

REGION B TECHNICAL MEMORANDUM

Prepared for:

Texas Water Development Board

On behalf of the Region B Water Planning Group

February 29, 2024

TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1

1.0 REGION B RWPG DATA ANALYSIS AND TWDB DB27 REPORTS 1

 1.1 Population Projection and Water Demand 1

 1.2 Source Water Availability 5

 1.2.1 Surface Water 6

 1.2.2 Groundwater 7

 1.2.3 Reuse..... 8

 1.3 Existing Water Supplies..... 8

 1.4 Identified Water Needs/Surpluses..... 9

 1.5 Comparison to 2021 Regional Water Plan 13

2.0 DETERMINING SOURCE AVAILABILITY 14

 2.1 Surface Water 14

 2.1.1 Hydrologic Models..... 14

 2.1.2 Versions and Dates of Hydrologic Models..... 16

 2.1.3 Reservoir Sedimentation and Area-Capacity Calculation Methodology..... 19

 2.2 Groundwater 21

 2.2.1 Written Summary of Modeled Available Groundwater (MAGs) 21

 2.2.2 Documented Methodologies Utilized for Non-MAG Availabilities..... 22

3.0 POTENTIALLY FEASIBLE WATER MANAGEMENT STRATEGIES 23

 3.1 Process for Identifying Potentially Feasible WMS 23

 3.2 List of Potentially Feasible WMS 23

4.0 INFEASIBLE WMS FROM 2021 REGIONAL WATER PLAN..... 24

5.0 INTERREGIONAL COORDINATION 25

6.0 PUBLIC COMMENT 25

List of Figures

- Figure 1-1: Total RWPG Adopted Water Demand Projections by Use Type (Acre-Feet per Year). 5
- Figure 1-2: Water Supply Needs by Use Type Based on RWPG Adopted Demand Projections... 10

List of Tables

Table 1-1: RWPG Adopted Population Projections for Region B by County	3
Table 1-2: RWPG Adopted Total Dry-Year Water Demand Projections for Region B by County ...	4
Table 1-3: Overall Water Supply Source Availability in Region B (Acre-Feet per Year).....	6
Table 1-4: Summary of Surface Water Reliable Supplies ¹ (Acre-Feet per Year)	7
Table 1-5: Summary of Groundwater Supplies in Region B (Acre-Feet per Year).....	7
Table 1-6: Currently Permitted Reuse Supplies Available to Region B.....	8
Table 1-7: Existing Water Supplies Available to Region B by Source	9
Table 1-8: Existing Water Supplies Available to Region B by County	9
Table 1-9: Water Supply Needs by Use Type Based on RWPG Adopted Demand Projections	10
Table 1-10: Water Supply Needs by County Based on RWPG Adopted Demand Projections	11
Table 1-11: Water Supply Needs by WUG Based on RWPG Adopted Demand Projections	12
Table 1-12: Water Supply Needs by Major Water Provider Based on RWPG Adopted Demand Projections	13
Table 2-1: Estimated Firm Yield and Reliable Supply for Major Reservoirs in Region B (Acre-Feet/Year)	15
Table 2-2: Hydrologic Models Used in Determining Surface Water Availability	17
Table 2-3: Sedimentation Rates and Projected Storage Capacity of Major Reservoirs in Region B	20
Table 2-4: GAM Models Used in Determining Ground Water Availability	21
Table 2-5: Modeled Available Groundwater Supplies in Region B.....	21
Table 2-6: Estimated Available Groundwater Supplies for Non-Relevant Aquifers and Other Aquifer	22

Appendices

- Appendix A: WUG Summaries based on RWPG Adopted Planning Data
- Appendix B: DB27 Reports
- Appendix C: WAM Modification Request and TWDB Approval
- Appendix D: Methodology for Developing Groundwater Availabilities
- Appendix E: Identifying Potentially Feasible WMSs
- Appendix F: List of Potentially Feasible WMSs
- Appendix G: Interregional Coordination Memos

EXECUTIVE SUMMARY

This Technical Memorandum discusses population and water demand projections, water availability, existing water supplies, identified water needs and surpluses, and identified potentially feasible water management strategies in Region B for the sixth cycle of regional water plan development. The population and water demand projections presented in the main body of the report are the projections adopted by the Regional Water Planning Group (RWPG), and the identified water needs and surpluses are based on these demand projections. Also, included as appendices to this report are the required Texas Water Development Board (TWDB) DB27 reports (seven) along with the additional information required for the Technical Memorandum submittal as set forth in Section 2.12.1 of TWDB's *Second Amended General Guidelines for Development of the 2026 Regional Water Plans (Exhibit C)* dated September 2023. The DB27 reports include the population and demand projections adopted by TWDB, and the water needs and surpluses based on the TWDB adopted projections. These projections differ from the RWPG adopted population and demand projections. To distinguish between the two datasets, information based on the RWPG adopted population and demand projections is labeled as "RWPG adopted" and information based on TWDB adopted population and demand projections is labeled as "TWDB adopted".

A public meeting was held on *February 7, 2024*, to discuss the contents of this memorandum. Notice of the meeting was posted on *January 23, 2024*. Public comments were solicited at the public meeting and for two weeks after the meeting, closing on *February 23, 2024*.

1.0 REGION B RWPG DATA ANALYSIS AND TWDB DB27 REPORTS

The data reported in the following sections is the data adopted by the RWPG for use in the development of the 2026 Region B Water Plan. This includes RWPG adopted population and demand projections, source water availability, existing water supplies, and identified water supply needs and surpluses. A summary of RWPG adopted population, demand, water supply, and needs/surpluses are provided in **Appendix A**, organized by water user group (WUG).

All required TWDB DB27 reports are provided in **Appendix B** of this document. These include DB27 reports numbered 1 through 5, 7, and 8, listed below:

- **TWDB DB27 Report #1 –WUG Population**
- **TWDB DB27 Report #2 - WUG Water Demand**
- **TWDB DB27 Report #3 – Source Availability**
- **TWDB DB27 Report #4 –WUG Existing Water Supply**
- **TWDB DB27 Report #5 –WUG Needs/Surpluses**
- **TWDB DB27 Report #7 –WUG Data Comparison to 2021 Regional Water Plan (RWP)**
- **TWDB DB27 Report #8 – Source Data Comparison to 2021 Regional Water Plan (RWP)**

The DB27 reports included the TWDB adopted planning data for Region B for use in the development of the 2027 TWDB State Water Plan. Data in DB27 Reports 1, 2, 5, and 7 will differ from the RWPG adopted data as they are based on different population and demand projection numbers. Data in DB27 Reports 3, 4 and 8 will match the RWPG adopted data.

1.1 POPULATION PROJECTION AND WATER DEMAND

In early 2022, TWDB released their draft population and demand projections for all regions. Each Regional Planning Group was given the ability to request adjustments to the projections. In accordance with the bottom-up regional water planning approach established in Senate Bill 1, the Region B RWPG submitted requested revisions to the projections which were reviewed by TWDB staff. The revisions were based on the following supporting information:

- Documented 2020 Census under counts of approximately 2% for the State of Texas.
- Local well development data from Upper Trinity Groundwater Conservation District (UTGCD) for Montague County.
- Local data from water providers on trends for new building permits, subdivision plats, and metered connections suggesting steady increases in population.

TWDB did not approve most of the of the RWPG municipal projections and therefore the RWPG group adopted their own set of population projections that they felt better represented the future water demands for the region. The RWPG-adopted municipal projections also include a 15 percent safe supply factor. The population and demand projections presented in the main body of this technical memo are the RWPG adopted projections and differ from the TWDB adopted projections which are presented in the required **TWDB DB27 Reports #1 and #2** included in **Appendix B**.

Table 1-1 shows the RWPG adopted population projections by county. According to the RWPG adopted projections, the total population in Region B is expected to increase from 205,160 to 228,068 over the planning horizon. Wichita County has the highest population of the eleven counties.

Table 1-2 shows the total demands for Region B by county (including municipal and non-municipal demand). The total dry-year water demand increases slightly from 139,590 to 143,761 acre-feet between 2030 and 2080. Wichita and Wilbarger counties have the largest demands, which reflects high irrigation use in these counties.

Table 1-1: RWPG Adopted Population Projections for Region B by County

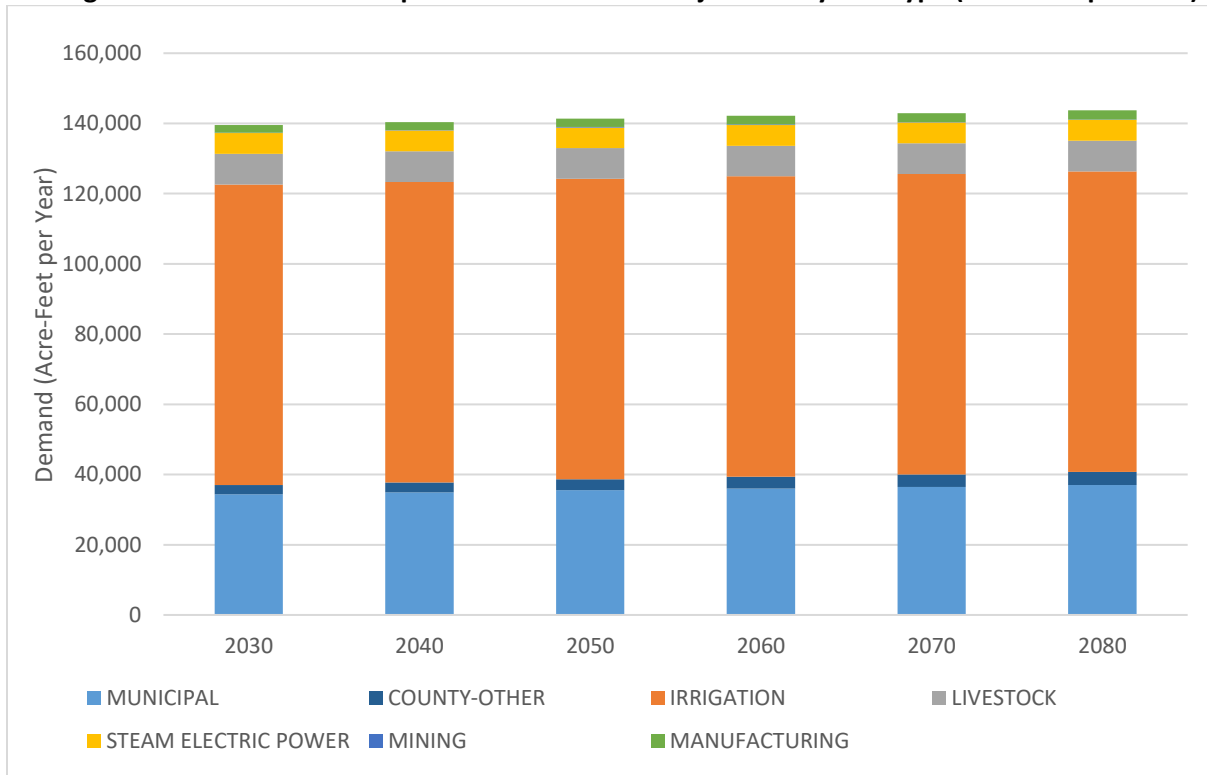
County	2030	2040	2050	2060	2070	2080
ARCHER	8,698	8,632	8,562	8,451	8,315	8,208
BAYLOR	3,534	3,492	3,491	3,413	3,335	3,359
CLAY	10,462	10,474	10,485	10,444	10,404	10,369
COTTLE	1,408	1,379	1,340	1,311	1,286	1,281
FOARD	1,117	1,111	1,105	1,093	1,081	1,069
HARDEMAN	3,620	3,597	3,569	3,524	3,467	3,409
KING	270	272	276	283	288	292
MONTAGUE	25,241	28,575	31,909	35,249	38,585	41,916
WICHITA	134,083	136,111	138,164	139,275	140,389	141,505
WILBARGER	13,148	13,165	13,179	13,172	13,151	13,130
YOUNG (Region B)	3,579	3,562	3,545	3,522	3,526	3,530
TOTAL	205,160	210,369	215,625	219,737	223,827	228,068

Table 1-2: RWPG Adopted Total Dry-Year Water Demand Projections for Region B by County

County	2020	2030	2040	2050	2060	2070
ARCHER	3,328	3,308	3,294	3,272	3,247	3,226
BAYLOR	6,803	6,792	6,794	6,779	6,765	6,770
CLAY	4,746	4,737	4,734	4,723	4,713	4,704
COTTLE	5,060	5,052	5,042	5,035	5,029	5,028
FOARD	3,078	3,077	3,076	3,075	3,073	3,072
HARDEMAN	19,570	19,571	19,575	19,575	19,574	19,573
KING	771	771	772	774	776	777
MONTAGUE	6,392	6,938	7,502	8,067	8,632	9,195
WICHITA	52,117	52,401	52,802	53,031	53,262	53,495
WILBARGER	37,020	37,053	37,099	37,141	37,183	37,226
YOUNG (Region B)	705	699	696	693	694	695
TOTAL	139,590	140,399	141,386	142,166	142,946	143,761

Figure 1-1 shows the total demands for the Region by use category. Irrigation demand accounts for roughly 60 percent of total projected demand over the planning horizon while municipal (including county-other) demand comprises roughly 28 percent. The remaining use types each encompass only 6 percent or less of total demand in each decade.

Figure 1-1: Total RWPG Adopted Water Demand Projections by Use Type (Acre-Feet per Year)



TWDB DB27 Report #1 presents the TWDB adopted projected populations for each municipal water user group. This includes water utilities or water systems that provide an average of more than 100 acre-feet per year to retail municipal customers, and rural/unincorporated areas of municipal water use, known as County Other. **TWDB DB27 Report #2** provides the TWDB adopted projected water demands for each water user group. This includes both municipal and non-municipal demands. The data in Reports #1 and #2 are reported by entity, county, and river basin. These reports are included in **Appendix B**.

1.2 SOURCE WATER AVAILABILITY

TWDB DB27 Report #3 – Source Availability in Appendix B presents the available water by source. Under the TWDB regional water planning guidelines, each region is to identify available water supplies in the region by source and user. The supplies available by source are based on the supply available during drought of record conditions. For surface water reservoirs, this is generally the equivalent of firm yield supply or permitted amount (whichever is lower). The Region B Water Planning Group elected to use reliable supplies with a 20 percent reserve supply, if possible, as the basis for planning for reservoir supplies. For run-of-the-river supplies, the firm yield is the minimum supply available in a year over the historical record. Available groundwater supplies are defined by county and aquifer. Groundwater supply

is the supply available that meets the Desired Future Conditions, as defined by the Groundwater Joint Planning Process. The TWDB developed the Modeled Available Groundwater (MAG) values to define the long-term available groundwater supply. MAGs were developed for the Trinity, Seymour, and Blaine aquifers within existing Groundwater Conservation Districts (GCDs). MAGs were not developed for the Cross Timbers Aquifer, Other Aquifer, and all aquifers within counties with no GCD. Groundwater supplies from these sources were developed by the RWPG. Existing reuse supplies include Wichita Falls’ indirect reuse to Lake Arrowhead and known sales of direct reuse.

Region B has a total of over 179,000 acre-feet per year of available water in 2030, which decreases to about 177,000 acre-feet per year by 2080. These projections include both developed and undeveloped supplies. More than half of Region B’s water supply is from groundwater sources. **Table 1-3** shows the overall water supply source availability in Region B over the planning horizon. More detail on the development of these source availabilities is included in **Section 2.0** of this document. It should be noted that these supplies have not been limited by the current infrastructure that treats and delivers the water. The amount of supply available to individual water user groups (WUGs) is referred to as “Existing Water Supplies” and is discussed further in **Section 1.3** of this report.

Table 1-3: Overall Water Supply Source Availability in Region B (Acre-Feet per Year)

Summary	2030	2040	2050	2060	2070	2080
RESERVOIRS	51,685	49,031	46,377	43,723	41,069	38,415
RUN-OF-RIVER & SMALL LAKES	6,680	6,680	6,680	6,680	6,680	6,680
LOCAL SUPPLY	6,878	6,878	6,878	6,878	6,878	6,878
GROUNDWATER	105,214	111,069	112,209	114,229	123,636	116,240
REUSE	9,427	9,427	9,427	9,427	9,427	9,427
REGION B TOTAL	179,884	183,085	181,571	180,937	187,690	177,640

1.2.1 Surface Water

Surface water in Region B is comprised of reservoirs and local supplies. This includes six in-region lakes (Lakes Kickapoo, Arrowhead, Kemp/Diversion, Amon Carter, Nocona, and Olney/Cooper) and one lake located wholly in another region (Greenbelt Reservoir). The following water supply reservoirs account for over 90 percent of the reservoir water supply available in Region B: Little Wichita and Wichita River supplies (Lake Kickapoo, Lake Arrowhead, Kemp/Diversion system). Local supplies include direct

diversions from rivers and creeks (run-of-river supplies associated with water rights) and local stock ponds. A summary of surface water supplies available to Region B are shown in **Table 1-4**.

Table 1-4: Summary of Surface Water Supplies (Acre-Feet per Year)

Source	2030	2040	2050	2060	2070	2080
KICKAPOO ¹	5,400	5,060	4,720	4,380	4,040	3,700
ARROWHEAD ¹	10,900	10,220	9,540	8,860	8,180	7,500
KEMP/DIVERSION ¹	32,900	31,340	29,780	28,220	26,660	25,100
AMON CARTER ²	1,080	1,018	956	894	832	770
NOCONA ³	1,260	1,260	1,260	1,260	1,260	1,260
OLNEY/COOPER ²	145	133	121	109	97	85
RUN-OF-RIVER & SMALL LAKES	6,680	6,680	6,680	6,680	6,680	6,680
LOCAL SUPPLIES	6,878	6,878	6,878	6,878	6,878	6,878
TOTAL	65,243	62,589	59,935	57,281	54,627	51,973

¹ Reliable supply is the amount approved by the RWPG for planning purposes. It includes a 20% reserve supply.

² A one-year safe yield was used for reservoirs that could not achieve a 20% reserve supply during the drought of record.

³ Reliable supply for Lake Nocona water right diversion limit of 1,260 ac-ft/yr because it is less than the reliable supply with 20% reserve.

1.2.2 Groundwater

Groundwater in Region B is from the Seymour, Trinity, Blaine, and Cross Timbers aquifers, as well as from undifferentiated local supplies, referred to as "Other Aquifer" for planning purposes. The Seymour and Trinity are major aquifers while the Blaine and Cross Timbers are minor aquifers. The Cross Timbers Aquifer was designated as a minor aquifer in 2017 (formerly called the Paleozoic Aquifer). Supplies from alluvial sediments are classified as Other Aquifer. **Table 1-5** summarizes the available groundwater supplies in Region B over the planning horizon.

Table 1-5: Summary of Groundwater Supplies in Region B (Acre-Feet per Year)

Aquifer	2030	2040	2050	2060	2070	2080
BLAINE AQUIFER	26,700	26,700	26,700	26,700	26,700	26,700
CROSS TIMBERS AQUIFER	8,225	8,225	8,225	8,225	8,225	8,225
OTHER AQUIFER	5,750	5,750	5,750	5,750	5,750	5,750
SEYMOUR AQUIFER	58,435	64,290	65,430	67,450	76,857	69,461
TRINITY AQUIFER	6,104	6,104	6,104	6,104	6,104	6,104
TOTAL	105,214	111,069	112,209	114,229	123,636	116,240

1.2.3 Reuse

Reuse supply accounts for about 5 percent of total source availability in Region B. **Table 1-6** is the summary of availability from current reuse projects by county.

Table 1-6: Currently Permitted Reuse Supplies Available to Region B

County	Type	Permitted Reuse (Acre-Feet/Year)					
		2030	2040	2050	2060	2070	2080
BAYLOR	DIRECT	63	63	63	63	63	63
MONTAGUE	DIRECT	34	34	34	34	34	34
WICHITA	DIRECT	357	357	357	357	357	357
WICHITA	INDIRECT	8,968	8,968	8,968	8,968	8,968	8,968
YOUNG	DIRECT	5	5	5	5	5	5
TOTAL		9,427	9,427	9,427	9,427	9,427	9,427

1.3 EXISTING WATER SUPPLIES

Existing Water Supplies (sometimes referred to as “currently available supplies” or “connected supplies”) are supplies that are limited by water rights, contracts, and facilities that are currently in place. The Existing Water Supplies are less than the overall supplies available to the region (Source Water Availability from Section 1.2) because the facilities needed to use some of the source water have not yet been developed. Common constraints limiting supplies include the availability and capacity of transmission systems, treatment plants, and wells. **Table 1-7** shows the Existing Water Supplies in Region B by different source types. **Table 1-8** shows the Existing Water Supplies for water user groups by county. **TWDB DB27 Report #4 – Water User Group (WUG) Existing Water Supply** is included in **Appendix B**.

Table 1-7: Existing Water Supplies Available to Region B by Source

Summary	Existing Water Supplies (Acre-Foot/Year)					
	2030	2040	2050	2060	2070	2080
RESERVOIRS	49,346	46,723	44,170	41,616	39,060	36,507
RUN-OF-RIVER ¹	4,448	4,448	4,448	4,448	4,448	4,448
LOCAL SUPPLY	6,799	6,799	6,799	6,799	6,799	6,799
GROUNDWATER	70,186	70,176	70,228	70,277	70,085	70,109
REUSE	9,427	9,427	9,426	9,425	9,427	9,427
TOTAL	140,206	137,573	135,071	132,565	129,819	127,290
SURFACE WATER IMPORTS ²	569	554	544	538	533	534
GROUNDWATER IMPORTS ³	366	371	374	371	366	357
TOTAL AVAILABLE	141,141	138,498	135,989	133,474	130,718	128,181

¹ Run-of-river supplies also includes Santa Rosa Lake

² Surface water imports are from Millers Creek Lake (Region G), Greenbelt Lake (Region A), and local surface water supply in the Brazos basin in Young County (Region G).

³ Groundwater imports are from the Ogallala Aquifer in Donley County (Region A) and Cross-Timbers Aquifer in Young County (Region G).

Table 1-8: Existing Water Supplies Available to Region B by County

County	Existing Water Supplies (Acre-Foot/Year)					
	2030	2040	2050	2060	2070	2080
ARCHER	4,382	4,232	4,077	3,955	3,834	3,717
BAYLOR	6,788	6,777	6,777	6,764	6,749	6,473
CLAY	6,792	6,732	6,665	6,604	6,545	6,486
COTTLE	5,078	5,033	5,031	5,027	5,023	5,017
FOARD	3,889	3,887	3,887	3,886	3,645	3,883
HARDEMAN	19,767	19,768	19,772	19,773	19,772	19,775
KING	771	772	772	774	775	776
MONTAGUE	5,559	5,525	5,491	5,459	5,426	5,391
WICHITA	47,861	45,964	44,083	42,169	40,256	38,341
WILBARGER	38,923	38,607	38,293	37,976	37,659	37,344
YOUNG (Region B)	1,331	1,201	1,141	1,087	1,034	978
TOTAL	141,141	138,498	135,989	133,474	130,718	128,181

1.4 IDENTIFIED WATER NEEDS/SURPLUSES

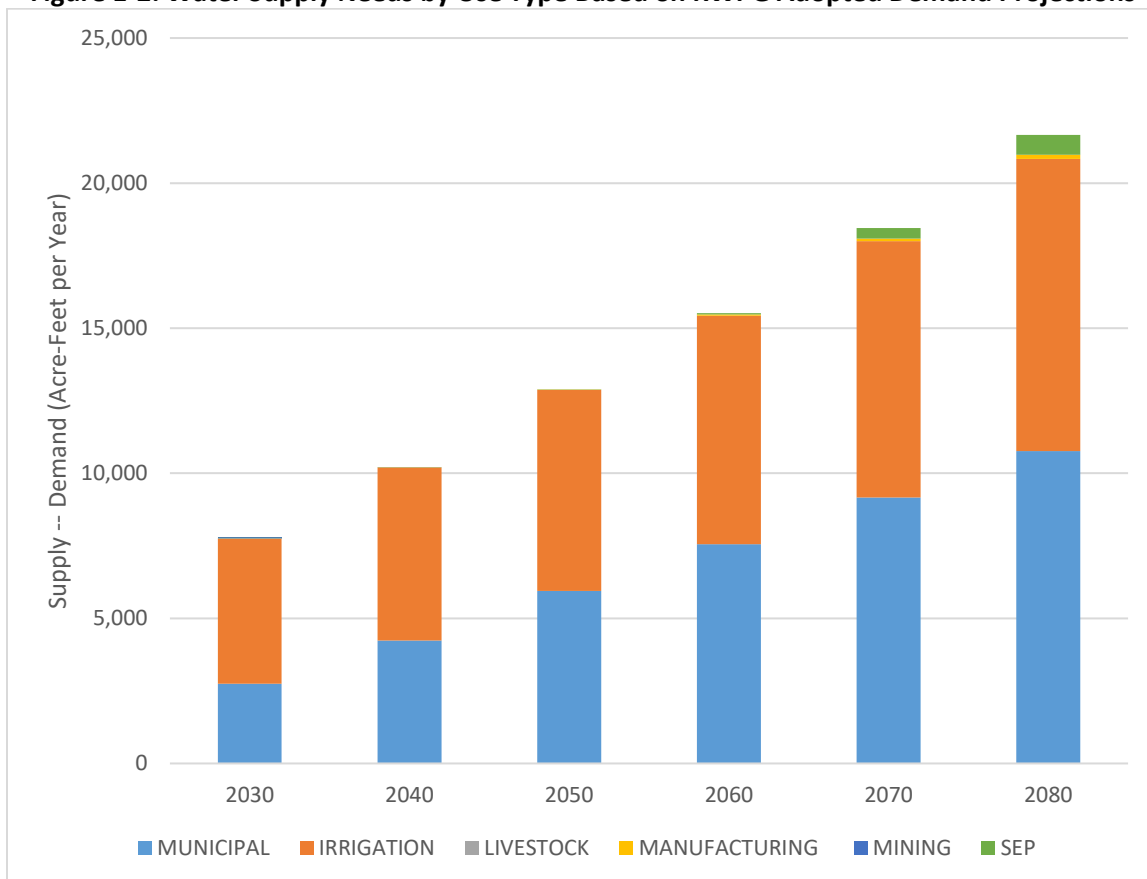
For each Water User Group, the existing water supply was compared to the RWPG adopted projected demand, resulting in either a need or a surplus for the WUG. The water supply needs are summarized below in and **Figure 1-2** by category of use. Irrigation and municipal needs are the largest, with municipal

needs increasing at the largest rate over the planning horizon. There are also a small amount of needs for manufacturing and steam electric power that are shown to increase over the planning horizon. No needs are projected for livestock and mining.

Table 1-9: Water Supply Needs by Use Type Based on RWPG Adopted Demand Projections

Use Type	Water Supply Needs (Acre-Feet/Year)					
	2030	2040	2050	2060	2070	2080
MUNICIPAL	2,826	4,399	6,112	7,713	9,324	10,925
IRRIGATION	5,007	5,963	6,920	7,878	8,834	10,072
LIVESTOCK	0	0	0	0	0	0
MANUFACTURING	0	0	4	49	95	146
MINING	0	0	0	0	0	0
SEP	2,991	3,130	3,268	3,406	3,543	3,681
TOTAL	10,824	13,492	16,304	19,046	21,796	24,824

Figure 1-2: Water Supply Needs by Use Type Based on RWPG Adopted Demand Projections



Projected needs are also shown in **Table 1-10** by county. Six out of eleven Region B counties show needs at some point in the planning horizon, with Wichita County showing the greatest needs, followed by Wilbarger and Montague Counties.

Table 1-10: Water Supply Needs by County Based on RWPG Adopted Demand Projections

County	Water Supply Needs (Acre-Foot/Year)					
	2030	2040	2050	2060	2070	2080
ARCHER	34	44	62	73	83	92
BAYLOR	0	0	0	0	0	282
CLAY	108	125	142	159	175	189
COTTLE	0	0	0	0	0	0
FOARD	0	0	0	0	0	0
HARDEMAN	0	0	0	0	0	0
KING	0	0	0	0	0	0
MONTAGUE	905	1,485	2,082	2,680	3,279	3,875
WICHITA	6,781	8,702	10,744	12,722	14,710	16,698
WILBARGER	2,996	3,136	3,274	3,412	3,549	3,688
YOUNG (Region B)	0	0	0	0	0	0
TOTAL	10,824	13,492	16,304	19,046	21,796	24,824

Each WUG with projected needs is shown in **Table 1-11**. Many of the WUGs with projected needs receive water from Wichita Falls, who themselves have the second largest need behind Wichita County irrigation. Baylor County irrigation shows a need in 2080 due to Seymour aquifer MAG limitations, and several WUGs in Montague County show needs due to supply limitations in Lakes Amon Carter and Nocona, or infrastructure constraints.

