



February 20, 2024

Jeff Walker
Executive Director
Texas Water Development Board
P.O. Box 13231
Austin, TX 78711-3231

Re: Region F Technical Memorandum

Dear Mr. Walker,

Enclosed please find an electronic copy of the Region F Technical Memorandum that was approved by the Region F Planning Group on February 1, 2024. Electronic files required to be submitted will be provided to Texas Water Development Board staff.

In accordance with the contractual requirements, a public meeting was held on February 1, 2024 to present and discuss the Technical Memorandum. Notice of the meeting was posted and a public comment period was held 14 days prior to this meeting, starting on January 17, 2024. Public comments were solicited at the public meeting. No public comments were received at the public meeting and no written comments were received during the comment period.

If you have any questions or need additional information related to this submittal, please contact Lissa Gregg at 817-735-7328.

Sincerely,

Cole Walker
Region F Chairman

Cc: Katie Dahlberg, TWDB
Heather Rose, TWDB

REGION F WATER PLANNING AREA TECHNICAL MEMORANDUM

Prepared for:

Texas Water Development Board
On behalf of the Region F Water Planning Group

February 2024

Prepared by:

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- Appendix C – Summary of Model Runs to Determine Surface Water Availability
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- Appendix G – List of Infeasible Water Management Strategies and Water Management Strategy Projects from the 2021 RWP

EXECUTIVE SUMMARY

This Technical Memorandum discusses population and water demand projections, water availability, existing water supplies, and identified potentially feasible water management strategies in Region F for the sixth cycle of regional water plan development. Included in this report are the required Texas Water Development Board (TWDB) Database 2027 (DB27) reports along with the additional information required for the Technical Memorandum submittal as set forth in Section 2.12.1 of TWDB's *Second Amended Exhibit C (General Guidelines for the 2026 Regional Water Plans)* dated September 2023. A public meeting was held on February 1, 2024, to discuss the contents of this memorandum. Notice of the meeting was posted on January 17, 2024.

1.0 TWDB DB27 REPORTS

All DB27 reports are located in Appendix A of this document. The seven required DB27 reports for this Technical Memorandum are summarized below.

1.1 POPULATION AND WATER DEMAND PROJECTIONS

In 2022, TWDB released draft non-municipal demand projections for all regions. Draft population and municipal projections were provided to the regions in 2023. Two population migration scenarios were prepared for the draft projections and the regions' consideration. Each Regional Water Planning Group (RWPG) was given the ability to make limited adjustments to the projections based on available data to support the requested revisions. The Region F Regional Water Planning Group (RFWPG) met on May 18, 2023, and approved revisions to the draft irrigation, manufacturing, mining, and steam electric power water demands. The RFWPG did not recommend revisions to the draft livestock demands. Revisions were also approved by the RFWPG for the population and municipal demands on July 20, 2023. These revision requests were reviewed by TWDB staff and submitted, with some modifications, to the TWDB Board of Directors for final approval. TWDB approved the final projections in November 2023.

Appendix A contains two database reports related to population and demand. The reports are:

- **TWDB DB27 Report #1 - WUG Population Projections**
- **TWDB DB27 Report #2 - WUG Water Demand Projections**

TWDB DB27 Report #1 presents the 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 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.

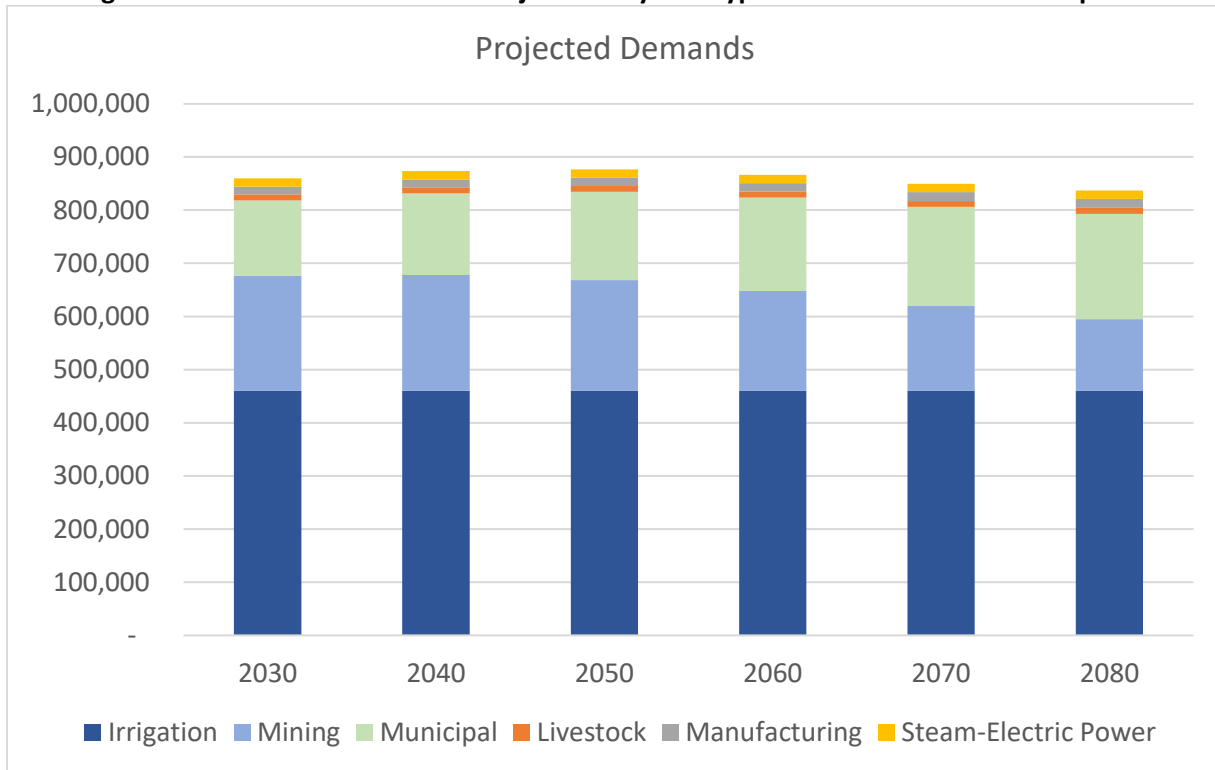
In addition to these summary tables, **Table 1-1** shows the population projections by county. The population for Region F is expected to increase from approximately 763,000 to 1,075,000 over the planning horizon. Most of the increase in population and municipal demands occur in Ector, Midland, and Tom Green Counties.

Table 1-1: Adopted Population Projections for Region F by County

County	2030	2040	2050	2060	2070	2080
ANDREWS	22,997	28,993	35,825	42,717	50,229	58,417
BORDEN	608	603	601	607	614	622
BROWN	39,717	40,383	40,459	40,599	40,752	40,919
COKE	3,454	3,690	3,932	4,317	4,737	5,195
COLEMAN	7,087	6,424	5,759	5,254	4,724	4,168
CONCHO	3,905	3,810	3,718	3,629	3,536	3,438
CRANE	5,027	5,493	5,887	6,205	6,552	6,930
CROCKETT	2,845	2,633	2,409	2,250	2,083	1,908
ECTOR	185,779	207,148	225,963	239,926	254,560	269,935
GLASSCOCK	1,049	985	946	869	788	703
HOWARD	36,259	37,313	37,885	37,115	36,276	35,361
IRION	1,429	1,357	1,332	1,279	1,223	1,164
KIMBLE	4,063	3,821	3,650	3,625	3,599	3,572
LOVING	64	64	64	64	64	64
MARTIN	5,543	5,896	6,311	6,530	6,769	7,030
MASON	3,821	3,708	3,666	3,661	3,656	3,651
MCCULLOCH	7,430	7,136	6,817	6,638	6,450	6,253
MENARD	1,767	1,637	1,524	1,496	1,467	1,437
MIDLAND	192,470	216,809	241,697	59,762	278,739	298,635
MITCHELL	10,837	11,020	11,250	11,361	11,474	11,594
PECOS	15,637	16,195	16,587	16,933	17,296	17,677
REAGAN	3,490	3,592	3,633	3,641	3,649	3,657
REEVES	16,015	17,702	19,284	20,384	21,583	22,890
RUNNELS	9,842	9,786	9,662	9,620	9,576	9,530
SCHLEICHER	2,107	1,806	1,522	1,291	1,049	795
SCURRY	17,450	18,006	18,344	18,517	18,699	18,890
STERLING	1,704	2,226	2,923	3,824	4,806	5,876
SUTTON	3,067	2,778	2,482	2,266	2,039	1,801
TOM GREEN	132,573	145,445	156,800	168,070	180,354	193,744
UPTON	3,349	3,475	3,550	3,627	3,708	3,793
WARD	12,954	14,666	16,450	18,013	19,717	21,574
WINKLER	8,646	9,744	10,757	11,653	12,630	13,695
TOTAL	762,985	834,344	901,689	955,743	1,013,398	1,074,918

Figure 1-1 is a graph of demands by use type and decade for Region F. Irrigation use accounts for over half of the demand in Region F. While municipal water demands are expected to increase over time, total water demands in Region F are expected to decrease slightly over time due to projected decreases in mining water use.

Figure 1-1: Total Water Demand Projections by Use Type and Decade in Acre-Feet per Year



1.2 SOURCE WATER AVAILABILITY

TWDB DB27 Report #3 – Source Water Availability presents the available water by source. Under the TWDB regional water planning guidelines, each region is to identify available water supplies within the region. 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 the permitted amount, whichever is lower. Region F has chosen to use safe yields, as opposed to firm yields, as the available supply. The safe yield is less than the firm yield and leaves a one-year supply reserve in storage at the end of the drought of record. For run-of-river supplies, the reliable supply is the minimum modeled annual diversion over the historical record. Available groundwater supplies are defined by county and aquifer. Through the Joint Planning Process, Modeled Available Groundwater (MAG) values were developed by the TWDB to define the long-term available groundwater supply for the major and

minor aquifers within Region F. MAG values were not developed for aquifers or portions of aquifers that were declared “non-relevant” and other formations that are not modeled (such as “other aquifer” and Cross Timbers Aquifer).

