357.34(d)]

The final plan and database entries have been modified so that the supply from the BRA Little River System is reduced by 5,000 acre-feet per year through an infrastructure constraint. This constraint is removed by construction of the Lake Belton to Lake Stillhouse Hollow Pipeline, which will now supply the constrained 5,000 acre-feet per year supply.

18. *Volume II, page 9.7-1 and DB22. The WMS evaluation for Somervell County Water Supply Projects, states that the strategy would be completed by 2035, yet supply in DB22 is shown online in 2030. Strategy supply must be assumed to come online and be providing water in or prior to the online decade year. Please reconcile all online decades accordingly in the final, adopted regional water plan. [31 TAC § 357.10(21); Contract Exhibit C, Section 5.2]*

    The text in Volume II, Section 9.7 and the Somervell County Plan (Volume I, Section 5.30) have been corrected to state that the supply will be available in 2030.

19. *Volume II, Chapter 13. The plan does not include the WMS project costing tool's output report for any of the Miscellaneous WMSs in Chapter 13, or analogously present the capital cost for each project component. Please submit the costing tool's standardized cost output report or present capital cost estimates for each project component for each WMS evaluated in the final, adopted regional water plan. [31 TAC § 357.34(f); 31 TAC § 358.3(21); Contract Exhibit C, Section 5.5.1]*

    The individual tables have been added to Volume II, Chapter 13.

20. *Volume II, Chapter 13. The plan does not appear to include technical evaluations for any of the WMS or projects presented in Chapter 13. Please include technical evaluations for each WMS evaluated in the final, adopted regional water plan. [31 TAC § 357.34(a); 31 TAC § 357.34(e); Contract Scope of Work, Task 5A]*

    Volume II, Chapter 13, Section 13.2 includes a discussion of the evaluation given to each of the miscellaneous strategies. Because these miscellaneous strategies are limited to wells, pipelines and water treatment plants, the evaluation given to each is similar and is summarized in Section 13.2. Note that an appendix has been added to the plan containing a matrix summarizing the environmental considerations evaluated for each water management strategy, including the miscellaneous strategies as a group.

21. *Volume II and DB22. The plan includes WMS projects that appear to come online after the related WMS is initially online providing supply. For example, the Georgetown WTP Expansion WMS is reported to provide supply in 2020, however the related WMS project in DB22 on which it relies does not come online until 2030. For WMS projects that are the basis for a strategy to deliver water, please ensure that the project is associated with the initial decade, or earlier decade, that the dependent strategy is expected to deliver supply. In the event that the resulting adjustment of the timing of WMSs in the plan results in an increase in near-term unmet water needs, please update the related portions of the plan and DB22 accordingly. [31 TAC § 357.10(21); Contract Exhibit C, Section 5.2]*

The timing of the strategies has been corrected so that Volume II agrees with DB22 and the text in Chapter 5. Unmet water needs are also updated in the appropriate places.

22. *Volume II. The plan, in some instances, does not appear to include pipe diameters, or pipe length information in some strategy evaluations costing report tables for example, Bell County WCID No.1 North Reuse Project. Please provide this information, if known, or remove the zeros from the costing outputs in the final, adopted regional water plan. [Contract Exhibit C, Section 5.6]*

    Those missing data resulted from an apparent bug in the Uniform Costing Model, which failed to include the pipe diameter or length information for several strategies in the final summary table. Those data have been manually entered into the tables in the final plan.

23. *Volume II. The plan does not clearly state if or how a quantitative analysis of environmental flow needs was taken into account in calculation of yield for the following WMSs: Coryell County OCR (Vol. II Section 4.4), Lake Aquilla Reallocation (Vol. II Section 10.1), and Millers Creek Reservoir Augmentation (Vol. II Section 10.5). Please include a statement regarding how environmental flow criteria were considered in these strategy evaluations in the final, adopted regional water plan. Additionally, the Red River OCR (Vol. II Section 4.8), evaluation states that it was modeled in accordance with TCEQ environmental flow requirements; however, there are no Chapter 298 requirements for the Red River Basin. Please ensure that the evaluation for Red River OCR addresses environmental flows using the consensus criteria in the final, adopted regional water plan. [31 TAC § 357.34(e)(3)(B); 31 TAC § 358.3(22); 31 TAC § 358.3(23)]*

    For the strategies supplied from the Brazos River Basin, additional text has been added clarifying that environmental flow criteria were considered in the water availability modeling of the strategies.

    For the Red River OCR, you are correct that no Chapter 298 requirements have been adopted for the Red River Basin. Because the diversion is directly from the Red River, and the flows in the Red River WAM include only flows from the Texas portion of the Basin, inclusion of environmental flow needs using the consensus criteria approach is not possible because the total flows are not available upon which to apply the criteria. However, the model does reflect the existing Red River Basin Interstate Compact, which dictates instream flow targets to be maintained. This is the same approach used in relation to this project by the Region C RWPG in that region's evaluation of the Red River OCR project for supplies in north Texas. The Brazos G evaluation of this project is consistent with the evaluation made by Region C. Language has been added to Volume II, Section 4.8.2 to clarify.

24. *Volume II. The plan does not appear to include quantitative evaluation of impacts for all environmental factors. For example, in Table 4.6-3. the Environmental Water Needs are reported as" Moderate impact". It is not clear what quantitative values are assigned for impacts to wildlife habitat, wetlands, threatened and endangered species, and cultural resources in this table. Additionally, not all of the "Environmental Issues" sections for each WMS appear to include a quantitative evaluation of all environmental factors, for example Table 9.2-1. Please include a quantitative reporting of*

environmental factors for all WMSs in the final, adopted regional water plan. [31 TAC § 357.34(e)(3)(B)]

A matrix has been prepared summarizing the quantitative assessments for the water management strategy evaluations, including defining quantitative values for descriptive assessments such as “Moderate impact.”

25. *Volume II. The plan, in some instances, does not appear to include a quantitative reporting of impacts to agricultural resources. For example, on page 4.11-20 of Volume II, in reference to the Turkey Peak Reservoir, the plan states, “some impacts are expected for agricultural land use” and in Table 4.11-3, Threats to Agricultural and Natural Resources are listed as “Low to None”. Please include quantitative reporting of impacts, including impacts considered negligible, to agricultural resources for all WMS evaluations in the final, adopted regional water plan. [31 TAC § 357.34(e)(3)(C)]*

    Please refer to our response to comment 24.

26. *Volume II, Section 7.1. The representation of the Lake Granger Augmentation WMS phases and data structure as entered DB22 appears to be inconsistent with how the WMSs is described in the plan. Please reconcile how the WMS and projects are described in the final, adopted regional water plan and presented in DB22. The MAG volume for recommended WMSs in the plan and in DB22 may not be over-drafted in any decade year. At the time of review, there did not appear to be sufficient MAG availability in DB22 available for either phase of this WMS. Additionally, WMS supplies may not be presented as zero in all decades in the final, adopted regional water plan [31 § TAC 357.34(b); Contract Exhibit C, Section 3.5.4]*

    The hydrologic analysis of the Lake Granger Augmentation WMS has been revised so that the single year maximum withdrawal from the Carrizo-Wilcox Aquifer does not violate the available MAG. This has drastically and artificially reduced the supply that can be developed by the project. Note that the long-term average withdrawal from the Carrizo-Wilcox Aquifer is within the available MAG and the maximum withdrawal in the original analysis occurs only in a few isolated years in the 57-year simulation. It is the opinion of the Brazos G RWPG that this project as originally formulated would maintain aquifer conditions within the Desired Future Conditions adopted by Groundwater Management Area 12 because the long-term withdrawal would be consistent with long-term MAG volumes. The BGRWPG would like to discuss a better approach for this important, innovative project during the 2026 planning cycle.