Table 1-11: Water Supply Needs by WUG Based on RWPG Adopted Demand Projections

WUG	Water Supply Needs (Acre-Feet/Year)					
	2030	2040	2050	2060	2070	2080
ARCHER COUNTY						
HOLLIDAY	34	44	55	60	67	70
LAKESIDE CITY	0	0	7	13	16	22
BAYLOR COUNTY						
IRRIGATION	0	0	0	0	0	282
CLAY COUNTY						
RED RIVER AUTHORITY	108	125	142	159	175	189
MONTAGUE COUNTY						
BOWIE	363	536	714	894	1,073	1,251
COUNTY-OTHER	448	653	866	1,078	1,290	1,502
NOCONA	74	222	373	524	676	827
SAINT JO	20	74	129	184	240	295
WICHITA COUNTY						
ELECTRA	152	187	224	260	294	327
HARROLD WSC	4	4	5	6	7	8
IOWA PARK	0	0	42	99	154	209
SHEPPARD AFB	89	137	188	232	277	321
WICHITA FALLS	1,528	2,408	3,357	4,193	5,044	5,891
IRRIGATION	5,007	5,963	6,920	7,878	8,834	9,790
MANUFACTURING	0	0	4	49	95	146
SEP	1	3	4	5	5	6
WILBARGER COUNTY						
HARROLD WSC	6	9	10	11	11	13
SEP	2,990	3,127	3,264	3,401	3,538	3,675

Table 1-12 shows projected needs for the two major water providers (MWP) in Region B: Wichita Falls and Wichita County Water Improvement District #2 (WCWID #2). The needs for Wichita Falls include both the WUG's municipal needs and needs to supply their wholesale customer contractual obligations. WCWID #2 needs include irrigation in Wichita and Clay Counties, and the Dundee Fish Hatchery in Archer County. Both Wichita Falls and WCWID #2 share a joint contract to supply water from Lake Kemp under their shared water right permit for industrial use to steam electric power facilities at the Oklaunion site in Wilbarger County. The City and WCWID #2 also entered into an agreement to supply water to a company that produces green energy under the Oklaunion contract. The TWDB did not include this demand in the manufacturing projections for Wilbarger County. The needs shown on Table 1-12 include both the power plant and the green energy facility.

Table 1-12: Water Supply Needs by Major Water Provider Based on RWPG Adopted Demand Projections

MWP	Water Supply Needs (Acre-Feet/Year)					
	2030	2040	2050	2060	2070	2080
WICHITA FALLS	2,583	4,047	5,603	6,983	8,361	9,741
WCWID #2	7,710	7,159	8,137	9,116	10,094	11,072
<i>Wilbarger County SEP/Oklaunion Site Needs¹</i>	7,059	7,383	7,706	8,029	8,353	8,676
TOTAL	17,352	18,589	21,446	24,128	26,808	29,488

¹Contract with SEP facilities in Wilbarger County is shared between Wichita Falls and WCWID #2. Water is supplied through the industrial water right permit on Lake Kemp.

TWDB DB27 Report #5 – Water User Group (WUG) Needs/Surpluses, is included in **Appendix B**.

1.5 COMPARISON TO 2021 REGIONAL WATER PLAN

Using the RWPG-approved projections, the population projections for the Region B planning area are slightly less (4%) for the 2026 Regional Water Plan than projected in the 2021 Regional Plan. The municipal demands, considering the safe supply demands, are also slightly lower for the 2026 projections. Total demands are approximately 13% lower for the 2026 Regional Water Plan in 2030 and 11% lower in 2070. This is primarily driven by lower irrigation demands and significant reductions in mining water use. Water supply needs are substantially less in the 2026 Region Water Plan in 2030 than shown in the 2021 Regional Water Plan, because strategies have been implemented (e.g., Wichita Falls’ reuse project) and there are lower irrigation demands.

The TWDB developed comparisons of the TWDB adopted information for the current 2026 Regional Water Plan to the 2021 Regional Water Plan differ from the comparison above for the population, demands, and needs by water user group. The comparisons for the water supplies to the WUGs and the source water are the same for the RWPG-adopted projections and TWDB-approved projections. The TWDB generated comparisons are contained in **TWDB DB27 Report #7 –Water User Group (WUG) Data Comparison to 2021 Regional Water Plan (RWP)** and **TWDB DB27 Report #8 – Source Data Comparison to 2021 Regional Water Plan (RWP)**. Both reports are included in **Appendix B**.

2.0 DETERMINING SOURCE AVAILABILITY

2.1 SURFACE WATER

2.1.1 Hydrologic Models

Surface water supplies in Region B are obtained mostly from the Red River basin. A small amount of surface water is also obtained from the Brazos and Trinity River basins. Reservoirs provide the majority of surface water supply, and about 95 percent of reservoir supply is from the Little Wichita and Wichita River supplies (Lake Kickapoo, Lake Arrowhead, Kemp/Diversion system). In accordance with regional planning rules and guidelines, Region B used the latest version of the TCEQ Water Availability Models (WAMs) with full authorization to determine surface water availability in each of the three river basins.

The RWPG requested hydrologic variances for all three river basins to use alternative availability assumptions other than firm yield for supply planning. The hydrologic variance for the Red River basin also included two additional variances. The first was a request to model Lakes Kemp and Diversion as a reservoir system rather than individual reservoirs in the WAM for supply planning. The second was a request for subordination of senior downstream water rights in Lake Texoma which caused an underestimation of Lake Arrowhead supply availability in the latest version of the Red River WAM. Further details regarding the subordination request are included in the Red River basin hydrologic variance request. These hydrologic variances were requested to reflect the current conditions and operations more accurately in the region.

These requested variances are detailed in a request letter to TWDB dated October 26, 2023, and an amended request letter dated November 27, 2023, both included in **Appendix C**. TWDB approved the RWPG's variance request in a letter dated January 4, 2024, also included in **Appendix C**.

The use of a 20 percent reserve storage at the end of the drought of record as reliable supplies for all Region B reservoirs was approved by the RWPG and by TWDB as a part of the hydrologic variances. After modeling reservoir supplies using the Red and Trinity WAMs, it was determined that a 20 percent reserve storage could only be achieved for Lakes Arrowhead, Kickapoo, Kemp/Diversion, and Nocona. Current water rights on Lake Nocona have a diversion limit of 1,260 ac-ft/yr which is less than the reliable supplies with 20% reserve storage. The water right diversion limit was used as the reliable supplies for Lake Nocona. For Lakes Amon Carter, Electra, North Fork Buffalo Creek, Olney/Cooper, and Santa Rosa, the "one-year safe yield" was used for reliable supplies since a 20% reserve storage could not be achieved.

The one-year safe yield is defined as the amount that can be diverted from the reservoir each year while leaving a one-year supply in storage at the end of the drought of record. Region B also uses some surface water supplies from Lake Greenbelt located in Region A. The reliable supplies for Greenbelt were determined by the Region A RWPG and use a one-year safe yield. **Table 2-1** presents the yields for major reservoirs in Region B. Existing water supplies provided by run-of-river water rights were determined using TCEQ WAM Run 3 for the Red, Trinity, and Brazos River Basins. Supplies are assumed to be constant for all planning decades.

Table 2-1: Estimated Firm Yield and Reliable Supply for Major Reservoirs in Region B (Acre-Feet/Year)

Scenario	2030	2040	2050	2060	2070	2080
LAKE KICKAPOO						
Firm Yield (ac-ft/yr)	11,800	11,480	11,160	10,840	10,520	10,200
Reliable Supply (ac-ft/yr)	5,400	5,060	4,720	4,380	4,040	3,700
LAKE ARROWHEAD						
Firm Yield (ac-ft/yr)	21,500	21,300	21,100	20,900	20,700	20,500
Reliable Supply (ac-ft/yr)	10,900	10,220	9,540	8,860	8,180	7,500
KEMP/DIVERSION SYSTEM						
Firm Yield (ac-ft/yr)	46,500	44,060	41,620	39,180	36,740	34,300
Reliable Supply (ac-ft/yr)	32,900	31,340	29,780	28,220	26,660	25,100
LAKE NOCONA¹						
Firm Yield (ac-ft/yr)	1,260	1,260	1,260	1,260	1,260	1,260
Reliable Supply (ac-ft/yr)	1,260	1,260	1,260	1,260	1,260	1,260
LAKE AMON CARTER						
Firm Yield (ac-ft/yr)	1,400	1,340	1,280	1,220	1,160	1,100
Safe Yield (ac-ft/yr)	1,080	1,018	956	894	832	770
LAKES OLNEY AND COOPER						
Firm Yield (ac-ft/yr)	247	228	209	191	172	153
Safe Yield (ac-ft/yr)	145	133	121	109	97	85

¹Firm yield and reliable supply with 20% reserve for Lake Nocona are greater than the water right diversion limit of 1,260 ac-ft/yr. The diversion limit is used as the firm yield and reliable supply for planning purposes.

2.1.2 Versions and Dates of Hydrologic Models

The following information is required for the hydrologic models used to determine Source Water Availability. More discussion on Source Water Availability is included in **Section 1.2** of this report. The required details for each hydrologic model used are included in **Table 2-2** and the respective input and output files are provided electronically with this Technical Memorandum. Modifications to the surface water availability analysis are described in **Appendix C**, which contains the RWPG's letters of request for hydrologic variances. TWDB's response letter approving the requested modifications is also included in **Appendix C**. The analyses of surface water availability were carried out by Freese and Nichols, Inc.

Table 2-2: Hydrologic Models Used in Determining Surface Water Availability

WAM Version	Date Used	Run Used	Model Inputs Files Used	Model Outputs Files Used	Comments
Brazos WAM	May 2023	Region B Modified WAM Run 3 (October 2021)	Brazos_IrrigationBC.dat Brazos_IrrigationKC.dat	Brazos_IrrigationBC.OUT Brazos_IrrigationKC.OUT	Used to determine run-of-river supplies
Trinity WAM	May 2023	Region B Modified WAM Run 3 (October 2014)	Trin_IrrigationMC.dat	Trin_IrrigationMC.OUT	Used to determine run-of-river supplies
	November 2023	Region B Modified WAM Run 3 (October 2014)	trin3_AmonCarter_2030FY.dat trin3_AmonCarter_2030SY.dat trin3_AmonCarter_2080FY.dat trin3_AmonCarter_2080SY.dat	trin3_AmonCarter_2030FY.OUT trin3_AmonCarter_2030SY.OUT trin3_AmonCarter_2080FY.OUT trin3_AmonCarter_2080SY.OUT	Used for firm and safe yields for Amon Carter
Red WAM	April 2023	Region B Modified WAM Run 3 (October 2021)	red3_IrrigationAC.dat red3_MuniAC.dat red3_IrrigationBC.dat red3_IndusCC.dat red3_IrrigationCC.dat red3_MinCC.dat red3_MunGreaterCC.dat red3_MuniCC.dat red3_IrrigationCoC.dat red3_IrrigationHC.dat red3_OtherKC.dat red3_IrrigationMC.dat red3_MuniMC.dat	red3_IrrigationAC.OUT red3_MuniAC.OUT red3_IrrigationBC.OUT red3_IndusCC.OUT red3_IrrigationCC.OUT red3_MinCC.OUT red3_MunGreaterCC.OUT red3_MuniCC.OUT red3_IrrigationCoC.OUT red3_IrrigationHC.OUT red3_OtherKC.OUT red3_IrrigationMC.OUT red3_MuniMC.OUT	Used to determine run-of-river supplies

Region B Technical Memorandum

Prepared for Texas Water Development Board on behalf of RWPG

WAM Version	Date Used	Run Used	Model Inputs Files Used	Model Outputs Files Used	Comments
Red WAM	August 2023	Region B Modified WAM Run 3 (October 2021)	red3_IrrigationWC.dat red3_MuniWC.dat red3_OtherWC.dat red3_IrrigationWLC.dat red3_MinWLC.dat red3_MuniWLC.dat	red3_IrrigationWC.OUT red3_MuniWC.OUT red3_OtherWC.OUT red3_IrrigationWLC.OUT red3_MinWLC.OUT red3_MuniWLC.OUT	Used to determine run-of-river supplies
Red WAM	November 2023	Region B Modified WAM Run 3 (October 2021)	red3_Arrowhead_Kickapoo_2030FY.dat red3_Arrowhead_Kickapoo_2030SY.dat red3_Arrowhead_Kickapoo_2080FY.dat red3_Arrowhead_Kickapoo_2080SY.dat red3_Olney_Cooper_2030FY.dat red3_Olney_Cooper_2030SY.dat red3_Olney_Cooper_2080FY.dat red3_Olney_Cooper_2080SY.dat	red3_Arrowhead_Kickapoo_2030FY.OUT red3_Arrowhead_Kickapoo_2030SY.OUT red3_Arrowhead_Kickapoo_2080FY.OUT red3_Arrowhead_Kickapoo_2080SY.OUT red3_Olney_Cooper_2030FY.OUT red3_Olney_Cooper_2030SY.OUT red3_Olney_Cooper_2080FY.OUT red3_Olney_Cooper_2080SY.OUT	Used for firm and safe yields for Arrowhead, Kickapoo, Olney and Cooper
	December 2023	Region B Modified WAM Run 3 (October 2021)	red3_Kemp_Diversion_2030FY.dat red3_Kemp_Diversion_2030SY.dat red3_Kemp_Diversion_2080FY.dat red3_Kemp_Diversion_2080SY.dat red3_Nocona_2030FY.dat red3_Nocona_2030SY.dat red3_Nocona_2080FY.dat red3_Nocona_2080SY.dat	red3_Kemp_Diversion_2030FY.OUT red3_Kemp_Diversion_2030SY.OUT red3_Kemp_Diversion_2080FY.OUT red3_Kemp_Diversion_2080SY.OUT red3_Nocona_2030FY.OUT red3_Nocona_2030SY.OUT red3_Nocona_2080FY.OUT red3_Nocona_2080SY.OUT	Used for Kemp, Diversion and Nocona firm and safe yields
	December 2023	TCEQ WAM Run 3 (October 2021)	Electra_FY.dat Electra_SY.dat NFBC_FY.dat NFBC_SY.dat SantaRosa_FY.dat SantaRosa_SY.dat	Electra_FY.OUT Electra_SY.OUT NFBC_FY.OUT NFBC_SY.OUT SantaRosa_FY.OUT SantaRosa_SY.OUT	Used for safe and firm yields for Electra, NF Buffalo Creek, and Santa Rosa lakes

2.1.3 Reservoir Sedimentation and Area-Capacity Calculation Methodology

For all major reservoirs in the Region B, which includes seven reservoirs in the Red Rivers basin and one (Amon Carter) in the Trinity Basin, anticipated sedimentation rates and revised area-capacity rating curves were developed to estimate reservoir storage in future decades (2030 – 2080). Anticipated sedimentation rates, expressed in acre-feet per square mile per year, were estimated for each major reservoir based on actual sediment surveys (part of a volumetric survey), published sedimentation rates, or comparing changes in conservation pool capacity between two or more reservoir surveys. The reservoirs were sliced into incremental storage volumes based on elevation, then a uniform reduction was applied to the horizontal surface area of each slice. New storage volumes were then calculated for each increment and added together to calculate the total storage at each elevation. Two standard methods were used to calculate revised incremental storage volumes. The simplest assumes that each incremental volume can be represented as a trapezoid (trapezoidal method), while the other assumes that each incremental volume is a cross-section of a cone (conical method). The method with the best fit to the original rating curve data was used. The data utilized for calculating anticipated sedimentation rates and revised area-capacity rating curves are shown in **Table 2-3**

Table 2-3: Sedimentation Rates and Projected Storage Capacity of Major Reservoirs in Region B

Reservoir	Most Recent Survey		2026 Sedimentation Rate (ac-ft/yr/mi ²)	Source of Sedimentation Rate	Sediment-Contributing Drainage Area (mi ²)	Projected 2030 Capacity (ac-ft)	Projected 2080 Capacity (ac-ft)
	Year	Conservation Pool Capacity (ac-ft)					
Arrowhead	2013	230,359	1.29	TWDB Volumetric Survey-Derived Sedimentation Rate (2013) ¹	557	218,102	182,053
Kickapoo	2013	86,345	1.07	TWDB Volumetric Survey-Derived Sedimentation Rate (2013) ²	275	81,364	66,715
Kemp	2006	245,434	0.90	Calculated based on multiple historical volumetric surveys	2,060	200,942	108,254
Diversion	2013	35,234	0.69	TWDB Volumetric Survey-Derived Sedimentation Rate (2013) ³	78	34,414	31,736
Nocona	2001	21,749	1.12	TWDB Volumetric Survey-Derived Sedimentation Rate (2001) ⁴	94	18,696	13,431
Olney	2014	1,189	1.68	TWDB Volumetric Survey-Derived Sedimentation Rate (2014) ⁵	7.1	994	386
Cooper	2014	3,357	1.56	TWDB Volumetric Survey-Derived Sedimentation Rate (2014) ⁵	12.2	3,052	2,100
Amon Carter	N/A	N/A	0.65	TBWE Bulletin 5912 ⁶	100	25,670	22,426

2.2 GROUNDWATER

2.2.1 Written Summary of Modeled Available Groundwater (MAGs)

The geographic area of Region B includes two of the state-designated Groundwater Management Areas (GMAs), GMA6 and GMA8. The MAGs for Region B for this planning cycle came from GAM RUN 21-013 (for aquifers within GMA8) and GAM RUN 21-011 (for aquifers in GMA6). Aquifers in areas without a Groundwater Conservation District (GCD) and the Cross Timbers Aquifer were declared non-relevant because either there is no GCD to regulate the Desired Future Conditions or there is no GAM to determine the MAG. This affects much of the eastern part of Region B.

Table 2-4 documents the GAM runs used to develop the groundwater availability for Region B, and **Table 2-5** lists the modeled available groundwater supplies. GR 21-011 includes the MAG volumes for the Trinity Aquifer in Montague County using the Northern Trinity and Woodbine Aquifers GAM. GR 21-013 summarizes the MAG volumes for the Seymour and Blaine Aquifers in Foard, Hardeman, Baylor, King and Cottle counties (except for Seymour aquifer Pod 7) using the Seymour Aquifer GAM and the Seymour Aquifer in Haskell, Knox, and Baylor Counties GAM.

Table 2-4: GAM Models Used in Determining Ground Water Availability

GAM Version	Date Results Published / Date of Model Run	Model Inputs/ Outputs Files Used	Comments
GR 21-011	November 14, 2022	Version 2.01 Northern Trinity and Woodbine Aquifers GAM	Seymour and Blaine Aquifers in GMA 6
GR 21-013	November 1, 2022	Version 1.01 Seymour and Blaine Aquifers GAM (Except for Pod 7) Seymour Aquifer in Haskell, Knox, and Baylor Counties GAM (Pod 7)	Trinity Aquifer in GMA 8

Table 2-5: Modeled Available Groundwater Supplies in Region B

Aquifer	County	Modeled Available Groundwater (ac-ft/yr)					
		2030	2040	2050	2060	2070	2080
SEYMOUR (POD 4)	FOARD	3,779	4,209	6,900	6,628	2,777	4,049
	HARDEMAN	14,209	20,002	18,689	21,116	34,037	26,577
SEYMOUR (PODS 7, 8)	BAYLOR	7,330	6,962	6,731	6,593	6,930	5,722
BLAINE	COTTLE	11,621	11,621	11,621	11,621	11,621	11,621
	FOARD	6,565	6,565	6,565	6,565	6,565	6,565
	HARDEMAN	8,465	8,465	8,465	8,465	8,465	8,465
	KING	49	49	49	49	49	49
TRINITY	MONTAGUE	6,104	6,104	6,104	6,104	6,104	6,104

2.2.2 Documented Methodologies Utilized for Non-MAG Availabilities

Non-MAG availabilities are determined by the RWPG for groundwater aquifers that the Joint Planning Process did not define a Desired Future Condition. This includes all aquifers declared non-relevant, including portions of major and minor aquifers, Cross Timbers Aquifer, and “Other Aquifer”. For this planning cycle, these non-MAG availabilities are listed in **Table 2-5**. A memorandum describing the process for determining groundwater supplies is included in **Appendix D**. Region B re-adopted the non-MAG availabilities from the 2021 Regional Water Plan to use for the current plan at the August 2, 2023, RWPG meeting. For Other Aquifer availability for the 2026 Regional Water Plan, the availability values from the 2021 Region B Water Plan are used. Groundwater that was previously categorized as Other Aquifer is now listed as Cross Timbers Aquifer in Archer, Baylor, Clay, Montague, Wichita, and Young counties. Other Aquifer supplies are found in only Cottle, Foard, Hardeman, King, and Wilbarger counties.

The Seymour Aquifer availability values from the 2021 Region B Water Plan are used for Wichita, Archer, Wilbarger, and Clay counties. These values are based on the MAGs developed during the previous Joint Planning Process.

Table 2-6: Estimated Available Groundwater Supplies for Non-Relevant Aquifers and Other Aquifer

Aquifer	County	Estimated Available Groundwater Supplies (ac-ft/yr)					
		2030	2040	2050	2060	2070	2080
SEYMOUR	ARCHER	35	35	35	35	35	35
	CLAY	787	787	787	787	787	787
	WICHITA	2,295	2,295	2,288	2,291	2,291	2,291
	WILBARGER	30,000	30,000	30,000	30,000	30,000	30,000
CROSS-TIMBERS	ARCHER	625	625	625	625	625	625
	BAYLOR	60	60	60	60	60	60
	CLAY	2,000	2,000	2,000	2,000	2,000	2,000
	MONTAGUE	4,000	4,000	4,000	4,000	4,000	4,000
	WICHITA	840	840	840	840	840	840
	YOUNG	700	700	700	700	700	700
OTHER AQUIFER	COTTLE	1,800	1,800	1,800	1,800	1,800	1,800
	FOARD	200	200	200	200	200	200
	HARDEMAN	50	50	50	50	50	50
	KING	650	650	650	650	650	650
	WILBARGER	3,050	3,050	3,050	3,050	3,050	3,050

3.0 POTENTIALLY FEASIBLE WATER MANAGEMENT STRATEGIES

3.1 PROCESS FOR IDENTIFYING POTENTIALLY FEASIBLE WMS

The process for identifying potentially feasible water management strategies was presented at the November 15, 2023, RWPG meeting. There were no public comments and the RWPG approved the methodology. A copy of the presentation of the methodology is presented in **Appendix E**.

3.2 LIST OF POTENTIALLY FEASIBLE WMS

A list of potentially feasible water management strategies is included in **Appendix F**. These strategies are based on preliminary discussions with wholesale water providers, water user survey responses, and recommendations from the 2021 regional water plan. During analysis and development of the regional water plan, other strategies may be identified and included in this list. The types of strategies considered include:

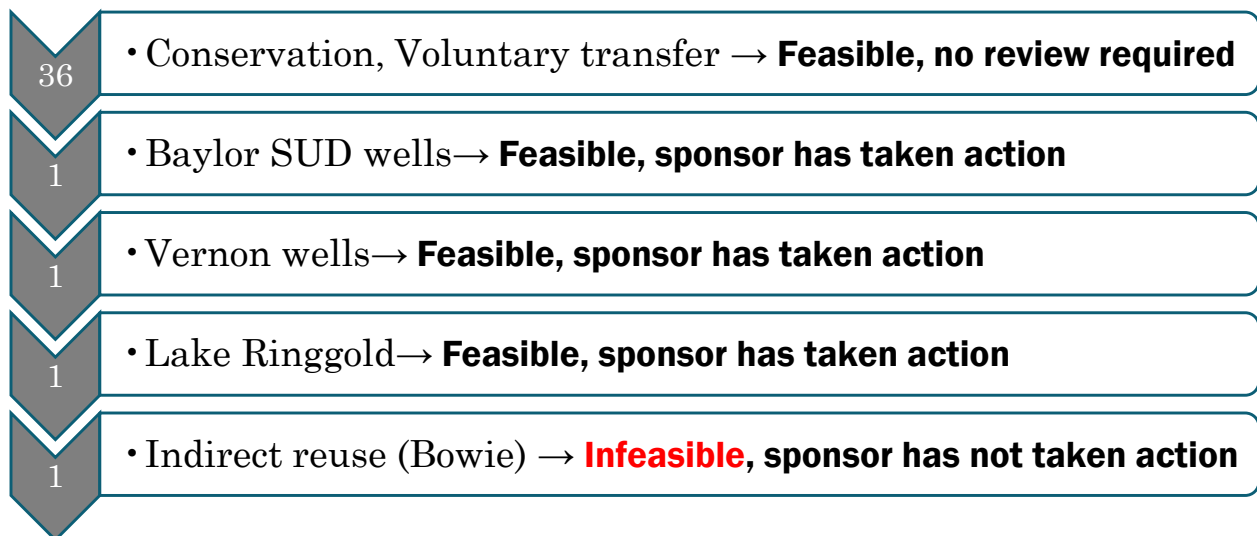
- Conservation (for all WUGs shown to have a need)
- Drought management
- Reuse
- Reallocation of storage/ change of use
- Purchase water from a provider (voluntary transfer)
- Conjunctive use (may be combined with other strategy types)
- Expansion of existing supplies
- Develop additional groundwater or surface water
 - Lake Ringgold
- Regional water supply
- Improvement of water quality
- Emergency transfer of water
- System optimization, subordination, and enhancement
- Brush control
- Precipitation enhancement
- Desalination
- Aquifer, storage and recovery (may be combined with other strategy types)
- Interbasin transfers
- Chloride control

4.0 INFEASIBLE WMS FROM 2021 REGIONAL WATER PLAN

The methodology for identifying infeasible water management strategies was presented at the November 15, 2023, RWPG meeting. The methodology focused on WMS with online decades of 2020 to 2030. Forty total strategies were identified in those decades.

- 33 Conservation
- 2 Groundwater
- 1 Indirect Reuse
- 3 Voluntary Transfer
- 1 Reservoir

Infeasibility review is not required for conservation or voluntary transfer. The remaining four strategies need to demonstrate that the sponsor has taken affirmative action to implement the strategy which may include spending money, voting to spend money or applying for a federal or state permit.



5.0 INTERREGIONAL COORDINATION

Memos were written to document coordination with Regions A, C, G, O. Copies of the memos are included as **Appendix G**.

6.0 PUBLIC COMMENT

Per the TWDB Regional Planning Rules [31 TAC Section 357.21(c)(7)(C)], written comments from the public were accepted for the period of 14 days after the public meeting on February 7, 2024, when this Technical Memorandum was presented and considered for approval by the RWPG. Public comments were also accepted at this meeting; however, no public comments were received at the meeting or during the comment period from February 7, 2024, to February 23, 2024.

LIST OF REFERENCES

1. Texas Water Development Board. "Volumetric Survey of Lake Arrowhead. September 2013 Survey" February 2014.
2. Texas Water Development Board. "Volumetric Survey of Lake Kickapoo. September 2013 Survey" February 2014.
3. Texas Water Development Board. "Volumetric Survey of Lake Diversion. June 2013 Survey" March 2014.
4. Texas Water Development Board. "Volumetric Survey of Lake Nocona" July 17, 2002.
5. Texas Water Development Board. "Volumetric Survey of Lake Olney and Lake Cooper. April 2014 Surveys" February 2015.
6. Texas Board of Water Engineers. Bulletin 5912, "Inventory and Use of Sedimentation Data in Texas" Prepared by Soil Conservation Service (USDA). January 1959.