Region F has nearly 1.3 million acre-feet per year of available water in 2030. This includes both developed and undeveloped supplies. Most of this supply is associated with groundwater sources. **Table 1-2** shows the overall water supply source availability in Region F. 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 when considering infrastructure limitations is referred to as “Existing Water Supplies” and is discussed in Section 1.3 of this Technical Memorandum.

Table 1-2: Overall Water Supply Source Availability in the Region F (Acre-Feet per Year)

	2030	2040	2050	2060	2070	2080
GROUNDWATER	1,109,170	1,099,700	1,092,810	1,088,190	1,084,700	1,082,700
SURFACE WATER	131,070	130,110	127,530	123,330	118,080	113,320
REUSE	50,050	50,050	49,940	49,710	49,300	49,040
TOTAL	1,290,290	1,279,860	1,270,280	1,261,230	1,252,080	1,245,060

1.2.1 Surface Water

In regional planning, surface water supplies from reservoirs and run-of-river rights are derived from the Water Availability Models (WAMs) developed by the Texas Commission on Environmental Quality (TCEQ). The TWDB requires the use of Full Authorization Run (Run 3) of the approved TCEQ WAM for regional water planning. Full Authorization assumes that all water rights will be fully met in priority order. Under this analysis, many water rights in Region F show no availability (due to senior water rights in the lower basin). Because this does not give an accurate assessment of water supplies based on the way the basin has historically been operation, Region F considers subordination of the Lower Colorado basin (Region K) to the Upper Colorado basin (Region F) as a water management strategy. Water management strategies will be discussed as the next phase of regional planning and are not considered a current supply. Local supplies are surface water supplies that do not require a State water permit. These supplies are mainly stock tanks for livestock use and estimated based on historical use information from the TWDB.

Current surface water supplies (not constrained by infrastructure) in Region F are 131,070 acre-feet in 2030 and 113,320 acre-feet in 2080. The small decrease in these supplies over time is due to sedimentation in the region’s reservoirs.

1.2.2 Groundwater

Groundwater supplies in the RFWPA are primarily obtained from the following major and minor aquifers:

- Ogallala Aquifer
- Edwards-Trinity (Plateau) Aquifer
- Pecos Valley Aquifer
- Trinity Aquifer
- Capitan Reef Complex Aquifer
- Dockum Aquifer
- Edwards-Trinity (High Plains) Aquifer
- Ellenburger – San Saba Aquifer
- Hickory Aquifer
- Marble Falls Aquifer
- Rustler Aquifer
- Cross Timbers Aquifer
- Igneous Aquifer
- Additional supplies in Region F are available from non-relevant portions of the major and minor aquifers, which also includes the Lipan, Igneous and Seymour Aquifers, and
- Locally undifferentiated formations, referred to as “Other Aquifer”

As required by regional planning rules, MAG estimates provided by the TWDB were used to determine groundwater availability. For Region F, TWDB provided MAG estimates for the named aquifers listed above and some of the non-MAG availability estimates for non-relevant portions of the listed aquifers. A comparison of MAG totals from the previous and current planning cycles indicate some decreases and some increases of groundwater availability. The largest decreases are in the Ogallala, Dockum, and Capitan Reef Aquifers. In GMA-7, the Edwards-Trinity (Plateau) and Pecos Valley Aquifers are lumped into one volume in the MAG estimate. The Ogallala and Edwards-Trinity (High Plains) are also combined.

Region F includes parts of Groundwater Management Areas (GMAs) 2, 3, 7 and 8. The groundwater supplies available to Region F are summarized in **Table 1-3**. The total volume for planning purposes in Region F is based on the sum of MAGs and non-MAG estimates of groundwater availability. **Table 1-3** totals the groundwater supply availability estimates for MAGs, non-relevant aquifers and other aquifers.

Table 1-3. Total Groundwater Availability to Region F in Acre-Feet per Year

Source	2030	2040	2050	2060	2070	2080
Ogallala and Edwards-Trinity-High Plains Aquifers	87,747	79,640	73,912	70,101	67,427	65,421
Ogallala Aquifer	23,361	21,994	21,048	20,323	19,581	19,581
Edwards-Trinity-Plateau and Pecos Valley Aquifers	420,541	420,541	420,541	420,541	420,541	420,541
Edwards-Trinity-Plateau Aquifer	2,112	2,112	2,112	2,112	2,112	2,112
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	336,401	336,401	336,401	336,401	336,401	336,401
Pecos Valley Aquifer	150	150	150	150	150	150
Trinity Aquifer	1,427	1,427	1,427	1,427	1,427	1,427
Capitan Reef Complex Aquifer	27,552	27,552	27,552	27,552	27,552	27,552
Cross Timbers Aquifer	1,204	1,204	1,204	1,204	1,204	1,204
Dockum Aquifer	71,230	71,230	71,019	70,932	70,859	70,859
Ellenburger-San Saba Aquifer	8,562	8,562	8,562	8,562	8,562	8,562
Hickory Aquifer	41,018	41,018	41,018	41,018	41,018	41,018
Igneous Aquifer	380	380	380	380	380	380
Lipan Aquifer	48,646	48,646	48,646	48,646	48,646	48,646
Marble Falls Aquifer	275	275	275	275	275	275
Rustler Aquifer	10,630	10,630	10,630	10,630	10,630	10,630
Seymour Aquifer	10	10	10	10	10	10
Other Aquifer	27,926	27,926	27,926	27,926	27,926	27,926
TOTAL	1,109,172	1,099,698	1,092,813	1,088,190	1,084,701	1,082,695

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, groundwater permits, 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 hydrogeologic properties of the source aquifers, capacity of transmission systems, treatment plants, wells, and permit limits.

Table 1-4 shows the Existing Water Supplies in Region F by county. **TWDB DB27 Report #4 – WUG Existing Water Supplies** shows the supplies allocated to each water user group by source.

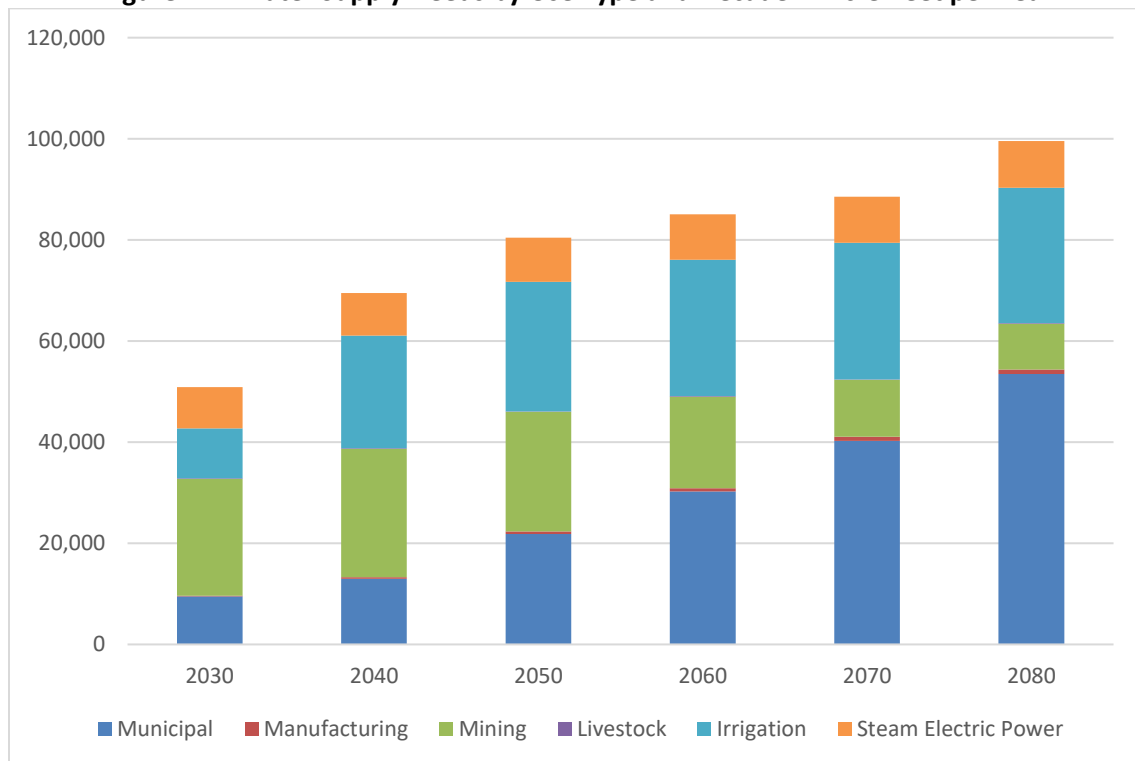
**Table 1-4: Existing Water Supplies Available to Region F Water User Groups by County
in Acre-Feet per Year**