27. *Volume II, Section 7.2 The evaluation of the Oak Creek Reservoir WMS indicates that the MAG will be exceeded in multiple years but does not appear to include a supporting ‘peak factor’ analysis to support short-term overdrafts. Please reconcile how the WMS and projects are described in the plan and presented in DB22 in the final, adopted regional water plan. The MAG volume for recommended WMSs in the plan and in DB22 may not be over-drafted in any decade year. At the time of review, there did not appear to be sufficient MAG availability in DB22 available for this WMS. Additionally, please ensure that the region has coordinated with Region F on the volume of water available through the Region F Oak Creek Reservoir Subordination WMS. [31 § TAC 357.34(b); Contract Exhibit C, Section 3.5.4]*

The DB22 entries were incorrect and did not include both the Brazos Basin and Colorado Basin MAG volumes available to the project. When the Colorado Basin portion of the MAG is taken into consideration, no overdrafting will occur. Supplies made available by the project have been adjusted in the plan text and DB22.

The volume of water available through the Region F Oak Creek Reservoir Subordination WMS was provided by the Region F technical consultant.

28. *Volume II, Sections 4.2, 4.7, and 4.10. Brushy Creek, Lake Creek, and Throckmorton reservoirs are presented as new, proposed major reservoirs in the plan and DB22, and the evaluations indicate these reservoir WMSs have not been implemented. These reservoirs are also represented as providing existing supply in DB22 as early as 2020. Existing supply must be physically and legally available to the WUG. Please revise the existing supply data as necessary, in the final, adopted regional water plan, if the WUGs are not currently receiving water from these sources, or clarify in the evaluations whether the WMSs are to expand an existing reservoir. [Contract Exhibit C, Section 5.2.1]*

    These two strategies have names similar to existing sources, i.e., “Throckmorton Lake/Reservoir” (Throckmorton County) and “Lake Creek Lake/Reservoir” (McLennan County). The names of the recommended strategies and sources have been changed to “New Throckmorton Reservoir” and “NCTMWA Lake Creek Reservoir”. The timing of these projects has been adjusted in the final plan and in DB22 so that they start after 2020.

29. *Volume II. Table 1.1-1. The plan appears to identify West Central Brazos Water Distribution System as a potentially feasible WMS, however the WMS does not appear to have been evaluated. Please document why this WMSs indicated as potentially feasible was not evaluated in the final, adopted regional water plan. [31 TAC § 357.34(a); Contract Scope of Work, Task 5A]*

    During the initial stages of the evaluation, the BGRWPG was requested to consider this strategy as a current supply by project sponsors, as they plan no further enhancements to increase supplies from the West Central Brazos Water Distribution System.

30. *Volume II. The plan does not appear to include the documented process used by the planning group to identify potentially feasible WMSs, as presented to the planning group in accordance with 31 TAC § 357.21(b). Please include this information in the final, adopted regional water plan. [Contract Exhibit C, Section 5.1]*

    A description of the documented process used by the BGRWPG to identify potentially feasible WMSs and select recommended WMSs will be included in Volume II of the final plan.

31. *Volume II. The plan does not appear to include the process of selecting recommended WMSs and projects. Please include documentation of the process of selecting recommended WMSs and projects in the final, adopted regional water plan. [Contract Scope of Work, Task 5A subtask 5]*

A description of the documented process used by the BGRWPG to identify potentially feasible WMSs and select recommended WMSs will be included in Volume II of the final plan.

32. *Volume II. Please include documentation of why seawater desalination and brackish groundwater desalination were not selected as recommended WMSs in the final, adopted regional water plan. [TWC § 16.053(e)(5)(j); Contract Exhibit C, Section 5.2; 31 § TAC 357.34(g)]*

    Text describing why seawater desalination wasn't considered potentially feasible will be included in Volume II of the final plan. It wasn't considered potentially feasible due to the distance of Brazos G from the Gulf of Mexico.

    Text describing why brackish groundwater desalination wasn't considered potentially feasible will be included in Volume II of the final plan. Brackish groundwater desalination wasn't considered because it is considered part of the MAG, so brackish groundwater would have only been considered if it was cheaper than going to a freshwater portion of an aquifer.

33. *Chapter 6. Please include the TWDB Socioeconomic Impacts of Projected Water Shortages Report as an appendix to Chapter 6 rather than Chapter 4 in the final, adopted regional water plan. [31 TAC § 357.40(a)]*

    The reference has been corrected from Chapter 4 to Chapter 6 in the final plan.

34. *Chapter 6. Please provide a description of the impacts of the regional water plan on navigation in the final, adopted regional water plan. [31 TAC § 357.40(b)(6)]*

    The 2021 Brazos G Regional Water Plan will have no effects on navigation. That is stated in Volume I, Chapter 1, section 1.85 and has been restated in Chapter 6 of the final plan.

35. *Chapter 6. Please include a summary of unmet water needs identified in Chapter 6 rather than Chapter 4 of the final, adopted regional water plan. [31 TAC § 357.40(c)].*

    The summary of unmet water needs has been moved from Chapter 4 to Chapter 6.

36. *Section 7.5.3, page 7-72. The plan refers to Appendix H for copies of the Waco and Thrall model drought contingency plans, however Appendix H appear to be a placeholder for comments on the IPP. Please ensure that copies of the model drought contingency plans are included, or operational links to the model plans are included if they are to be included only by online reference in the final, adopted regional water plan. [31 TAC § 357.42(j)]*

    The appendix references have been corrected and the plans will be included directly or with operational links.

37. *Chapter 7. The plan does not appear to include discussion of unnecessary or counterproductive variations in drought response strategies that may impede drought response efforts. Please include discussion of any unnecessary or counterproductive variations in drought response strategies that were identified by the planning group in the final, adopted regional water plan. [TWC § 16.053(e)(3)(E); 31 TAC § 357.42(b)(2)]*

    The Brazos G Scope of Work Committee was responsible for coordinating Chapter 7 of the plan. The committee identified that neighboring utilities using different triggers

to initiate drought responses when supplied by the same source, or using triggers not associated with the utility's actual source of supply, would be counterproductive, but is unwilling to identify those specific instances. The counterproductive situation will be discussed in general terms in the text of Chapter 7.

38. *Chapter 7. The plan does not appear to state how the region addressed recommendations from the Drought Preparedness Council, provided to planning groups on August 1, 2019. Please include a discussion on how the planning group considered the Drought Preparedness Council recommendations in the final, adopted regional water plan. [31 TAC § 357.42(h)]*

    The final plan will include a discussion of how the BGRWPG considered the recommendations from the Drought Preparedness Council.

39. *Chapter 7. The plan does not appear to include a discussion of recommendations to the Drought Preparedness Council or recommendations regarding the State Drought Preparedness Plan. Please include any such recommendations in the final, adopted regional water plan. [31 TAC § 357.42(i)(3)]*

    The BGRWPG offers no recommendations to the Drought Preparedness Council and this will be stated in the final plan.

40. *Section 8.2, pages 8-1 and 8-2. Please ensure that Section 8.2 is updated to clearly document which unique reservoir sites have been previously designated by the legislature; which are being recommended for designation by the RWPG; and whether the planning group is recommending that the legislature re-designate a previously designated unique reservoir site. [31 TAC § 357.43(c); Contract Exhibit C, Section 8.2]*

    The final plan will clearly state that re-designation is recommended for Millers Creek Off-Channel Reservoir and Coryell County Off-Channel Reservoir.