APPENDIX A
WUG Summaries Based on
RWPG Adopted Planning Data

APPENDIX A
WUG SUMMARY TABLES
MULTIPLE COUNTY

Water User Group:	Baylor County SUD - Archer, Baylor and Young Counties					
	2030	2040	2050	2060	2070	2080
Population - Archer	180	175	170	165	160	155
Population - Baylor	1,019	1,029	1,076	1,099	1,121	1,145
Population - Young	239	242	245	252	259	266
Population - Total (number of persons)	1,438	1,446	1,491	1,516	1,540	1,566
Water Demand - Archer (ac-ft/yr)	45	43	42	41	39	38
Water Demand - Baylor (ac-ft/yr)	252	254	265	271	276	282
Water Demand - Young (ac-ft/yr)	59	60	60	62	64	66
Water Demand - Total (ac-ft/yr)	356	356	367	374	379	386
Current Supply - Seymour Aquifer Baylor County	350	351	363	372	378	386
Current Supply - Milllers Creek Lake - Sales from North Central Texas MWA	6	5	4	2	1	0
Total Current Supply	356	356	367	374	379	386
Supply - Archer County	45	43	42	41	39	38
Supply - Baylor County	252	254	265	271	276	282
Supply - Young County	59	60	60	62	64	66
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Wichita Valley WSC - Archer and Wichita Counties					
	2030	2040	2050	2060	2070	2080
Population - Archer	1,650	1,636	1,622	1,622	1,594	1,594
Population - Wichita	3,330	3,340	3,350	3,360	3,370	3,380
Population - Total (number of persons)	4,980	4,976	4,972	4,982	4,964	4,974
Water Demand - Archer (ac-ft/yr)	216	212	211	211	207	207
Water Demand - Wichita (ac-ft/yr)	435	434	435	436	438	439
Water Demand - Total (ac-ft/yr)	650	646	646	647	645	646
Current Supply - treated and raw - Wichita Falls (ac-ft/yr)	1,038	987	933	886	839	792
Current Supply - sales from Iowa Park (Wichita System) (ac-ft/yr)	619	589	556	528	500	473
Current Supply - sales from Archer City (Wichita System) (ac-ft/yr)	37	35	33	31	30	28
Total Current Supply	1,694	1,611	1,522	1,445	1,369	1,293
Supply - Archer County	586	554	518	491	460	434
Supply - Wichita County	1,108	1,057	1,004	954	909	859
Supply - Demand (ac-ft/yr)	1,044	965	876	798	724	647

APPENDIX A
WUG SUMMARY TABLES
MULTIPLE COUNTY

Water User Group:	Dean Dale SUD - Clay and Wichita Counties					
	2030	2040	2050	2060	2070	2080
Population - Clay	1,743	1,800	1,861	1,930	1,996	2,060
Population - Wichita	838	838	854	896	941	988
Population - Total (number of persons)	2,581	2,638	2,715	2,826	2,937	3,048
Demand - Clay	145	148	153	159	164	170
Demand - Wichita	70	69	70	74	77	81
Water Demand (ac-ft/yr)	214	217	223	233	242	251
Current Supply - Contracts w/ Wichita Falls (ac-ft/yr)	848	805	761	722	686	646
Current Supply - Seymour Aquifer (ac-ft/yr)	0	0	0	0	0	0
Total Current Supply	848	805	761	722	686	646
Current Supply - Clay County	572	549	521	493	466	436
Current Supply - Wichita County	276	256	240	229	220	210
Supply - Demand (ac-ft/yr)	634	588	538	489	444	395

Water User Group:	Windthorst WSC - Archer and Clay Counties					
	2030	2040	2050	2060	2070	2080
Population - Archer	686	680	675	664	653	642
Population - Clay	325	320	310	305	300	300
Population - Total (number of persons)	1,011	1,000	985	969	953	942
Demand - Archer	232	229	228	224	220	217
Demand - Clay	110	108	105	103	101	101
Water Demand (ac-ft/yr)	342	337	332	327	322	318
Current Supply - Contracts w/ Wichita Falls (ac-ft/yr)	770	733	692	657	622	588
Total Current Supply	770	733	692	657	622	588
Current Supply - Archer County	522	498	474	450	426	401
Current Supply - Clay County	248	235	218	207	196	187
Supply - Demand (ac-ft/yr)	428	396	360	330	300	270

APPENDIX A
WUG SUMMARY TABLES
MULTIPLE COUNTY

Water User Group:	Harrold WSC - Wichita and Wilbarger Counties					
	2030	2040	2050	2060	2070	2080
Population - Wichita	66	66	66	66	66	66
Population - Wilbarger	123	121	119	115	111	107
Population - Total (number of persons)	189	187	185	181	177	173
Demand - Wichita	21	21	21	21	21	21
Demand - Wilbarger	39	39	38	37	35	34
Water Demand (ac-ft/yr)	60	60	59	58	56	55
Current Supply - Electra	50	47	44	41	38	34
Current Supply - Wichita County	17	17	16	15	14	13
Current Supply - Wilbarger County	33	30	28	26	24	21
Supply - Demand (ac-ft/yr)	-10	-13	-15	-17	-18	-21

Water User Group:	Holliday - Wichita and Archer Counties					
	2030	2040	2050	2060	2070	2080
Population - Wichita	33	33	32	32	31	31
Population - Archer	1,595	1,593	1,589	1,561	1,535	1,508
Population - Total (number of persons)	1,628	1,625	1,621	1,593	1,566	1,539
Demand - Wichita	5	5	5	5	5	5
Demand - Archer	255	254	253	249	245	240
Water Demand (ac-ft/yr)	261	259	258	254	250	245
Current Supply - Wichita Falls	226	214	202	193	182	173
Current Supply - Wichita County	5	4	4	4	4	3
Current Supply - Archer County	221	210	198	189	178	170
Supply - Demand (ac-ft/yr)	-35	-45	-56	-61	-68	-72

APPENDIX A
WUG SUMMARY TABLES
ARCHER COUNTY

Water User Group:	Archer City - Archer					
	2030	2040	2050	2060	2070	2080
Population	1,683	1,668	1,654	1,625	1,597	1,570
Water Demand (ac-ft/yr)	286	283	280	275	271	266
Current Supply - contract w/ Wichita Falls (ac-ft/yr)	399	380	359	341	322	305
Supply - Demand (ac-ft/yr)	113	97	79	66	51	39

Water User Group:	Archer County MUD 1 - Archer					
	2030	2040	2050	2060	2070	2080
Population	1,179	1,170	1,160	1,150	1,140	1,130
Water Demand (ac-ft/yr)	243	240	238	236	234	232
Current Supply - contract w/ Wichita Falls (ac-ft/yr)	474	451	426	404	383	362
Supply - Demand (ac-ft/yr)	231	211	188	168	149	130

Water User Group:	Baylor County SUD - Archer					
	2030	2040	2050	2060	2070	2080
Population	180	175	170	165	160	155
Water Demand (ac-ft/yr)	45	43	42	41	39	38
Current Supply - Seymour Aquifer Baylor County	45	43	42	41	39	38
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
ARCHER COUNTY

Water User Group:	County-Other - Archer					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	262	260	257	252	247	243
Water Demand (ac-ft/yr)	51	50	50	49	48	47
Current supply - Lake Megargel	0	0	0	0	0	0
Current Supply - Seymour Aquifer Baylor County from Baylor SUD	15	15	15	15	15	15
Current Supply - Cross Timbers Aquifer	36	35	35	34	33	32
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Holliday - Archer					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,595	1,593	1,589	1,561	1,535	1,508
Water Demand (ac-ft/yr)	255	254	253	249	245	240
Current Supply - Wichita Falls (ac-ft/yr)	221	210	198	189	178	170
Supply - Demand (ac-ft/yr)	-34	-44	-55	-60	-67	-70

Water User Group:	Lakeside City - Archer					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,179	1,170	1,160	1,150	1,140	1,130
Water Demand (ac-ft/yr)	162	160	159	156	153	151
Current Supply - Wichita Falls (ac-ft/yr)	169	160	152	143	137	129
Supply - Demand (ac-ft/yr)	7	0	-7	-13	-16	-22

APPENDIX A
WUG SUMMARY TABLES
ARCHER COUNTY

Water User Group:	City of Scotland					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	375	370	365	360	355	350
Water Demand (ac-ft/yr)	150	148	146	144	142	140
Current Supply- Wichita Falls System (ac-ft/yr)	150	150	150	150	150	144
Supply - Demand (ac-ft/yr)	1	3	5	7	9	4

Water User Group:	Wichita Valley WSC - Archer					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,650	1,636	1,622	1,622	1,594	1,594
Water Demand (ac-ft/yr)	216	212	211	211	207	207
Current Supply- Wichita Falls System (Sales from Wichita Falls, Iowa Park, and Archer City) (ac-ft/yr)	586	554	518	491	460	434
Supply - Demand (ac-ft/yr)	370	342	307	280	253	227

Water User Group:	Windthorst WSC - Archer					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,019	1,029	1,076	1,099	1,121	1,145
Water Demand (ac-ft/yr)	232	229	228	224	220	217
Current Supply - raw water - Wichita Falls (ac-ft/yr)	522	498	474	450	426	401
Supply - Demand (ac-ft/yr)	290	269	246	226	206	184

APPENDIX A
WUG SUMMARY TABLES
ARCHER COUNTY

Water User Group:	Livestock - Archer					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	1,686	1,686	1,686	1,686	1,686	1,686
Current Supply stock ponds (ac-ft/yr)	1,349	1,349	1,349	1,349	1,349	1,349
Current Supply - Cross Timbers Aquifer	0	0	0	15	33	51
Current Supply Lake Kemp/Diversion (Dundee Fish Hatchery)	375	357	339	322	304	286
Supply - Demand (ac-ft/yr)	38	20	2	0	0	0

Water User Group:	Manufacturing - Archer					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	1	1	1	1	1	1
Current Supply - Cross Timbers Aquifer (ac-ft/yr)	1	1	1	1	1	1
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Mining - Archer					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	1	1	1	1	1	1
Current Supply - Cross Timbers Aquifer (ac-ft/yr)	1	1	1	1	1	1
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
BAYLOR COUNTY

Water User Group:	Baylor County SUD - Baylor					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,019	1,029	1,076	1,099	1,121	1,145
Water Demand (ac-ft/yr)	252	254	265	271	276	282
Current Supply - Millers Creek Lake - Sales from North Central Texas MWA (ac-ft/yr)	6	5	4	2	1	0
Current Supply - Seymour Aquifer Baylor County (ac-ft/yr)	246	249	261	269	275	282
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	County-Other - Baylor					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	13	13	12	11	11	11
Water Demand (ac-ft/yr)	2	2	1	1	1	1
Current Supply - Seymour Aquifer (ac-ft/yr)	2	2	1	1	1	1
Current Supply - Cross Timbers Aquifer (ac-ft/yr)						
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
BAYLOR COUNTY

Water User Group:	Irrigation - Baylor					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	5,070	5,070	5,070	5,070	5,070	5,070
Current Supply - Brazos Run-of-river	13	13	13	13	13	13
Current Supply - Seymour Aquifer (ac-ft/yr)	5,058	5,058	5,058	5,058	5,058	4,776
Supply - Demand (ac-ft/yr)	0	0	0	0	0	-282

Water User Group:	Livestock - Baylor					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	963	963	963	963	963	963
Current Supply Stock ponds (ac-ft/yr)	770	770	770	770	770	770
Current Supply - Seymour Aquifer	163	163	163	163	163	163
Current Supply - Cross Timbers Aquifer	30	30	30	30	30	30
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
BAYLOR COUNTY

Water User Group:	Mining - Baylor					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	10	10	10	10	10	10
Current Supply - Seymour Aquifer (ac-ft/yr)						
Current Supply - Cross Timbers Aquifer (ac-ft/yr)	10	10	10	10	10	10
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Seymour - Baylor					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	2,502	2,450	2,403	2,303	2,203	2,203
Water Demand (ac-ft/yr)	506	494	484	464	444	444
Current Supply - Seymour Aquifer (ac-ft/yr)	443	431	421	401	381	381
Current Supply - Direct Reuse Golf Course Irrigation (ac-ft/yr)	63	63	63	63	63	63
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
CLAY COUNTY

Water User Group:	County-Other - Clay					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	3,307	3,257	3,204	3,104	3,008	2,914
Water Demand (ac-ft/yr)	452	443	436	422	409	396
Current Supply - Seymour Aquifer (ac-ft/yr)	170	170	170	170	170	170
Current Supply - Cross TimbersAquifer (ac-ft/yr)	330	330	330	330	330	330
Supply - Demand (ac-ft/yr)	48	57	64	78	91	104

Water User Group:	Dean Dale SUD - Clay					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,743	1,800	1,861	1,930	1,996	2,060
Water Demand (ac-ft/yr)	145	148	153	159	164	170
Current Supply - Contracts w/ Wichita Falls (ac-ft/yr)	572	549	521	493	466	436
Current Supply - Seymour Aquifer (ac-ft/yr)	0	0	0	0	0	0
Supply - Demand (ac-ft/yr)	427	401	368	334	302	266

APPENDIX A
WUG SUMMARY TABLES
CLAY COUNTY

Water User Group:	Henrietta - Clay					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	3,317	3,332	3,350	3,350	3,350	3,350
Water Demand (ac-ft/yr)	744	745	749	749	749	749
Current Supply - Run-of-river (ac-ft/yr)	1,130	1,130	1,130	1,130	1,130	1,130
Supply - Demand (ac-ft/yr)	386	385	381	381	381	381

Water User Group:	Irrigation - Clay					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	1,358	1,358	1,358	1,358	1,358	1,358
Current Supply - Lake Kemp (ac-ft/yr)	80	76	73	69	65	61
Current supply - Run-of-river	1,241	1,241	1,241	1,241	1,241	1,241
Current Supply - Seymour Aquifer (ac-ft/yr)	587	587	587	587	587	587
Current Supply - Cross Timbers Aquifer (ac-ft/yr)	600	600	600	600	600	600
Supply - Demand (ac-ft/yr)	1,150	1,146	1,143	1,139	1,135	1,131

APPENDIX A
WUG SUMMARY TABLES
CLAY COUNTY

Water User Group:	Livestock - Clay					
	2030	2040	2050	2060	2070	2080
Population						
Water Demand (ac-ft/yr)	1,443	1,443	1,443	1,443	1,443	1,443
Current Supply Stock Ponds (ac-ft/yr)	1,227	1,227	1,227	1,227	1,227	1,227
Current Supply Cross Timbers Aquifer (ac-ft/yr)	190	190	190	190	190	190
Current Supply - Seymour Aquifer (ac-ft/yr)	30	30	30	30	30	30
Supply - Demand (ac-ft/yr)	4	4	4	4	4	4

Water User Group:	Mining - Clay					
	2030	2040	2050	2060	2070	2080
Population						
Water Demand (ac-ft/yr)	4	4	4	4	4	4
Current Supply Red Run-of-River	1	1	1	1	1	1
Current Supply Cross Timbers Aquifer	3	3	3	3	3	3
Current Supply - Seymour Aquifer (ac-ft/yr)	0	0	0	0	0	0
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
CLAY COUNTY

Water User Group:	Red River Authority - Clay					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,770	1,765	1,760	1,755	1,750	1,745
Water Demand (ac-ft/yr)	491	488	486	485	484	482
Current Supply - Lake Arrowhead	383	363	344	326	309	293
Supply - Demand (ac-ft/yr)	-108	-125	-142	-159	-175	-189

Water User Group:	Windthorst WSC - Clay					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	325	320	310	305	300	300
Water Demand (ac-ft/yr)	110	108	105	103	101	101
Current Supply - Sales Wichita Falls (ac-ft/yr)	248	235	218	207	196	187
Supply - Demand (ac-ft/yr)	138	127	113	104	95	86

APPENDIX A
WUG SUMMARY TABLES
COTTLE COUNTY

Water User Group:	County-Other - Cottle					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	215	210	205	200	195	190
Water Demand (ac-ft/yr)	33	32	31	30	30	29
Current Supply Other Aquifer (ac-ft/yr)	33	32	31	30	30	29
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Irrigation - Cottle					
	2030	2040	2050	2060	2070	2080
Population						
Water Demand (ac-ft/yr)	4,319	4,319	4,319	4,319	4,319	4,319
Current Supply Blaine Aquifer (ac-ft/yr)	2,708	2,708	2,708	2,708	2,708	2,708
Current Supply Other Aquifer (ac-ft/yr)	1,600	1,600	1,600	1,600	1,600	1,600
Current Supply Run of River (ac-ft/yr)	11	11	11	11	11	11
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Livestock - Cottle					
	2030	2040	2050	2060	2070	2080
Population						
Water Demand (ac-ft/yr)	376	376	376	376	376	376
Current Supply Blaine Aquifer (ac-ft/yr)	225	225	225	225	225	225
Current Supply Other Aquifer (ac-ft/yr)	55	55	55	55	55	55
Current Supply Stock Ponds (ac-ft/yr)	113	113	113	113	113	113
Supply - Demand (ac-ft/yr)	17	17	17	17	17	17

APPENDIX A
WUG SUMMARY TABLES
COTTLE COUNTY

Water User Group:	Mining - Cottle					
	2030	2040	2050	2060	2070	2080
Population						
Water Demand (ac-ft/yr)	6	6	6	6	6	6
Current Supply Blaine Aquifer (ac-ft/yr)	6	6	6	6	6	6
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Paducah - Cottle					
	2030	2040	2050	2060	2070	2080
Population	1,090	1,065	1,030	1,004	981	981
Water Demand (ac-ft/yr)	298	254	253	249	245	240
Current Supply - Blaine Aquifer (ac-ft/yr)	298	254	253	249	245	240
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Red River Authority - Cottle					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	103	104	105	107	110	110
Water Demand (ac-ft/yr)	29	29	29	30	30	30
Current Supply - Other Aquifer	29	29	29	30	30	30
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
FOARD COUNTY

Water User Group:	County-Other - Foard					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	84	83	82	80	78	76
Water Demand (ac-ft/yr)	17	17	17	17	16	16
Current Supply Seymour Aquifer (Pod 4) (ac-ft/yr)	17	17	17	17	16	16
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Crowell - Foard					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	771	764	756	741	726	711
Water Demand (ac-ft/yr)	120	119	117	115	113	110
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	80	78	76	75	74	74
Current Supply (Greenbelt MIWA) Ogallala Aquifer Donley County (ac-ft/yr)	41	41	41	40	39	37
Supply - Demand (ac-ft/yr)	1	0	0	0	0	1

APPENDIX A
WUG SUMMARY TABLES
FOARD COUNTY

Water User Group:	Irrigation - Foard					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	2,489	2,489	2,489	2,489	2,489	2,489
Current Supply Seymour Aquifer (ac-ft/yr)	3,000	3,000	3,000	3,000	2,761	3,000
Current Supply Blaine Aquifer (ac-ft/yr)	200	200	200	200	200	200
Current Supply Other Aquifer (ac-ft/yr)	100	100	100	100	100	100
Supply - Demand (ac-ft/yr)	811	811	811	811	572	811

Water User Group:	Livestock - Foard					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	379	379	379	379	379	379
Current Supply Other Aquifer (ac-ft/yr)	8	8	8	8	8	8
Current Supply Blaine Aquifer (ac-ft/yr)	30	30	30	30	30	30
Current Supply Stock Ponds (ac-ft/yr)	341	341	341	341	341	341
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
FOARD COUNTY

Water User Group:	Mining - Foard					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	0	0	0	0	0	0
Current Supply Other Aquifer (ac-ft/yr)	0	0	0	0	0	0
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Red River Authority - Foard					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	262	264	267	272	277	282
Water Demand (ac-ft/yr)	73	73	74	75	77	78
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	48	48	48	49	51	52
Current Supply (Greenbelt MIWA) Ogallala Aquifer Donley County (ac-ft/yr)	25	25	26	26	26	26
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
HARDEMAN COUNTY

Water User Group:	Chillicothe - Hardeman					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	508	505	500	493	486	479
Water Demand (ac-ft/yr)	72	71	71	70	69	68
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	19	19	18	18	18	18
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	10	10	10	10	9	9
Current Supply Seymour Aquifer (ac-ft/yr)	43	43	42	42	41	41
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	County-Other - Hardeman					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	273	271	269	269	257	244
Water Demand (ac-ft/yr)	49	48	48	48	46	43
Current Supply Seymour Aquifer (ac-ft/yr)	36	36	36	36	36	36
Current Supply Blaine Aquifer (ac-ft/yr)	14	14	14	14	14	14
Supply - Demand (ac-ft/yr)	1	2	2	2	4	7

Water User Group:	Irrigation - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	18,290	18,290	18,290	18,290	18,290	18,290
Current Supply Blaine Aquifer (ac-ft/yr)	6,444	6,444	6,444	6,444	6,444	6,444
Current Supply Run-of-river	141	141	141	141	141	141
Current Supply Seymour Aquifer (ac-ft/yr)	11,846	11,846	11,846	11,846	11,846	11,846
Supply - Demand (ac-ft/yr)	141	141	141	141	141	141

APPENDIX A
WUG SUMMARY TABLES
HARDEMAN COUNTY

Water User Group:	Livestock - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	387	387	387	387	387	387
Current Supply Seymour Aquifer (ac-ft/yr)	40	40	40	40	40	40
Current Supply Blaine Aquifer (ac-ft/yr)	120	120	120	120	120	120
Current Supply Other Aquifer (ac-ft/yr)	50	50	50	50	50	50
Current Supply Stock Ponds (ac-ft/yr)	232	232	232	232	232	232
Supply - Demand (ac-ft/yr)	55	55	55	55	55	55

Water User Group:	Manufacturing - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	225	233	242	251	260	270
Current Supply Blaine Aquifer	175	183	192	201	210	220
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	33	33	32	33	33	33
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	17	17	18	17	17	17
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
HARDEMAN COUNTY

Water User Group:	Mining - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	5	5	5	5	5	5
Current Supply Blaine Aquifer (ac-ft/yr)	5	5	5	5	5	5
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Quanah - Hardeman					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	2,135	2,121	2,106	2,078	2,050	2,022
Water Demand (ac-ft/yr)	347	343	340	336	331	327
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	230	224	221	219	217	218
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	117	119	119	117	114	109
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Red River Authority - Hardeman					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	704	700	694	684	674	664
Water Demand (ac-ft/yr)	195	193	192	189	186	184
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	129	126	125	123	122	122
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	66	67	67	66	64	62
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
KING COUNTY

Water User Group:	County-Other - King					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	49	49	50	52	52	52
Water Demand (ac-ft/yr)	15	15	15	15	15	15
Current Supply Blaine Aquifer (ac-ft/yr)	15	15	15	15	15	15
Current Supply Other Aquifer (ac-ft/yr)						
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Irrigation - King					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	245	245	245	245	245	245
Current Supply Other Aquifer (ac-ft/yr)	245	245	245	245	245	245
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
KING COUNTY

Water User Group:	Livestock - King					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	446	446	446	446	446	446
Current Supply Other Aquifer (ac-ft/yr)	278	278	278	278	278	278
Current Supply Blaine Aquifer (ac-ft/yr)	34	34	34	34	34	34
Current Supply Stock Ponds (ac-ft/yr)	134	134	134	134	134	134
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Mining - King					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	4	4	4	4	4	4
Current Supply - Other Aquifer (ac-ft/yr)	4	4	4	4	4	4
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Red River Authority - King					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	221	223	226	231	236	240
Water Demand (ac-ft/yr)	61	62	62	64	65	66
Current Supply - Other Aquifer (Dickens County)	61	62	62	64	65	66
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
MONTAGUE COUNTY

Water User Group:	Bowie - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	6,735	7,220	7,705	8,190	8,675	9,160
Water Demand (ac-ft/yr)	1,286	1,373	1,465	1,558	1,650	1,742
Current Supply Amon Carter (ac-ft/yr)	923	837	751	664	577	491
Supply - Demand (ac-ft/yr)	-363	-536	-714	-894	-1,073	-1,251

Water User Group:	County-Other - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	11,678	13,528	15,378	17,228	19,078	20,928
Water Demand (ac-ft/yr)	1,568	1,806	2,053	2,300	2,547	2,793
Current Supply Amon Carter (ac-ft/yr)	157	181	205	230	255	279
Current Supply Trinity Aquifer (ac-ft/yr)	200	200	200	200	200	200
Current Supply Lake Nocona (ac-ft/yr)	63	72	82	92	102	112
Current Supply Cross Timbers Aquifer (ac-ft/yr)	700	700	700	700	700	700
Supply - Demand (ac-ft/yr)	-448	-653	-866	-1,078	-1,290	-1,502

APPENDIX A
WUG SUMMARY TABLES
MONTAGUE COUNTY

Water User Group:	Irrigation - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	425	425	425	425	425	425
Current Supply Trinity Aquifer (ac-ft/yr)	140	140	140	140	140	140
Current Supply Cross Timbers Aquifer (ac-ft/yr)	300	300	300	300	300	300
Current Supply Lk Nocona (ac-ft/yr)	19	19	19	19	19	19
Current Supply Red Run-of-River Wtr Rt 5605 (ac-ft/yr)	6	6	6	6	6	6
Current Supply Direct Reuse from Nocona for Golf Course (ac-ft/yr)	31	31	31	31	31	31
Supply - Demand (ac-ft/yr)	71	71	71	71	71	71

Water User Group:	Livestock - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	1,474	1,474	1,474	1,474	1,474	1,474
Current Supply Trinity Aquifer (ac-ft/yr)	15	15	15	15	15	15
Current Supply Cross Timbers Aquifer (ac-ft/yr)	60	60	60	60	60	60
Current Supply Stock ponds (ac-ft/yr)	1,400	1,400	1,400	1,400	1,400	1,400
Supply - Demand (ac-ft/yr)	1	1	1	1	1	1

APPENDIX A
WUG SUMMARY TABLES
MONTAGUE COUNTY

Water User Group:	Mining - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	34	34	34	34	34	34
Current Supply Cross Timbers Aquifer (ac-ft/yr)	31	31	31	31	31	31
Current Supply Trinity Aquifer (ac-ft/yr)						
Current Supply Run-of-River (ac-ft/yr)	0	0	0	0	0	0
Current Supply - Direct Reuse (Sales from Bowie) (ac-ft/yr)	3	3	3	3	3	3
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Nocona - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	4,126	4,662	5,198	5,734	6,270	6,806
Water Demand (ac-ft/yr)	1,091	1,230	1,371	1,512	1,654	1,795
Current Supply Lake Nocona (ac-ft/yr)	1,017	1,008	998	988	978	968
Supply - Demand (ac-ft/yr)	-74	-222	-373	-524	-676	-827

APPENDIX A
WUG SUMMARY TABLES
MONTAGUE COUNTY

Water User Group:	Nocona Hills WSC - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	912	1,037	1,162	1,287	1,412	1,537
Water Demand (ac-ft/yr)	201	228	255	283	310	338
Current Supply - Trinity Aquifer (ac-ft/yr)	201	228	255	283	310	338
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Red River Authority - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	160	163	166	175	180	180
Water Demand (ac-ft/yr)	44	45	46	48	50	50
Current Supply - Trinity Aquifer	44	45	46	48	50	50
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Saint Jo - Montague					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,630	1,965	2,300	2,635	2,970	3,305
Water Demand (ac-ft/yr)	269	323	378	433	488	544
Current Supply Trinity Aquifer (ac-ft/yr)	249	249	249	249	249	249
Supply - Demand (ac-ft/yr)	-20	-74	-129	-184	-240	-295

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Burkburnett - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	11,270	11,285	11,303	11,336	11,370	11,403
Water Demand (ac-ft/yr)	1,673	1,667	1,670	1,675	1,680	1,685
Current Supply Seymour Aquifer (ac-ft/yr)	1,000	1,000	1,000	1,000	1,000	1,000
Current Supply Wichita System (ac-ft/yr)	1,671	1,585	1,499	1,421	1,345	1,270
Current Supply Direct Reuse for ISD, Golf Course, Parks (ac-ft/yr)	167	167	167	167	167	167
Supply - Demand (ac-ft/yr)	1,165	1,085	996	913	832	752

Water User Group:	County-Other - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,226	1,226	1,230	1,234	1,238	1,242
Water Demand (ac-ft/yr)	169	168	168	169	169	170
Current Supply Wichita System (ac-ft/yr)	263	249	237	224	213	202
Sales from Iowa Park to Horseshoe Bend Estates	69	65	62	59	55	52
Current Supply Seymour Aquifer (ac-ft/yr)	90	90	90	90	90	90
Current Supply Cross Timbers Aquifer (ac-ft/yr)	70	70	70	70	70	70
Supply - Demand (ac-ft/yr)	323	306	291	274	259	244

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Dean Dale WSC - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	838	838	854	896	941	988
Water Demand (ac-ft/yr)	70	69	70	74	77	81
Current Supply - Wichita Falls (ac-ft/yr)	276	256	240	229	220	210
Supply - Demand (ac-ft/yr)	206	187	170	155	143	129

Water User Group:	Electra - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	2,348	2,350	2,355	2,362	2,369	2,376
Water Demand (ac-ft/yr)	874	873	874	877	880	882
Current Supply Lk Electra (ac-ft/yr)	0	0	0	0	0	0
Current Supply Sales from Iowa Park (Wichita System) (ac-ft/yr)	722	686	650	617	586	555
Current Supply Seymour Aquifer (ac-ft/yr)	0	0	0	0	0	0
Supply - Demand (ac-ft/yr)	-152	-187	-224	-260	-294	-327

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Harrold WSC - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	66	66	66	66	66	66
Water Demand (ac-ft/yr)	21	21	21	21	21	21
Current Supply - City of Electra (ac-ft/yr)	17	17	16	15	14	13
Supply - Demand (ac-ft/yr)	-4	-4	-5	-6	-7	-8

Water User Group:	Holliday - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	33	33	32	32	31	31
Water Demand (ac-ft/yr)	5	5	5	5	5	5
Current Supply - Wichita Falls (ac-ft/yr)	5	4	4	4	4	3
Supply - Demand (ac-ft/yr)	0	-1	-1	-1	-1	-2

Water User Group:	Iowa Park - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	6,759	6,769	6,779	6,799	6,819	6,839
Water Demand (ac-ft/yr)	1,020	1,017	1,018	1,021	1,024	1,027
Current Supply Lk Iowa Park/Lake Gordon (ac-ft/yr)	0	0	0	0	0	0
Current Supply NF Buffalo Crk (ac-ft/yr)	0	0	0	0	0	0
Current Supply Wichita Falls (ac-ft/yr)	1,095	1,038	976	922	870	818
Supply - Demand (ac-ft/yr)	75	21	-42	-99	-154	-209

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Irrigation - Wichita					
	2030	2040	2050	2060	2070	2080
Population						
Water Demand (ac-ft/yr)	26,657	26,657	26,657	26,657	26,657	26,657
Current Supply Lk Kemp (ac-ft/yr)	20,172	19,216	18,259	17,301	16,345	15,389
Current Supply Run-of-river (ac-ft/yr)	878	878	878	878	878	878
Current Supply Seymour Aquifer (ac-ft/yr)	0	0	0	0	0	0
Current Supply Cross Timbers Aquifer (ac-ft/yr)	600	600	600	600	600	600
Supply - Demand (ac-ft/yr)	-5,007	-5,963	-6,920	-7,878	-8,834	-9,790