County	2030	2040	2050	2060	2070	2080
ANDREWS	19,825	18,635	17,924	17,518	17,324	17,186
BORDEN	5,874	5,882	5,848	5,586	4,821	4,137
BROWN	16,052	16,125	16,156	16,197	16,241	16,288
COKE	1,560	1,567	1,574	1,585	1,597	1,610
COLEMAN	1,517	1,476	1,440	1,414	1,392	1,369
CONCHO	6,214	6,206	6,185	6,158	6,131	6,105
CRANE	4,966	5,253	5,438	5,437	5,334	5,334
CROCKETT	5,459	5,459	5,459	5,459	4,608	3,361
ECTOR	40,701	41,899	40,893	39,014	37,995	37,019
GLASSCOCK	57,548	57,541	56,385	54,069	51,002	48,281
HOWARD	28,236	26,899	25,271	23,667	22,298	19,415
IRION	5,500	5,500	5,343	5,029	4,614	4,245
KIMBLE	1,881	1,856	1,839	1,837	1,833	1,827
LOVING	5,325	5,325	5,325	5,325	5,326	5,326
MARTIN	49,836	45,046	41,128	38,200	35,869	34,056
MASON	6,423	6,394	6,375	6,373	6,371	6,369
MCCULLOCH	4,927	4,916	4,906	4,894	4,876	4,854
MENARD	4,069	4,063	4,058	4,057	4,056	4,055
MIDLAND	85,077	85,430	83,938	79,912	75,250	70,649
MITCHELL	13,809	13,792	13,754	13,752	13,750	13,747
PECOS	159,999	160,104	160,212	160,421	160,655	160,910
REAGAN	42,446	42,467	40,825	37,523	33,147	29,268
REEVES	99,413	99,521	99,626	99,703	99,784	99,874
RUNNELS	4,834	4,808	4,748	4,691	4,653	4,614
SCHLEICHER	6,521	6,446	6,082	5,436	4,594	3,837
SCURRY	10,363	10,301	10,125	9,940	9,794	9,681
STERLING	2,986	3,128	3,307	3,425	3,425	3,038
SUTTON	2,737	2,633	2,529	2,451	2,368	2,282
TOM GREEN	70,449	65,778	65,688	65,518	65,343	65,174
UPTON	25,571	25,611	24,325	21,728	18,278	15,232
WARD	15,157	15,660	16,185	16,639	17,127	17,647
WINKLER	18,949	19,944	20,960	21,813	22,615	23,073
TOTAL	824,224	815,665	803,851	784,771	762,471	739,863

1.4 IDENTIFIED WATER NEEDS/SURPLUSES

For each Water User Group, the Existing Water Supply was compared to the projected demand, resulting in either a need or a surplus for the WUG. The total water needs for Region F increase from about 50,800 acre-feet in 2030 to nearly 100,000 acre-feet in 2080. This is largely driven by anticipated population growth and the resulting municipal water demand. Irrigation needs also grow as available groundwater supplies reduce over time. Mining needs shrink considerably over the planning cycle as demands are anticipated to decrease in later decades. Needs for other use types are relatively constant over the planning horizon. The water supply needs (no surpluses) that are unmet by existing water supplies are outlined below in **Figure 1-2** by category of use. **TWDB DB27 Report #5 – WUG Identified Water Needs/Surpluses** is a compilation of this information for all WUGs.

Figure 1-2: Water Supply Needs by Use Type and Decade in Acre-Feet per Year



1.5 COMPARISON TO 2021 REGIONAL WATER PLAN

Using its online databases (DB22 and DB27), TWDB has developed comparisons of information from this 2026 Regional Water Plan to information from the 2021 Regional Water Plan. The comparisons have been done for each Water User Group and for each supply source type by county, which are contained in **TWDB**

DB27 Report #6 – WUG Data Comparison to 2021 RWP and TWDB DB27 Report #7 – Source Data Comparison to 2021 RWP. Both reports are included in **Appendix A**.

In Region F, total source availability (before allocation to users) decreased slightly from the 2021 to 2026 plan primarily due to decreases in surface water availability. Groundwater availability declined slightly in 2030 due to changes in MAGs and updated non-MAG availability. Reuse availability stayed about the same. Surface water declines are the greatest in the Rio Grande River Basin in part due to an updated Water Availability Model.

Projected demands in Region F increased between 10 and 14 percent over the planning horizon from the 2021 to 2026 plan. This is mostly due to increases in population projections, which were based on the 2020 Census. Existing supplies to water user groups increased slightly and overall water needs decreased by 29 percent in 2030 and 14 percent in 2080.

2.0 DETERMINING SOURCE AVAILABILITY

2.1 SURFACE WATER

2.1.1 Reservoir Sedimentation Rates

For all major reservoirs in the Colorado and Rio Grande River Basins, anticipated sedimentation rates and revised area-capacity rating curves were developed to estimate reservoir storage in future decades (2030 and 2080). Annual sedimentation rates, expressed in acre-feet per square mile (AF/SqMi), were estimated for each major reservoir based on sediment surveys, published sedimentation rates, or comparing changes in conservation pool capacity between two or more reservoir surveys. The total accumulated sediment for a specific year was calculated as:

$$\textit{Sedimentation Rate} \times \textit{Drainage Area} \times \textit{Number of years from the Initial Survey}$$

This formula was used to estimate the reservoir capacity for decades 2030 and 2080. The total sediment quantity is applied to the initial area-capacity-elevation (ACE) curve using either a conical or trapezoidal shape method (depending upon the best fit for the reservoir). To develop the new ACE, 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 calculated for each increment and added together to calculate the total storage at each elevation. A summary of the sedimentation analyses and projected conservation capacities for the reservoirs in Region F is shown in Table 2-1.

Table 2-1: Estimated Sedimentation Rates and Projected Capacities

Reservoir	Drainage Area (SqMi)	Annual Sediment Rate (AF/SqMi)	Date of Initial Capacity	Conservation Capacity (acre-feet)			Source (sediment rate)
				Initial	2030	2080	
Colorado River Basin							
Thomas	934	0.11	9/1/1999	200,604	198,460	192,295	TDWR Report 268, 1982
Champion	186	0.51	1959	42,492	36,056	33,178	Previous FNI Studies
Colorado City	387	0.38	1964	31,967	20,733	13,373	Previous FNI Studies
Spence	1,954	0.13	7/1/1999	517,272	509,387	499,227	TDWR Report 268, 1982
Oak Creek	238	0.50	5/12/1953	39,360	30,176	25,416	TBWE Bulletin 5912, 1959
Ballinger (Moonen)	24	0.17	7/1/1985	6,050	5,866	5,703	Previous FNI Studies
Elm Creek (Winters)	64	0.17	9/24/2013	7,779	7,594	7,154	TWDB, 2014B
Twin Buttes	2,813	0.09	12/1/1962	186,200	169,081	158,954	TBWE Bulletin 5912, 1959
Nasworthy	107	0.16	9/15/1993	10,108	9,477	8,793	TDWR Report 268, 1982
O.C. Fisher	1,383	0.23	9/1/1962	115,743	94,155	81,431	Previous FNI Studies
O.H. Ivie	2791.5	0.68	3/15/1990	554340	477,777	401,848	TBWE Bulletin 5912, 1959
Mountain Creek	30.3	0	N/A	950	950	950	None
Brady Creek	523	0.08	5/15/1963	30,430	27,620	25,946	TDWR Report 268, 1982
Hords Creek	48	0.36	4/7/1948	8640	7,218	6,527	TDWR Report 268, 1982
Coleman	292	0.16	8/1/2006	38,094	36,978	35,072	TWDB, 2007
Clyde	39.7	0	N/A	5494	5494	5494	None
Brownwood	1,181	0.11	6/14/2013	136,350	134,112	128,872	TWDB, 2014A
Junction	932	0	N/A	300	300	300	None
Rio Grande River Basin							
Red Bluff	N/A	98 ²	1986	289,667	285,355	280,455	TWDB, 2013
Balmorhea	N/A	N/A	N/A	7,400	7,400	7,400	WAM Run 3

1. Sedimentation was not considered for Mountain Creek, Junction, Clyde, and Balmorhea reservoirs.
2. Sediment is estimated as a total annual rate rather than per square mile of drainage area.

2.1.2 Hydrologic Models

Surface water supplies in Region F are obtained mostly from the Colorado River Basin and the Pecos River Basin, which is a tributary of the Rio Grande River Basin. A small amount of Region F lies in the Brazos River Basin but there is little to no surface water supplied to Region F from this basin. In accordance with

TWDB rules, Region F used the Full Authorization (Run 3) of the TCEQ-approved WAMS to determine surface water availability. In Region F, many reservoirs and run-of-river water rights show no availability under a strict priority analysis like TCEQ WAM Run 3. Subordination of downstream water rights in Region K is major a source of supply for Region F but is considered a strategy and is not included in existing supplies in Technical Memorandum. Region F requested hydrologic variances, mainly the use of safe yield to more accurately reflect some of the other current conditions and operations in the region. This request is detailed in **Appendix B**.

2.1.3 Versions and Dates of Hydrologic Models

TCEQ-approved Water Availability Models (WAM) were used to determine the surface water availability for Region F. The version date and run type for each model is reported in **Appendix C**. The respective input and output files are provided electronically with this Technical Memorandum.

As required by the TWDB, modifications to the TCEQ-approved WAMs must be approved through a hydrologic variance request. Region F approved and submitted hydrologic variance requests for both the Colorado River and Rio Grande River WAMs on July 20, 2023. The Brazos River WAM, as modified by the Brazos G planning group, was used for Brazos River water supplies in Region F. The TWDB approved the hydrologic variance requests in a letter dated November 28, 2023. The surface water availability analysis are described in **Appendix B**, which contains the hydrologic variances request and the TWDB approval letter. The analyses of surface water availability were carried out by Freese and Nichols, Inc. for the Colorado and Rio Grande River Basins, and by the Brazos G consultant. for the Brazos River Basin. **Table 2-2** presents the firm and safe yields for major reservoirs in Region F.