    The final plan will also include the following statement:

    > "Brazos G recommends no change in designation for the previously-designated sites for Cedar Ridge Reservoir, Turkey Peak Reservoir, and Brushy Creek Reservoir, as those designations have not terminated because sufficient action has been taken prior to September 1, 2015 regarding their development to meet the requirements of Texas Water Code 16.051(g-1)."

41. *Chapter 10. Please include a statement that indicates whether the planning group complied with all Texas Open Meetings Act and Public Information Act requirements in the final, adopted regional water plan. [31 TAC § 357.21; 31 TAC § 357.50(f)]*

    The BGRWPG complied with all Texas Open Meetings Act and Public Information Act requirements during development of the 2021 Brazos G Regional Water Plan. The statement will be included in the final plan.

42. *Chapter 11. Please provide a brief summary of how the 2016 Plan differs from the 2021 Plan with regards to recommended and alternative WMS projects in the final, adopted regional water plan. [31 TAC § 357.45(c)(4)]*

    The comparison in Chapter 11 has been clarified to be more specific that "projects" and not just "strategies" are being compared.

43. *Chapter 11. The plan does not appear to assess the progress of the regional water planning area in encouraging cooperation between water user groups for the purpose of achieving economies of scale and otherwise incentivizing strategies that benefit the entire region. Please provide a general assessment of these items in the final, adopted regional water plan. [TWC § 16.053(e)(12); 31 TAC § 357.45(c)]*

    The requested assessment will be included in Chapter 11 of the final plan.

44. *Please remove use of the TWDB logo from the final, adopted regional water plan. In accordance with TWDB's Logo and Seal Policy, use of the TWDB logo requires an approved licensing agreement.*

    The TWDB logo will be removed from the plan.

45. *The GIS files submitted did not appear to include the locations of every recommended and alternative WMS project. Please include the locations of every recommended and alternative WMS project listed in the final, adopted regional water plan with the final GIS data submitted. [Contract Exhibit C, Section 13.1.2]*

    The GIS files will be updated to include all of the locations.

46. *The WMS Project vector data was submitted across more than one shapefile/feature class for the same feature type. The vector data must be divided into point, line, and polygon feature types across a maximum of three shapefiles in a single folder or three feature classes in a single file geodatabase (one for each feature type). Please combine all feature classes in the 'Brazos_G_2021' GBD into a single feature class or shapefile for each feature type in the final GIS data submitted. [Contract Exhibit D, Section 2.4.5]*

    The final GIS data submitted to the TWDB will be corrected.

10.7.2 Level 2 TWDB Comments

1. *Section ES.5. The text refers the reader to Appendix L for details on Second-Tier needs, however Appendix L appears to include WAM files. Please correct the reference on page ES-14 as appropriate.*

    Corrected.

2. *Table ES-2 refers to the DB17 Summary of Second-Tier Water Needs. Please ensure to refer readers to DB22 data. The DB22 Second-Tier Needs reports are currently included in the ES Appendix.*

    Corrected.

3. *Section 1.12.1, page 1-50, first paragraph. The text appears to incorrectly reference Table 1-11. Please replace Table 1-11 reference with Table 1-12.*

    Corrected.

4. *Section 1.12.1, page 1-50, second paragraph, last sentence. The text appears to incorrectly reference Table 1-12. Please replace Table 1-12 reference with Table 1-13.*

    Corrected.

5. *Section 1.12.1, page 1-49, last paragraph discusses counties in Region G related to priority groundwater management areas that are in groundwater conservation districts. Please consider adding a reference to Figure 1-23: Groundwater Conservation Districts and Groundwater Management Areas Located Wholly or Partially within the Brazos G Area.*

   The requested reference will be added to the text.

6. *Section 1.12.1, page 1-51. Please replace the outdated term Managed Available Groundwater with Modeled Available Groundwater throughout the plan.*

   Corrected.

7. *Chapter 3. As reuse is considered a separate water source, please consider presenting reuse in a separate section within Chapter 3.*

   Time and resources did not allow this change during preparation of the final plan.

8. *Section 3.2.3, page 3-43. To assist with TWDB's review of surface water data, please consider providing more information about reservoir sedimentation considerations, such as sediment rate, data source, and method(s) for determining projected rating curves in the final plan.*

   Reservoir sedimentation analyses are utilized from the 2016 Brazos G Plan, except for a specific list of reservoirs for which updated sedimentation surveys are available. Volume I, Chapter 3 (section 3.2.3) has been updated to identify those reservoirs for which updated sedimentation data were available as of May 2018. There are numerous technical details that may be of interest to specific parties to include in the planning document, but the planning document needs to strike a balance on the level of technical information provided and the intended audience. Additional detailed discussion of the specific methods employed for applying the sedimentation estimates are beyond the technical detail necessary for the planning document. Those data are provided in the data deliverables that will accompany the regional water plan.

9. *Section 3.4.1, page 3-61, last paragraph. The text states that a reference for the source of groundwater availability estimates in Table 3.9 is included; however, no reference is listed. Please include the reference for the source of the groundwater availability estimates and consider including the MAG Peak Factor TWDB approval letter in the appendices of the final plan.*

   The reference is corrected, and the MAG Peak Factor approval information will be included as an appendix in the final plan.

10. *Appendix B. Citations for the model (GAM) used to determine the MAG for the Carrizo-Wilcox, Queen City and Sparta aquifers are listed as Dutton and others, 2003. The reference should be Kelley and others, 2004. Please update the citations for the GAM. Also, please list each of the authors for Kelley and others in the list of references rather than just "Kelley and others".*

    Corrected.

11. *Section 4.1. Please consider moving the discussion of water supply allocation to Chapter 3.*

    The discussion of water supply allocation will be moved to Chapter 3.

12. *Page. 4-3. Section 4.2 appears to refer to Appendix C for additional data on water needs, however Appendix C represents Water Rights data. Please correct the reference on page 4-3 as appropriate.*

    Corrected.

13. *Consider reconciling the number of counties with projected irrigation needs presented in Volume II, Section 2.2.2 (20 counties) and Volume I, Section 4.2.5 (21 counties).*

    Corrected.

14. *Volume II, Chapter 2 includes rainwater harvesting and reuse in the list of water conservation best practices measures. While the TWDB acknowledges that the municipal conservation best practices guide includes rainwater harvesting and reuse, for regional water planning purposes these practices are considered separate sources and should not be classified as conservation. Please consider clarifying this information within Volume II, Chapter 2 in the final, adopted regional water plan. [Contract Exhibit C, Section 5.6]*

    The clarification will be made in the final plan.

15. *Volume II, Section 9.6. The header for the Lake Whitney Water Supply Project (Cleburne) includes and Error! message. Please update the header in the final plan.*

    Corrected.

16. *Volume II, Chapter 12. Please consider clarifying more explicitly in the strategy evaluation for Brush Control, that it is not a recommended WMS, in the final, adopted regional water plan. [31 TAC § 357.34(d)]*

    The text of the WMS evaluations in Volume II do not state if a strategy is recommended. That is because the evaluation is most often completed prior to a final decision regarding recommendation.

17. *The GIS files submitted for WMS projects do not adhere to the contractually required naming convention. Please rename the GIS files following the naming convention outlined in Exhibit D, Section 2.4.5 in the final GIS files submitted. [Contract Exhibit D, Section 2.4.5]*

    We will correct the GIS file naming to adhere to the required naming convention.