Water User Group:	Livestock - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)						
Water Demand (ac-ft/yr)	718	718	718	718	718	718
Current Supply Cross Timbers Aquifer (ac-ft/yr)	36	36	36	36	36	36
Current Supply Stock Ponds (ac-ft/yr)	682	682	682	682	682	682
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Manufacturing - Wichita					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	880	913	947	982	1,018	1,056
Current Supply Wichita System (sales from Wichita Falls) (ac-ft/yr)	484	478	468	461	453	443
Current Supply Wichita System (sales from Burkburnett) (ac-ft/yr)	40	40	39	38	38	37
Current Supply Wichita System (sales from Iowa Park) (ac-ft/yr)	121	119	117	115	113	111
Current Supply Seymour Aquifer (ac-ft/yr)	129	129	129	129	129	129
Current Supply Direct Reuse from Wichita Falls and Iowa Park	190	190	190	190	190	190
Supply - Demand (ac-ft/yr)	84	43	-4	-49	-95	-146

Water User Group:	Mining - Wichita					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	45	45	45	45	45	45
Current Supply Seymour Aquifer (ac-ft/yr)	45	45	45	45	45	45
Current Supply Run-of-river (ac-ft/yr)	0	0	0	0	0	0
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Sheppard Air Force Base - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	5,905	5,905	5,905	5,905	5,905	5,905
Water Demand (ac-ft/yr)	1,075	1,069	1,069	1,069	1,069	1,069
Current Supply Wichita Falls (ac-ft/yr)	986	932	881	837	792	748
Supply - Demand (ac-ft/yr)	-89	-137	-188	-232	-277	-321

Water User Group:	Steam Electric Power - Wichita					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	20	20	20	20	20	20
Current Supply Wichita Falls (ac-ft/yr)	19	17	16	15	15	14
Supply - Demand (ac-ft/yr)	-1	-3	-4	-5	-5	-6

APPENDIX A
WUG SUMMARY TABLES
WICHITA COUNTY

Water User Group:	Wichita Falls - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	102,308	104,299	106,290	107,285	108,280	109,275
Water Demand (ac-ft/yr)	18,455	18,726	19,084	19,262	19,441	19,620
Current Supply Little Wichita System (ac-ft/yr)	8,402	7,919	7,446	6,926	6,393	5,862
Current Supply Indirect Reuse	5,181	5,214	5,254	5,276	5,295	5,316
Current Supply Lk Kemp (ac-ft/yr)	3,344	3,185	3,027	2,867	2,709	2,551
Supply - Demand (ac-ft/yr)	-1,528	-2,408	-3,357	-4,193	-5,044	-5,891

Water User Group:	Wichita Valley WSC - Wichita					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	3,330	3,340	3,350	3,360	3,370	3,380
Water Demand (ac-ft/yr)	435	434	435	436	438	439
Current Supply - Wichita System (Sales from Wichita Falls, Iowa Park and Archer City) (ac-ft/yr)	1,108	1,057	1,004	954	909	859
Supply - Demand (ac-ft/yr)	673	623	569	518	471	420

APPENDIX A
WUG SUMMARY TABLES
WILBARGER COUNTY

Water User Group:	County-Other - Wilbarger					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,139	1,124	1,106	1,074	1,042	1,010
Water Demand (ac-ft/yr)	203	199	196	190	184	179
Current Supply Seymour Aquifer Sales from Vernon	61	61	61	61	61	61
Current Supply Seymour Aquifer	61	57	54	48	42	37
Current Supply Red Run-of-River (ac-ft/yr)	81	81	81	81	81	81
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Harrold WSC - Wilbarger					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	123	121	119	115	111	107
Water Demand (ac-ft/yr)	39	39	38	37	35	34
Current Supply - City of Electra (ac-ft/yr)	33	30	28	26	24	21
Supply - Demand (ac-ft/yr)	-6	-9	-10	-11	-11	-13

APPENDIX A
WUG SUMMARY TABLES
WILBARGER COUNTY

Water User Group:	Irrigation - Wilbarger					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	26,736	26,736	26,736	26,736	26,736	26,736
Current Supply Seymour Aq (ac-ft/yr)	23,692	23,692	23,692	23,692	23,692	23,692
Current Supply Other Aq (ac-ft/yr)	3,029	3,029	3,029	3,029	3,029	3,029
Current Supply Run-of-river (ac-ft/yr)	15	15	15	15	15	15
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Livestock - Wilbarger					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	780	780	780	780	780	780
Current Supply Seymour Aquifer (ac-ft/yr)	195	195	195	195	195	195
Current Supply Santa Rosa Lake (ac-ft/yr)	920	920	920	920	920	920
Current Supply Stock Ponds (ac-ft/yr)	429	429	429	429	429	429
Supply - Demand (ac-ft/yr)	764	764	764	764	764	764

APPENDIX A
WUG SUMMARY TABLES
WILBARGER COUNTY

Water User Group:	Manufacturing - Wilbarger					2080
	2030	2040	2050	2060	2070	
Water Demand (ac-ft/yr)	1,110	1,151	1,194	1,238	1,284	1,332
Current Supply Seymour Aquifer Sales from Vernon	746	773	802	832	863	895
Current Supply Seymour Aquifer	364	378	392	406	421	437
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Mining - Wilbarger					2080
	2030	2040	2050	2060	2070	
Water Demand (ac-ft/yr)	32	32	32	32	32	32
Current Supply Other Aquifer (ac-ft/yr)	21	21	21	21	21	21
Current Supply Beaver Creek (ac-ft/yr)	11	11	11	11	11	11
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
WILBARGER COUNTY

Water User Group:	Steam Electric Power - Wilbarger					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	5,878	5,878	5,878	5,878	5,878	5,878
Current Supply Lk Kemp from Wichita Falls (ac-ft/yr)	2,888	2,751	2,614	2,477	2,340	2,203
Supply - Demand (ac-ft/yr)	-2,990	-3,127	-3,264	-3,401	-3,538	-3,675

Water User Group:	Red River Authority - Wilbarger					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,140	1,145	1,150	1,150	1,150	1,150
Water Demand (ac-ft/yr)	316	316	318	318	318	318
Current Supplies - Sales from Greenbelt MIWA	7	7	7	7	7	7
Current Supply - Sales from Vernon Seymour Aquifer	263	263	264	264	264	264
Current Supply -Seymour Aquifer (Hardeman County)	46	46	47	47	47	47
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Vernon - Wilbarger					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	10,746	10,775	10,804	10,833	10,848	10,863
Water Demand (ac-ft/yr)	1,926	1,922	1,927	1,932	1,935	1,938
Current Supply Seymour Aquifer (ac-ft/yr)	2,130	2,103	2,073	2,043	2,012	1,980
Supply - Demand (ac-ft/yr)	204	181	146	110	77	42

APPENDIX A
WUG SUMMARY TABLES
YOUNG COUNTY

Water User Group:	Baylor County SUD - Young					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	239	242	245	252	259	266
Water Demand (ac-ft/yr)	59	60	60	62	64	66
Current Supply - Seymour Aquifer Baylor County (ac-ft/yr)	59	60	60	62	64	66
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	County-Other - Young (Region B portion)					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	626	626	626	624	621	618
Water Demand (ac-ft/yr)	85	84	84	84	83	83
Purchase from Graham	22	25	28	30	32	33
Current Supply - Cross Timbers Aquifer (ac-ft/yr)	63	59	56	54	51	50
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Irrigation - Young					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	6	6	6	6	6	6
Current Supply Cross Timbers Aquifer (ac-ft/yr)	6	6	6	6	6	6
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

APPENDIX A
WUG SUMMARY TABLES
YOUNG COUNTY

Water User Group:	Livestock - Young					2080
	2030	2040	2050	2060	2070	
Water Demand (ac-ft/yr)	56	56	56	56	56	56
Current Supply Stock Ponds (ac-ft/yr)	45	45	45	45	45	45
Current Supply Cross Timbers Aquifer (ac-ft/yr)	11	11	11	11	11	11
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	Olney - Young					2080
	2030	2040	2050	2060	2070	
Population (number of persons)	2,714	2,694	2,674	2,646	2,646	2,646
Water Demand (ac-ft/yr)	499	493	490	485	485	485
Current Supply Wichita System (ac-ft/yr)	1,014	895	843	796	751	705
Current Supply Lk Olney/Cooper (ac-ft/yr)	77	65	53	41	29	17
Current Supply Direct Reuse to Golf Course (ac-ft/yr)	5	5	5	5	5	5
Supply - Demand (ac-ft/yr)	597	472	412	358	301	243

APPENDIX B
DB27 Reports

DRAFT Region B Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Archer County Total	8,363	7,911	7,433	6,996	6,575	6,169
Archer County / Brazos Basin Total	65	61	56	52	48	44
Baylor SUD*	65	61	56	52	48	44
Archer County / Red Basin Total	8,270	7,823	7,352	6,921	6,506	6,105
Archer City	1,617	1,531	1,436	1,345	1,263	1,180
Archer County MUD 1	1,134	1,072	1,007	952	901	849
Baylor SUD*	96	88	82	76	71	64
Holliday	1,534	1,459	1,379	1,291	1,214	1,134
Lakeside City	1,046	990	929	871	818	764
Scotland	361	339	317	298	281	263
Wichita Valley WSC	1,586	1,499	1,408	1,343	1,260	1,197
Windthorst WSC	660	623	586	550	516	483
County-Other	236	222	208	195	182	171
Archer County / Trinity Basin Total	28	27	25	23	21	20
Baylor SUD*	12	11	10	9	8	8
County-Other	16	16	15	14	13	12
Baylor County Total	3,407	3,311	3,267	3,221	3,177	3,135
Baylor County / Brazos Basin Total	3,276	3,179	3,130	3,083	3,036	2,991
Baylor SUD*	901	910	951	972	991	1,012
Seymour	2,375	2,269	2,179	2,111	2,045	1,979
Baylor County / Red Basin Total	131	132	137	138	141	144
Baylor SUD*	118	119	125	127	130	133
County-Other	13	13	12	11	11	11
Clay County Total	9,851	9,182	8,430	7,773	7,140	6,529
Clay County / Red Basin Total	9,511	8,885	8,180	7,568	6,978	6,408
Dean Dale WSC	1,743	1,800	1,861	1,930	1,996	2,060
Henrietta	3,123	2,921	2,694	2,493	2,299	2,109
Red River Authority of Texas*	1,667	1,547	1,415	1,306	1,201	1,099
Windthorst WSC	306	281	249	227	206	189
County-Other	2,672	2,336	1,961	1,612	1,276	951
Clay County / Trinity Basin Total	340	297	250	205	162	121
County-Other	340	297	250	205	162	121

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

DRAFT Region B Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Cottle County Total	1,333	1,250	1,193	1,159	1,126	1,094
Cottle County / Red Basin Total	1,333	1,250	1,193	1,159	1,126	1,094
Paducah	1,031	966	917	887	859	838
Red River Authority of Texas*	98	94	93	95	96	94
County-Other	204	190	183	177	171	162
Foard County Total	991	901	834	784	736	690
Foard County / Red Basin Total	991	901	834	784	736	690
Crowell	684	620	570	532	494	459
Red River Authority of Texas*	232	214	202	195	189	182
County-Other	75	67	62	57	53	49
Hardeman County Total	3,404	3,205	3,029	2,875	2,726	2,582
Hardeman County / Red Basin Total	3,404	3,205	3,029	2,875	2,726	2,582
Chillicothe	478	450	424	402	382	363
Quanah	2,007	1,890	1,788	1,696	1,612	1,531
Red River Authority of Texas*	662	624	589	558	530	503
County-Other	257	241	228	219	202	185
King County Total	253	253	261	269	277	285
King County / Brazos Basin Total	13	13	13	14	14	14
County-Other	13	13	13	14	14	14
King County / Red Basin Total	240	240	248	255	263	271
Red River Authority of Texas*	207	207	214	220	227	234
County-Other	33	33	34	35	36	37
Montague County Total	23,138	25,913	28,688	31,463	34,236	37,012
Montague County / Red Basin Total	8,954	10,112	11,267	12,425	13,580	14,732
Bowie	60	64	67	71	75	78
Nocona	3,782	4,228	4,673	5,118	5,563	6,010
Nocona Hills WSC	836	940	1,045	1,149	1,253	1,357
Red River Authority of Texas*	147	148	149	156	160	159
County-Other	4,129	4,732	5,333	5,931	6,529	7,128
Montague County / Trinity Basin Total	14,184	15,801	17,421	19,038	20,656	22,280
Bowie	6,114	6,483	6,860	7,239	7,622	8,010
Saint Jo	1,494	1,782	2,068	2,352	2,635	2,918

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DRAFT Region B Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
County-Other	6,576	7,536	8,493	9,447	10,399	11,352
Wichita County Total	131,847	130,415	126,938	122,441	118,105	113,924
Wichita County / Red Basin Total	131,847	130,415	126,938	122,441	118,105	113,924
Burkburnett	11,079	10,797	10,349	9,910	9,491	9,089
Dean Dale WSC	838	838	854	896	941	988
Electra	2,308	2,248	2,156	2,065	1,978	1,894
Harrold WSC	65	63	60	58	55	53
Holliday	32	31	30	28	26	25
Iowa Park	6,644	6,476	6,207	5,944	5,692	5,451
Sheppard Air Force Base	5,843	5,843	5,843	5,843	5,843	5,843
Wichita Falls	100,573	99,786	97,318	93,793	90,388	87,098
Wichita Valley WSC	3,300	3,195	3,067	2,937	2,813	2,694
County-Other	1,165	1,138	1,054	967	878	789
Wilbarger County Total	12,996	12,650	12,087	11,553	11,038	10,541
Wilbarger County / Red Basin Total	12,996	12,650	12,087	11,553	11,038	10,541
Harrold WSC	122	116	109	101	93	86
Red River Authority of Texas*	1,127	1,100	1,055	1,009	965	923
Vernon	10,621	10,354	9,909	9,501	9,105	8,721
County-Other	1,126	1,080	1,014	942	875	811
Young County Total	3,533	3,535	3,501	3,507	3,513	3,519
Young County / Brazos Basin Total	3,529	3,531	3,497	3,503	3,508	3,514
Baylor SUD*	232	236	238	247	253	260
Olney	2,714	2,694	2,674	2,646	2,646	2,646
County-Other*	583	601	585	610	609	608
Young County / Trinity Basin Total	4	4	4	4	5	5
Baylor SUD*	4	4	4	4	5	5
Region B Population Total	199,116	198,526	195,661	192,041	188,649	185,480

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DRAFT Region B Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Archer County Total	3,058	2,979	2,902	2,827	2,758	2,693
Archer County / Brazos Basin Total	35	34	33	32	31	30
Baylor SUD*	14	13	12	11	10	9
Livestock	21	21	21	21	21	21
Archer County / Red Basin Total	2,729	2,651	2,576	2,502	2,434	2,370
Archer City	239	226	212	198	186	174
Archer County MUD 1	203	191	180	170	161	152
Baylor SUD*	21	19	18	16	15	14
Holliday	214	202	191	179	168	157
Lakeside City	135	128	120	112	105	98
Scotland	125	118	110	103	97	91
Wichita Valley WSC	180	169	159	152	142	135
Windthorst WSC	194	183	172	161	151	142
County-Other	40	37	36	33	31	29
Manufacturing	1	1	1	1	1	1
Livestock	1,377	1,377	1,377	1,377	1,377	1,377
Archer County / Trinity Basin Total	294	294	293	293	293	293
Baylor SUD*	2	2	2	2	2	2
County-Other	3	3	2	2	2	2
Mining	1	1	1	1	1	1
Livestock	288	288	288	288	288	288
Baylor County Total	6,681	6,662	6,657	6,649	6,642	6,636
Baylor County / Brazos Basin Total	4,884	4,865	4,858	4,850	4,842	4,836
Baylor SUD*	194	195	204	208	212	217
Seymour	418	398	382	370	358	347
Mining	1	1	1	1	1	1
Livestock	494	494	494	494	494	494
Irrigation	3,777	3,777	3,777	3,777	3,777	3,777
Baylor County / Red Basin Total	1,797	1,797	1,799	1,799	1,800	1,800
Baylor SUD*	25	25	27	27	28	28
County-Other	1	1	1	1	1	1
Mining	9	9	9	9	9	9
Livestock	469	469	469	469	469	469

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DRAFT Region B Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Irrigation	1,293	1,293	1,293	1,293	1,293	1,293
Clay County Total	4,390	4,267	4,137	4,024	3,914	3,808
Clay County / Red Basin Total	3,889	3,771	3,646	3,539	3,434	3,333
Dean Dale WSC	126	129	133	138	143	147
Henrietta	609	568	524	485	447	410
Red River Authority of Texas*	402	372	340	314	289	264
Windthorst WSC	90	82	73	67	60	55
County-Other	318	276	232	191	151	113
Livestock	1,254	1,254	1,254	1,254	1,254	1,254
Irrigation	1,090	1,090	1,090	1,090	1,090	1,090
Clay County / Trinity Basin Total	501	496	491	485	480	475
County-Other	40	35	30	24	19	14
Mining	4	4	4	4	4	4
Livestock	189	189	189	189	189	189
Irrigation	268	268	268	268	268	268
Cottle County Total	4,997	4,978	4,964	4,957	4,951	4,944
Cottle County / Red Basin Total	4,997	4,978	4,964	4,957	4,951	4,944
Paducah	245	229	217	210	204	199
Red River Authority of Texas*	24	23	22	23	23	23
County-Other	27	25	24	23	23	21
Mining	6	6	6	6	6	6
Livestock	376	376	376	376	376	376
Irrigation	4,319	4,319	4,319	4,319	4,319	4,319
Foard County Total	3,031	3,015	3,005	2,997	2,990	2,983
Foard County / Red Basin Total	3,031	3,015	3,005	2,997	2,990	2,983
Crowell	93	84	77	72	67	62
Red River Authority of Texas*	56	51	49	47	45	44
County-Other	14	12	11	10	10	9
Livestock	379	379	379	379	379	379
Irrigation	2,489	2,489	2,489	2,489	2,489	2,489

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DRAFT Region B Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Hardeman County Total	19,449	19,423	19,404	19,388	19,374	19,362
Hardeman County / Red Basin Total	19,449	19,423	19,404	19,388	19,374	19,362
Chillicothe	59	55	52	49	47	45
Quanah	283	266	251	238	227	215
Red River Authority of Texas*	160	150	142	134	127	121
County-Other	40	37	35	34	31	29
Manufacturing	225	233	242	251	260	270
Mining	5	5	5	5	5	5
Livestock	387	387	387	387	387	387
Irrigation	18,290	18,290	18,290	18,290	18,290	18,290
King County Total	757	757	758	761	763	764
King County / Brazos Basin Total	341	341	341	342	342	342
County-Other	3	3	3	4	4	4
Mining	4	4	4	4	4	4
Livestock	334	334	334	334	334	334
King County / Red Basin Total	416	416	417	419	421	422
Red River Authority of Texas*	50	50	51	53	55	56
County-Other	9	9	9	9	9	9
Livestock	112	112	112	112	112	112
Irrigation	245	245	245	245	245	245
Montague County Total	5,488	5,881	6,288	6,693	7,101	7,508
Montague County / Red Basin Total	2,585	2,774	2,966	3,158	3,351	3,543
Bowie	10	11	11	12	12	13
Nocona	870	970	1,072	1,174	1,276	1,378
Nocona Hills WSC	160	180	200	219	239	259
Red River Authority of Texas*	35	36	36	37	38	38
County-Other	482	549	619	688	758	827
Livestock	816	816	816	816	816	816
Irrigation	212	212	212	212	212	212
Montague County / Trinity Basin Total	2,903	3,107	3,322	3,535	3,750	3,965
Bowie	1,015	1,072	1,135	1,197	1,261	1,325
Saint Jo	215	255	296	336	377	417
County-Other	768	875	986	1,097	1,207	1,318
Mining	34	34	34	34	34	34

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DRAFT Region B Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Livestock	658	658	658	658	658	658
Irrigation	213	213	213	213	213	213
Wichita County Total	48,667	48,388	47,890	47,232	46,599	45,993
Wichita County / Red Basin Total	48,667	48,388	47,890	47,232	46,599	45,993
Burkburnett	1,431	1,387	1,329	1,273	1,219	1,168
Dean Dale WSC	60	60	61	64	67	71
Electra	747	726	696	667	639	612
Harrold WSC	18	17	17	16	15	15
Holliday	4	4	4	4	4	3
Iowa Park	872	846	811	776	743	712
Sheppard Air Force Base	925	920	920	920	920	920
Wichita Falls	15,775	15,579	15,194	14,643	14,112	13,598
Wichita Valley WSC	375	361	346	332	318	304
County-Other	140	135	125	115	104	94
Manufacturing	880	913	947	982	1,018	1,056
Mining	45	45	45	45	45	45
Steam Electric Power	20	20	20	20	20	20
Livestock	718	718	718	718	718	718
Irrigation	26,657	26,657	26,657	26,657	26,657	26,657
Wilbarger County Total	36,671	36,645	36,597	36,553	36,515	36,482
Wilbarger County / Red Basin Total	36,671	36,645	36,597	36,553	36,515	36,482
Harrold WSC	34	32	30	28	26	24
Red River Authority of Texas*	272	264	254	242	232	222
Vernon	1,655	1,606	1,537	1,474	1,412	1,353
County-Other	174	166	156	145	135	125
Manufacturing	1,110	1,151	1,194	1,238	1,284	1,332
Mining	32	32	32	32	32	32
Steam Electric Power	5,878	5,878	5,878	5,878	5,878	5,878
Livestock	780	780	780	780	780	780
Irrigation	26,736	26,736	26,736	26,736	26,736	26,736
Young County Total	616	612	608	608	609	611
Young County / Brazos Basin Total	600	596	592	592	593	595
Baylor SUD*	50	50	51	53	54	56
Olney	434	429	426	421	421	421
County-Other*	69	70	68	71	71	71

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DRAFT Region B Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Livestock*	41	41	41	41	41	41
Irrigation*	6	6	6	6	6	6
Young County / Trinity Basin Total	16	16	16	16	16	16
Baylor SUD*	1	1	1	1	1	1
Livestock*	15	15	15	15	15	15
Region B Demand Total	133,805	133,607	133,210	132,689	132,216	131,784

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DRAFT Region B Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Groundwater Source Availability Total				105,214	111,069	112,209	114,229	123,636	116,240
Blaine Aquifer	Cottle	Red	Brackish	11,621	11,621	11,621	11,621	11,621	11,621
Blaine Aquifer	Foard	Red	Brackish	6,565	6,565	6,565	6,565	6,565	6,565
Blaine Aquifer	Hardeman	Red	Brackish	8,465	8,465	8,465	8,465	8,465	8,465
Blaine Aquifer	King	Brazos	Brackish	0	0	0	0	0	0
Blaine Aquifer	King	Red	Brackish	49	49	49	49	49	49
Blaine Aquifer	Wilbarger	Red	Brackish	0	0	0	0	0	0
Cross Timbers Aquifer	Archer	Brazos	Fresh	20	20	20	20	20	20
Cross Timbers Aquifer	Archer	Red	Fresh	585	585	585	585	585	585
Cross Timbers Aquifer	Archer	Trinity	Fresh	20	20	20	20	20	20
Cross Timbers Aquifer	Baylor	Brazos	Fresh	25	25	25	25	25	25
Cross Timbers Aquifer	Baylor	Red	Fresh	35	35	35	35	35	35
Cross Timbers Aquifer	Clay	Red	Fresh	1,495	1,495	1,495	1,495	1,495	1,495
Cross Timbers Aquifer	Clay	Trinity	Fresh	505	505	505	505	505	505
Cross Timbers Aquifer	Montague	Red	Fresh	2,280	2,280	2,280	2,280	2,280	2,280
Cross Timbers Aquifer	Montague	Trinity	Fresh	1,720	1,720	1,720	1,720	1,720	1,720
Cross Timbers Aquifer	Wichita	Red	Fresh	840	840	840	840	840	840
Cross Timbers Aquifer	Wilbarger	Red	Fresh	0	0	0	0	0	0
Cross Timbers Aquifer	Young	Brazos	Fresh	650	650	650	650	650	650
Cross Timbers Aquifer	Young	Trinity	Fresh	50	50	50	50	50	50
Other Aquifer	Cottle	Red	Fresh	1,800	1,800	1,800	1,800	1,800	1,800
Other Aquifer	Foard	Red	Fresh	200	200	200	200	200	200

* 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.

DRAFT Region B Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Other Aquifer	Hardeman	Red	Fresh	50	50	50	50	50	50
Other Aquifer	King	Brazos	Fresh	250	250	250	250	250	250
Other Aquifer	King	Red	Fresh	400	400	400	400	400	400
Other Aquifer	Wilbarger	Red	Fresh	3,050	3,050	3,050	3,050	3,050	3,050
Seymour Aquifer	Archer	Red	Fresh	35	35	35	35	35	35
Seymour Aquifer	Baylor	Brazos	Fresh	7,036	6,668	6,437	6,299	6,636	5,428
Seymour Aquifer	Baylor	Red	Fresh	294	294	294	294	294	294
Seymour Aquifer	Clay	Red	Fresh	787	787	787	787	787	787
Seymour Aquifer	Foard	Red	Fresh	3,779	4,209	6,900	6,628	2,777	4,049
Seymour Aquifer	Hardeman	Red	Fresh	14,209	20,002	18,689	21,116	34,037	26,577
Seymour Aquifer	Wichita	Red	Fresh	2,295	2,295	2,288	2,291	2,291	2,291
Seymour Aquifer	Wilbarger	Red	Fresh	30,000	30,000	30,000	30,000	30,000	30,000
Trinity Aquifer	Montague	Red	Fresh	238	238	238	238	238	238
Trinity Aquifer	Montague	Trinity	Fresh	5,866	5,866	5,866	5,866	5,866	5,866

Reuse Source Availability Total				9,427	9,427	9,427	9,427	9,427	9,427
Direct Reuse	Baylor	Brazos	Fresh	63	63	63	63	63	63
Direct Reuse	Montague	Red	Fresh	31	31	31	31	31	31
Direct Reuse	Montague	Trinity	Fresh	3	3	3	3	3	3
Direct Reuse	Wichita	Red	Fresh	357	357	357	357	357	357
Direct Reuse	Young	Brazos	Fresh	5	5	5	5	5	5
Indirect Reuse	Wichita	Red	Fresh	8,968	8,968	8,968	8,968	8,968	8,968

* 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.

DRAFT Region B Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Surface Water Source Availability Total				65,243	62,589	59,935	57,281	54,627	51,973
Amon G. Carter Lake/Reservoir	Reservoir**	Trinity	Fresh	1,080	1,018	956	894	832	770
Brazos Livestock Local Supply	Archer	Brazos	Fresh	21	21	21	21	21	21
Brazos Livestock Local Supply	Baylor	Brazos	Fresh	395	395	395	395	395	395
Brazos Livestock Local Supply	King	Brazos	Fresh	100	100	100	100	100	100
Brazos Livestock Local Supply	Young	Brazos	Fresh	45	45	45	45	45	45
Brazos Run-of-River	Baylor	Brazos	Fresh	13	13	13	13	13	13
Electra City Lake/Reservoir	Reservoir**	Red	Fresh	230	230	230	230	230	230
Farmers Creek/Nocona Lake/Reservoir	Reservoir**	Red	Fresh	1,260	1,260	1,260	1,260	1,260	1,260
Kemp-Diversion Lake/Reservoir System	Reservoir**	Red	Fresh	32,900	31,340	29,780	28,220	26,660	25,100
Little Wichita River Lake/Reservoir System	Reservoir**	Red	Fresh	16,300	15,280	14,260	13,240	12,220	11,200
North Fork Buffalo Creek Lake/Reservoir	Reservoir**	Red	Fresh	790	790	790	790	790	790
Olney-Cooper Lake/Reservoir System	Reservoir**	Red	Fresh	145	133	121	109	97	85
Red Livestock Local Supply	Archer	Red	Fresh	1,040	1,040	1,040	1,040	1,040	1,040
Red Livestock Local Supply	Baylor	Red	Fresh	375	375	375	375	375	375
Red Livestock Local Supply	Clay	Red	Fresh	1,066	1,066	1,066	1,066	1,066	1,066
Red Livestock Local Supply	Cottle	Red	Fresh	113	113	113	113	113	113
Red Livestock Local Supply	Foard	Red	Fresh	341	341	341	341	341	341
Red Livestock Local Supply	Hardeman	Red	Fresh	232	232	232	232	232	232
Red Livestock Local Supply	King	Red	Fresh	34	34	34	34	34	34

* 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.

DRAFT Region B Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Red Livestock Local Supply	Montague	Red	Fresh	775	775	775	775	775	775
Red Livestock Local Supply	Wichita	Red	Fresh	682	682	682	682	682	682
Red Livestock Local Supply	Wilbarger	Red	Fresh	585	585	585	585	585	585
Red Run-of-River	Archer	Red	Fresh	137	137	137	137	137	137
Red Run-of-River	Clay	Red	Fresh	2,904	2,904	2,904	2,904	2,904	2,904
Red Run-of-River	Cottle	Red	Fresh	8	8	8	8	8	8
Red Run-of-River	Hardeman	Red	Fresh	141	141	141	141	141	141
Red Run-of-River	Montague	Red	Fresh	6	6	6	6	6	6
Red Run-of-River	Wichita	Red	Fresh	1,424	1,424	1,424	1,424	1,424	1,424
Red Run-of-River	Wilbarger	Red	Fresh	107	107	107	107	107	107
Santa Rosa Lake/Reservoir	Reservoir**	Red	Fresh	920	920	920	920	920	920
Trinity Livestock Local Supply	Archer	Trinity	Fresh	288	288	288	288	288	288
Trinity Livestock Local Supply	Clay	Trinity	Fresh	161	161	161	161	161	161
Trinity Livestock Local Supply	Montague	Trinity	Fresh	625	625	625	625	625	625
Wichita Lake/Reservoir	Reservoir**	Red	Fresh	0	0	0	0	0	0
Region B Source Availability Total				179,884	183,085	181,571	180,937	187,690	177,640

* 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.

DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source	Source Description	Existing Supply (acre-feet per year)					
	Region		2030	2040	2050	2060	2070	2080
Archer County WUG Total			4,382	4,232	4,077	3,955	3,834	3,717
Archer County / Brazos Basin WUG Total			38	38	37	36	36	35
Baylor SUD*	B	Seymour Aquifer Baylor County	17	17	16	15	15	14
Livestock	B	Cross Timbers Aquifer Archer County	0	0	0	0	0	0
Livestock	B	Local Surface Water Supply	21	21	21	21	21	21
Archer County / Red Basin WUG Total			4,049	3,900	3,746	3,625	3,504	3,387
Archer City	B	Little Wichita River Lake/Reservoir System	257	239	220	203	186	169
Archer City	B	Red Indirect Reuse	142	141	139	138	136	136
Archer County MUD 1	B	Little Wichita River Lake/Reservoir System	306	284	262	241	221	201
Archer County MUD 1	B	Red Indirect Reuse	168	167	164	163	162	161
Baylor SUD*	B	Seymour Aquifer Baylor County	25	24	24	23	22	21
Holliday	B	Little Wichita River Lake/Reservoir System	142	132	121	112	103	94
Holliday	B	Red Indirect Reuse	79	77	76	76	75	76
Lakeside City	B	Little Wichita River Lake/Reservoir System	109	101	93	85	79	72
Lakeside City	B	Red Indirect Reuse	60	59	59	58	58	57
Scotland	B	Little Wichita River Lake/Reservoir System	122	113	104	96	88	80
Scotland	B	Red Indirect Reuse	67	66	65	65	65	64
Wichita Valley WSC	B	Little Wichita River Lake/Reservoir System	378	350	319	293	265	241
Wichita Valley WSC	B	Red Indirect Reuse	208	204	199	198	195	192
Windthorst WSC	B	Little Wichita River Lake/Reservoir System	337	314	291	269	246	223
Windthorst WSC	B	Red Indirect Reuse	185	184	183	181	180	178
County-Other	B	Cross Timbers Aquifer Archer County	34	33	33	32	31	30
County-Other	B	Seymour Aquifer Baylor County	14	14	14	14	14	14
Manufacturing	B	Cross Timbers Aquifer Archer County	1	1	1	1	1	1

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Livestock	B	Cross Timbers Aquifer Archer County	0	0	0	15	33	51
Livestock	B	Kemp-Diversion Lake/Reservoir System	375	357	339	322	304	286
Livestock	B	Local Surface Water Supply	1,040	1,040	1,040	1,040	1,040	1,040
Archer County / Trinity Basin WUG Total			295	294	294	294	294	295
Baylor SUD*	B	Seymour Aquifer Baylor County	3	2	2	2	2	3
County-Other	B	Cross Timbers Aquifer Archer County	2	2	2	2	2	2
County-Other	B	Seymour Aquifer Baylor County	1	1	1	1	1	1
Mining	B	Cross Timbers Aquifer Archer County	1	1	1	1	1	1
Livestock	B	Local Surface Water Supply	288	288	288	288	288	288
Baylor County WUG Total			6,804	6,793	6,794	6,780	6,765	6,489
Baylor County / Brazos Basin WUG Total			5,002	4,993	4,994	4,979	4,965	4,759
Baylor SUD*	G	Millers Creek Lake/Reservoir	6	5	4	2	1	0
Baylor SUD*	B	Seymour Aquifer Baylor County	217	220	231	237	244	249
Seymour	B	Direct Reuse	63	63	63	63	63	63
Seymour	B	Seymour Aquifer Baylor County	443	430	421	401	381	381
Mining	B	Cross Timbers Aquifer Baylor County	1	1	1	1	1	1
Mining	B	Seymour Aquifer Baylor County	0	0	0	0	0	0
Livestock	B	Cross Timbers Aquifer Baylor County	0	0	0	0	0	0
Livestock	B	Local Surface Water Supply	395	395	395	395	395	395
Livestock	B	Seymour Aquifer Baylor County	99	99	99	99	99	99
Irrigation	B	Brazos Run-of-River	13	13	13	13	13	13

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source	Source Description	Existing Supply (acre-feet per year)					
	Region		2030	2040	2050	2060	2070	2080
Irrigation	B	Seymour Aquifer Baylor County	3,765	3,767	3,767	3,768	3,768	3,558
Baylor County / Red Basin WUG Total			1,802	1,800	1,800	1,801	1,800	1,730
Baylor SUD*	B	Seymour Aquifer Baylor County	29	29	30	32	31	33
County-Other	B	Seymour Aquifer Baylor County	2	2	1	1	1	1
Mining	B	Cross Timbers Aquifer Baylor County	9	9	9	9	9	9
Livestock	B	Cross Timbers Aquifer Baylor County	30	30	30	30	30	30
Livestock	B	Local Surface Water Supply	375	375	375	375	375	375
Livestock	B	Seymour Aquifer Baylor County	64	64	64	64	64	64
Irrigation	B	Seymour Aquifer Baylor County	1,293	1,291	1,291	1,290	1,290	1,218
Clay County WUG Total			6,792	6,732	6,665	6,604	6,545	6,486
Clay County / Red Basin WUG Total			6,244	6,184	6,117	6,056	5,997	5,938
Dean Dale WSC	B	Little Wichita River Lake/Reservoir System	371	346	320	294	270	242
Dean Dale WSC	B	Red Indirect Reuse	201	203	201	199	196	194
Henrietta	B	Red Run-of-River	1,130	1,130	1,130	1,130	1,130	1,130
Red River Authority of Texas*	B	Little Wichita River Lake/Reservoir System	247	229	211	194	178	163
Red River Authority of Texas*	B	Red Indirect Reuse	136	134	133	132	131	130
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	B	Trinity Aquifer Montague County	0	0	0	0	0	0
Windthorst WSC	B	Little Wichita River Lake/Reservoir System	160	148	134	123	113	104
Windthorst WSC	B	Red Indirect Reuse	88	87	84	84	83	83
County-Other	B	Cross Timbers Aquifer Clay County	247	247	247	247	247	247
County-Other	B	Seymour Aquifer Clay County	170	170	170	170	170	170

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Livestock	B	Cross Timbers Aquifer Clay County	158	158	158	158	158	158
Livestock	B	Local Surface Water Supply	1,066	1,066	1,066	1,066	1,066	1,066
Livestock	B	Seymour Aquifer Clay County	30	30	30	30	30	30
Irrigation	B	Cross Timbers Aquifer Clay County	332	332	332	332	332	332
Irrigation	B	Kemp-Diversion Lake/Reservoir System	80	76	73	69	65	61
Irrigation	B	Red Run-of-River	1,241	1,241	1,241	1,241	1,241	1,241
Irrigation	B	Seymour Aquifer Clay County	587	587	587	587	587	587
Clay County / Trinity Basin WUG Total			548	548	548	548	548	548
County-Other	B	Cross Timbers Aquifer Clay County	83	83	83	83	83	83
Mining	B	Cross Timbers Aquifer Clay County	3	3	3	3	3	3
Mining	B	Red Run-of-River	1	1	1	1	1	1
Livestock	B	Cross Timbers Aquifer Clay County	32	32	32	32	32	32
Livestock	B	Local Surface Water Supply	161	161	161	161	161	161
Irrigation	B	Cross Timbers Aquifer Clay County	268	268	268	268	268	268
Cottle County WUG Total			5,078	5,033	5,031	5,027	5,023	5,017
Cottle County / Red Basin WUG Total			5,078	5,033	5,031	5,027	5,023	5,017
Paducah	B	Blaine Aquifer Cottle County	298	254	253	249	245	240
Red River Authority of Texas*	B	Other Aquifer Cottle County	29	29	29	30	30	30
Red River Authority of Texas*	B	Red Indirect Reuse	0	0	0	0	0	0
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	B	Trinity Aquifer Montague County	0	0	0	0	0	0
County-Other	B	Other Aquifer Cottle County	33	32	31	30	30	29

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Mining	B	Blaine Aquifer Cottle County	6	6	6	6	6	6
Livestock	B	Blaine Aquifer Cottle County	225	225	225	225	225	225
Livestock	B	Local Surface Water Supply	113	113	113	113	113	113
Livestock	B	Other Aquifer Cottle County	55	55	55	55	55	55
Irrigation	B	Blaine Aquifer Cottle County	2,708	2,708	2,708	2,708	2,708	2,708
Irrigation	B	Other Aquifer Cottle County	1,600	1,600	1,600	1,600	1,600	1,600
Irrigation	B	Red Run-of-River	11	11	11	11	11	11
Foard County WUG Total			3,889	3,887	3,887	3,886	3,645	3,883
Foard County / Red Basin WUG Total			3,889	3,887	3,887	3,886	3,645	3,883
Crowell	A	Greenbelt Lake/Reservoir	79	77	76	75	74	73
Crowell	A	Ogallala Aquifer Donley County	41	41	41	40	39	37
Crowell	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	A	Greenbelt Lake/Reservoir	48	48	48	49	50	52
Red River Authority of Texas*	A	Ogallala Aquifer Donley County	25	25	26	26	26	26
Red River Authority of Texas*	B	Red Indirect Reuse	0	0	0	0	0	0
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	B	Trinity Aquifer Montague County	0	0	0	0	0	0
County-Other	B	Seymour Aquifer Foard County	17	17	17	17	16	16
Livestock	B	Blaine Aquifer Foard County	30	30	30	30	30	30
Livestock	B	Local Surface Water Supply	341	341	341	341	341	341
Livestock	B	Other Aquifer Foard County	8	8	8	8	8	8
Irrigation	B	Blaine Aquifer Foard County	200	200	200	200	200	200

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Irrigation	B	Other Aquifer Foard County	100	100	100	100	100	100
Irrigation	B	Seymour Aquifer Foard County	3,000	3,000	3,000	3,000	2,761	3,000
Hardeman County WUG Total			19,767	19,768	19,772	19,773	19,772	19,775
Hardeman County / Red Basin WUG Total			19,767	19,768	19,772	19,773	19,772	19,775
Chillicothe	A	Greenbelt Lake/Reservoir	19	19	18	18	18	18
Chillicothe	A	Ogallala Aquifer Donley County	10	10	10	9	8	8
Chillicothe	B	Seymour Aquifer Hardeman County	43	43	42	42	41	41
Quanah	A	Greenbelt Lake/Reservoir	230	223	221	219	217	218
Quanah	A	Ogallala Aquifer Donley County	117	119	119	117	114	109
Quanah	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	A	Greenbelt Lake/Reservoir	129	126	125	123	122	122
Red River Authority of Texas*	A	Ogallala Aquifer Donley County	66	67	67	66	64	61
Red River Authority of Texas*	B	Red Indirect Reuse	0	0	0	0	0	0
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	B	Trinity Aquifer Montague County	0	0	0	0	0	0
County-Other	B	Blaine Aquifer Hardeman County	14	14	14	14	14	14
County-Other	A	Greenbelt Lake/Reservoir	0	0	0	0	0	0
County-Other	A	Ogallala Aquifer Donley County	0	0	0	0	0	0
County-Other	B	Seymour Aquifer Hardeman County	36	36	36	36	36	36
Manufacturing	A	Greenbelt Lake/Reservoir	33	33	32	33	33	33
Manufacturing	A	Ogallala Aquifer Donley County	17	17	18	17	17	17
Manufacturing	B	Seymour Aquifer Hardeman County	175	183	192	201	210	220
Mining	B	Blaine Aquifer Hardeman County	5	5	5	5	5	5

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Mining	B	Other Aquifer Hardeman County	0	0	0	0	0	0
Livestock	B	Blaine Aquifer Hardeman County	120	120	120	120	120	120
Livestock	B	Local Surface Water Supply	232	232	232	232	232	232
Livestock	B	Other Aquifer Hardeman County	50	50	50	50	50	50
Livestock	B	Seymour Aquifer Hardeman County	40	40	40	40	40	40
Irrigation	B	Blaine Aquifer Hardeman County	6,444	6,444	6,444	6,444	6,444	6,444
Irrigation	B	Red Run-of-River	141	141	141	141	141	141
Irrigation	B	Seymour Aquifer Hardeman County	11,846	11,846	11,846	11,846	11,846	11,846
King County WUG Total			771	772	772	774	775	776
King County / Brazos Basin WUG Total			341	341	341	341	341	341
County-Other	B	Blaine Aquifer King County	3	3	3	3	3	3
County-Other	B	Other Aquifer King County	0	0	0	0	0	0
Mining	B	Other Aquifer King County	4	4	4	4	4	4
Livestock	B	Local Surface Water Supply	100	100	100	100	100	100
Livestock	B	Other Aquifer King County	234	234	234	234	234	234
King County / Red Basin WUG Total			430	431	431	433	434	435
Red River Authority of Texas*	O	Other Aquifer Dickens County	61	62	62	64	65	66
Red River Authority of Texas*	B	Red Indirect Reuse	0	0	0	0	0	0
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	B	Trinity Aquifer Montague County	0	0	0	0	0	0
County-Other	B	Blaine Aquifer King County	12	12	12	12	12	12

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source	Source Description	Existing Supply (acre-feet per year)					
	Region		2030	2040	2050	2060	2070	2080
Livestock	B	Blaine Aquifer King County	34	34	34	34	34	34
Livestock	B	Local Surface Water Supply	34	34	34	34	34	34
Livestock	B	Other Aquifer King County	44	44	44	44	44	44
Irrigation	B	Other Aquifer King County	245	245	245	245	245	245
Montague County WUG Total			5,559	5,525	5,491	5,459	5,426	5,391
Montague County / Red Basin WUG Total			2,772	2,800	2,828	2,858	2,887	2,914
Bowie		No water supply associated with WUG	0	0	0	0	0	0
Nocona	B	Farmers Creek/Nocona Lake/Reservoir	1,017	1,008	998	988	978	968
Nocona Hills WSC	B	Trinity Aquifer Montague County	201	228	255	283	310	337
Red River Authority of Texas*	B	Red Indirect Reuse	0	0	0	0	0	0
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	0	0	0	0	0	0
Red River Authority of Texas*	B	Trinity Aquifer Montague County	44	45	46	48	50	50
County-Other	B	Cross Timbers Aquifer Montague County	399	399	399	399	399	399
County-Other	B	Farmers Creek/Nocona Lake/Reservoir	63	72	82	92	102	112
County-Other	B	Trinity Aquifer Montague County	3	3	3	3	3	3
Livestock	B	Cross Timbers Aquifer Montague County	34	34	34	34	34	34
Livestock	B	Local Surface Water Supply	775	775	775	775	775	775
Livestock	B	Trinity Aquifer Montague County	7	7	7	7	7	7
Irrigation	B	Cross Timbers Aquifer Montague County	171	171	171	171	171	171
Irrigation	B	Direct Reuse	31	31	31	31	31	31
Irrigation	B	Farmers Creek/Nocona Lake/Reservoir	19	19	19	19	19	19
Irrigation	B	Red Run-of-River	6	6	6	6	6	6

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Irrigation	B	Trinity Aquifer Montague County	2	2	2	2	2	2
Montague County / Trinity Basin WUG Total			2,787	2,725	2,663	2,601	2,539	2,477
Bowie	B	Amon G. Carter Lake/Reservoir	923	837	751	664	577	491
Saint Jo	B	Trinity Aquifer Montague County	249	249	249	249	249	249
County-Other	B	Amon G. Carter Lake/Reservoir	157	181	205	230	255	279
County-Other	B	Cross Timbers Aquifer Montague County	301	301	301	301	301	301
County-Other	B	Trinity Aquifer Montague County	197	197	197	197	197	197
Mining	B	Cross Timbers Aquifer Montague County	31	31	31	31	31	31
Mining	B	Direct Reuse	3	3	3	3	3	3
Livestock	B	Cross Timbers Aquifer Montague County	26	26	26	26	26	26
Livestock	B	Local Surface Water Supply	625	625	625	625	625	625
Livestock	B	Trinity Aquifer Montague County	8	8	8	8	8	8
Irrigation	B	Cross Timbers Aquifer Montague County	129	129	129	129	129	129
Irrigation	B	Trinity Aquifer Montague County	138	138	138	138	138	138
Wichita County WUG Total			47,861	45,964	44,083	42,169	40,256	38,341
Wichita County / Red Basin WUG Total			47,861	45,964	44,083	42,169	40,256	38,341
Burkburnett	B	Direct Reuse	167	167	167	167	167	167
Burkburnett	B	Little Wichita River Lake/Reservoir System	1,078	999	920	847	776	705
Burkburnett	B	Red Indirect Reuse	593	586	579	574	569	565
Burkburnett	B	Seymour Aquifer Wichita County	1,000	1,000	1,000	1,000	1,000	1,000
Dean Dale WSC	B	Little Wichita River Lake/Reservoir System	176	161	147	136	126	117
Dean Dale WSC	B	Red Indirect Reuse	100	95	93	93	94	93

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source		Existing Supply (acre-feet per year)					
	Region	Source Description	2030	2040	2050	2060	2070	2080
Electra	B	Little Wichita River Lake/Reservoir System	466	432	399	368	338	308
Electra	B	Red Indirect Reuse	256	254	251	249	248	247
Harrold WSC	B	Little Wichita River Lake/Reservoir System	11	10	10	9	8	7
Harrold WSC	B	Red Indirect Reuse	6	6	6	6	6	6
Holliday	B	Little Wichita River Lake/Reservoir System	3	3	3	3	2	2
Holliday	B	Red Indirect Reuse	1	2	2	2	2	1
Iowa Park	B	Little Wichita River Lake/Reservoir System	706	654	599	550	502	454
Iowa Park	B	Red Indirect Reuse	389	384	377	372	368	364
Sheppard Air Force Base	B	Little Wichita River Lake/Reservoir System	636	587	541	499	457	415
Sheppard Air Force Base	B	Red Indirect Reuse	350	345	340	338	335	333
Wichita Falls	B	Kemp-Diversion Lake/Reservoir System	3,344	3,185	3,027	2,867	2,709	2,551
Wichita Falls	B	Little Wichita River Lake/Reservoir System	8,402	7,919	7,446	6,926	6,393	5,862
Wichita Falls	B	Red Indirect Reuse	5,181	5,214	5,254	5,276	5,295	5,316
Wichita Valley WSC	B	Little Wichita River Lake/Reservoir System	715	666	616	569	524	478
Wichita Valley WSC	B	Red Indirect Reuse	393	391	388	385	385	382
County-Other	B	Cross Timbers Aquifer Wichita County	70	70	70	70	70	70
County-Other	B	Little Wichita River Lake/Reservoir System	215	198	183	169	155	141
County-Other	B	Red Indirect Reuse	117	116	116	114	113	113
County-Other	B	Seymour Aquifer Wichita County	90	90	90	90	90	90
Manufacturing	B	Direct Reuse	190	190	190	190	190	190
Manufacturing	B	Little Wichita River Lake/Reservoir System	416	401	383	367	348	329
Manufacturing	B	Red Indirect Reuse	229	236	241	247	256	262
Manufacturing	B	Seymour Aquifer Wichita County	129	129	129	129	129	129
Mining	B	Seymour Aquifer Wichita County	45	45	45	45	45	45

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DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source	Source Description	Existing Supply (acre-feet per year)					
	Region		2030	2040	2050	2060	2070	2080
Steam Electric Power	B	Little Wichita River Lake/Reservoir System	12	11	10	9	9	8
Steam Electric Power	B	Red Indirect Reuse	7	6	6	6	6	6
Livestock	B	Cross Timbers Aquifer Wichita County	36	36	36	36	36	36
Livestock	B	Local Surface Water Supply	682	682	682	682	682	682
Irrigation	B	Cross Timbers Aquifer Wichita County	600	600	600	600	600	600
Irrigation	B	Kemp-Diversion Lake/Reservoir System	20,172	19,216	18,259	17,301	16,345	15,389
Irrigation	B	Red Run-of-River	878	878	878	878	878	878
Wilbarger County WUG Total			34,992	34,863	34,735	34,604	34,474	34,345
Wilbarger County / Red Basin WUG Total			34,992	34,863	34,735	34,604	34,474	34,345
Harrold WSC	B	Little Wichita River Lake/Reservoir System	21	20	17	16	14	12
Harrold WSC	B	Red Indirect Reuse	12	11	11	10	10	9
Red River Authority of Texas*	A	Greenbelt Lake/Reservoir	5	5	5	5	5	5
Red River Authority of Texas*	A	Ogallala Aquifer Donley County	2	2	2	2	2	2
Red River Authority of Texas*	B	Red Indirect Reuse	0	0	0	0	0	0
Red River Authority of Texas*	B	Seymour Aquifer Hardeman County	46	46	47	47	47	47
Red River Authority of Texas*	B	Seymour Aquifer Wilbarger County	263	263	264	264	264	264
Red River Authority of Texas*	B	Trinity Aquifer Montague County	0	0	0	0	0	0
Vernon	B	Seymour Aquifer Wilbarger County	2,130	2,103	2,073	2,043	2,012	1,980
County-Other	B	Red Run-of-River	81	81	81	81	81	81
County-Other	B	Seymour Aquifer Wilbarger County	122	118	115	109	103	98
Manufacturing	B	Seymour Aquifer Wilbarger County	1,110	1,151	1,194	1,238	1,284	1,332
Mining	B	Other Aquifer Wilbarger County	21	21	21	21	21	21
Mining	B	Red Run-of-River	11	11	11	11	11	11

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

DRAFT Region B Water User Group (WUG) Existing Water Supply

WUG Name	Source	Source Description	Existing Supply (acre-feet per year)					
	Region		2030	2040	2050	2060	2070	2080
Steam Electric Power	B	Kemp-Diversion Lake/Reservoir System	2,888	2,751	2,614	2,477	2,340	2,203
Livestock	B	Local Surface Water Supply	429	429	429	429	429	429
Livestock	B	Santa Rosa Lake/Reservoir	920	920	920	920	920	920
Livestock	B	Seymour Aquifer Wilbarger County	195	195	195	195	195	195
Irrigation	B	Other Aquifer Wilbarger County	3,029	3,029	3,029	3,029	3,029	3,029
Irrigation	B	Red Run-of-River	15	15	15	15	15	15
Irrigation	B	Seymour Aquifer Wilbarger County	23,692	23,692	23,692	23,692	23,692	23,692
Young County WUG Total			1,331	1,201	1,141	1,087	1,034	978
Young County / Brazos Basin WUG Total			1,330	1,200	1,140	1,086	1,033	977
Baylor SUD*	B	Seymour Aquifer Baylor County	52	53	55	57	59	61
Olney	B	Direct Reuse	5	5	5	5	5	5
Olney	B	Little Wichita River Lake/Reservoir System	1,014	895	843	796	751	705
Olney	B	Olney-Cooper Lake/Reservoir System	77	65	53	41	29	17
County-Other*	B	Cross Timbers Aquifer Young County	10	11	15	18	20	20
County-Other*	G	Cross Timbers Aquifer Young County	27	28	29	30	31	31
County-Other*	G	Graham/Eddleman Lake/Reservoir	20	18	15	14	13	13
Livestock*	B	Local Surface Water Supply	122	122	122	122	122	122
Irrigation*	B	Cross Timbers Aquifer Young County	3	3	3	3	3	3
Young County / Trinity Basin WUG Total			1	1	1	1	1	1
Baylor SUD*	B	Seymour Aquifer Baylor County	1	1	1	1	1	1
Livestock*		No water supply associated with WUG	0	0	0	0	0	0
Region B WUG Existing Water Supply Total			137,226	134,770	132,448	130,118	127,549	125,198

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DRAFT Region B Water User Group (WUG) Needs or 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.

			Water Supply Needs or Surplus (acre-feet per year)					
WUG Name	County	Basin	2030	2040	2050	2060	2070	2080
Baylor SUD*	Archer	Brazos	1	1	2	2	2	2
Livestock	Archer	Brazos	0	0	0	0	0	0
Archer City	Archer	Red	160	154	147	143	136	131
Archer County MUD 1	Archer	Red	271	260	246	234	222	210
Baylor SUD*	Archer	Red	1	2	2	2	2	3
Holliday	Archer	Red	7	7	6	9	10	13
Lakeside City	Archer	Red	34	32	32	31	32	31
Scotland	Archer	Red	25	33	40	48	54	53
Wichita Valley WSC	Archer	Red	406	385	359	339	318	298
Windthorst WSC	Archer	Red	328	315	302	289	275	259
County-Other	Archer	Red	8	10	11	13	14	15
Manufacturing	Archer	Red	0	0	0	0	0	0
Livestock	Archer	Red	38	20	2	0	0	0
Baylor SUD*	Archer	Trinity	0	0	0	0	0	0
County-Other	Archer	Trinity	0	0	1	1	1	1
Mining	Archer	Trinity	0	0	0	0	0	0
Livestock	Archer	Trinity	0	0	0	0	0	0
Baylor SUD*	Baylor	Brazos	16	16	15	18	18	19
Seymour	Baylor	Brazos	88	95	102	94	86	97
Mining	Baylor	Brazos	0	0	0	0	0	0
Livestock	Baylor	Brazos	0	0	0	0	0	0
Irrigation	Baylor	Brazos	1	3	3	4	4	(206)
Baylor SUD*	Baylor	Red	1	2	2	2	2	2
County-Other	Baylor	Red	1	1	0	0	0	0
Mining	Baylor	Red	0	0	0	0	0	0
Livestock	Baylor	Red	0	0	0	0	0	0
Irrigation	Baylor	Red	0	(2)	(2)	(3)	(3)	(75)
Dean Dale WSC	Clay	Red	446	420	388	355	323	289
Henrietta	Clay	Red	521	562	606	645	683	720
Red River Authority of Texas*	Clay	Red	(19)	(9)	4	12	20	29
Windthorst WSC	Clay	Red	158	153	145	140	136	132
County-Other	Clay	Red	99	141	185	226	266	304

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DRAFT Region B Water User Group (WUG) Needs or Surplus

			Water Supply Needs or Surplus (acre-feet per year)					
WUG Name	County	Basin	2030	2040	2050	2060	2070	2080
Livestock	Clay	Red	0	0	0	0	0	0
Irrigation	Clay	Red	1,150	1,146	1,143	1,139	1,135	1,131
County-Other	Clay	Trinity	43	48	53	59	64	69
Mining	Clay	Trinity	0	0	0	0	0	0
Livestock	Clay	Trinity	4	4	4	4	4	4
Irrigation	Clay	Trinity	0	0	0	0	0	0
Paducah	Cottle	Red	53	25	36	39	41	41
Red River Authority of Texas*	Cottle	Red	5	6	7	7	7	7
County-Other	Cottle	Red	6	7	7	7	7	8
Mining	Cottle	Red	0	0	0	0	0	0
Livestock	Cottle	Red	17	17	17	17	17	17
Irrigation	Cottle	Red	0	0	0	0	0	0
Crowell	Foard	Red	27	34	40	43	46	48
Red River Authority of Texas*	Foard	Red	17	22	25	28	31	34
County-Other	Foard	Red	3	5	6	7	6	7
Livestock	Foard	Red	0	0	0	0	0	0
Irrigation	Foard	Red	811	811	811	811	572	811
Chillicothe	Hardeman	Red	13	17	18	20	20	22
Quanah	Hardeman	Red	64	76	89	98	104	112
Red River Authority of Texas*	Hardeman	Red	35	43	50	55	59	62
County-Other	Hardeman	Red	10	13	15	16	19	21
Manufacturing	Hardeman	Red	0	0	0	0	0	0
Mining	Hardeman	Red	0	0	0	0	0	0
Livestock	Hardeman	Red	55	55	55	55	55	55
Irrigation	Hardeman	Red	141	141	141	141	141	141
County-Other	King	Brazos	0	0	0	(1)	(1)	(1)
Mining	King	Brazos	0	0	0	0	0	0
Livestock	King	Brazos	0	0	0	0	0	0
Red River Authority of Texas*	King	Red	11	12	11	11	10	10
County-Other	King	Red	3	3	3	3	3	3
Livestock	King	Red	0	0	0	0	0	0
Irrigation	King	Red	0	0	0	0	0	0
Bowie	Montague	Red	(10)	(11)	(11)	(12)	(12)	(13)
Nocona	Montague	Red	147	38	(74)	(186)	(298)	(410)
Nocona Hills WSC	Montague	Red	41	48	55	64	71	78

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DRAFT Region B Water User Group (WUG) Needs or Surplus