Table 2-2: Estimated Firm and Safe Yields for Major Reservoirs in Region F

Scenario	2020	2030	2040	2050	2060	2070
Lake Ivie						
Firm Yield (ac-ft/yr)	33,600	32,740	31,880	31,020	30,160	29,300
Safe Yield (ac-ft/yr)	28,540	27,740	26,940	26,140	25,340	24,540
Lake Brownwood						
Firm Yield (ac-ft/yr)	19,000	18,860	18,720	18,580	18,440	18,300
Safe Yield (ac-ft/yr)	15,550	15,420	15,290	15,160	15,030	14,900
Lake Balmorhea						
Firm Yield (ac-ft/yr)	19,600	19,600	19,600	19,600	19,600	19,600
Red Bluff Reservoir						
Firm Yield (ac-ft/yr)	20,350	20,314	20,278	20,242	20,206	20,170
Safe Yield (ac-ft/yr)	16,180	16,152	16,124	16,096	16,068	16,040

2.2 GROUNDWATER

2.2.1 Written Summary of Modeled Available Groundwater (MAGs)

The MAGs for this planning cycle came from four GAM run documents as follows (see Table 2-3):

- GAM RUN 21-008 Addendum, which summarizes the MAG volumes for all aquifers within GMA-2,
- GAM RUN 21-009, which summarizes the MAG volumes for all aquifers in GMA-3,
- GAM RUN 21-012 which summarizes the MAG volumes for all aquifers in GMA-7, and
- GAM RUN 21-013, which summarizes the MAG volumes for all aquifers in GMA-8.

Table 2-3: GAM Models Used in Determining Groundwater Availability

GAM Version	Date Results Published	Model Used	GMA
GR 21-008 Addendum	June 3, 2022	High Plains Aquifer System GAM	GMA-2 ¹
GR 21-009	January 11, 2022	Eastern Arm of the Capitan Reef Complex Aquifer GAM, Alternative one-layer Edwards-Trinity (Plateau) and Pecos Valley model, High Plains Aquifer System GAM, Rustler Aquifer GAM	GMA-3
GR 21-012	August 12, 2022	Capitan Reef Complex Aquifer GAM, High Plains Aquifer System GAM, Llano Uplift Aquifer System GAM, Rustler Aquifer GAM, Alternative one-layer Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifer model, Kinney County GCD model of the Edwards-Trinity (Plateau),	GMA-7
GR 21-013	November 1, 2022	North Trinity Woodbine GAM	GMA-8 ²

1. Only Andrews, Borden, Howard, and Martin Counties within Region F are in GMA 2.
2. Brown is the only county within Region F in GMA 8.

GR 21-008 Addendum summarizes MAGs for the Ogallala, Edwards-Trinity (High Plains), and the Dockum Aquifers using the High Plains Aquifer System (HPAS) GAM. In GMA-2, the Ogallala and Edwards-Trinity (High Plains) availability volumes were lumped together and range from 111,108 acre-feet per year in 2030 to 85,002 acre-feet per year in 2080 for Andrews, Borden, Howard and Martin Counties only. The MAG estimate for the Dockum Aquifer for Andrews, Borden, Howard and Martin Counties is 11,449 acre-feet per year for the 50-year planning cycle.

GR 21-009 summarizes MAGs for the Capitan Reef Complex, Dockum, Edwards-Trinity (Plateau), Pecos Valley and Rustler Aquifers. The Edwards-Trinity (Plateau) and the Pecos Valley Aquifers MAGs total 420,541 acre-feet per year in GMA-3 for the 50-year planning cycle. The Capitan, Dockum, and Rustler Aquifer MAG estimates are 377, 11,142, and 2,587 acre-feet per year, respectively.

GR 21-012 estimates MAGs for the portions of the Capitan Reef Complex, Dockum, Edwards-Trinity (Plateau), Ellenburger-San Saba, Hickory, Ogallala, Pecos Valley, Rustler and Trinity Aquifers that are located within GMA-7 and determined to be relevant for planning. Total MAG estimates for GMA-7 range between 431,474 in 2030 and 430,371 acre-feet per year in 2080. Note that some of this total is a combination of MAGs from both GMA 3 and GMA 7.

GR 21-013 summarizes MAG volumes for all aquifers within GMA-8, including the Trinity, Ellenburger-San Saba, Hickory, and Marble Falls aquifers. The total MAG estimates for Brown County are 1,595 acre-feet per year for the 50-year planning cycle. **Table 2-4** summarizes the MAG volumes from these GAM runs for each aquifer.

Table 2-4. Modeled Available Groundwater Supplies for Region F in Acre-Feet per Year

Source	2030	2040	2050	2060	2070	2080
Ogallala and Edwards-Trinity-High Plains Aquifers	87,747	79,640	73,912	70,101	67,427	65,421
Ogallala Aquifer	7,673	7,372	7,058	6,803	6,570	6,570
Edwards-Trinity-Plateau and Pecos Valley Aquifers	420,541	420,541	420,541	420,541	420,541	420,541
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	332,527	332,527	332,527	332,527	332,527	332,527
Trinity Aquifer	1,427	1,427	1,427	1,427	1,427	1,427
Capitan Reef Complex Aquifer	26,545	26,545	26,545	26,545	26,545	26,545
Dockum Aquifer	41,110	41,110	41,110	41,110	41,110	41,110
Ellenburger-San Saba Aquifer	8,562	8,562	8,562	8,562	8,562	8,562
Hickory Aquifer	40,518	40,518	40,518	40,518	40,518	40,518
Marble Falls Aquifer	25	25	25	25	25	25
Rustler Aquifer	9,630	9,630	9,630	9,630	9,630	9,630
TOTAL	976,305	967,897	961,855	957,789	954,882	952,876

2.2.2 Documented Methodologies Utilized for Non-MAGs Availabilities

The total estimated groundwater availability for non-MAG aquifers or portions of aquifers ranges from 132,867 acre-feet per year in 2030 to 129,819 acre-feet per year in 2080. The availability volumes and methodologies used to derive these estimates are tabulated in **Appendix D**.

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 October 19, 2023 RFWPG meeting in Big Spring. There were no public comments and the RFWPG approved the methodology. A description 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 (municipal and irrigation)
- Purchase water from a provider (Voluntary Transfer)
- Develop new or additional groundwater
- Water treatment
- Direct potable reuse
- Indirect potable reuse
- Direct non-potable reuse
- Brush control
- Weather modification
- Conjunctive Use (may be combined with other strategy types)
- Aquifer, storage and recovery (may be combined with other strategy types)

4.0 INTERREGIONAL COORDINATION

Region F is centered in west central Texas and borders five regions: Regions E, G, J, K and O. There are areas of mutual interest warranting interregional coordination with each of these regions. For example, there are shared water supplies, split water user groups, and the need for compatible approaches to surface water supplies. These topics are discussed and coordinated between the regions and their consultants through interregional coordination memoranda and meetings, as needed. In addition, there are several similarities in the approaches and water concerns of these regions. To foster coordination with

the adjoining regions, the RFWPG has assigned liaisons to the adjoining region. The liaisons attend the assigned region's planning group meeting and provide updates to the entire group. In turn, assigned liaisons from the adjoining regions to Region F have attended Region F meetings and provided updates to the region.

5.0 INFEASIBLE WATER MANAGEMENT STRATEGY ASSESSMENT

The Texas legislature passed a new requirement for the 2026 planning cycle that requires the RWPGs to review strategies and projects that require construction or a permit for potential infeasibility. Infeasible Water Management Strategies (WMS)s are defined as "WMSs where proposed sponsors have not taken an affirmative vote or other action to make expenditures necessary to construct or file applications for permits required in connection with implementation of the WMS on a schedule in order for the WMS to be completed by the time the WMS is needed to address drought in the plan." Any strategy determined to be infeasible must be removed from the plan.

At a minimum, RWPGs must review the status of strategies and projects with an online decade of 2020 in the 2021 plans. Additional near-term strategies and projects that have lengthy permitting or construction process should also be reviewed for infeasibility.

For a strategy to be considered feasible, one or more of the following criteria must be met:

- 1) If the WMS is recommended in 2020, it must be online by January 5, 2023.
- 2) If the WMS is in the correct planning decade but not yet online, affirmative steps must be taken towards implementation. These steps may include but are not limited to:
 - a. Spending money on the strategy or project,
 - b. Voting to spend money on the strategy or project,
 - c. Applying for a federal or state permit for the strategy or project.

The Texas Water Development Board identified 155 strategies for review by the Region F planning group. Of these, 135 were conservation related and therefore do not require a permit or construction and were found to be feasible. An additional five strategies were for county-aggregated water user groups that represent a conglomeration of private entities such as manufacturing or mining. In these instances, the TWDB recognizes that without a distinct identifiable sponsor, information is not available to assess the feasibility of these projects and they can be considered feasible for this analysis. The Region F consultant reached out the remaining 15 project sponsors to determine the feasibility of the water management strategy/project. Of these, 11 were found to have taken affirmative action to implement the project in

the plan and were found feasible. Four strategies with an online date of 2020 in the 2021 plan were found to be infeasible and will require an amendment to the 2021 Region F Plan. These include:

1. City of Junction: Develop Additional Edwards-Trinity Plateau Aquifer Supplies

Based on discussions with the City of Junction, Junction has not yet taken affirmative action to implement this project but does plan to do so in the future. Region F consultant proposes to amend the 2021 Region F plan to move the online decade for this strategy from 2020 to 2030. This will create an unmet municipal need of about 200 acre-feet in 2020. The amendment will include justification in accordance with 31 TAC 357.50 (j).

2. City of Balmorhea: Develop Edwards-Trinity-Plateau Aquifer Supplies

Based on discussions with City of Balmorhea, no affirmative action to implement this project has been taken yet. However, the City does understand the need to secure new water supplies in the future. Region F consultant proposes to amend the 2021 Region F plan to move the online decade for this strategy from 2020 to 2030. This will create an unmet municipal need of about 100 acre-feet in 2020. The amendment will include justification in accordance with 31 TAC 357.50 (j).

3. City of Bronte: Develop Other Aquifer Supplies in Southwest Coke County

Based on discussions with City of Bronte, the City is moving forward with studies on groundwater supplies from Nolan County instead of Coke County. This was identified in the 2021 Plan as an alternative water management strategy. Region F consultant proposes to amend the 2021 plan to substitute the alternative water management strategy as the recommended strategy for Bronte.