18. *The GIS files submitted for WMS projects do not include minimum metadata requirements. Please include at a minimum, metadata about the data's projection, with the final GIS data submitted. [Contract Exhibit D, Section 2.4.1]*

    We will correct the GIS file metadata as requested.

19. *Appendix K appears to be a blank placeholder for DB22 reports, however the DB22 reports are included as part of the Executive Summary. Please remove Appendix K, if necessary, in the final plan.*

    Corrected.

10.8 Plan Adoption

The Brazos G Regional Water Planning Group formally adopted this 2021 Brazos G Regional Water Plan on October 28, 2020 and directed the BRA and HDR to submit the 2021 Plan to the TWDB on or before November 5, 2020.

11

Implementation and Comparison to the 2016 Brazos G Regional Water Plan

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11 Implementation and Comparison to the 2016 Brazos G Regional Water Plan

11.1 Implementation of the 2016 Brazos G Regional Water Plan

A requirement of the regional water plan is to report on the implementation status of water management strategies and projects recommended in the prior regional water plan. The TWDB provided a spreadsheet form requesting various forms of information on the 338 different water management strategies and projects recommended in the 2016 Plan, including such data as the date the governing authority of the project sponsor took affirmative action to begin implementing the project, current level of implementation, and funds expended to date. The information is included separate from the text of this plan as an electronic appendix, Appendix M.

11.2 Comparison to the 2016 Brazos G Regional Water Plan

There are notable differences between the 2016 and 2021 Plans. While the two plans use the same planning horizon, changes to the definitions for WUGs and WWPs, as well natural differences associated with population and demand growth and availability of supplies create noticeable differences in the overall assessment of needs for water user groups in the Brazos G area.

This chapter compares projected water demands, water supplies, needs, and water management strategies between this plan and the 2016 Plan. Population and water demands typically are updated each regional water planning cycle to reflect updated information on population from the latest census or better updated estimates from the Texas State Demographer. Per capita water use changes due to shifting water use patterns with municipal water systems resulting from water conservation efforts, drought measures, and patterns of development. County-aggregated water demands such as irrigation and steam-electric change between planning cycles for similar reasons as the TWDB updates demand estimates for these WUGs.

Groundwater supplies available for current uses and for water management strategies can change due to revisions in estimated available groundwater resulting from newly adopted Modeled Available Groundwater determinations arising out of the Groundwater Management Area process. Surface water supplies available for current uses and water management strategies will change as the Brazos Basin WAM is updated by the TCEQ, new projections of future return flows are developed, projections of reservoir sedimentation are revised, and as the TWDB changes requirements for water availability determination.

11.2.1 Changes to WUGs and WWPs

The TWDB has modified the definition of a municipal WUG and the geographic basis for each WUG's population projections. The previous definition defined a municipal WUG as a city or retail water utility serving a population of 500 people or more or that provided at

least 280 acft/yr of water. Revisons to 31 TAC 357.10(41) changes the definition of a municipal WUG and clarifies the basis of planning to focus on utility service areas rather than geographic census place names. The definition of municipal WUG is now defined as:

- Any retail public utility with retail sales of 100 acft/yr or more;
- Any privately-owned utility averaging sales of 100 acft/yr across all owned systems; and
- County-Other WUGs consist of all of the remaining municipal utilities sales less than 100 acft/yr and other individual users in the counties.

Based on the revised definition for a municipal WUG, a total of 72 new WUGs have been added to the Brazos G RWPA. A few WUGs have also been removed due to consolidation of utilities and application of revised definitions resulting in a total of 284 municipal WUGs included in the 2021 Plan.

The 2016 Plan identified municipal WUGs who also sold more than 1,000 acft/yr of wholesale water as wholesale water provider as WWPs. The 2021 Plan identifies them as WUG/WWP, but treats them as WUGs for planning purposes. Because of this, 13 WUGs identified previously as WWPs in the 2016 Plan are now simply referred to as WUGs in the 2021 Plan. Additionally, 2 new WWPs have been added.

New WUGs and WWPs included in the plan are shown in Table 11-1.

Table 11-1. New WUGs and WWPs in the 2021 Plan

Entity	County
New Water User Groups	
Bell County WCID 2	Bell
Bell County WCID 3	Bell
Central Texas College District	Bell, Coryell
The Grove WSC	Bell, Coryell
Little Elm Valley WSC	Bell, Coryell
Smith Bend WSC	Bosque
Mustang Valley WSC	Bosque, Coryell
HILCO United Services	Bosque, Hill
Highland Park WSC	Bosque, McLennan
Eula WSC	Callahan, Jones, Shackelford, Taylor
Hamby WSC	Callahan, Jones, Shackelford, Taylor
Callahan County WSC	Callahan , Shackelford
Flat WSC	Coryell
Fort Gates WSC	Coryell
Mountain WSC	Coryell
Oglesby	Coryell
Staff WSC	Eastland

Table 11-1. New WUGs and WWPs in the 2021 Plan

Entity	County
Fort Griffin SUD	Eastland, Shackelford, Stephens, Throckmorton
Cego-Durango WSC	Falls
North Milam WSC	Falls, Milam
TDCJ Luther Units	Grimes
TDCJ W. Pack Unit	Grimes
Chatt WSC	Hill
Double Diamond Utilities	Hill, Johnson
Post Oak SUD	Hill, Limestone
Birome WSC	Hill, Limestone, McLennan
Bold Springs WSC	Hill, McLennan
Liapan	Hood
Santo SUD	Hood, Palo Pinto
Red River Authority of Texas	Knox
Baylor WSC	Knox, Throckmorton, Young
Corix Utilities Texas Inc.	Lampasas, Washington
Bistone Municipal WSD	Limestone
Point Enterprise WSC	Limestone
SLC WSC	Limestone
White Rock WSC	Limestone
Prairie Hill WSC	Limestone, McLennan
Axtell WSC	McLennan
Central Bosque WSC	McLennan
East Crawford WSC	McLennan
EOL WSC	McLennan
H&H WSC	McLennan
Hilltop WSC	McLennan
Leroy Tours Gerald WSC	McLennan
Levi WSC	McLennan
McLennan County WCID 2	McLennan
Ross WSC	McLennan
Spring Valley WSC	McLennan
Texas State Technical College	McLennan
Windsor Water	McLennan
Salem Elm Ridge WSC	Milam