WUG Name	County	Basin	Water Supply Needs or Surplus (acre-feet per year)					
			2030	2040	2050	2060	2070	2080
Red River Authority of Texas*	Montague	Red	9	9	10	11	12	12
County-Other	Montague	Red	(17)	(75)	(135)	(194)	(254)	(313)
Livestock	Montague	Red	0	0	0	0	0	0
Irrigation	Montague	Red	17	17	17	17	17	17
Bowie	Montague	Trinity	(92)	(235)	(384)	(533)	(684)	(834)
Saint Jo	Montague	Trinity	34	(6)	(47)	(87)	(128)	(168)
County-Other	Montague	Trinity	(113)	(196)	(283)	(369)	(454)	(541)
Mining	Montague	Trinity	0	0	0	0	0	0
Livestock	Montague	Trinity	1	1	1	1	1	1
Irrigation	Montague	Trinity	54	54	54	54	54	54
Burkburnett	Wichita	Red	1,407	1,365	1,337	1,315	1,293	1,269
Dean Dale WSC	Wichita	Red	216	196	179	165	153	139
Electra	Wichita	Red	(25)	(40)	(46)	(50)	(53)	(57)
Harrold WSC	Wichita	Red	(1)	(1)	(1)	(1)	(1)	(2)
Holliday	Wichita	Red	0	1	1	1	0	0
Iowa Park	Wichita	Red	223	192	165	146	127	106
Sheppard Air Force Base	Wichita	Red	61	12	(39)	(83)	(128)	(172)
Wichita Falls	Wichita	Red	1,152	739	533	426	285	131
Wichita Valley WSC	Wichita	Red	733	696	658	622	591	556
County-Other	Wichita	Red	352	339	334	328	324	320
Manufacturing	Wichita	Red	84	43	(4)	(49)	(95)	(146)
Mining	Wichita	Red	0	0	0	0	0	0
Steam Electric Power	Wichita	Red	(1)	(3)	(4)	(5)	(5)	(6)
Livestock	Wichita	Red	0	0	0	0	0	0
Irrigation	Wichita	Red	(5,007)	(5,963)	(6,920)	(7,878)	(8,834)	(9,790)
Harrold WSC	Wilbarger	Red	(1)	(1)	(2)	(2)	(2)	(3)
Red River Authority of Texas*	Wilbarger	Red	44	52	64	76	86	96
Vernon	Wilbarger	Red	475	497	536	569	600	627
County-Other	Wilbarger	Red	29	33	40	45	49	54
Manufacturing	Wilbarger	Red	0	0	0	0	0	0
Mining	Wilbarger	Red	0	0	0	0	0	0
Steam Electric Power	Wilbarger	Red	(2,990)	(3,127)	(3,264)	(3,401)	(3,538)	(3,675)
Livestock	Wilbarger	Red	764	764	764	764	764	764
Irrigation	Wilbarger	Red	0	0	0	0	0	0

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DRAFT Region B Water User Group (WUG) Needs or Surplus

			Water Supply Needs or Surplus (acre-feet per year)					
WUG Name	County	Basin	2030	2040	2050	2060	2070	2080
Baylor SUD*	Young	Brazos	2	3	4	4	5	5
Olney	Young	Brazos	662	536	475	421	364	306
County-Other*	Young	Brazos	(19)	(15)	(14)	(13)	(10)	(7)
Livestock*	Young	Brazos	81	81	81	81	81	81
Irrigation*	Young	Brazos	(3)	(3)	(3)	(3)	(3)	(3)
Baylor SUD*	Young	Trinity	0	0	0	0	0	0
Livestock*	Young	Trinity	(15)	(15)	(15)	(15)	(15)	(15)

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DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Archer County Municipal WUG Type						
Existing WUG supply total	2,132	2,611	22.5%	1,649	2,136	29.5%
Projected demand total	1,693	1,370	-19.1%	1,656	1,070	-35.4%
Water supply needs total**	147	0	-100.0%	343	0	-100.0%
Archer County Manufacturing WUG Type						
Existing WUG supply total	3	1	-66.7%	3	1	-66.7%
Projected demand total	3	1	-66.7%	3	1	-66.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Archer County Mining WUG Type						
Existing WUG supply total	82	1	-98.8%	76	1	-98.7%
Projected demand total	483	1	-99.8%	213	1	-99.5%
Water supply needs total**	401	0	-100.0%	137	0	-100.0%
Archer County Livestock WUG Type						
Existing WUG supply total	2,285	1,724	-24.6%	2,285	1,686	-26.2%
Projected demand total	2,165	1,686	-22.1%	2,165	1,686	-22.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Archer County Irrigation WUG Type						
Existing WUG supply total	724	0	-100.0%	494	0	-100.0%
Projected demand total	1,251	0	-100.0%	1,251	0	-100.0%
Water supply needs total**	527	0	-100.0%	757	0	-100.0%
Baylor County Municipal WUG Type						
Existing WUG supply total	897	744	-17.1%	892	705	-21.0%
Projected demand total	685	638	-6.9%	669	599	-10.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Baylor County Mining WUG Type						
Existing WUG supply total	20	10	-50.0%	20	10	-50.0%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs

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DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Projected demand total	14	10	-28.6%	13	10	-23.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Baylor County Livestock WUG Type						
Existing WUG supply total	1,190	963	-19.1%	1,190	963	-19.1%
Projected demand total	1,190	963	-19.1%	1,190	963	-19.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Baylor County Irrigation WUG Type						
Existing WUG supply total	5,017	5,071	1.1%	5,017	5,071	1.1%
Projected demand total	4,949	5,070	2.4%	4,949	5,070	2.4%
Water supply needs total**	0	0	0.0%	0	3	100.0%
Clay County Municipal WUG Type						
Existing WUG supply total	2,399	2,833	18.1%	2,194	2,601	18.6%
Projected demand total	1,796	1,585	-11.7%	1,734	1,109	-36.0%
Water supply needs total**	10	19	90.0%	89	0	-100.0%
Clay County Mining WUG Type						
Existing WUG supply total	786	4	-99.5%	401	4	-99.0%
Projected demand total	786	4	-99.5%	357	4	-98.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Clay County Livestock WUG Type						
Existing WUG supply total	2,101	1,447	-31.1%	2,101	1,447	-31.1%
Projected demand total	2,101	1,443	-31.3%	2,101	1,443	-31.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Clay County Irrigation WUG Type						
Existing WUG supply total	1,670	2,508	50.2%	1,652	2,493	50.9%
Projected demand total	1,629	1,358	-16.6%	1,629	1,358	-16.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Cottle County Municipal WUG Type						
Existing WUG supply total	708	360	-49.2%	708	305	-56.9%
Projected demand total	336	296	-11.9%	333	250	-24.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Cottle County Mining WUG Type						
Existing WUG supply total	41	6	-85.4%	31	6	-80.6%
Projected demand total	41	6	-85.4%	31	6	-80.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Cottle County Livestock WUG Type						
Existing WUG supply total	551	393	-28.7%	551	393	-28.7%
Projected demand total	551	376	-31.8%	551	376	-31.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Cottle County Irrigation WUG Type						
Existing WUG supply total	4,111	4,319	5.1%	4,011	4,319	7.7%
Projected demand total	3,926	4,319	10.0%	3,926	4,319	10.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Foard County Municipal WUG Type						
Existing WUG supply total	494	210	-57.5%	338	205	-39.3%
Projected demand total	228	163	-28.5%	224	122	-45.5%
Water supply needs total**	0	0	0.0%	24	0	-100.0%
Foard County Mining WUG Type						
Existing WUG supply total	12	0	-100.0%	11	0	-100.0%
Projected demand total	12	0	-100.0%	11	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Foard County Livestock WUG Type						
Existing WUG supply total	401	379	-5.5%	401	379	-5.5%

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DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Projected demand total	401	379	-5.5%	401	379	-5.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Foard County Irrigation WUG Type						
Existing WUG supply total	3,300	3,300	0.0%	3,300	3,061	-7.2%
Projected demand total	3,213	2,489	-22.5%	3,213	2,489	-22.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Hardeman County Municipal WUG Type						
Existing WUG supply total	860	664	-22.8%	646	634	-1.9%
Projected demand total	686	542	-21.0%	716	432	-39.7%
Water supply needs total**	0	0	0.0%	148	0	-100.0%
Hardeman County Manufacturing WUG Type						
Existing WUG supply total	528	225	-57.4%	454	260	-42.7%
Projected demand total	483	225	-53.4%	483	260	-46.2%
Water supply needs total**	0	0	0.0%	29	0	-100.0%
Hardeman County Mining WUG Type						
Existing WUG supply total	19	5	-73.7%	19	5	-73.7%
Projected demand total	17	5	-70.6%	18	5	-72.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Hardeman County Livestock WUG Type						
Existing WUG supply total	649	442	-31.9%	649	442	-31.9%
Projected demand total	646	387	-40.1%	646	387	-40.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Hardeman County Irrigation WUG Type						
Existing WUG supply total	12,498	18,431	47.5%	12,498	18,431	47.5%
Projected demand total	12,498	18,290	46.3%	12,498	18,290	46.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs

**WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2021 RWP 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 county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the water supply needs totals.

DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
King County Municipal WUG Type						
Existing WUG supply total	104	76	-26.9%	103	80	-22.3%
Projected demand total	77	62	-19.5%	76	68	-10.5%
Water supply needs total**	0	0	0.0%	0	1	100.0%
King County Mining WUG Type						
Existing WUG supply total	331	4	-98.8%	219	4	-98.2%
Projected demand total	331	4	-98.8%	219	4	-98.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
King County Livestock WUG Type						
Existing WUG supply total	422	446	5.7%	422	446	5.7%
Projected demand total	419	446	6.4%	419	446	6.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
King County Irrigation WUG Type						
Existing WUG supply total	0	245	100.0%	0	245	100.0%
Projected demand total	0	245	100.0%	0	245	100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Montague County Municipal WUG Type						
Existing WUG supply total	3,960	3,554	-10.3%	3,652	3,421	-6.3%
Projected demand total	3,263	3,555	8.9%	3,324	5,168	55.5%
Water supply needs total**	0	232	100.0%	305	1,830	500.0%
Montague County Manufacturing WUG Type						
Existing WUG supply total	1	0	-100.0%	1	0	-100.0%
Projected demand total	1	0	-100.0%	1	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Montague County Mining WUG Type						
Existing WUG supply total	2,351	34	-98.6%	800	34	-95.8%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs

**WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2021 RWP 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 county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the water supply needs totals.

DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Projected demand total	2,577	34	-98.7%	777	34	-95.6%
Water supply needs total**	277	0	-100.0%	0	0	0.0%
Montague County Livestock WUG Type						
Existing WUG supply total	1,704	1,475	-13.4%	1,704	1,475	-13.4%
Projected demand total	1,704	1,474	-13.5%	1,704	1,474	-13.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Montague County Irrigation WUG Type						
Existing WUG supply total	889	496	-44.2%	889	496	-44.2%
Projected demand total	584	425	-27.2%	584	425	-27.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Wichita County Municipal WUG Type						
Existing WUG supply total	24,207	24,465	1.1%	19,341	20,732	7.2%
Projected demand total	21,706	20,347	-6.3%	22,571	18,141	-19.6%
Water supply needs total**	357	26	-92.7%	4,994	182	-96.4%
Wichita County Manufacturing WUG Type						
Existing WUG supply total	1,188	964	-18.9%	997	923	-7.4%
Projected demand total	1,100	880	-20.0%	1,100	1,018	-7.5%
Water supply needs total**	0	0	0.0%	103	95	-7.8%
Wichita County Mining WUG Type						
Existing WUG supply total	61	45	-26.2%	44	45	2.3%
Projected demand total	61	45	-26.2%	44	45	2.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Wichita County Steam Electric Power WUG Type						
Existing WUG supply total	30	19	-36.7%	24	15	-37.5%
Projected demand total	31	20	-35.5%	31	20	-35.5%
Water supply needs total**	1	1	0.0%	7	5	-28.6%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs

**WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2021 RWP 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 county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the water supply needs totals.

DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Wichita County Livestock WUG Type						
Existing WUG supply total	975	718	-26.4%	975	718	-26.4%
Projected demand total	975	718	-26.4%	975	718	-26.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Wichita County Irrigation WUG Type						
Existing WUG supply total	16,704	21,650	29.6%	9,680	17,823	84.1%
Projected demand total	39,156	26,657	-31.9%	39,156	26,657	-31.9%
Water supply needs total**	22,452	5,007	-77.7%	29,476	8,834	-70.0%
Wilbarger County Municipal WUG Type						
Existing WUG supply total	2,796	2,682	-4.1%	2,791	2,538	-9.1%
Projected demand total	2,505	2,135	-14.8%	2,702	1,805	-33.2%
Water supply needs total**	18	1	-94.4%	69	2	-97.1%
Wilbarger County Manufacturing WUG Type						
Existing WUG supply total	1,048	1,110	5.9%	1,035	1,284	24.1%
Projected demand total	1,048	1,110	5.9%	1,048	1,284	22.5%
Water supply needs total**	0	0	0.0%	13	0	-100.0%
Wilbarger County Mining WUG Type						
Existing WUG supply total	40	32	-20.0%	40	32	-20.0%
Projected demand total	20	32	60.0%	18	32	77.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Wilbarger County Steam Electric Power WUG Type						
Existing WUG supply total	5,409	2,888	-46.6%	3,005	2,340	-22.1%
Projected demand total	7,711	5,878	-23.8%	7,711	5,878	-23.8%
Water supply needs total**	2,302	2,990	29.9%	4,706	3,538	-24.8%
Wilbarger County Livestock WUG Type						
Existing WUG supply total	965	1,544	60.0%	965	1,544	60.0%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs

**WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2021 RWP 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 county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the water supply needs totals.

DRAFT Region B 2026 Regional Water Plan (RWP) Water User Group (WUG) Data Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Projected demand total	965	780	-19.2%	965	780	-19.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Wilbarger County Irrigation WUG Type						
Existing WUG supply total	29,347	26,736	-8.9%	29,347	26,736	-8.9%
Projected demand total	29,289	26,736	-8.7%	29,289	26,736	-8.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Young County Municipal WUG Type						
Existing WUG supply total	829	1,199	44.6%	671	906	35.0%
Projected demand total	652	554	-15.0%	715	547	-23.5%
Water supply needs total**	0	19	100.0%	56	10	-82.1%
Young County Livestock WUG Type						
Existing WUG supply total	122	122	0.0%	122	122	0.0%
Projected demand total	122	56	-54.1%	122	56	-54.1%
Water supply needs total**	0	15	100.0%	0	15	100.0%
Young County Irrigation WUG Type						
Existing WUG supply total	3	3	0.0%	3	3	0.0%
Projected demand total	3	6	100.0%	3	6	100.0%
Water supply needs total**	0	3	100.0%	0	3	100.0%
Region B Total						
Existing WUG supply total	136,964	137,158	0.1%	118,421	127,520	7.7%
Projected demand total	156,083	133,805	-14.3%	154,535	132,216	-14.4%
Water supply needs total**	26,492	8,313	-68.6%	41,256	14,518	-64.8%

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**WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2021 RWP 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 county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the water supply needs totals.

DRAFT Region B 2026 Regional Water Plan (RWP)

Source Availability Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Archer County						
Groundwater availability total	660	660	0.0%	660	660	0.0%
Surface Water availability total	2,375	1,486	-37.4%	2,375	1,486	-37.4%
Baylor County						
Groundwater availability total	7,390	7,390	0.0%	6,990	6,990	0.0%
Reuse availability total	63	63	0.0%	63	63	0.0%
Surface Water availability total	964	783	-18.8%	964	783	-18.8%
Clay County						
Groundwater availability total	2,787	2,787	0.0%	2,787	2,787	0.0%
Surface Water availability total	5,637	4,131	-26.7%	5,637	4,131	-26.7%
Cottle County						
Groundwater availability total	13,421	13,421	0.0%	13,421	13,421	0.0%
Surface Water availability total	182	121	-33.5%	182	121	-33.5%
Foard County						
Groundwater availability total	11,709	10,544	-9.9%	10,707	9,542	-10.9%
Surface Water availability total	370	341	-7.8%	370	341	-7.8%
Hardeman County						
Groundwater availability total	21,555	22,724	5.4%	41,383	42,552	2.8%
Surface Water availability total	553	373	-32.5%	553	373	-32.5%
King County						
Groundwater availability total	1,050	699	-33.4%	1,050	699	-33.4%
Surface Water availability total	142	134	-5.6%	142	134	-5.6%
Montague County						
Groundwater availability total	7,875	10,104	28.3%	7,875	10,104	28.3%
Reuse availability total	367	34	-90.7%	16	34	112.5%
Surface Water availability total	1,736	1,406	-19.0%	1,736	1,406	-19.0%
Reservoir** County						
Surface Water availability total	44,493	53,625	20.5%	27,770	43,009	54.9%
Wichita County						
Groundwater availability total	3,135	3,135	0.0%	3,131	3,131	0.0%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs.

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

DRAFT Region B 2026 Regional Water Plan (RWP) Source Availability Comparison to 2021 RWP

Water Volumes Shown in Acre-Feet per year

	2030 Planning Decade*			2070 Planning Decade*		
	2021 RWP	2026 RWP	Difference (%)	2021 RWP	2026 RWP	Difference (%)
Reuse availability total	9,325	9,325	0.0%	9,325	9,325	0.0%
Surface Water availability total	4,523	2,106	-53.4%	4,523	2,106	-53.4%
Wilbarger County						
Groundwater availability total	33,050	33,050	0.0%	33,050	33,050	0.0%
Surface Water availability total	1,742	692	-60.3%	1,742	692	-60.3%
Young County						
Groundwater availability total	700	700	0.0%	700	700	0.0%
Reuse availability total	5	5	0.0%	5	5	0.0%
Surface Water availability total	122	45	-63.1%	122	45	-63.1%
Region B Total						
Groundwater availability total	103,332	105,214	1.8%	121,754	123,636	1.5%
Reuse availability total	9,760	9,427	-3.4%	9,409	9,427	0.2%
Surface Water availability total	62,839	65,243	3.8%	46,116	54,627	18.5%

*The 2030 and 2070 planning decades are used in this comparison because they represent the earliest and latest planning decades in both the 2021 and 2026 RWPs.

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

APPENDIX C
WAM Modification Request and TWDB Approval

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules¹ require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: B

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

Brazos River WAM limited to the portions of those basins within Region B.

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

To best represent how local supplies are managed the following modifications will be needed to a better basis for planning.

- One-Year Safe Yield

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

Yes

A similar request was submitted as part of the 2021 Plan.

¹ 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

No

Choose an item.

Since the Brazos River WAM has been extended by TCEQ there is no need to request extended models. It is likely that this model captures the new drought of record from 2011-2014.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferable for drought planning purposes.

Yes

Existing and Strategy Supply

One-year safe yield is defined as the maximum annual diversion that can be taken from a reservoir during a repeat of drought-of-record conditions with a minimum reserve supply equal to that annual maximum diversion.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

No

Choose an item.

Click or tap here to enter text.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

No

Choose an item.

Click or tap here to enter text.

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation², system or reservoir operations, or special operational procedures into the WAM.

Yes

Existing and Strategy Supply

- Updating sedimentation for reservoirs based on TWDB volumetric surveys for 2030 and 2080 conditions.

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

No

Choose an item.

[Click or tap here to enter text.](#)

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

No

[Click or tap here to enter text.](#)

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

[Click or tap here to enter text.](#)

² Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules¹ require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: B

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

Red River WAM limited to the portions of those basins within Region B.

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

To best represent how local supplies are managed the following modifications will be needed to a better basis for planning.

- 20 percent reserve (20% of conservation storage remaining in the reservoir at all times)

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

Yes

A similar request was submitted as part of the 2021 Plan, however, in this request, all reservoirs in the Red River Basin will include the 20 percent reserve safe yield. The 2021 Plan

¹ 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

request only included the 20% reserve for the City of Wichita Falls Supplies (Kickapoo, Arrowhead and the Kemp-Diversion reservoir system).

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

No

Choose an item.

Since the Red River WAM has been extended by TCEQ there is no need to request extended models. It is likely that this model captures the new drought of record from 2011-2014.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferable for drought planning purposes.

Yes

Existing and Strategy Supply

To maintain reservoir supply operations during a repeat of drought-of-record conditions, a minimum reserve supply equal to 20 percent of the conservation storage will be maintained in each Region B supply reservoir in the Red River Basin.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

No

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

No

Choose an item.

[Click or tap here to enter text.](#)

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation², system or reservoir operations, or special operational procedures into the WAM.

Yes

Existing and Strategy Supply

- Modeling Kemp and Diversion reservoirs as a system rather than as individual reservoirs
- Updating sedimentation for reservoirs based on TWDB volumetric surveys for 2030 and 2080 conditions.

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

No

Choose an item.

Click or tap here to enter text.

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

No

Click or tap here to enter text.

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

Click or tap here to enter text.

² Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules¹ require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: B

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

Trinity River WAM limited to the portions of those basins within Region B.

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

To best represent how local supplies are managed the following modifications will be needed to a better basis for planning.

- One-Year Safe Yield

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

Yes

A similar request was submitted as part of the 2021 Plan.

¹ 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

No

Choose an item.

The Trinity WAM has not been extended, but it is unclear if a new drought of record has occurred in this portion of the basin.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferable for drought planning purposes.

Yes

Existing and Strategy Supply

One-year safe yield is defined as the maximum annual diversion that can be taken from a reservoir during a repeat of drought-of-record conditions with a minimum reserve supply equal to that annual maximum diversion.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

No

Choose an item.

Click or tap here to enter text.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

No

Choose an item.

Click or tap here to enter text.

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation², system or reservoir operations, or special operational procedures into the WAM.

Yes

Existing and Strategy Supply

- Updating sedimentation for reservoirs based on TWDB volumetric surveys for 2030 and 2080 conditions.

9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

No

Choose an item.

[Click or tap here to enter text.](#)

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

No

[Click or tap here to enter text.](#)

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

[Click or tap here to enter text.](#)

² Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

November 27, 2023

Jeff Walker
Texas Water Development Board
1700 North Congress
Austin, Texas 78711-3231

Re: Amended Hydrologic Variance Requests for Water Availability Determination in Region B

Dear Mr. Walker,

Region B submitted a hydrologic variance request to the TWDB on October 26, 2023. This request was for surface water modeling for the three river basins in Region B (Brazos, Red and Trinity). While evaluating the water availability in the Red River Basin, we identified several other changes to the Red River WAM. These changes are consistent with how the basin is operated and better reflect water availability in Region B. This amended request was approved by the Region B Water Planning Group during a meeting on November 15, 2023.

Attached is an amended Surface Water Hydrologic Checklist for the Red River Basin and supplemental information that details the reasons for the request.

Please contact me at 817-735-7446 or Jon Albright of Freese and Nichols at 817-735-7267 if you have any questions regarding our request.

Sincerely,



Simone Kiel
Region B Lead Consultant, Freese and Nichols

Supplemental Information for Hydrologic Variance Request for Region B
Red River Basin
November 27, 2023

Subordination of Water Rights in Lake Texoma

The Red River WAM used for previous regional water planning was originally developed in 2001 and included hydrology through 1998. This WAM has unique considerations since it must respect Texas water rights authorizations and the Red River Compact. The Red River Compact addresses the split of water between Texas and adjoining states. In the vicinity of Region B, the water in the Red River and downstream in Lake Texoma is shared by Texas and Oklahoma equally (50-50). All water originating in Texas and upstream of the Red River is owned solely by Texas.

In 2021, TCEQ updated the Red River WAM. These updates included extended hydrology through 2018 and other corrections identified during the update. One of these corrections was the inflows to Lake Texoma. The original Red River WAM Run 3 had double counted the inflows from Oklahoma directly into Lake Texoma. This was corrected for the 2021 Red River WAM. However, neither WAM (2001 or 2021) included inflows to the Red River from tributaries in Oklahoma upstream of Texoma in Run 3. As a result, the inflows to Texoma in the 2021 WAM were reduced from the 2001 WAM. However, the actual inflows to Texoma would be greater if the tributary flows from Oklahoma were considered. This inconsistency in how Oklahoma flows are treated results in unnecessary calls for passing upstream Texas inflows to meet senior water rights, which affect the water availability in Region B.

Review of the WAM identified two water rights affecting the supply for Lake Arrowhead. These rights include CA4901, a 1952 water right for the City of Denison and an equivalent water right for Oklahoma at the same priority date. The Oklahoma water right does not represent a real authorization by the state of Oklahoma – it is an assumption that was made in the WAM to mirror Texas authorizations with equivalent authorizations for Oklahoma. The Oklahoma water right should not impact water availability for Texas water rights. The Denison water right diverts water from Lake Texoma to Lake Randell for municipal and industrial use. Lake Texoma has plenty of storage to accommodate this water right and Denison would likely never call for upstream flows. We are unaware of any priority call being made by Denison to meet its needs.

This change in the functionality of the Red River WAM as it pertains to upstream water rights is the result of three things:

1. Correction of the error in Oklahoma inflows to Lake Texoma in the 2021 WAM update
2. Omission of inflows from Oklahoma upstream of Lake Texoma, which results in an underestimation of flows available at Lake Texoma
3. WAM modeling of USACE storage contracts and diversions of individual water right holders in Lake Texoma rather than evaluating the lake as a whole.

To reflect the reliable supply in Region B, we are requesting the inclusion of subordination of senior downstream water rights in Lake Texoma to current and future water supply reservoirs in the Little Wichita River Basin. This request includes the existing Lake Arrowhead and the future Lake Ringgold. Lake Kickapoo is senior to the 1952 water rights in Lake Texoma. Under current supply analyses this

request does not change the water availability for the City of Denison. It is still able to fully divert its water right.

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules¹ require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: B

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

Red River WAM, as applicable to Region B

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

To best represent how local supplies are managed the following modifications will be needed to a better basis for planning.

- Subordinate senior water rights in Lake Texoma to Lake Arrowhead and Lake Ringgold (see attached)
 - Include 20 percent reserve for all reservoirs for reliable supply (20% of conservation storage remaining in the reservoir at all times). Firm yield also will be determined in accordance with the TWDB rules.
3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

¹ 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

No

The Red River WAM was updated in 2021. Changes made in this update resulted in significant increases in pass throughs to downstream water right holders in Lake Texoma, which are not consistent with current operations. (see attached)

The use of the 20 percent reserve for reliable supply was requested for the 2021 Region B plan for the reservoirs used by the City of Wichita Falls, but not for other reservoirs. This request of a 20 percent reserve safe yield is expanded to include all reservoirs in the Red River Basin.

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

No

Choose an item.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferable for drought planning purposes.

Yes

Existing and Strategy Supply

To maintain reservoir supply operations during a repeat of drought-of-record conditions, a minimum reserve supply equal to 20 percent of the conservation storage will be maintained in each Region B supply reservoir in the Red River Basin.

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was calculated, which reservoir(s) it applies to, and why the modification is needed or preferable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

Yes

We are requesting the use of a safe yield that maintains a minimum 20 percent reserve capacity as noted above.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

No

Choose an item.

[Click or tap here to enter text.](#)

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation², system or reservoir operations, or special operational procedures into the WAM.

Yes

Existing and Strategy Supply

- Subordinate senior water right from Lake Texoma to water rights in the Little Wichita River basin. This includes the existing Lake Arrowhead and future Lake Ringgold.
 - Modeling Kemp and Diversion reservoirs as a system rather than as individual reservoirs
 - Updating sedimentation for reservoirs based on TWDB volumetric surveys for 2030 and 2080 conditions.
9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

No

Choose an item.

[Click or tap here to enter text.](#)

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

No

[Click or tap here to enter text.](#)

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

[Click or tap here to enter text.](#)

² Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

January 4, 2024

Mr. Randy Whiteman
Chair
Region B Regional Water Planning Group
c/o Red River Authority
P.O. Box 240
Wichita Falls, Texas 76307

Dear Chairman Whiteman:

I have reviewed your request dated October 26, 2023, and amended request dated November 27, 2023, for approval of alternative water supply assumptions to be used in determining existing and future surface water availability. This letter confirms that the TWDB approves the following assumptions that require a variance:

1. Use of a one-year safe yield for existing and strategy supply from surface water reservoirs within portions of the Trinity and Brazos River Basins within Region B.
2. Modify the TCEQ Red River WAM to include subordination of senior water rights in Lake Texoma to current and future water supply reservoirs (i.e., Lake Arrowhead and Lake Ringgold) in the Little Wichita River Basin.
3. Use of a safe yield that maintains a minimum reserve supply equal to 20 percent of the conservation storage, for existing and strategy supply, in each Region B water supply reservoir within the Red River Basin.
4. Model Kemp and Diversion reservoirs as a system rather than as individual reservoirs in the TCEQ Red River WAM for existing and strategy supply.

Although the TWDB approves the use of a one-year and 20 percent reserve safe yield for developing estimates of current and future water supplies, firm yield for each reservoir must still be reported to TWDB in the online planning database and plan documents.

While the use of these modified conditions may be reasonable for planning purposes, WAM RUN3 would be utilized by the TCEQ for analyzing permit applications. It is acceptable to use the modified conditions for WMS supply evaluations only if the yield produced is more conservative (less) for surface water appropriations than WAM RUN3.