4. Mitchell County Steam Electric Power (SEP): Direct Non-Potable Sales from Colorado City

This project was for demands for a new FGE facility in Mitchell County. This strategy would provide non-potable reuse supplies from Colorado City to Mitchell County SEP (FGE). However, the FGE facility has never been built and the demands have not yet materialized. Because of this, no affirmative action has been taken to implement the project from the 2021 Region F Plan. The Region F consultant proposes to amend the 2021 plan to remove the strategy from the plan. This will increase an existing unmet need in Mitchell County for Steam Electric Power by 500 acre-feet. It should be noted that this need may or may not ever come to fruition. If the FGE facility was developed, this strategy could be reconsidered as a feasible alternative for a portion of the water supply needed.

Appendix G contains the analyses of the strategies identified by the TWDB for the infeasible strategy review. The conservation strategies are not included.

6.0 PUBLIC COMMENT

Public comments were accepted 14 days prior to and at the public meeting on February 1, 2024, when this Technical Memorandum was presented.

7.0 REFERENCES

Texas Board of Water Engineers (TBWE, 1959), Bulletin 5912, *Inventory and Use of Sedimentation Data in Texas*, prepared by the Soil Conservation Service for the TBWE, January 1959.

Texas Department of Water Resources (TDWR, 1982), Report 268, *Erosion and Sedimentation by Water in Texas*, prepared by John H. Greiner, U.S. Soil Conservation Services, February 1982.

Texas Water Development Board (TWDB, 2007), *Volumetric Survey of Lake Coleman, July-August 2006 Survey*, April 2007.

Texas Water Development Board (TWDB, 2013), *Volumetric Survey of Red Bluff Reservoir, November 2011 Survey*, February 2013.

Texas Water Development Board (TWDB, 2014A), *Volumetric and Sedimentation Survey of Lake Brownwood, June 2013 Survey*, May 2014.

Texas Water Development Board (TWDB, 2014B), *Volumetric and Sedimentation Survey of Lake Winters and Elm Creek Reservoir, September and October 2013 Surveys*, May 2014.

APPENDIX A
TWDB DB27 Reports

TWDB DB27 Report #1 – 2026 RWP WUG Population Projections

DRAFT Region F Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Andrews County Total	22,997	28,993	35,825	42,717	50,229	58,417
Andrews County / Colorado Basin Total	22,974	28,962	35,785	42,668	50,171	58,348
Andrews	15,919	19,456	23,478	27,540	31,965	36,787
County-Other	7,055	9,506	12,307	15,128	18,206	21,561
Andrews County / Rio Grande Basin Total	23	31	40	49	58	69
County-Other	23	31	40	49	58	69
Borden County Total	608	603	601	607	614	622
Borden County / Brazos Basin Total	48	44	38	31	22	10
County-Other	48	44	38	31	22	10
Borden County / Colorado Basin Total	560	559	563	576	592	612
Borden County Water System	219	247	293	355	433	533
U & F WSC	7	6	7	7	6	7
County-Other	334	306	263	214	153	72
Brown County Total	39,717	40,383	40,459	40,599	40,752	40,919
Brown County / Brazos Basin Total	56	57	57	58	58	58
County-Other	56	57	57	58	58	58
Brown County / Colorado Basin Total	39,661	40,326	40,402	40,541	40,694	40,861
Bangs	2,776	2,824	2,828	2,837	2,848	2,858
Brookesmith SUD	6,625	6,735	6,752	6,778	6,805	6,834
Brownwood	19,751	20,081	20,120	20,189	20,265	20,350
Coleman County SUD*	127	129	130	130	131	131
Early	3,352	3,409	3,412	3,424	3,437	3,449
Zephyr WSC	4,044	4,112	4,118	4,131	4,146	4,162
County-Other	2,986	3,036	3,042	3,052	3,062	3,077
Coke County Total	3,454	3,690	3,932	4,317	4,737	5,195
Coke County / Colorado Basin Total	3,454	3,690	3,932	4,317	4,737	5,195
Bronte	911	972	1,037	1,138	1,248	1,369
Robert Lee	999	1,066	1,136	1,246	1,366	1,498
County-Other	1,544	1,652	1,759	1,933	2,123	2,328
Coleman County Total	7,087	6,424	5,759	5,254	4,724	4,168
Coleman County / Colorado Basin Total	7,087	6,424	5,759	5,254	4,724	4,168
Brookesmith SUD	27	21	16	13	10	7

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

DRAFT Region F Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Coleman	3,452	3,000	2,530	2,171	1,775	1,326
Coleman County SUD*	2,514	2,371	2,240	2,142	2,051	1,959
Santa Anna	950	916	890	870	857	860
County-Other	144	116	83	58	31	16
Concho County Total	3,905	3,810	3,718	3,629	3,536	3,438
Concho County / Colorado Basin Total	3,905	3,810	3,718	3,629	3,536	3,438
Eden	1,790	1,752	1,714	1,677	1,649	1,631
Millersview-Doole WSC	778	788	798	808	824	847
County-Other	1,337	1,270	1,206	1,144	1,063	960
Crane County Total	5,027	5,493	5,887	6,205	6,552	6,930
Crane County / Rio Grande Basin Total	5,027	5,493	5,887	6,205	6,552	6,930
Crane	3,462	3,513	3,529	3,529	3,529	3,529
County-Other	1,565	1,980	2,358	2,676	3,023	3,401
Crockett County Total	2,845	2,633	2,409	2,250	2,083	1,908
Crockett County / Colorado Basin Total	5	4	4	4	3	3
County-Other	5	4	4	4	3	3
Crockett County / Rio Grande Basin Total	2,840	2,629	2,405	2,246	2,080	1,905
Crockett County WCID 1	2,270	2,103	1,926	1,802	1,670	1,533
County-Other	570	526	479	444	410	372
Ector County Total	185,779	207,148	225,963	239,926	254,560	269,935
Ector County / Colorado Basin Total	181,385	202,906	222,428	236,326	250,832	266,012
Ector County Utility District	27,612	33,252	38,382	42,106	45,975	49,997
Greater Gardendale WSC	3,053	3,551	4,003	4,334	4,678	5,037
Odessa	113,427	130,094	150,042	159,332	168,536	177,680
County-Other	37,293	36,009	30,001	30,554	31,643	33,298
Ector County / Rio Grande Basin Total	4,394	4,242	3,535	3,600	3,728	3,923
County-Other	4,394	4,242	3,535	3,600	3,728	3,923
Glasscock County Total	1,049	985	946	869	788	703
Glasscock County / Colorado Basin Total	1,049	985	946	869	788	703
County-Other	1,049	985	946	869	788	703

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

DRAFT Region F Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Howard County Total	36,259	37,313	37,885	37,115	36,276	35,361
Howard County / Colorado Basin Total	36,259	37,313	37,885	37,115	36,276	35,361
Big Spring	26,620	27,342	27,743	27,217	26,645	26,021
Coahoma	948	980	998	974	947	919
County-Other	8,691	8,991	9,144	8,924	8,684	8,421
Irion County Total	1,429	1,357	1,332	1,279	1,223	1,164
Irion County / Colorado Basin Total	1,429	1,357	1,332	1,279	1,223	1,164
Mertzson	657	632	631	621	613	607
County-Other	772	725	701	658	610	557
Kimble County Total	4,063	3,821	3,650	3,625	3,599	3,572
Kimble County / Colorado Basin Total	4,063	3,821	3,650	3,625	3,599	3,572
Junction	2,243	2,204	2,179	2,173	2,178	2,198
County-Other	1,820	1,617	1,471	1,452	1,421	1,374
Loving County Total	64	64	64	64	64	64
Loving County / Rio Grande Basin Total	64	64	64	64	64	64
County-Other	64	64	64	64	64	64
Martin County Total	5,543	5,896	6,311	6,530	6,769	7,030
Martin County / Colorado Basin Total	5,543	5,896	6,311	6,530	6,769	7,030
Stanton	2,724	2,996	3,318	3,666	4,061	4,509
County-Other	2,819	2,900	2,993	2,864	2,708	2,521
Mason County Total	3,821	3,708	3,666	3,661	3,656	3,651
Mason County / Colorado Basin Total	3,821	3,708	3,666	3,661	3,656	3,651
Mason	2,189	2,315	2,434	2,445	2,457	2,469
County-Other	1,632	1,393	1,232	1,216	1,199	1,182
McCulloch County Total	7,430	7,136	6,817	6,638	6,450	6,253
McCulloch County / Colorado Basin Total	7,430	7,136	6,817	6,638	6,450	6,253
Brady	5,566	5,383	5,189	5,093	4,994	4,898
Millersview-Doole WSC	212	214	217	224	234	249
Richland SUD*	603	569	542	523	510	508
County-Other	1,049	970	869	798	712	598

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

DRAFT Region F Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Menard County Total	1,767	1,637	1,524	1,496	1,467	1,437
Menard County / Colorado Basin Total	1,767	1,637	1,524	1,496	1,467	1,437
Menard	1,120	1,039	967	950	931	912
County-Other	647	598	557	546	536	525
Midland County Total	192,470	216,809	241,697	259,762	278,739	298,635
Midland County / Colorado Basin Total	192,470	216,809	241,697	259,762	278,739	298,635
Airline Mobile Home Park Ltd	1,829	2,086	2,342	2,530	2,727	2,930
Greater Gardendale WSC	1,910	2,354	2,788	3,109	3,437	3,775
Greenwood Water	872	855	844	833	827	825
Midland	145,256	158,703	173,777	192,755	214,523	239,562
Odessa	5,587	8,559	12,083	14,529	17,061	19,653
County-Other	37,016	44,252	49,863	46,006	40,164	31,890
Mitchell County Total	10,837	11,020	11,250	11,361	11,474	11,594
Mitchell County / Colorado Basin Total	10,837	11,020	11,250	11,361	11,474	11,594
Colorado City	6,600	6,626	6,559	6,626	6,697	6,768
Corix Utilities Texas Inc*	2,715	2,817	3,024	3,037	3,048	3,061
Loraine	587	531	386	372	358	342
County-Other	935	1,046	1,281	1,326	1,371	1,423
Pecos County Total	15,637	16,195	16,587	16,933	17,296	17,677
Pecos County / Rio Grande Basin Total	15,637	16,195	16,587	16,933	17,296	17,677
Fort Stockton	9,352	9,358	9,451	10,003	10,625	11,330
Iraan	1,034	1,055	1,075	1,103	1,135	1,169
Pecos County Fresh Water	675	638	630	709	797	900
Pecos County WCID 1	2,126	2,389	2,525	2,373	2,189	1,968
County-Other	2,450	2,755	2,906	2,745	2,550	2,310
Reagan County Total	3,490	3,592	3,633	3,641	3,649	3,657
Reagan County / Colorado Basin Total	3,490	3,592	3,633	3,641	3,649	3,657
Big Lake	2,996	3,085	3,120	3,127	3,133	3,140
County-Other	494	507	513	514	516	517
Reeves County Total	16,015	17,702	19,284	20,384	21,583	22,890
Reeves County / Rio Grande Basin Total	16,015	17,702	19,284	20,384	21,583	22,890
Balmorhea	391	440	487	517	550	587
Madera Valley WSC	1,905	2,087	2,257	2,381	2,514	2,660