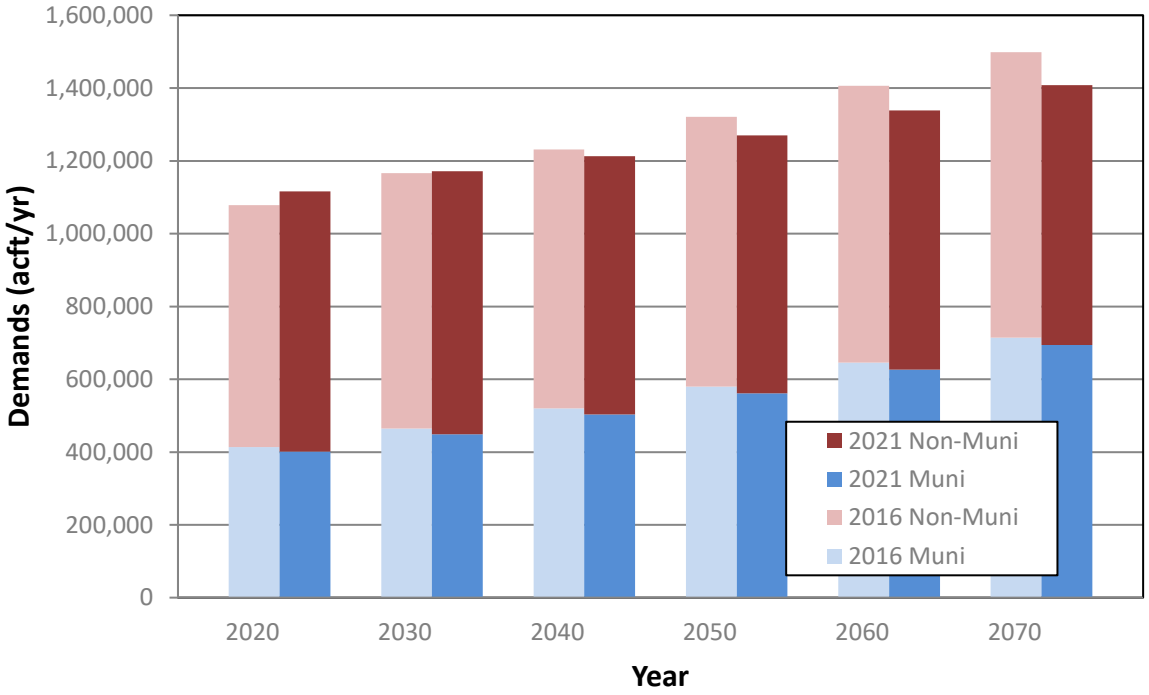
Table 11-1. New WUGs and WWPs in the 2021 Plan

Entity	County
Gordon	Palo Pinto
Lake Palo Pinto Area WSC	Palo Pinto
North Rural WSC	Palo Pinto
Palo Pinto WSC	Palo Pinto
Parker County SUD	Palo Pinto
Sportsman World MUD	Palo Pinto
Sturdivant Progress WSC	Palo Pinto
Bethany Hearne WSC	Robertson
Twin Creek WSC	Robertson
Somervell County Water District	Somervell
Lawn	Taylor
North Runnels WSC	Taylor
View Caps WSC	Taylor
Central Washington County WSC	Washington
Chappell Hill WSC	Washington
West End WSC	Washington
Paloma Lake MUD 1	Williamson
Paloma Lake MUD 2	Williamson
Sonterra MUD	Williamson
Walsh Ranch MUD	Williamson
Williamson County WSID 3	Williamson
New Wholesale Water Providers	
FHLM WSC	Falls, Hill, Limestone. Milam
Salt Fork Water Quality Corporation (SFWQC)	Kent, Stonewall

11.2.2 Water Demand Projections

Overall, water demand projections for the planning area are less in the 2021 Plan than in the 2016 Plan, as illustrated in Figure 11-1. Municipal water demand projections are slightly lower in the 2021 Plan for each decade, increasing to only 694,285 acft/yr by the 2070 decade. For the 2021 Plan, non-municipal demands are larger for the 2020 decade than those in the 2016 plan; however, the projected growth rate of demand is smaller. Because of this, the 2021 non-municipal demands are surpassed by those in the 2016 plan in decade 2040 and ultimately are projected to only reach 713,801 acft/yr by the 2070 decade.

Figure 11-1. Water Demand Projections in the 2016 and 2021 Brazos G Plans



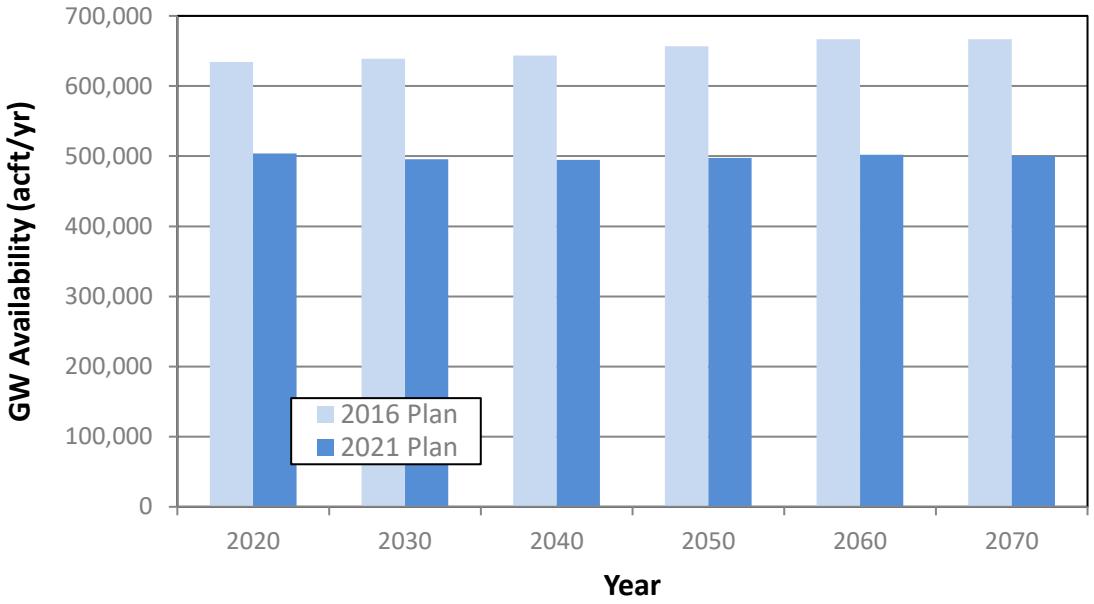
11.2.3 Water Supply Assumptions

For the 2016 Plan, the Modeled Available Groundwater (MAG) determined for each aquifer system in the Brazos G Area was used. For those aquifers without MAGs, the Brazos G RWPG adopted availability estimates based on those used in the 2011 Plan.

The same approach was generally applied for the 2021 Plan. The MAG estimates provided by the Groundwater Management Areas (GMA) for the aquifers for which they have established Desired Future Conditions (DFCs) were used, with one exception. The MAG estimate for the Carrizo-Wilcox Aquifer in Brazos County relies on a MAG Peak Factor to establish availability. Refer to Chapter 3 for additional information regarding how this factor is applied. In the event no MAG was provided by a GMA for a given aquifer, the estimate of availability is based on previous modeling and data referenced in the 2016 Plan or on updated modeling used to establish the MAG for other aquifers.

Chapter 3 and Appendix B provide greater discussion on estimates for specific aquifers. Total groundwater availability in the Brazos G Area is compared for the 2016 and 2021 Plans in Figure **11-2**. Groundwater supplies in both plans were then allocated to individual WUGs and WWPs based upon installed well capacities and records of recent groundwater withdrawals, prorated downward so that the total supply from an aquifer in a county did not exceed the estimated available groundwater.

Figure 11-2. Groundwater Availability in the Brazos G Area



For surface water availability, both plans utilized the TCEQ Brazos WAM as the base model; this model has been supplemented with certain assumptions and is referred to as the Brazos G WAM.

Similar modifications were made to the model in both plans for determining water available to existing water rights. The primary differences in how surface water availability is determined between the 2021 and 2016 Plans is that the BRA's System Operations Permit is now included in the model, and a set of estimated naturalized flows for the entire basin for the years 1998 through 2015 were used to extend the period of record. This period includes a potentially more severe drought than the drought of the 1950's and therefore provides a more conservative estimate of water available to existing water rights.

Assumptions for determining groundwater and surface water availability in both plans are compared in Table 11-2.