Mr. Randy Whiteman

January 4, 2023

Page 2

While the TWDB authorizes these modification to evaluate existing and future water supplies for development of the 2026 Region B RWP, it is the responsibility of the RWPG to ensure that the resulting estimates of water availability are reasonable for drought planning purposes and will reflect conditions expected in the event of actual drought conditions; and in all other regards will be evaluated in accordance with the most recent version of regional water planning contract Exhibit C, *General Guidelines for Development of the 2026 Regional Water Plans*.

Please do not hesitate to contact Kevin Smith of our Regional Water Planning staff at 512-475-1561 or kevin.smith@twdb.texas.gov if you have any questions.

Sincerely,

Matt Nelson

Deputy Executive Administrator

c: Fabian Heaney, Red River Authority
Jeremy Rice, P.E., Freese & Nichols, Inc.
Kevin Smith, Water Supply Planning
Sarah Lee, Water Supply Planning
Nelun Fernando, Ph.D., Surface Water

Surface Water Hydrologic Variance Request Checklist

Texas Water Development Board (TWDB) rules¹ require that regional water planning groups (RWPG) use most current Water Availability Models (WAM) from the Texas Commission on Environmental Quality (TCEQ) and assume full utilization of existing water rights and no return flows for surface water supply analysis. Additionally, evaluation of existing stored surface water available during Drought of Record conditions must be based on Firm Yield using anticipated sedimentation rates. However, the TWDB rules also allow, and **we encourage**, RWPGs to use more representative, water availability modeling assumptions; better site-specific information; or justified operational procedures other than Firm Yield with written approval (via a Hydrologic Variance) from the Executive Administrator in order to better represent and therefore prepare for expected drought conditions.

RWPGs must use this checklist, which is intended to save time and reduce effort, to request a Hydrologic Variance for estimating the availability of surface water sources. For Questions 4 – 10, please indicate whether the requested variance is for determining Existing Supply, Strategy Supply, or both. Please complete a separate checklist for each river basin in which variances are being requested.

Water Planning Region: B

1. Which major river basin does the request apply to? Please specify if the request only applies part of the basin or only to certain reservoirs.

Red River WAM, as applicable to Region B

2. Please give a brief, bulleted, description of the requested hydrologic variances including how the alternative availability assumptions vary from rule requirements, how the modifications will affect the associated annual availability volume(s) in the regional water plan, and why the variance is necessary or provides a better basis for planning. You must provide more-detailed descriptions in the subsequent checklist questions. Attach any available documentation supporting the request.

To best represent how local supplies are managed the following modifications will be needed to a better basis for planning.

- Subordinate senior water rights in Lake Texoma to Lake Arrowhead and Lake Ringgold (see attached)
- Include 20 percent reserve for reliable supply (20% of conservation storage remaining in the reservoir at all times) for the following reservoirs:
 - Arrowhead
 - Kickapoo
 - Kemp/Diversion system
- Include a one-year safe yield for reservoirs where a 20% reserve supply at all times is not attainable:

¹ 31 Texas Administrative Code (TAC) §§ 357.10(14) and 357.32(c)

- Santa Rosa
- Electra
- North Fork Buffalo Creek
- Olney/Cooper System

3. Was this request submitted in a previous planning cycle? If yes, please indicate which cycle and note how it is different, if at all, from the previous request?

No

The Red River WAM was updated in 2021. Changes made in this update resulted in significant increases in pass throughs to downstream water right holders in Lake Texoma, which are not consistent with current operations. (see attached)

4. Are you requesting to extend the period of record beyond the current applicable WAM hydrologic period? If yes, please describe the proposed methodology. Indicate whether you believe there is a new drought of record in the basin.

No

Choose an item.

5. Are you requesting to use a reservoir safe yield? If yes, please describe in detail how the safe yield would be calculated and defined, which reservoir(s) it would apply to, and why the modification is needed or preferable for drought planning purposes.

Yes

Existing and Strategy Supply

To maintain reservoir supply operations during a repeat of drought-of-record conditions, a minimum reserve supply equal to 20 percent of the conservation storage will be maintained in each of the following Region B supply reservoirs in the Red River Basin:

- Arrowhead
- Kickapoo
- Kemp/Diversion system

A one-year safe yield reserve supply will be maintained in the following Region B supply reservoirs in the Red River Basin:

- Santa Rosa
- Electra
- North Fork Buffalo Creek
- Olney/Cooper System

6. Are you requesting to use a reservoir yield other than firm yield or safe yield? If yes, please describe, in a bulleted list, each modification requested including how the alternative yield was

calculated, which reservoir(s) it applies to, and why the modification is needed or preferable for drought planning purposes. Examples of alternative reservoir yield analyses may include using an alternative reservoir level, conditional reliability, or other special reservoir operations.

Yes

We are requesting the use of a safe yield that maintains a minimum 20 percent reserve capacity as noted above.

7. Are you requesting to use a different model (such as a RiverWare or Excel-based models) than RUN 3 of the applicable TCEQ WAM? If yes, please describe the model being considered including how it incorporates water rights and prior appropriation and how it is more conservative than RUN 3 of the applicable TCEQ WAM.

No

Choose an item.

[Click or tap here to enter text.](#)

8. Are you requesting to use a modified TCEQ WAM? If yes, please describe in a bulleted list all modifications in detail including all specific changes to the WAM and whether the modified WAM is more conservative than the TCEQ WAM RUN 3. Examples of WAM modifications may include adding subordination agreements, contracts, updated water rights, modified spring flows, updated lake evaporation, updated sedimentation², system or reservoir operations, or special operational procedures into the WAM.

Yes

Existing and Strategy Supply

- Subordinate senior water right from Lake Texoma to water rights in the Little Wichita River basin. This includes the existing Lake Arrowhead and future Lake Ringgold.
 - Modeling Kemp and Diversion reservoirs as a system rather than as individual reservoirs
 - Updating sedimentation for reservoirs based on TWDB volumetric surveys for 2030 and 2080 conditions.
9. Are you requesting to include return flows in the modeling? If yes, are you doing so to model an indirect reuse water management strategy (WMS)? Please provide complete details regarding the proposed methodology for determining reuse WMS availability.

No

² Updating anticipated sedimentation rates does not require a hydrologic variance under 31 TAC § 357.10(14). The Technical Memorandum will require providing details regarding the sedimentation methodology utilized. Please consider providing that information with this request.

Choose an item.

Click or tap here to enter text.

10. Are any of the requested Hydrologic Variances also planned to be used by another region for the same basin? If yes, please indicate the other Region. Please indicate if unknown.

No

Click or tap here to enter text.

11. Please describe any other variance requests not captured on this checklist or add any other information regarding the variance requests on this checklist.

Click or tap here to enter text.

APPENDIX D
Methodology for Developing Groundwater Availabilities

TO: Region B Water Planning Group

CC:

FROM: Jeremy Rice

SUBJECT: Groundwater Supplies in Region B Water Planning Area

DATE: 1/31/2024

PROJECT: RRG21896

Executive Summary

This technical memorandum discusses the development of groundwater supplies for regional planning purposes. As required by regional planning rules, Managed Available Groundwater (MAG) values must be used if developed through the Groundwater Joint Planning Process. If no MAGs are developed by the TWDB, then the RWPG develops the groundwater availability values. Table ES-1 presents a summary of the groundwater supplies by aquifer for Region B. More details on how these supplies were developed are provided in this technical memorandum.

As shown in Table ES-1, groundwater supplies in Region B are higher than estimated for the 2021 Regional Water Plan (RWP). This is due in part to the higher Managed Available Groundwater (MAG) estimates for the Trinity Aquifer in Montague County.

Supply estimates for the non-MAG portions of the Cross-Timber Aquifer and "Other Aquifer" (unclassified alluvium) are the same as determined for the 2021 RWP. In total, the groundwater supplies available to Region B range from 105,214 to 123,636 acre-feet per year. The Seymour Aquifer continues to be a significant source of groundwater for the region.

Table ES-1 Summary of Groundwater Supplies in Region B (ac-ft/yr)

Aquifer	2030	2040	2050	2060	2070	2080
Seymour	58,435	64,290	65,430	67,450	76,857	69,461
Blaine	26,700	26,700	26,700	26,700	26,700	26,700
Trinity	6,104	6,104	6,104	6,104	6,104	6,104
Cross-Timbers/Other	13,975	13,975	13,975	13,975	13,975	13,975
Total	105,214	111,069	112,209	114,229	123,636	116,240
Total 2021 RWP	104,337	110,666	111,924	114,013	123,164	-

Introduction

Groundwater in the Regional Water Planning Process

Long-term groundwater supply estimates for regional water planning are based on Modeled Available Groundwater (MAG). MAG values are determined by the Texas Water Development Board (TWDB) and represent the “volume of groundwater production on an average annual basis that will achieve the desired future condition.”¹ Under the joint planning process, Groundwater Conservation Districts (GCDs) within each Groundwater Management Area (GMA) coordinate to determine these desired future conditions (DFCs), which might specify, for example, the maximum average drawdown in each aquifer within a GCD over a 50-year period. According to TWDB rules, the MAG values determined by the TWDB must be used to represent existing groundwater supplies in the regional water plans.

Many counties throughout Texas are not part of a GCD. For these areas, DFCs may be determined directly by the GMA. However, both GCDs and GMAs may designate aquifers in some areas to be non-relevant to the joint planning process, in which case no DFC is set. Subsequently, no MAG is developed by the TWDB, and determination of groundwater availability is left up to the discretion of the regional water planning groups (RWPGs). RWPGs may use values from previous planning cycles, groundwater availability models (GAMs), or other methods.

Groundwater Resources in Region B Water Planning Area

In the Region B Water Planning Area, groundwater is found in the Seymour, the Trinity, the Blaine, and the Cross Timbers aquifers (Figure 1, Figure 2), as well as some unclassified local supplies, referred to as “Other Aquifer” for planning purposes. The Seymour Aquifer consists of a collection of isolated patches of alluvial sediments, which are called “pods.” Due to the independence of each pod, the DFCs for the Seymour Aquifer are typically associated with a specific pod (Figure 3). There are four pods located in Region B (Pods, 4, 5, 7 and 8).

Within Region B, desired future conditions have been set by GMAs 6 and 8. Most of the region lies in GMA 6; however, the portion of the Trinity Aquifer in Region B is limited to Montague County in GMA 8. The Cross Timbers Aquifer was recently designated as a minor aquifer by the TWDB and exists in both GMAs, but no DFCs have yet been set. In previous regional planning rounds, available groundwater from the Cross Timbers has been referred to as “Other Aquifer” source water.

Three GCDs are partly in Region B: Gateway GCD includes Hardeman and Foard Counties, Baylor County is part of the Rolling Plains GCD, and Montague County is a part of the Upper Trinity GCD (Figure 3). It should be noted that the DFCs set by these districts apply to the entire district, including those counties which are outside of Region B. MAGs are determined based on the area associated with a DFC rather than the boundaries of a planning region.

¹ “Second Amended General Guidelines for Development of the 2026 Regional Water Plans” (TWDB, September 2023)

Figure 1. Major Aquifers in Region B

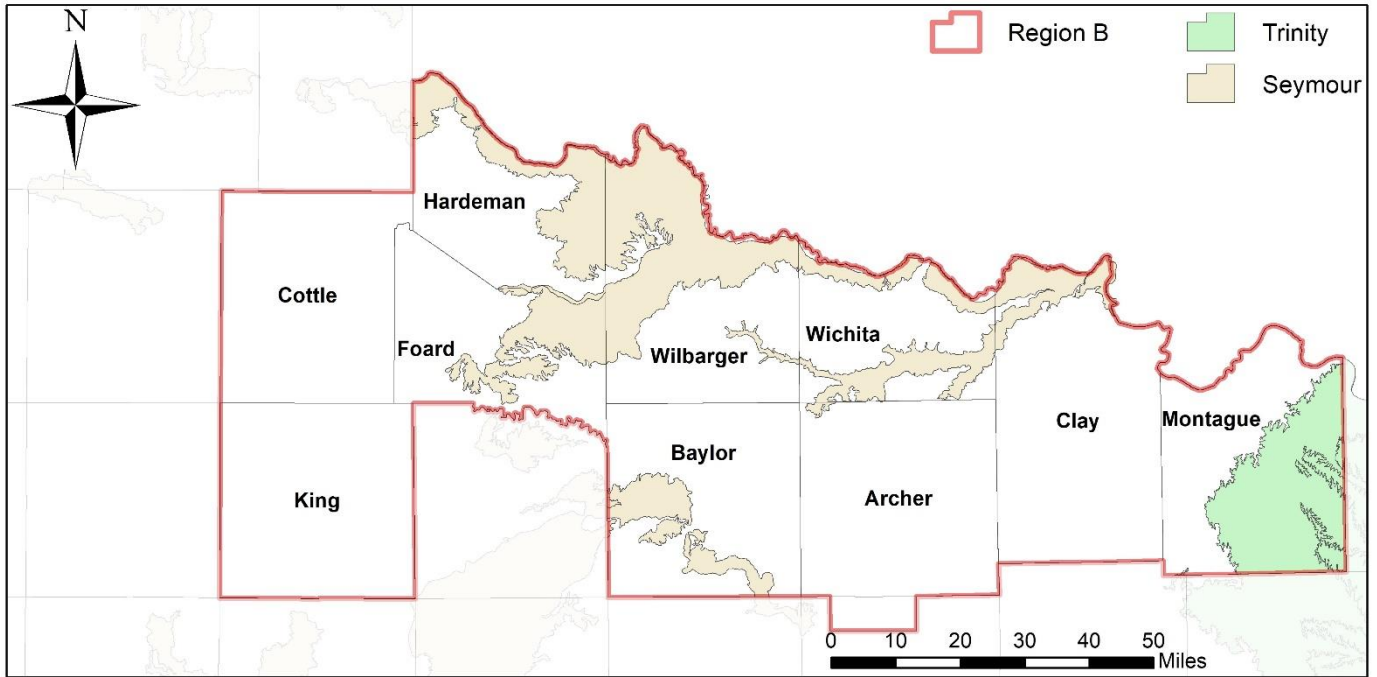


Figure 2. Minor Aquifers in Region B

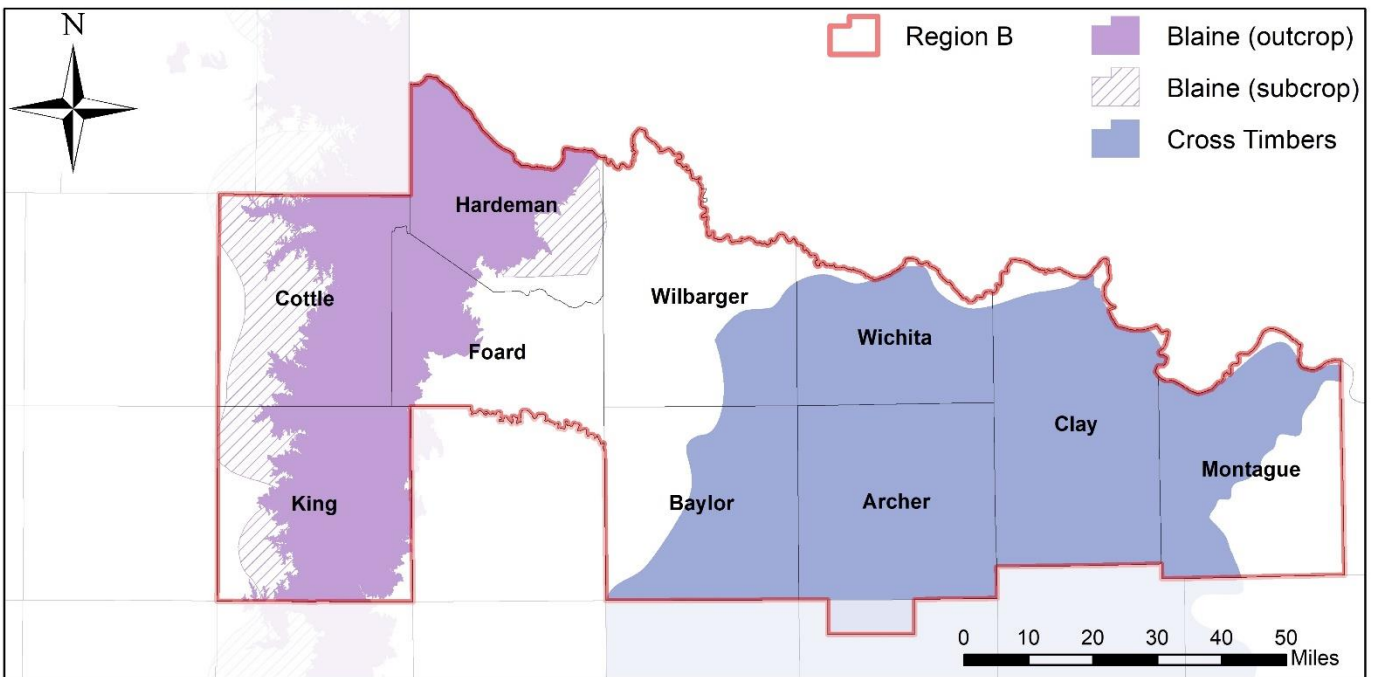
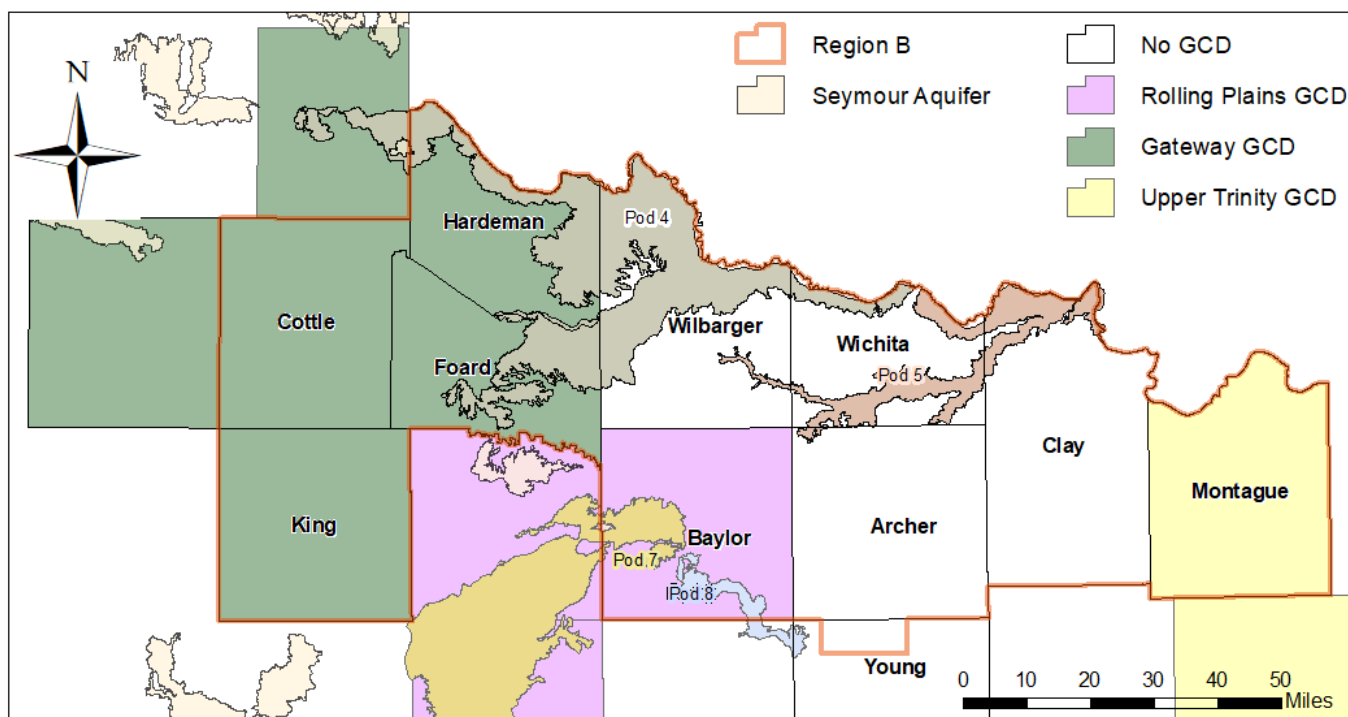


Figure 3. Groundwater Conservation Districts and Pods of the Seymour Aquifer in Region B



Modeled Available Groundwater in Region B

All desired future conditions in Region B are based on a maximum desired amount of drawdown of the groundwater table. For example, Gateway GCD set a DFC of 1 ft average decline (drawdown) for 2030 – 2080. This means that use of groundwater resources in the district should be managed such that the reduction in water table elevation from 2030 to 2080, when averaged spatially over the full extent of Pod 4 in Childress, Hardeman, and Foard Counties, should not exceed 1 foot. However, based on TWDB rules regarding MAG determination, the baseline for assessing a DFC must be a historical condition, so 2030 could not be used as the starting condition. So TWDB determined drawdown as the change in water levels from 2010 to 2080.

GMA 6

As of 11/14/2022, GMA 6 has defined DFCs for the Seymour Aquifer in Foard, Hardeman, and Baylor Counties and the Blaine Aquifer in Cottle, Foard, King, and Hardeman Counties. In Hardeman and Foard Counties, the desired future condition for Pod 4 of the Seymour Aquifer is no more than 1 foot of average decline in groundwater table elevation from 2010 to 2080. The DFC for Pods 7 and 8 of the Seymour Aquifer in Baylor County is no more than 18 feet decline in groundwater table elevation from 2010 to 2080. In Archer, Clay, Wichita, Wilbarger, and Young Counties, the Seymour Aquifer was declared non-relevant. Desired future conditions for the Blaine Aquifer are no more than 2 feet decline in groundwater level in Cottle and Hardeman Counties, no more than 10 feet decline in Foard County, and no more than 7 feet decline in King County. Information on the development of MAG values based on these DFCs can be found in the TWDB report for GAM Run 21-011. The Cross Timbers Aquifer has not yet been included in the joint planning process for GMA 6. DFCs and associated MAGs for GMA 6 are summarized in Table 1.

GMA 8

Desired future conditions for the Trinity Aquifer in Montague County were adopted 11/1/2022, and TWDB updated the MAG values based on this DFC (GAM Run 21-013, completed November 2022). As such, the updated

MAGs will be used for 2026 RWP supplies (Table 1). The Cross Timbers Aquifer has not yet been included in the joint planning process for GMA 8.

Table 1. Modeled Available Groundwater in Region B

Aquifer	County	Modeled Available Groundwater (ac-ft/yr)					
		2030	2040	2050	2060	2070	2080
Seymour (Pod 4)	Foard	3,779	4,209	6,900	6,628	2,777	4,049
	Hardeman	14,209	20,002	18,689	21,116	34,037	26,577
Seymour (Pods 7, 8)	Baylor	7,330	6,962	6,731	6,593	6,930	5,722
Blaine	Cottle	11,621	11,621	11,621	11,621	11,621	11,621
	Foard	6,565	6,565	6,565	6,565	6,565	6,565
	Hardeman	8,465	8,465	8,465	8,465	8,465	8,465
	King	49	49	49	49	49	49
Trinity	Montague	6,104	6,104	6,104	6,104	6,104	6,104

Other Groundwater Supplies in Region B

The Region B Groundwater Technical Committee (Technical Committee) re-adopted the non-MAG availabilities from the 2021 Regional Water Plan to use for the current plan at the August 2, 2023 RWPG meeting for groundwater sources that do not have defined MAGs (non-relevant aquifers and Other Aquifer). For the 2026 RWP, the method for determining these supplies is being determined on a case-by-case basis depending on groundwater availability models, committee input, and the availability of historical pumping data.

Seymour Aquifer in Gateway GCD

As previously discussed in this memorandum, in regional planning the MAGs developed by TWDB must be used to represent groundwater supplies when available. The Technical Committee discussed the published MAGs and agreed that availability of supplies for Foard and Hardeman counties in the Seymour MAG run were appropriate and were thus used for the 2026 RWP.

Seymour Aquifer in Wichita, Archer, and Clay Counties

The Technical Committee decided to use the supply values from the 2021 Region B RWP for the Seymour Aquifer in Wichita, Archer, and Clay Counties, as no additional information has since become available. These values are based on the MAG values determined during the previous Joint Planning Process.

Seymour Aquifer in Wilbarger County

Available supply for the Seymour Aquifer in Wilbarger County in the 2021 Region B RWP was estimated using a modified GAM run of the model used to assess the DFCs for GMA 6. Since Wilbarger County was declared non-relevant, no changes were made to the original GAM model for pumping in Wilbarger County. The Technical Committee recommended using the 2021 RWP estimates from the previously modified GAM model for the 2026 Region B RWP.

Blaine Aquifer in King County

In the previous round of planning the Blaine Aquifer in King County was labeled as non-MAG, however, TWDB changed this designation to be included in the MAG analysis. The Blaine can be very high in minerals (calcium,

etc.), which limits its use in some areas. The 2026 RWP reflects supplies at the level determined by TWDB in King County and was set at 49 ac-ft/yr.

Cross Timbers and Other Aquifers

The Technical Committee discussed the non-modeled aquifers, which include the Cross Timbers (formerly known as the Paleozoic aquifer) and Other aquifer (alluvial sediments). The Technical Committee agreed that there was not any additional information available to warrant further study of these groundwater sources, and Region B should retain the groundwater supplies for “Other Aquifers” from the 2021 RWP. Supplies from alluvial sediments not associated with the Cross Timbers formation will continue to be classified as “Other Aquifer”.

Upon review of the wells listed in the TWDB database for the Cross-Timber Aquifer, there is current production from this formation in Archer, Baylor, Clay, Montague, Wichita and Young Counties. While the formation is present in southwestern Wilbarger County, there are no known wells that produce useable water. There are approximately 120 wells in the non-Seymour alluvial sediments or other formations. The TWDB estimates the water produced from these formations varies from approximately 2,000 to 4,500 acre-feet per year between years 2000 to 2015. The average historical use is approximately 3,050 acre-feet per year in recent years (2010 – 2015). For Wilbarger County, the Other Aquifer supplies are estimated using this average recent historical use. The Other Aquifer supplies for counties that do not contain the Cross Timbers Aquifer (Cottle, Foard, Hardeman and King) will retain the supply estimates from the 2021 RWP.

MAG Peaking Factors

TWDB has introduced a new option for the 6th cycle of regional planning, under which RWPGs may seek to define a “peaking factor” to increase the available groundwater supplies above the published MAGs. After review of the MAGs and historical use, the Groundwater Technical Committee decided to recommend to the RWPG not to pursue this option for any aquifer in Region B at this time.

Draft Groundwater Supplies for Region B

As the Groundwater Technical Committee did not elect to use MAG Peaking Factors, MAG values as published by TWDB (Table 1) will be used to represent groundwater supplies in the 2021 Region B RWP, where available. Pending approval of the RWPG and TWDB, draft groundwater supplies in non-relevant aquifers will be represented as determined by the Groundwater Technical Committee (Table 2).



Table 2. Estimated Available Groundwater Supplies for Non-Relevant Aquifers (ac-ft/yr)

Aquifer	County	Estimated Available Groundwater Supplies (ac-ft/yr)						Comments
		2030	2040	2050	2060	2070	2080	
Seymour	Archer	35	35	35	35	35	35	2016 RWP
	Clay	787	787	787	787	787	787	2016 RWP
	Wichita	2,295	2,295	2,288	2,291	2,291	2,291	2016 RWP
	Wilbarger	30,000	30,000	30,000	30,000	30,000	30,000	modified GAM run
Cross-Timbers	Archer	625	625	625	625	625	625	2016 RWP
	Baylor	60	60	60	60	60	60	2016 RWP
	Clay	2,000	2,000	2,000	2,000	2,000	2,000	2016 RWP
	Montague	4,000	4,000	4,000	4,000	4,000	4,000	2016 RWP
	Wichita	840	840	840	840	840	840	2016 RWP
	Young	700	700	700	700	700	700	2016 RWP
Other Aquifer	Cottle	1,800	1,800	1,800	1,800	1,800	1,800	2016 RWP
	Foard	200	200	200	200	200	200	2016 RWP
	Hardeman	50	50	50	50	50	50	2016 RWP
	King	650	650	650	650	650	650	2016 RWP
	Wilbarger	3,050	3,050	3,050	3,050	3,050	3,050	Historical use (2010-2015)

APPENDIX E
Identifying Potentially Feasible WMSs

Discuss Methodology for Identifying Potentially Feasible WMS for 2026 Plan

Simone Kiel, FNI

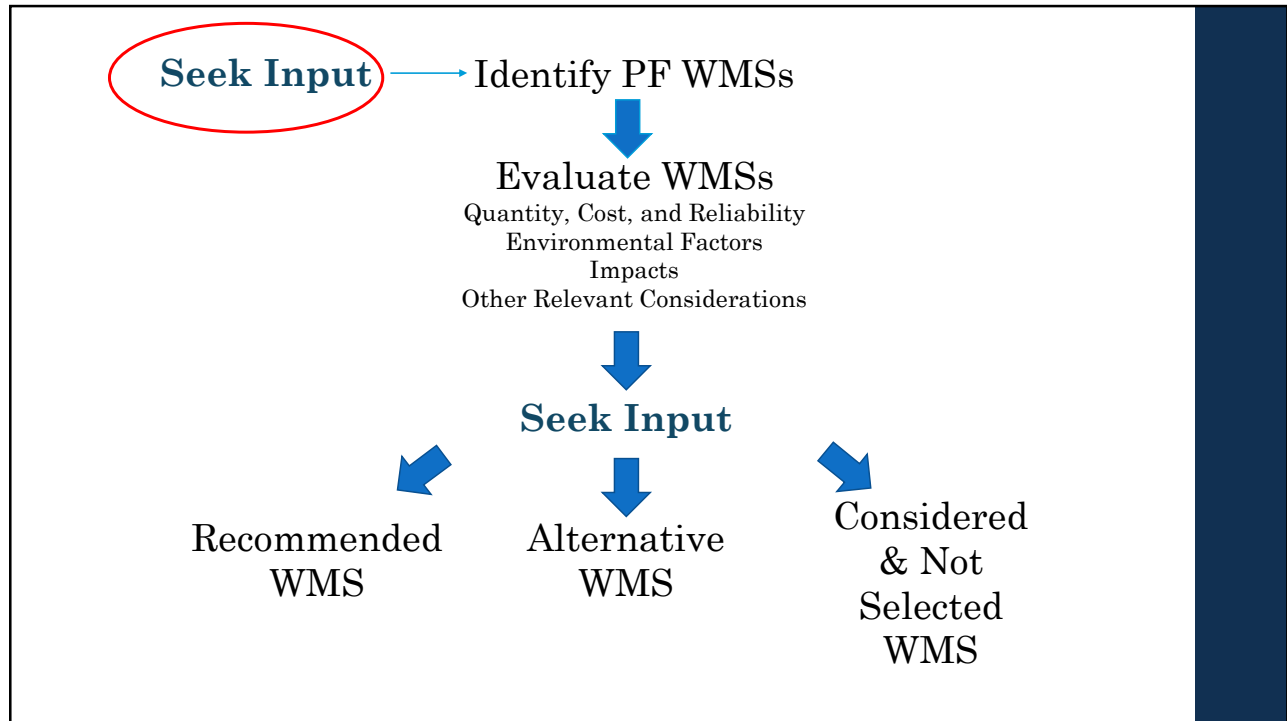
18

Potentially Feasible WMS Review Requirements

From TAC 357.12(b):

“A RWPG shall hold a public meeting to determine the process for identifying potentially feasible water management strategies; the process shall be documented and shall include input received at a public meeting; ...”