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

DRAFT Region F Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Pecos	9,929	11,170	12,333	13,099	13,938	14,858
County-Other	3,790	4,005	4,207	4,387	4,581	4,785
Runnels County Total	9,842	9,786	9,662	9,620	9,576	9,530
Runnels County / Colorado Basin Total	9,842	9,786	9,662	9,620	9,576	9,530
Ballinger	3,611	3,638	3,655	3,699	3,753	3,821
Coleman County SUD*	94	88	79	71	63	53
Miles	845	871	901	936	977	1,026
Millersview-Doole WSC	596	599	599	604	611	619
North Runnels WSC*	1,353	1,403	1,462	1,527	1,607	1,703
Winters	2,367	2,267	2,126	2,010	1,873	1,712
County-Other	976	920	840	773	692	596
Schleicher County Total	2,107	1,806	1,522	1,291	1,049	795
Schleicher County / Colorado Basin Total	1,965	1,691	1,434	1,222	999	762
Eldorado	1,527	1,338	1,162	1,010	843	661
County-Other	438	353	272	212	156	101
Schleicher County / Rio Grande Basin Total	142	115	88	69	50	33
County-Other	142	115	88	69	50	33
Scurry County Total	17,450	18,006	18,344	18,517	18,699	18,890
Scurry County / Brazos Basin Total	807	855	879	884	889	895
County-Other	807	855	879	884	889	895
Scurry County / Colorado Basin Total	16,643	17,151	17,465	17,633	17,810	17,995
Snyder	11,619	11,877	12,060	12,190	12,327	12,471
U & F WSC	541	525	522	533	544	555
County-Other	4,483	4,749	4,883	4,910	4,939	4,969
Sterling County Total	1,704	2,226	2,923	3,824	4,806	5,876
Sterling County / Colorado Basin Total	1,704	2,226	2,923	3,824	4,806	5,876
Sterling City	1,425	1,918	2,542	3,362	4,269	5,274
County-Other	279	308	381	462	537	602
Sutton County Total	3,067	2,778	2,482	2,266	2,039	1,801
Sutton County / Colorado Basin Total	167	146	126	112	98	82
County-Other	167	146	126	112	98	82

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DRAFT Region F Water User Group (WUG) Population

	WUG Population					
	2030	2040	2050	2060	2070	2080
Sutton County / Rio Grande Basin Total	2,900	2,632	2,356	2,154	1,941	1,719
Sonora	2,169	1,991	1,803	1,663	1,514	1,358
County-Other	731	641	553	491	427	361
Tom Green County Total	132,573	145,445	156,800	168,070	180,354	193,744
Tom Green County / Colorado Basin Total	132,573	145,445	156,800	168,070	180,354	193,744
Concho Rural Water	7,562	8,518	9,366	10,214	11,137	12,142
DADS Supported Living Center	427	427	427	427	427	427
Goodfellow Air Force Base	2,330	2,330	2,330	2,330	2,330	2,330
Millersview-Doole WSC	3,761	4,424	5,203	6,120	7,198	8,466
San Angelo	103,937	112,120	119,305	126,371	134,086	142,509
Tom Green County FWSD 3	667	745	813	881	956	1,037
County-Other	13,889	16,881	19,356	21,727	24,220	26,833
Upton County Total	3,349	3,475	3,550	3,627	3,708	3,793
Upton County / Colorado Basin Total	195	203	203	195	185	169
County-Other	195	203	203	195	185	169
Upton County / Rio Grande Basin Total	3,154	3,272	3,347	3,432	3,523	3,624
McCamey	1,688	1,750	1,805	1,886	1,983	2,099
Rankin	740	768	790	821	855	896
County-Other	726	754	752	725	685	629
Ward County Total	12,954	14,666	16,450	18,013	19,717	21,574
Ward County / Rio Grande Basin Total	12,954	14,666	16,450	18,013	19,717	21,574
Barstow	265	300	338	369	404	443
Grandfalls	396	449	505	553	605	662
Monahans	8,438	9,548	10,705	11,720	12,826	14,030
Southwest Sandhills WSC	2,466	2,795	3,136	3,436	3,762	4,118
Wickett	448	508	570	624	683	748
County-Other	941	1,066	1,196	1,311	1,437	1,573
Winkler County Total	8,646	9,744	10,757	11,653	12,630	13,695
Winkler County / Rio Grande Basin Total	8,646	9,744	10,757	11,653	12,630	13,695
Kermit	7,184	8,275	9,297	10,195	11,175	12,242
Wink	794	804	805	808	812	816
County-Other	668	665	655	650	643	637
Region F Population Total	762,985	834,344	901,689	955,743	1,013,398	1,074,918

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DRAFT Region F Water User Group (WUG) Population

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TWDB DB27 Report #2 – 2026 RWP WUG Water Demand Projections

DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Andrews County Total	27,876	29,165	30,297	31,094	31,796	32,747
Andrews County / Colorado Basin Total	27,037	28,325	29,461	30,266	30,980	31,941
Andrews	4,487	5,472	6,603	7,746	8,990	10,346
County-Other	827	1,108	1,435	1,764	2,123	2,514
Manufacturing	596	618	641	665	690	716
Mining	4,143	4,143	3,798	3,107	2,193	1,381
Livestock	123	123	123	123	123	123
Irrigation	16,861	16,861	16,861	16,861	16,861	16,861
Andrews County / Rio Grande Basin Total	839	840	836	828	816	806
County-Other	3	4	5	6	7	8
Mining	57	57	52	43	30	19
Livestock	77	77	77	77	77	77
Irrigation	702	702	702	702	702	702
Borden County Total	6,349	6,357	6,092	5,554	4,838	4,217
Borden County / Brazos Basin Total	719	718	716	714	712	709
County-Other	13	12	10	8	6	3
Livestock	7	7	7	7	7	7
Irrigation	699	699	699	699	699	699
Borden County / Colorado Basin Total	5,630	5,639	5,376	4,840	4,126	3,508
Borden County Water System	138	155	184	223	272	335
U & F WSC	1	1	1	1	1	1
County-Other	89	81	70	57	40	19
Mining	3,374	3,374	3,093	2,531	1,785	1,125
Livestock	232	232	232	232	232	232
Irrigation	1,796	1,796	1,796	1,796	1,796	1,796
Brown County Total	16,374	16,447	16,478	16,519	16,563	16,610
Brown County / Brazos Basin Total	448	448	448	448	448	448
County-Other	5	5	5	5	5	5
Livestock	78	78	78	78	78	78
Irrigation	365	365	365	365	365	365
Brown County / Colorado Basin Total	15,926	15,999	16,030	16,071	16,115	16,162
Bangs	346	347	348	349	350	351
Brookesmith SUD	1,227	1,244	1,247	1,252	1,257	1,262

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Brownwood	3,827	3,854	3,862	3,875	3,889	3,906
Coleman County SUD*	33	33	34	34	34	34
Early	454	455	455	457	459	460
Zephyr WSC	572	580	581	582	584	587
County-Other	240	242	242	243	244	245
Manufacturing	454	471	488	506	525	544
Mining	560	560	560	560	560	560
Livestock	894	894	894	894	894	894
Irrigation	7,319	7,319	7,319	7,319	7,319	7,319
Coke County Total	1,691	1,737	1,787	1,864	1,949	2,043
Coke County / Colorado Basin Total	1,691	1,737	1,787	1,864	1,949	2,043
Bronte	280	298	318	349	383	420
Robert Lee	276	294	314	344	377	414
County-Other	147	157	167	183	201	221
Mining	106	106	106	106	106	106
Livestock	265	265	265	265	265	265
Irrigation	617	617	617	617	617	617
Coleman County Total	2,673	2,528	2,390	2,284	2,176	2,056
Coleman County / Colorado Basin Total	2,673	2,528	2,390	2,284	2,176	2,056
Brookesmith SUD	5	4	3	2	2	1
Coleman	712	616	520	446	365	272
Coleman County SUD*	651	612	578	553	530	506
Santa Anna	128	123	119	116	115	115
County-Other	17	13	10	7	4	2
Manufacturing	1	1	1	1	1	1
Livestock	741	741	741	741	741	741
Irrigation	418	418	418	418	418	418
Concho County Total	6,664	6,641	6,621	6,601	6,584	6,568
Concho County / Colorado Basin Total	6,664	6,641	6,621	6,601	6,584	6,568
Eden	664	649	635	621	611	604
Millersview-Doole WSC	147	149	151	153	156	160
County-Other	170	160	152	144	134	121
Livestock	479	479	479	479	479	479
Irrigation	5,204	5,204	5,204	5,204	5,204	5,204