Table 11-2. Assumptions for Determining Water Available to Current Supplies and Water Management Strategies

2016 Brazos G Plan	2021 Brazos G Plan
Groundwater availability based on Modeled Available Groundwater where determined, and 2011 estimates elsewhere.	Groundwater availability based on Modeled Available Groundwater where determined, and 2016 estimates and/or modeling to support development of Modeled Available Groundwater for other aquifers. MAG Peak Factor applied to the Carrizo-Wilcox Aquifer in Brazos County.
Existing surface water supply based on estimated 2020 and 2070 wastewater effluent discharges adjusted for reuse assumptions.	Existing surface water supply based on estimated 2020 and 2070 wastewater effluent discharges adjusted for reuse assumptions.
Existing surface water supply to irrigation rights based on minimum annual supply from minimum monthly diversions.	Existing surface water supply to irrigation rights based on minimum annual supply from minimum monthly diversions.

Table 11-2. Assumptions for Determining Water Available to Current Supplies and Water Management Strategies

2016 Brazos G Plan	2021 Brazos G Plan
Surface water management strategies exclude wastewater effluent discharges (TCEQ Run 3 assumptions), except where effluent is part of the supply for the strategy.	Surface water management strategies exclude wastewater effluent discharges (TCEQ Run 3 assumptions), except where effluent is part of the supply for the strategy.
Surface water management strategies subject to TCEQ Environmental Flow Standards.	Surface water management strategies subject to TCEQ Environmental Flow Standards.
	BRA System Operations Permit included in the TCEQ Brazos WAM.

11.2.4 Existing Water Supplies

Water supplies available to WUGs and WWPs in the Brazos G Area have changed significantly since the last planning cycle. Municipal supplies have decreased slightly, but supplies to non-municipal WUGs have increased substantially. Groundwater supplies, surface water supplies, and total supplies are compared in Figure 11-3, Figure 11-4 and Figure **11-5**, respectively, for municipal and non-municipal WUGs.

Figure 11-3. Groundwater Supplies Available to WUGs in the 2016 and 2021 Brazos G Plans

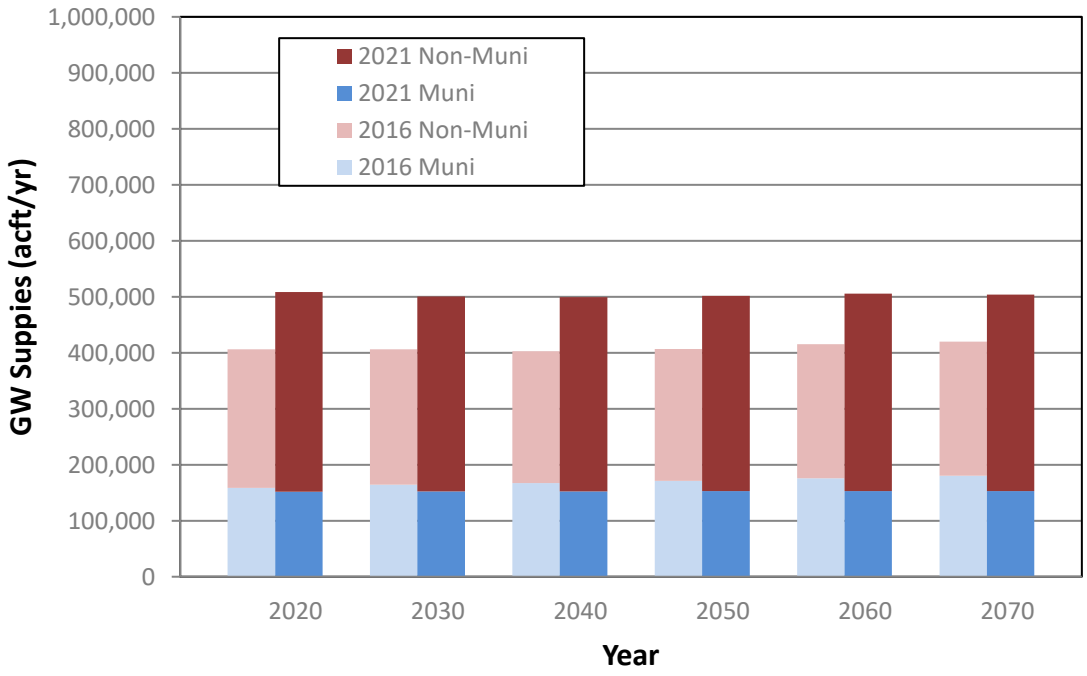


Figure 11-4. Surface Water Supplies Available to WUGs in the 2016 and 2021 Brazos G Plans

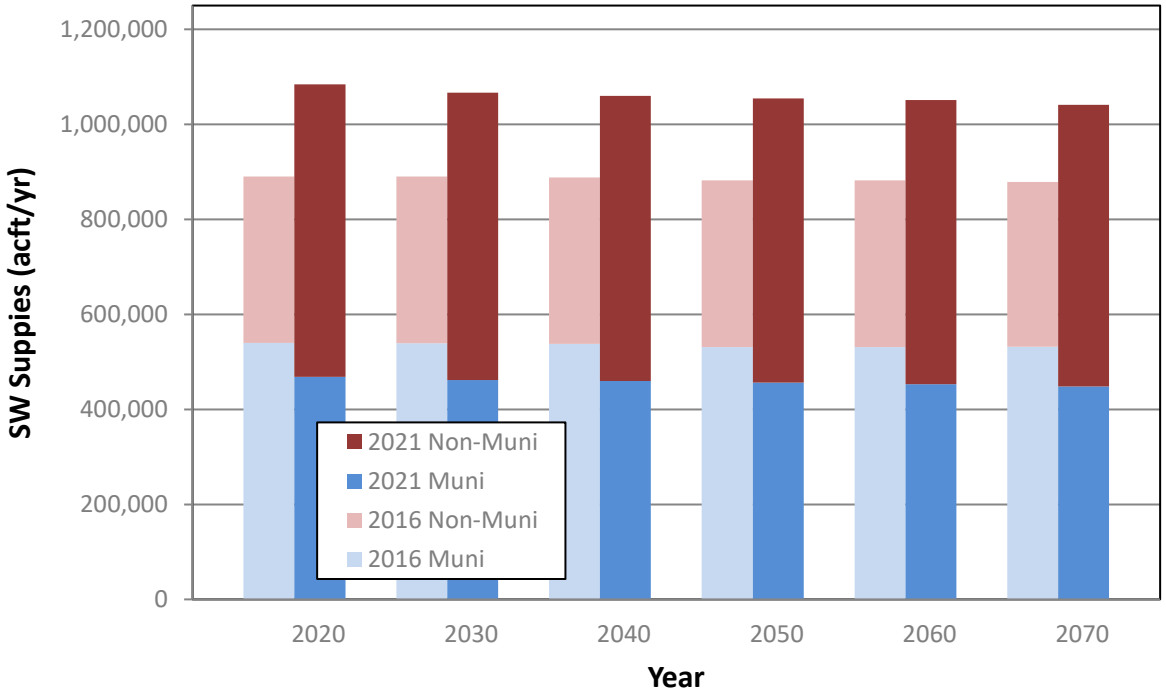
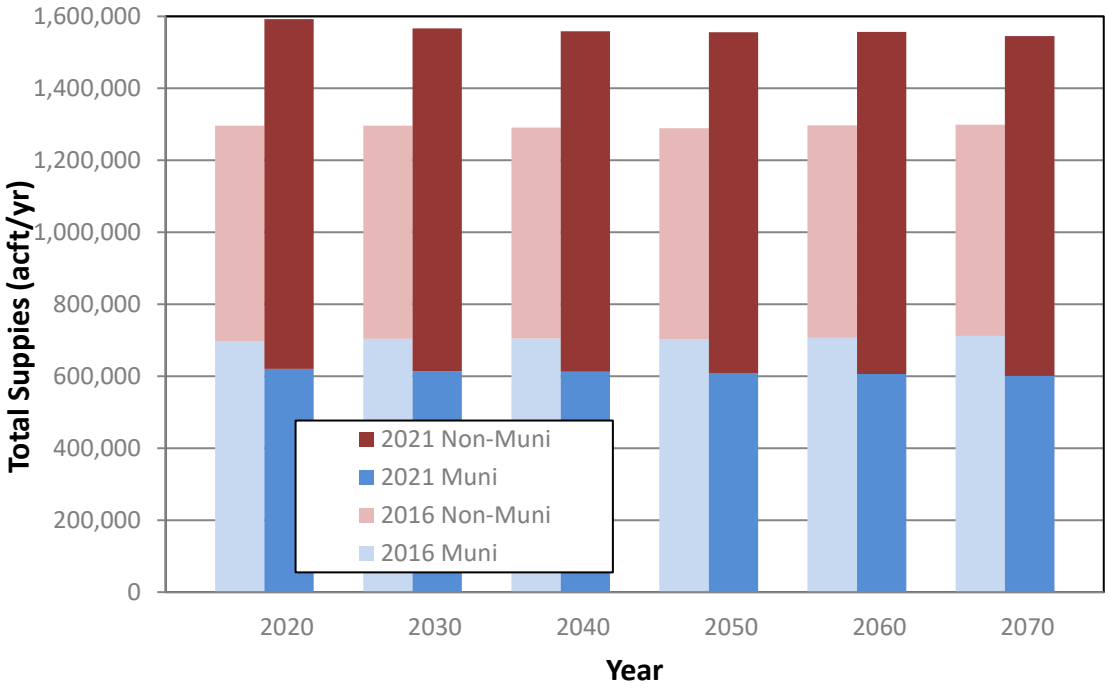