19



20

Proposed Methodology

1. Identify entities with needs
2. Review recommended strategies in 2021 plan
3. Review new studies/reports
4. Identify potential new or changed strategies
5. Review strategy types appropriate for Region B
6. Contact entities for input
7. Contact RWPG representatives for county-wide WUGs
8. Verify recommendations

21

Considerations for Feasible Strategies

- A strategy must use proven technology
- A strategy should have an identifiable sponsor
- Must consider end use. Includes water quality, economics, geographic constraints, etc.
- Must meet existing regulations
- 24 Water Management Strategy Types required to consider by TWDB
 - Not all are applicable to every situation
 - Not all are applicable to Region B

22

Additional Considerations for Feasible Strategies

- Is there available existing supply that is not already allocated to another user?
- Can new water be developed? If yes, identify the potential sources.
- Does the water quality meet the end use requirements? If not, can it be treated?
- Are there any technical considerations that would preclude the feasibility of the strategy type? For example, are there suitable geologic formations for aquifer storage and recovery (ASR)?

23

Feasible Strategy Types

- Strategy Types Likely Not Appropriate for Region B
 - Drought Management (not a long-term supply strategy)
 - Precipitation Enhancement
 - Rainwater Harvesting
- Strategy Types Not Appropriate for Region B
 - Marine Seawater Desalination
 - Cancellation of Water Rights

24

Next Steps

- List of Potentially Feasible WMSs
- Strategy Specific Scope of Work for WMSs

25

Additional Public Comment Period

Asking the Planning Group to vote to approve proposed methodology for identification of potentially feasible WMSs

APPENDIX F
List of Potentially Feasible WMSs

REGION B DRAFT LIST OF POTENTIALLY FEASIBLE WATER MANAGEMENT STRATEGIES

ENTITY NAME	POTENTIALLY FEASIBLE WMSs
ARCHER CITY	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
ARCHER COUNTY MUD 1	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
BAYLOR SUD	MUNICIPAL CONSERVATION
BOWIE	MUNICIPAL CONSERVATION DIRECT REUSE FOR MINING
BURKBURNETT	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
CROWELL	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM GREENBELT MIWA
DEAN DALE SUD	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
ELECTRA	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
HARROLD WSC	MUNICIPAL CONSERVATION
HENRIETTA	MUNICIPAL CONSERVATION
HOLLIDAY	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
IOWA PARK	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
LAKESIDE CITY	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
NOCONA	MUNICIPAL CONSERVATION
NOCONA HILLS WSC	MUNICIPAL CONSERVATION
OLNEY	CONSERVATION INDIRECT REUSE
PADUCAH	MUNICIPAL CONSERVATION
QUANAH	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM GREENBELT MIWA

ENTITY NAME	POTENTIALLY FEASIBLE WMSs
RED RIVER AUTHORITY OF TEXAS	MUNICIPAL CONSERVATION PURCHASE FROM GREENBELT MIWA DEVELOP GROUNDWATER WELLS RED RIVER CHLORIDE CONTROL PROJECT
SAINT JO	MUNICIPAL CONSERVATION
SCOTLAND	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
SEYMOUR	MUNICIPAL CONSERVATION
SHEPPARD AIR FORCE BASE	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
VERNON	MUNICIPAL CONSERVATION DIRECT REUSE (FOR SUPPLY TO MANUFACTURING USERS)
WICHITA COUNTY WATER IMPROVEMENT DISTRICT NO. 2	CANAL CONVERSION TO PIPELINE RED RIVER CHLORIDE CONTROL PROJECT REALLOCATION FROM LAKE KEMP
WICHITA FALLS	MUNICIPAL CONSERVATION WICHITA RIVER SUPPLY DEVELOPMENT OF LAKE RINGGOLD PRECIPITATION ENHANCEMENT REALLOCATION OF LAKE KEMP GROUNDWATER FROM LOCAL SEYMOUR AQUIFER
WICHITA VALLEY WSC	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
WINDTHORST WSC	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
COUNTY-OTHER, BAYLOR	MUNICIPAL CONSERVATION
COUNTY-OTHER, CLAY	MUNICIPAL CONSERVATION PURCHASE WATER FROM HENRIETTA
COUNTY-OTHER, FOARD	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM GREENBELT MIWA THROUGH CROWELL AND RED RIVER AUTHORITY
COUNTY-OTHER, HARDEMAN	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM GREENBELT MIWA THROUGH RED RIVER AUTHORITY
COUNTY-OTHER, MONTAGUE	MUNICIPAL CONSERVATION PURCHASE ADDITIONAL SUPPLY FROM BOWIE AND/OR NOCONA

ENTITY NAME	POTENTIALLY FEASIBLE WMSs
COUNTY-OTHER, WICHITA	MUNICIPAL CONSERVATION FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS PURCHASE ADDITIONAL SUPPLY FROM WICHITA FALLS
COUNTY-OTHER, WILBARGER	MUNICIPAL CONSERVATION PURCHASE WATER FROM VERNON
COUNTY-OTHER, YOUNG	MUNICIPAL CONSERVATION PURCHASE WATER FROM OLNEY
MANUFACTURING, HARDEMAN	PURCHASE ADDITIONAL SUPPLY FROM QUANAH
MANUFACTURING, WICHITA	FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
MANUFACTURING, WILBARGER	PURCHASE WATER FROM VERNON
MANUFACTURING (ALL OTHER COUNTIES)	CONSERVATION
STEAM ELECTRIC POWER, WICHITA	FULFILLMENT OF EXISTING CONTRACT WITH WICHITA FALLS
STEAM ELECTRIC POWER, WILBARGER	CONSERVATION (ALTERNATIVE COOLING)
IRRIGATION (ALL COUNTIES)	CONSERVATION
MINING (ALL COUNTIES)	CONSERVATION

Note: The following strategies were not discussed in the 2021 RWP but can apply to the 2026 RWP, but were not identified exclusively to any particular WUG:

- AQUIFER STORAGE AND RECOVERY WELLS
- MANAGED AQUIFER RECHARGE

APPENDIX G
Interregional Coordination Memos

MEMORANDUM



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TO: Simone Kiel, Region A Consultant
CC: Kristal Williams
FROM: Jeremy Rice and Walter Chandler
SUBJECT: Issues of Interest to Region B and Region A
DATE: 1/18/2024
PROJECT: RRG21896

This is one of a series of memoranda on issues of mutual interest to Region B and other regions in the current round of regional water planning. This memorandum is intended to begin a discussion between Region B and Region A consultants. After reviewing this memorandum, please contact me to discuss how the memorandum should be revised. I can be reached at:

Jeremy Rice
Freese and Nichols, Inc.
5100 E Skelly Dr. Suite 602
Tulsa, Oklahoma 74135
918-238-1930
jeremy.rice@freese.com

The memorandum includes the following sections:

- Shared Water User Groups and Shared Supplies
- Shared Wholesale Water Providers
- Supplies Located in Region A That Are Used in Region B
- Supplies Located in Region B That Are Used in Region A
- Potential Supplies in Region A Being Studied for Use in Region B
- New Supplies in Region B Being Studied for Use in Region A
- Other Issues of Mutual Interest

Please review this memorandum and contact us with your thoughts on the issues covered and other issues that should have been included. We are looking forward to working with you as we complete this round of regional water planning.

Shared Water User Groups and shared supplies

Region B borders two counties of Region A along the northwestern boundary of Region B. Region B is the primary region for the Red River Authority of Texas (RRA) which has service areas in Regions A, B, C, G, O. As such Region B prepared the allocation of supplies for RRA.

It should be noted that Region B submitted revisions to the TWDB population and demands that were not accepted by TWDB but will be used for planning. All demands for Region B portions reflect the RWPG adopted demands with a 15% increase.

	2026 Plan RRA Demands (AF/Y)					
Customers	2030	2040	2050	2060	2070	2080
Red River Authority - Clay County	491	488	486	485	484	482
Red River Authority - Childress County	382	358	352	361	369	378
Red River Authority - Collingsworth County	90	88	83	79	75	72
Red River Authority - Cottle County	29	29	29	30	30	30
Red River Authority - Dickens County	1	1	1	1	1	0
Red River Authority - Donley County	82	76	70	67	64	60
Red River Authority - Foard County	73	73	74	75	77	78
Red River Authority - Grayson County	254	304	347	390	436	486
Red River Authority - Hall County	51	48	45	42	39	36
Red River Authority - Hardeman County	195	193	192	189	186	184
Red River Authority - King County	61	62	62	64	65	66
Red River Authority - Knox County	13	13	12	11	10	8
Red River Authority - Montague County	44	45	46	48	50	50
Red River Authority - Motley County	2	1	1	1	1	1
Red River Authority - Wilbarger County	316	316	318	318	318	318
Total	1,593	1,607	1,632	1,676	1,721	1,767

	RRA Currently Available Supplies (AF/Y)					
Sources	2030	2040	2050	2060	2070	2080
Wichita Falls Supply	383	363	344	326	309	293
Greenbelt Reservoir	532	507	501	507	515	529
Lake Texoma	254	304	347	390	436	486
Ogallala Aquifer - Donley County from Greenbelt MIWA	271	270	270	271	269	263
Ogallala Aquifer - Donley County	52	46	40	37	34	30
Other Aquifer - Cottle County	29	29	29	30	30	30
Other Aquifer - Dickens County	62	63	63	65	66	66
Other Aquifer - Motley County	2	1	1	1	1	1
Seymour Aquifer - Collingsworth County	74	72	67	63	59	56
Seymour Aquifer - Knox County	13	13	12	11	10	8
Seymour Aquifer - Hardeman County	46	46	47	47	47	47
Seymour Aquifer - from Vernon	263	263	264	264	264	264
Trinity Aquifer - Montague County	44	45	46	48	50	50
Total	2,025	2,022	2,031	2,060	2,090	2,123
Surplus or (Shortage)	432	415	400	384	369	357

Shared Wholesale Water Providers

RRA and other Region B WUGs are served water supply through Greenbelt Municipal and Industrial Water Authority (GMIWA) in both regions A and Region B. The following sections discuss the assumed supply amounts for planning purposes.

Region B consultants are coordinating with Region A on Greenbelt. The following reflects our understanding of GMIWA Allocation from Region A.

Panhandle Regional Water Plan						
	2026 Plan DRAFT Demands on Greenbelt (AF/Y)					
Customers	2030	2040	2050	2060	2070	2080
City of Childress	1,274	1,315	1,296	1,261	1,224	1,186
City of Chillicothe	29	29	28	28	27	27
City of Clarendon	298	281	262	251	239	227
City of Crowell	120	119	117	115	113	110
City of Hedley (Donley County-Other)	56	56	56	56	56	56
City of Memphis	37	37	37	37	37	37
City of Quanah	347	343	340	336	331	327
Red River Authority - Childress County	382	358	352	361	369	378
Red River Authority - Collingsworth County	16	16	16	16	16	16
Red River Authority - Donley County	30	30	30	30	30	30
Red River Authority - Foard County	73	73	74	75	77	78
Red River Authority - Hall County	100	100	100	100	100	100
Red River Authority - Hardeman County	195	193	192	189	186	184
Red River Authority - Wilbarger County	7	7	7	7	7	7
Hardeman County Manufacturing	50	50	50	50	50	50
Total	3,013	3,006	2,957	2,912	2,862	2,812

	2026 Plan Currently Available Supply (AF/Y)					
Sources	2030	2040	2050	2060	2070	2080
Ogallala groundwater	1,600	1,577	1,484	1,370	1,245	1,090
Greenbelt Reservoir	3,140	2,947	2,754	2,561	2,368	2,175
Total	4,740	4,524	4,238	3,931	3,613	3,265
Surplus or (Shortage)	1,727	1,518	1,281	1,019	751	453

Supplies Located in Region A That Are Used in Region B

Region B WUGs served by GMIWA

- City of Chillicothe

Water User Group:	Chillicothe - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	72	71	71	70	69	68
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	19	19	18	18	18	18
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	10	10	10	10	9	9
Current Supply Seymour Aquifer (ac-ft/yr)	43	43	42	42	41	41

- City of Crowell

Water User Group:	Crowell - Foard					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	120	119	117	115	113	110
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	80	77	76	75	74	74
Current Supply (Greenbelt MIWA) Ogallala Aquifer Donley County (ac-ft/yr)	41	41	41	40	39	37

- City of Quannah

Water User Group:	Quannah - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	347	343	340	336	331	327
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	230	223	221	219	217	218
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	117	119	119	117	114	109

- RRA – Foard County

Water User Group:	Red River Authority - Foard					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	73	73	74	75	77	78
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	48	48	48	49	50	52
Current Supply (Greenbelt MIWA) Ogallala Aquifer Donley County (ac-ft/yr)	25	25	26	26	26	26

- RRA – Hardeman County

Water User Group:	Red River Authority - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	195	193	192	189	186	184
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	129	126	125	123	122	122
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	66	67	67	66	64	61

- RRA - Wilbarger County

Water User Group:	Red River Authority - Wilbarger					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	316	316	318	318	318	318
Curren Supplies - Sales from Greenbelt MIWA	7	7	7	7	7	7
Current Supply - Sales from Vernon Seymour Aquifer	263	263	264	264	264	264
Current Supply -Seymour Aquifer (Hardeman County)	46	46	47	47	47	47

- Hardeman County Manufacturing

Water User Group:	Manufacturing - Hardeman					
	2030	2040	2050	2060	2070	2080
Water Demand (ac-ft/yr)	225	233	242	251	260	270
Current Supply Blaine Aquifer	175	183	192	201	210	220
Current Supply (Greenbelt MIWA) Greenbelt Reservoir (ac-ft/yr)	33	33	32	33	33	33
Current Supply (Greenbelt MIWA) Ogallala Donley County (ac-ft/yr)	17	17	18	17	17	17

Supplies Located in Region B That Are Used in Region A

To our knowledge there are no supplies originating in Region B being used in Region A.

Potential New Supplies in Region A Being Studied for Use in Region B

GMIWA is working to expand the Ogallala well field that would increase available supplies that may serve WUGs in Region B.

New Supplies in Region B Being Studied for Use in Region A

To our knowledge, there are no supplies being studied in Region B that could be used in Region A. Water demand reduction (conservation) may be applied to RRA WUGs in Region A.

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TO: Abigail Gardner, Region C Consultant
CC: Simone Kiel
FROM: Jeremy Rice and Walter Chandler
SUBJECT: Issues of Interest to Region B and Region C
DATE: 1/18/2024
PROJECT: RRG21896

This is one of a series of memoranda on issues of mutual interest to Region B and other regions in the current round of regional water planning. This memorandum is intended to begin a discussion between Region B and Region C consultants. After reviewing this memorandum, please contact me to discuss how the memorandum should be revised. I can be reached at:

Jeremy Rice
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The memorandum includes the following sections:

- Shared Water User Groups and Shared Supplies
- Shared Wholesale Water Providers
- Supplies Located in Region C That Are Used in Region B
- Supplies Located in Region B That Are Used in Region C
- Potential Supplies in Region C Being Studied for Use in Region B
- New Supplies in Region B Being Studied for Use in Region C
- Other Issues of Mutual Interest

Please review this memorandum and contact us with your thoughts on the issues covered and other issues that should have been included. We are looking forward to working with you as we complete this round of regional water planning.

Shared Water User Groups and shared supplies

Region B borders three counties of Region C along the southeastern boundary of Region B. Region B is the primary region for the Red River Authority of Texas (RRA) which has service areas in Regions A, B, C, G, O. As such Region B prepared the allocation of supplies for RRA.

It should be noted that Region B submitted revisions to the TWDB population and demands that were not accepted by TWDB but will be used for planning. All demands for Region B portions reflect the RWPG adopted demands with a 15% increase.

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Red River Authority - Cottle County	29	29	29	30	30	30
Red River Authority - Dickens County	1	1	1	1	1	0
Red River Authority - Donley County	82	76	70	67	64	60
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Red River Authority - Grayson County	254	304	347	390	436	486
Red River Authority - Hall County	51	48	45	42	39	36
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Red River Authority - King County	61	62	62	64	65	66
Red River Authority - Knox County	13	13	12	11	10	8
Red River Authority - Montague County	44	45	46	48	50	50
Red River Authority - Motley County	2	1	1	1	1	1
Red River Authority - Wilbarger County	316	316	318	318	318	318
Total	1,593	1,607	1,632	1,676	1,721	1,767

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Other Aquifer - Dickens County	62	63	63	65	66	66
Other Aquifer - Motley County	2	1	1	1	1	1
Seymour Aquifer - Collingsworth County	74	72	67	63	59	56
Seymour Aquifer - Knox County	13	13	12	11	10	8
Seymour Aquifer - Hardeman County	46	46	47	47	47	47
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Trinity Aquifer - Montague County	44	45	46	48	50	50
Total	2,025	2,022	2,031	2,060	2,090	2,123
Surplus or (Shortage)	432	415	400	384	369	357

Shared Wholesale Water Providers

There are no shared wholesale water providers between Region B and Region C.

Supplies Located in Region C That Are Used in Region C by RRA

- RRA – Grayson County

Lake Texoma					
2030	2040	2050	2060	2070	2080
254	304	347	390	436	486

Supplies Located in Region B That Are Used in Region C

To our knowledge there are no supplies originating in Region B being used in Region C.

Potential New Supplies in Region C Being Studied for Use in Region B

To our knowledge, there are no supplies being studied in Region C that could be used in Region B. **There has been a request by RRA to include a strategy for treatment plant expansion to use additional Lake Texoma water.**

New Supplies in Region B Being Studied for Use in Region C

To our knowledge, there are no supplies being studied in Region B that could be used in Region C. Water demand reduction (conservation) may be applied to RRA WUGs in Region C.

MEMORANDUM



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TO: Tony Smith, Carollo, Region G Consultant
CC:
FROM: Jeremy Rice and Walter Chandler
SUBJECT: Issues of Interest to Region B and Region G
DATE: 1/31/2024
PROJECT: RRG21896

This is one of a series of memoranda on issues of mutual interest to Region B and other regions in the current round of regional water planning. This memorandum is intended to begin a discussion between Region B and Region G consultants. After reviewing this memorandum, please contact me to discuss how the memorandum should be revised. I can be reached at:

Jeremy Rice
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The memorandum includes the following sections:

- Shared Water User Groups and Shared Supplies
- Shared Wholesale Water Providers
- Supplies Located in Region G That Are Used in Region B
- Supplies Located in Region B That Are Used in Region G
- Potential Supplies in Region G Being Studied for Use in Region B
- New Supplies in Region B Being Studied for Use in Region G
- Other Issues of Mutual Interest

Please review this memorandum and contact us with your thoughts on the issues covered and other issues that should have been included. We are looking forward to working with you as we complete this round of regional water planning.

Shared Water User Groups and shared supplies

Region B borders three counties of Region G along the southern boundary of Region B and Young County is partially shared between Region B and G. Region B is the primary region for the Red River Authority of Texas (RRA) which has service areas in Regions A, B, C, G, O. As such Region B prepared the allocation of supplies for RRA. Regions B and G also share the following WUGs located in Young County: Baylor County SUD, County Other, Irrigation, and Livestock.

It should be noted that Region B submitted revisions to the TWDB population and demands that were not accepted by TWDB but will be used for planning. All demands for Region B portions reflect the RWPG adopted demands with a 15% increase.

Customers	2026 Plan RRA Demands (AF/Y)					
	2030	2040	2050	2060	2070	2080
Red River Authority - Clay County	491	488	486	485	484	482
Red River Authority - Childress County	382	358	352	361	369	378
Red River Authority - Collingsworth County	90	88	83	79	75	72
Red River Authority - Cottle County	29	29	29	30	30	30
Red River Authority - Dickens County	1	1	1	1	1	0
Red River Authority - Donley County	82	76	70	67	64	60
Red River Authority - Foard County	73	73	74	75	77	78
Red River Authority - Grayson County	254	304	347	390	436	486
Red River Authority - Hall County	51	48	45	42	39	36
Red River Authority - Hardeman County	195	193	192	189	186	184
Red River Authority - King County	61	62	62	64	65	66
<i>Red River Authority - Knox County</i>	<i>13</i>	<i>13</i>	<i>12</i>	<i>11</i>	<i>10</i>	<i>8</i>
Red River Authority - Montague County	44	45	46	48	50	50
Red River Authority - Motley County	2	1	1	1	1	1
Red River Authority - Wilbarger County	316	316	318	318	318	318
Total	1,593	1,607	1,632	1,676	1,721	1,767

Sources	RRA Currently Available Supplies (AF/Y)					
	2030	2040	2050	2060	2070	2080
Wichita Falls Supply	383	363	344	326	309	293
Greenbelt Reservoir	532	507	501	507	515	529
Lake Texoma	254	304	347	390	436	486
Ogallala Aquifer - Donley County from Greenbelt MIWA	271	270	270	271	269	263
Ogallala Aquifer - Donley County	52	46	40	37	34	30
Other Aquifer - Cottle County	29	29	29	30	30	30
Other Aquifer - Dickens County	62	63	63	65	66	66
Other Aquifer - Motley County	2	1	1	1	1	1
Seymour Aquifer - Collingsworth County	74	72	67	63	59	56
<i>Seymour Aquifer - Knox County</i>	<i>13</i>	<i>13</i>	<i>12</i>	<i>11</i>	<i>10</i>	<i>8</i>
Seymour Aquifer - Hardeman County	46	46	47	47	47	47
Seymour Aquifer - from Vernon	263	263	264	264	264	264
Trinity Aquifer - Montague County	44	45	46	48	50	50
Total	2,025	2,022	2,031	2,060	2,090	2,123
Surplus or (Shortage)	432	415	400	384	369	357

Shared Wholesale Water Providers

The Wholesale Water Providers shared between Regions B and G include RRA and Baylor SUD. RRA providers water to their systems in Knox County in Region G from their Seymour Aquifer supply in Knox County. The portion of Baylor SUD in Young County within Region B gets water supply from the Seymour Aquifer in Baylor County.

Supplies in Region G used by RRA in Region G

- RRA – Knox County

Source	2030	2040	2050	2060	2070	2080
Seymour Aquifer - Knox County	13	13	12	11	10	8

Supplies in Region B used by Baylor SUD in the Region B portion of Young County

- Baylor SUD – Young County

Source	2030	2040	2050	2060	2070	2080
Seymour Aquifer - Baylor County	59	60	60	62	64	66

Supplies Located in Region G That Are Used in Region B

Two WUGs get a portion of their water from supplies located in Region G. These include Baylor County SUD in Baylor County who purchases surface water from Millers Creek Lake from North Central Texas MWA, and the Region B portion of Young County Other who purchases surface water from the City of Graham.

Water User Group:	Baylor County SUD - Baylor					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	1,019	1,029	1,076	1,099	1,121	1,145
Water Demand (ac-ft/yr)	252	254	265	271	276	282
Current Supply - Millers Creek Lake - Sales from North Central Texas MWA (ac-ft/yr)	6	5	4	2	1	0
Current Supply - Seymour Aquifer Baylor County (ac-ft/yr)	246	249	261	269	275	282
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Water User Group:	County-Other - Young (Region B portion)					
	2030	2040	2050	2060	2070	2080
Population (number of persons)	626	626	626	624	621	618
Water Demand (ac-ft/yr)	85	84	84	84	83	83
Purchase from Graham	22	25	28	30	32	33
Current Supply - Cross Timbers Aquifer (ac-ft/yr)	63	59	56	54	51	50
Supply - Demand (ac-ft/yr)	0	0	0	0	0	0

Supplies Located in Region B That Are Used in Region G

Region B is currently assuming that supplies from Lakes Olney and Cooper located in Region B are being sold from the City of Olney to Manufacturing in Young County which is located entirely within Region G. Based on historical data reported in TWDB Water Use Surveys, the estimated amount being sold to Manufacturing in Young County is 68 AF/Y.

Potential New Supplies in Region G Being Studied for Use in Region B

To our knowledge, there are no supplies being studied in Region G that could be used in Region B.

New Supplies in Region B Being Studied for Use in Region G

To our knowledge, there are no supplies being studied in Region B that could be used in Region G. Water demand reduction (conservation) may be applied to WUGs in Region G.

MEMORANDUM



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TO: Paula Jo Lemonds, HDR, Region O Consultant
CC:
FROM: Jeremy Rice and Walter Chandler
SUBJECT: Issues of Interest to Region B and Region O
DATE: 1/31/2024
PROJECT: RRG21896

This is one of a series of memoranda on issues of mutual interest to Region B and other regions in the current round of regional water planning. This memorandum is intended to begin a discussion between Region B and Region O consultants. After reviewing this memorandum, please contact me to discuss how the memorandum should be revised. I can be reached at:

Jeremy Rice
Freese and Nichols, Inc.
5100 E Skelly Dr. Suite 602
Tulsa, Oklahoma 74135
918-238-1930
jeremy.rice@freese.com

The memorandum includes the following sections:

- Shared Water User Groups and Shared Supplies
- Shared Wholesale Water Providers
- Supplies Located in Region O That Are Used in Region B
- Supplies Located in Region B That Are Used in Region O
- Potential Supplies in Region O Being Studied for Use in Region B
- New Supplies in Region B Being Studied for Use in Region O
- Other Issues of Mutual Interest

Please review this memorandum and contact us with your thoughts on the issues covered and other issues that should have been included. We are looking forward to working with you as we complete this round of regional water planning.

Shared Water User Groups and shared supplies

Cottle and King Counties in Region B border Motely and Dickens Counties Region O along the western boundary of Region B. Region B is the primary region for the Red River Authority of Texas (RRA) which has service areas in Regions A, B, C, G, O. As such Region B prepared the allocation of supplies for RRA.

It should be noted that Region B submitted revisions to the TWDB population and demands that were not accepted by TWDB but will be used for planning. All demands for Region B portions reflect the RWPG adopted demands with a 15% increase.

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<i>Other Aquifer - Motley County</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
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Total	2,025	2,022	2,031	2,060	2,090	2,123
Surplus or (Shortage)	432	415	400	384	369	357

Shared Wholesale Water Providers

RRA is the only Wholesale Water Provider shared between Regions B and O. RRA provides water to their systems in Dickens and Motley Counties in Region O from their Other Aquifer supply in both counties respectively.

Supplies in Region O used by RRA in Region O

- RRA – Dickens County

Source	2030	2040	2050	2060	2070	2080
Other Aquifer - Dickens County	1	1	1	1	1	0

- RRA – Motley County

Source	2030	2040	2050	2060	2070	2080
Other Aquifer - Motley County	2	1	1	1	1	1

Supplies Located in Region O That Are Used in Region B

To our knowledge, there are no supplies located in Region O that are used in Region B.

Supplies Located in Region B That Are Used in Region O

To our knowledge, there are no supplies located in Region B that are used in Region O.

Potential New Supplies in Region O Being Studied for Use in Region B

To our knowledge, there are no supplies being studied in Region O that could be used in Region B.

New Supplies in Region B Being Studied for Use in Region O

To our knowledge, there are no supplies being studied in Region B that could be used in Region O. Water demand reduction (conservation) may be applied to the RRA WUGs in Region O.