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Crane County Total	4,966	5,253	5,516	5,736	5,349	5,525
Crane County / Rio Grande Basin Total	4,966	5,253	5,516	5,736	5,349	5,525
Crane	1,184	1,200	1,205	1,205	1,205	1,205
County-Other	182	228	272	308	348	392
Manufacturing	469	486	504	523	542	562
Mining	3,071	3,279	3,475	3,640	3,194	3,306
Livestock	60	60	60	60	60	60
Crockett County Total	7,734	7,655	7,069	6,004	4,608	3,361
Crockett County / Colorado Basin Total	11	10	10	10	10	10
County-Other	1	0	0	0	0	0
Livestock	5	5	5	5	5	5
Irrigation	5	5	5	5	5	5
Crockett County / Rio Grande Basin Total	7,723	7,645	7,059	5,994	4,598	3,351
Crockett County WCID 1	995	920	843	788	731	671
County-Other	65	61	55	51	47	43
Manufacturing	36	37	38	39	40	41
Mining	6,046	6,046	5,542	4,535	3,199	2,015
Livestock	509	509	509	509	509	509
Irrigation	72	72	72	72	72	72
Ector County Total	41,973	45,589	49,078	51,082	53,050	55,154
Ector County / Colorado Basin Total	40,997	44,634	48,233	50,278	52,296	54,433
Ector County Utility District	3,277	3,929	4,535	4,975	5,433	5,908
Greater Gardendale WSC	242	279	315	341	368	396
Odessa	21,766	24,868	28,681	30,457	32,216	33,964
County-Other	4,588	4,407	3,671	3,739	3,873	4,075
Manufacturing	719	746	774	803	833	864
Mining	1,768	1,768	1,620	1,326	936	589
Steam Electric Power	7,889	7,889	7,889	7,889	7,889	7,889
Livestock	72	72	72	72	72	72
Irrigation	676	676	676	676	676	676
Ector County / Rio Grande Basin Total	976	955	845	804	754	721
County-Other	540	519	433	441	456	480
Mining	293	293	269	220	155	98
Livestock	68	68	68	68	68	68

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Irrigation	75	75	75	75	75	75
Glasscock County Total	57,548	57,541	56,385	54,069	51,002	48,281
Glasscock County / Colorado Basin Total	57,548	57,541	56,385	54,069	51,002	48,281
County-Other	123	114	110	101	92	82
Manufacturing	42	44	46	48	50	52
Mining	13,854	13,854	12,700	10,391	7,331	4,618
Livestock	116	116	116	116	116	116
Irrigation	43,413	43,413	43,413	43,413	43,413	43,413
Howard County Total	30,643	30,990	30,235	28,170	25,427	22,983
Howard County / Colorado Basin Total	30,643	30,990	30,235	28,170	25,427	22,983
Big Spring	6,566	6,728	6,826	6,697	6,556	6,402
Coahoma	362	374	381	372	361	351
County-Other	1,023	1,051	1,069	1,043	1,015	984
Manufacturing	3,916	4,061	4,211	4,367	4,529	4,697
Mining	12,340	12,340	11,312	9,255	6,530	4,113
Steam Electric Power	1,141	1,141	1,141	1,141	1,141	1,141
Livestock	199	199	199	199	199	199
Irrigation	5,096	5,096	5,096	5,096	5,096	5,096
Irion County Total	12,133	12,124	11,233	9,450	7,089	4,993
Irion County / Colorado Basin Total	12,133	12,124	11,233	9,450	7,089	4,993
Mertzon	78	75	75	74	73	72
County-Other	90	84	81	76	71	64
Manufacturing	7	7	7	7	7	7
Mining	10,662	10,662	9,774	7,997	5,642	3,554
Livestock	242	242	242	242	242	242
Irrigation	1,054	1,054	1,054	1,054	1,054	1,054
Kimble County Total	3,697	3,661	3,638	3,635	3,632	3,631
Kimble County / Colorado Basin Total	3,697	3,661	3,638	3,635	3,632	3,631
Junction	523	512	506	505	506	511
County-Other	214	189	172	170	166	160
Manufacturing	50	50	50	50	50	50
Mining	1	1	1	1	1	1
Livestock	307	307	307	307	307	307

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Irrigation	2,602	2,602	2,602	2,602	2,602	2,602
Loving County Total	12,050	12,049	12,049	12,049	12,049	12,049
Loving County / Rio Grande Basin Total	12,050	12,049	12,049	12,049	12,049	12,049
County-Other	8	7	7	7	7	7
Mining	12,002	12,002	12,002	12,002	12,002	12,002
Livestock	40	40	40	40	40	40
Martin County Total	50,468	50,525	49,216	46,499	42,888	39,700
Martin County / Colorado Basin Total	50,468	50,525	49,216	46,499	42,888	39,700
Stanton	511	560	621	686	759	843
County-Other	359	367	379	362	342	319
Mining	16,590	16,590	15,208	12,443	8,779	5,530
Livestock	75	75	75	75	75	75
Irrigation	32,933	32,933	32,933	32,933	32,933	32,933
Mason County Total	6,571	6,581	6,600	6,602	6,604	6,606
Mason County / Colorado Basin Total	6,571	6,581	6,600	6,602	6,604	6,606
Mason	709	748	786	790	794	798
County-Other	194	165	146	144	142	140
Mining	176	176	176	176	176	176
Livestock	688	688	688	688	688	688
Irrigation	4,804	4,804	4,804	4,804	4,804	4,804
McCulloch County Total	5,129	5,054	4,987	4,946	4,906	4,868
McCulloch County / Colorado Basin Total	5,129	5,054	4,987	4,946	4,906	4,868
Brady	1,316	1,270	1,224	1,201	1,178	1,155
Millersview-Doole WSC	40	40	41	42	44	47
Richland SUD*	314	296	282	272	265	264
County-Other	160	147	132	121	108	91
Mining	673	675	682	684	685	685
Livestock	552	552	552	552	552	552
Irrigation	2,074	2,074	2,074	2,074	2,074	2,074
Menard County Total	4,113	4,088	4,066	4,062	4,056	4,051
Menard County / Colorado Basin Total	4,113	4,088	4,066	4,062	4,056	4,051
Menard	257	238	221	218	213	209

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
County-Other	76	70	65	64	63	62
Livestock	315	315	315	315	315	315
Irrigation	3,465	3,465	3,465	3,465	3,465	3,465
Midland County Total	69,922	73,967	76,995	77,735	77,843	78,487
Midland County / Colorado Basin Total	69,922	73,967	76,995	77,735	77,843	78,487
Airline Mobile Home Park Ltd	276	313	352	380	410	440
Greater Gardendale WSC	151	185	219	245	270	297
Greenwood Water	221	216	213	211	209	209
Midland	23,104	25,190	27,583	30,595	34,050	38,024
Odessa	1,072	1,636	2,310	2,777	3,261	3,757
County-Other	5,758	6,847	7,715	7,118	6,214	4,934
Manufacturing	6,462	6,701	6,949	7,206	7,473	7,750
Mining	14,703	14,704	13,479	11,028	7,781	4,901
Livestock	180	180	180	180	180	180
Irrigation	17,995	17,995	17,995	17,995	17,995	17,995
Mitchell County Total	22,900	22,918	22,903	22,863	22,805	22,758
Mitchell County / Colorado Basin Total	22,900	22,918	22,903	22,863	22,805	22,758
Colorado City	1,650	1,652	1,636	1,652	1,670	1,688
Corix Utilities Texas Inc*	503	520	558	560	562	565
Loraine	188	169	123	119	114	109
County-Other	159	177	217	224	232	241
Manufacturing	4	4	4	4	4	4
Mining	368	368	337	276	195	123
Steam Electric Power	6,725	6,725	6,725	6,725	6,725	6,725
Livestock	318	318	318	318	318	318
Irrigation	12,985	12,985	12,985	12,985	12,985	12,985
Pecos County Total	159,999	160,104	160,212	160,421	160,655	160,910
Pecos County / Rio Grande Basin Total	159,999	160,104	160,212	160,421	160,655	160,910
Fort Stockton	3,808	3,804	3,842	4,066	4,319	4,605
Iraan	364	371	378	387	399	411
Pecos County Fresh Water	252	238	235	264	297	336
Pecos County WCID 1	585	655	693	651	601	540
County-Other	314	351	370	349	325	294
Manufacturing	243	252	261	271	281	291
Mining	16,152	16,152	16,152	16,152	16,152	16,152

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Livestock	609	609	609	609	609	609
Irrigation	137,672	137,672	137,672	137,672	137,672	137,672
Reagan County Total	42,446	42,467	40,825	37,523	33,147	29,268
Reagan County / Colorado Basin Total	42,395	42,416	40,774	37,472	33,096	29,217
Big Lake	760	781	790	792	793	795
County-Other	67	67	68	68	68	69
Mining	19,823	19,823	18,171	14,867	10,490	6,608
Livestock	243	243	243	243	243	243
Irrigation	21,502	21,502	21,502	21,502	21,502	21,502
Reagan County / Rio Grande Basin Total	51	51	51	51	51	51
Livestock	51	51	51	51	51	51
Reeves County Total	100,755	101,357	101,933	102,325	102,751	103,218
Reeves County / Rio Grande Basin Total	100,755	101,357	101,933	102,325	102,751	103,218
Balmorhea	185	208	231	245	260	278
Madera Valley WSC	832	910	984	1,038	1,096	1,160
Pecos	3,843	4,317	4,766	5,063	5,387	5,742
County-Other	530	555	583	608	635	663
Manufacturing	45	47	49	51	53	55
Mining	34,986	34,986	34,986	34,986	34,986	34,986
Livestock	309	309	309	309	309	309
Irrigation	60,025	60,025	60,025	60,025	60,025	60,025
Runnels County Total	5,748	5,733	5,717	5,712	5,707	5,703
Runnels County / Colorado Basin Total	5,748	5,733	5,717	5,712	5,707	5,703
Ballinger	709	711	715	723	734	747
Coleman County SUD*	24	23	20	18	16	14
Miles	94	96	100	104	108	114
Millersview-Doole WSC	113	113	113	114	115	117
North Runnels WSC*	158	163	170	178	187	198
Winters	359	342	321	303	283	258
County-Other	91	85	78	72	64	55
Manufacturing	4	4	4	4	4	4
Livestock	679	679	679	679	679	679
Irrigation	3,517	3,517	3,517	3,517	3,517	3,517