Figure 11-5. Total Water Supplies Available to WUGs in the 2016 and 2021 Brazos G Plans



11.2.5 Needs

Municipal needs (shortages) generally increase across the planning period and municipal surpluses decrease across the planning period for both the 2016 Plan and the 2021 Plan. The quantity of municipal surpluses available at the beginning of the 2016 Plan is substantially greater than that in the 2021 Plan. The difference in municipal shortages is not as significant between the two plans; the 2016 Plan shows municipal shortages at the beginning of the planning period, and the rate of increase across the planning period exceeds that for the 2021 Plan. Total municipal needs (shortages) and total municipal surpluses for both plans are shown in Figure 11-6. When total needs and total surpluses are compared for both plans in Figure 11-7, both total surpluses and needs in the 2021 Plan are less than the 2016 Plan.

Figure 11-6. Municipal Surpluses and Needs (Shortages) in the 2016 and 2021 Brazos G Plans

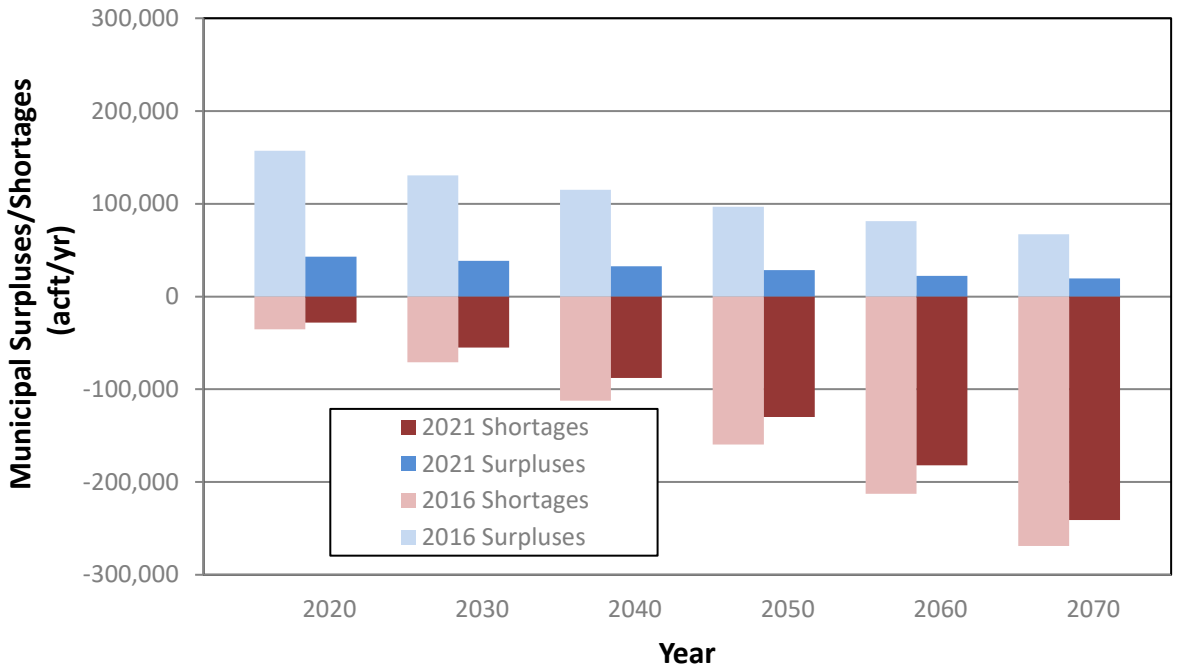
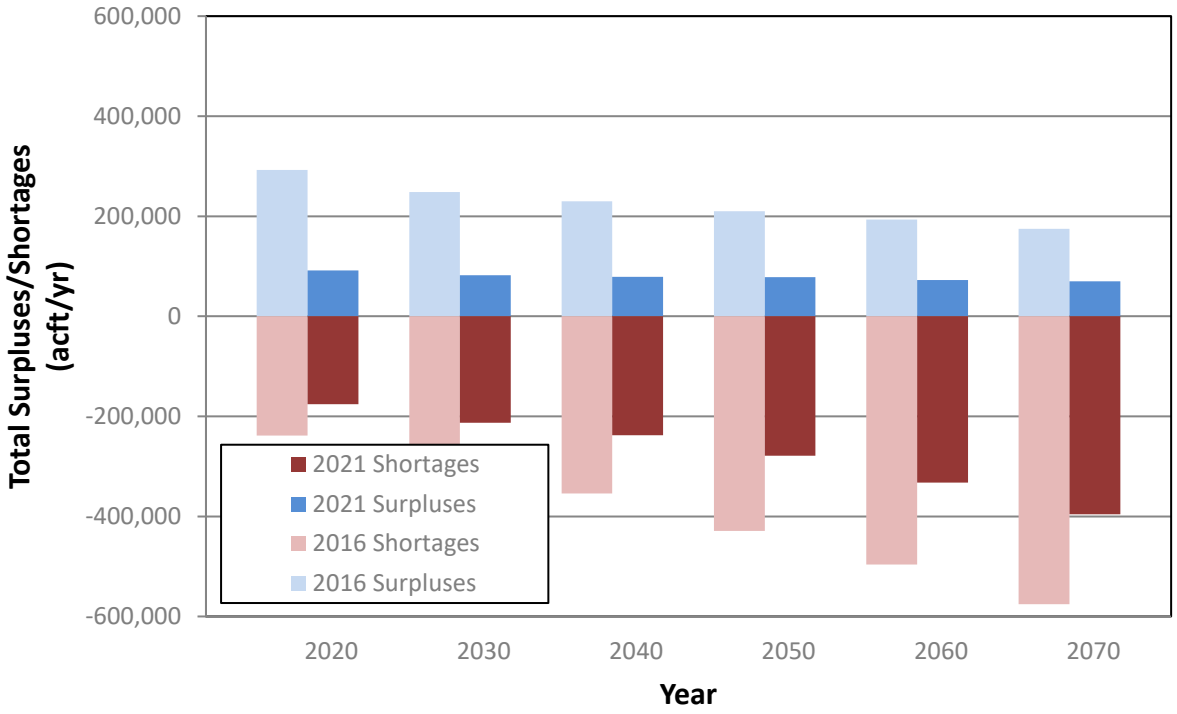


Figure 11-7. Total Surpluses and Needs (Shortages) in the 2016 and 2021 Brazos G Plans



11.2.6 Water Management Strategies and Projects

As expected, many of the water management strategies and projects recommended in the 2016 Plan are again recommended in the 2021 Plan. Although needs across each decade in the 2021 Plan are less than those projected in the 2016 Plan, the corresponding decadal surpluses in the 2021 Plan are also smaller creating a general supply shortage for WUGs of equal magnitude across the two plans. This section generally identifies differences in water management strategies and projects between the 2016 and 2021 Plans.

In the 2016 Plan, conservation is recommended for all municipal water user groups with per capita water use greater than 140 GPCD, regardless of projected needs or surplus. Additionally, conservation targets for some municipal entities in Williamson County are more aggressively recommended to achieve per capita water use of 120 GPCD by 2070. The 2021 Plan uses the same methodology and assumptions for municipal water conservation as was used on the 2016 Plan. Total municipal conservation savings in the 2070 decade in the 2016 Plan was 190,607 acft/yr versus 111,339 acft/yr in the 2021 Plan.

Reuse is a key water management strategy in both the 2016 and 2021 Plans. In the 2016 Plan, water management strategies and associated projects involving reuse total 47,983 acft/yr, versus 46,662 acft/yr in the 2016 Plan.

Supplies from Other Regions

The 2016 Plan in the 2060 decade includes roughly 105,000 acft/yr of water to be supplied from outside the Brazos G Area, while the 2016 Plan includes almost 108,000 acft/yr of out-of-region supplies. These supplies in both plans are concentrated in the Brushy Creek

Regional Utility Authority project for supplies from Region K for the cities of Cedar Park, Leander, and Round Rock, and in supplies from Region C for entities in Johnson County.

New Reservoirs

The 2016 Plan recommended construction of Groesbeck Off-Channel Reservoir, Coryell County Off-Channel Reservoir, Cedar Ridge Reservoir, Turkey Peak Reservoir, Little River Off-Channel Reservoir, Brushy Creek Reservoir, Throckmorton Reservoir, and Lake Creek Reservoir. The 2021 Plan recommends those same reservoirs with the exception of the Little River Off-Channel Reservoir.

BRA System Operations

The BRA System Operations Permit (Sys Ops Permit) was a recommended water management strategy in the 2016 Plan. Since adoption of the 2016 Plan, the Sys Ops Permit has been issued by the TCEQ. The supplies generated by Sys Ops are assumed available in the BRA's Main Stem/Lower Basin System and total 138,475 acft/yr in 2020 increasing to 159,075 acft/yr in 2070. The Sys Ops supplies are used to firm up existing contractual commitments in the BRA's Main Stem/Lower Basin System, and to generate supplies for new contracts. The BRA has entered into multiple contracts totaling 94,999 acft/yr of supply generated by the Sys Ops Permit (79,785 acft/yr in Region H and 15,211 acft/yr in Brazos G). The Brazos G total includes a few pending contracts. Region H is treating these new contracts as an existing supply source, as the contractual customers already have sufficient infrastructure to utilize the supply. Brazos G is treating these contracts as supplies for new water management strategies due to the pending nature of a few of the contracts and the fact that two of the contractual entities require infrastructure projects to utilize the new supply.

Additional Groundwater Development

The 2021 Plan recommends a slightly smaller level of groundwater development (60,000 acft/yr) than does the 2016 Plan (65,000 acft/yr). Some miscellaneous groundwater projects carried in the 2016 Plan are no longer recommended due to insufficient MAG being available.

Aquifer Storage and Recovery (ASR)

The 2021 Plan includes five recommended ASR projects for College Station, Bryan, Waco (McLennan County ASR), the BRA (Lake Granger ASR), and Georgetown (Lake Georgetown ASR). All of these projects were recommended in the 2016 Plan with the exception of the recently identified Lake Georgetown ASR project.

Unmet Needs

In the 2016 Plan, increased county-aggregated demands such as irrigation demands in Robertson County and decreased supplies due to abandonment of the 75/75 convention for surface water irrigation supply substantially increased many county-aggregated needs with few economically reasonable strategies to supply those uses. The Brazos G Regional Water Planning Group opted to not recommend strategies to meet those needs when no economically or practically viable strategies are identified. Those needs, therefore, remain

unmet in the 2016 Plan, totaling approximately 85,000 acft/yr of mostly irrigation and mining demands.

In the 2021 Plan, needs left unmet total a maximum of 148,167 acft/yr in 2030 for irrigation, mining and steam-electric uses. This increase over the 2016 Plan is primarily due to unmet steam-electric demands in select counties; these needs are being left unmet as there are no practical or economical supplies which can be developed to meet these needs and/or it is believed that the likelihood is low that the projected demands that cause these needs will materialize.

Alternative Water Management Strategies and Projects

Both the 2016 Plan and the 2021 Plan identify alternative water management strategies for certain WUGs and WWPs that can replace one or more recommended strategies should the recommended strategies prove to be unfeasible in the future. Examples of such alternative strategies include the Williamson County Groundwater Supply project and Alcoa Property Supply project.

11.3 Progress of the Regional Water Plan in Encouraging Cooperation and Regionalization

The regional water planning process is a prime vehicle for encouraging cooperation and regionalization. The process ensures that planning is performed within a common framework of population and water demand projections, and a common methodology for establishing the availability of supplies. The public meetings held regularly by Brazos G provide the opportunity for transfer of information between entities across a vast, diverse planning area and have helped eliminate the “silos” that many entities tend to operate in when planning for water. Brazos G includes representation from five Groundwater Management Areas extending across the entire Brazos G Area, and these members bring a unique perspective to the planning group, lending their expertise and insight into issues concerning how best to manage our valuable groundwater resources. Brazos G views management of groundwater resources as a regional issue requiring strong participation from local partners.

The 2021 Brazos G Plan recommends multiple projects that can be considered “regional”, including allocations of the Brazos River Authority’s System Operations supplies, and multiple solutions to supply the significant water needs in Williamson, Bell, and Coryell Counties. Many of the water management strategies and projects recommended in the 2021 Brazos G Plan are intended to supply multiple entities and are truly regional solutions to the problem of water scarcity in the Brazos River Basin. Brazos G cooperates with adjacent regional water planning areas, and shares supplies and strategies with Regions O, B, C, F, L, K, and H.

Brazos G provides a valuable forum for active participation and discussion of water supply issues across the 37-county area and has encouraged viewing water supply issues in the larger context of regional solutions.