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DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Schleicher County Total	6,521	6,446	6,082	5,436	4,594	3,837
Schleicher County / Colorado Basin Total	5,622	5,551	5,191	4,547	3,708	2,953
Eldorado	474	415	360	313	261	205
County-Other	61	49	38	29	22	14
Mining	3,529	3,529	3,235	2,647	1,867	1,176
Livestock	268	268	268	268	268	268
Irrigation	1,290	1,290	1,290	1,290	1,290	1,290
Schleicher County / Rio Grande Basin Total	899	895	891	889	886	884
County-Other	20	16	12	10	7	5
Livestock	154	154	154	154	154	154
Irrigation	725	725	725	725	725	725
Scurry County Total	10,359	10,425	10,453	10,435	10,401	10,377
Scurry County / Brazos Basin Total	1,919	1,924	1,927	1,926	1,923	1,922
County-Other	95	100	103	104	104	105
Mining	11	11	11	9	6	4
Livestock	156	156	156	156	156	156
Irrigation	1,657	1,657	1,657	1,657	1,657	1,657
Scurry County / Colorado Basin Total	8,440	8,501	8,526	8,509	8,478	8,455
Snyder	1,709	1,738	1,765	1,784	1,804	1,825
U & F WSC	94	91	90	92	94	96
County-Other	528	556	572	575	579	582
Manufacturing	199	206	214	222	230	239
Mining	295	295	270	221	156	98
Livestock	289	289	289	289	289	289
Irrigation	5,326	5,326	5,326	5,326	5,326	5,326
Sterling County Total	4,593	4,738	4,672	4,410	4,006	3,707
Sterling County / Colorado Basin Total	4,593	4,738	4,672	4,410	4,006	3,707
Sterling City	411	553	732	969	1,230	1,519
County-Other	32	35	44	53	61	69
Mining	3,047	3,047	2,793	2,285	1,612	1,016
Livestock	248	248	248	248	248	248
Irrigation	855	855	855	855	855	855

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

DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Sutton County Total	2,737	2,633	2,529	2,451	2,368	2,282
Sutton County / Colorado Basin Total	427	425	422	420	418	416
County-Other	22	20	17	15	13	11
Manufacturing	3	3	3	3	3	3
Mining	27	27	27	27	27	27
Livestock	196	196	196	196	196	196
Irrigation	179	179	179	179	179	179
Sutton County / Rio Grande Basin Total	2,310	2,208	2,107	2,031	1,950	1,866
Sonora	1,048	960	870	802	730	655
County-Other	99	85	74	66	57	48
Livestock	219	219	219	219	219	219
Irrigation	944	944	944	944	944	944
Tom Green County Total	74,043	76,003	77,740	79,388	81,151	83,123
Tom Green County / Colorado Basin Total	74,043	76,003	77,740	79,388	81,151	83,123
Concho Rural Water	945	1,060	1,165	1,271	1,385	1,511
DADS Supported Living Center	183	183	183	183	183	183
Goodfellow Air Force Base	469	467	467	467	467	467
Millersview-Doole WSC	713	836	983	1,156	1,360	1,600
San Angelo	17,593	18,903	20,114	21,305	22,606	24,026
Tom Green County FWSD 3	114	127	139	150	163	177
County-Other	1,771	2,143	2,457	2,758	3,075	3,407
Manufacturing	791	820	850	881	914	948
Mining	990	990	908	743	524	330
Livestock	874	874	874	874	874	874
Irrigation	49,600	49,600	49,600	49,600	49,600	49,600
Upton County Total	25,571	25,611	24,325	21,728	18,278	15,232
Upton County / Colorado Basin Total	22,235	22,240	21,094	18,797	15,751	13,051
County-Other	23	23	23	22	21	20
Manufacturing	122	127	132	137	141	146
Mining	13,808	13,808	12,657	10,356	7,307	4,603
Livestock	33	33	33	33	33	33
Irrigation	8,249	8,249	8,249	8,249	8,249	8,249
Upton County / Rio Grande Basin Total	3,336	3,371	3,231	2,931	2,527	2,181
McCamey	685	709	731	764	803	850

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

DRAFT Region F Water User Group (WUG) Demand

	WUG Demand (acre-feet per year)					
	2030	2040	2050	2060	2070	2080
Rankin	260	269	277	288	300	314
County-Other	85	87	87	84	79	72
Manufacturing	6	6	6	6	7	7
Mining	2,043	2,043	1,873	1,532	1,081	681
Livestock	88	88	88	88	88	88
Irrigation	169	169	169	169	169	169
Ward County Total	16,551	17,121	17,713	18,225	18,772	19,353
Ward County / Rio Grande Basin Total	16,551	17,121	17,713	18,225	18,772	19,353
Barstow	154	174	196	214	235	257
Grandfalls	225	255	287	315	344	377
Monahans	2,811	3,175	3,560	3,898	4,266	4,666
Southwest Sandhills WSC	378	426	479	524	574	628
Wickett	194	219	246	269	295	323
County-Other	173	194	217	238	261	286
Mining	8,170	8,232	8,282	8,321	8,351	8,370
Steam Electric Power	43	43	43	43	43	43
Livestock	70	70	70	70	70	70
Irrigation	4,333	4,333	4,333	4,333	4,333	4,333
Winkler County Total	18,949	19,944	20,960	21,813	22,615	23,357
Winkler County / Colorado Basin Total	620	651	685	712	736	756
Mining	620	651	685	712	736	756
Winkler County / Rio Grande Basin Total	18,329	19,293	20,275	21,101	21,879	22,601
Kermit	2,169	2,494	2,801	3,072	3,367	3,689
Wink	341	345	345	346	348	350
County-Other	116	115	113	112	111	110
Manufacturing	107	111	115	119	123	128
Mining	12,428	13,060	13,733	14,284	14,762	15,156
Livestock	100	100	100	100	100	100
Irrigation	3,068	3,068	3,068	3,068	3,068	3,068
Region F Demand Total	859,746	873,452	876,796	866,685	849,659	837,055

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

TWDB DB27 Report #3 - 2026 RWP Source Water Availability

DRAFT Region F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Groundwater Source Availability Total				1,109,172	1,099,698	1,092,813	1,088,190	1,084,701	1,082,695
Capitan Reef Complex Aquifer	Pecos	Rio Grande	Fresh/Brackish	26,168	26,168	26,168	26,168	26,168	26,168
Capitan Reef Complex Aquifer	Reeves	Rio Grande	Fresh	1,007	1,007	1,007	1,007	1,007	1,007
Capitan Reef Complex Aquifer	Ward	Rio Grande	Fresh/Brackish	103	103	103	103	103	103
Capitan Reef Complex Aquifer	Winkler	Rio Grande	Fresh	274	274	274	274	274	274
Cross Timbers Aquifer	Brown	Brazos	Fresh	0	0	0	0	0	0
Cross Timbers Aquifer	Brown	Colorado	Fresh	993	993	993	993	993	993
Cross Timbers Aquifer	Coleman	Colorado	Fresh	108	108	108	108	108	108
Cross Timbers Aquifer	Concho	Colorado	Fresh	0	0	0	0	0	0
Cross Timbers Aquifer	McCulloch	Colorado	Fresh	103	103	103	103	103	103
Cross Timbers Aquifer	Runnels	Colorado	Fresh	0	0	0	0	0	0
Dockum Aquifer	Andrews	Colorado	Fresh	1,503	1,503	1,503	1,503	1,503	1,503
Dockum Aquifer	Andrews	Rio Grande	Fresh	0	0	0	0	0	0
Dockum Aquifer	Borden	Brazos	Fresh	323	323	323	323	323	323
Dockum Aquifer	Borden	Colorado	Fresh	703	703	703	703	703	703
Dockum Aquifer	Coke	Colorado	Fresh/Brackish	100	100	100	100	100	100
Dockum Aquifer	Crane	Rio Grande	Fresh	94	94	94	94	94	94
Dockum Aquifer	Crockett	Colorado	Fresh	4	4	4	4	4	4
Dockum Aquifer	Crockett	Rio Grande	Fresh	2	2	2	2	2	2
Dockum Aquifer	Ector	Colorado	Fresh	28	28	28	28	28	28
Dockum Aquifer	Ector	Rio Grande	Fresh	721	721	721	721	721	721

* 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 F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Dockum Aquifer	Glasscock	Colorado	Fresh	900	900	900	900	900	900
Dockum Aquifer	Howard	Colorado	Fresh	6,770	6,770	6,770	6,770	6,770	6,770
Dockum Aquifer	Irion	Colorado	Fresh	150	150	150	150	150	150
Dockum Aquifer	Loving	Rio Grande	Fresh	453	453	453	453	453	453
Dockum Aquifer	Martin	Colorado	Fresh	11,449	11,449	11,449	11,449	11,449	11,449
Dockum Aquifer	Midland	Colorado	Fresh/ Brackish	1,000	1,000	1,000	1,000	1,000	1,000
Dockum Aquifer	Mitchell	Colorado	Fresh	14,018	14,018	14,018	14,018	14,018	14,018
Dockum Aquifer	Pecos	Rio Grande	Fresh	8,164	8,164	8,164	8,164	8,164	8,164
Dockum Aquifer	Reagan	Colorado	Fresh	962	962	962	962	962	962
Dockum Aquifer	Reagan	Rio Grande	Fresh	0	0	0	0	0	0
Dockum Aquifer	Reeves	Rio Grande	Fresh	2,539	2,539	2,539	2,539	2,539	2,539
Dockum Aquifer	Scurry	Brazos	Fresh	2,151	2,151	2,151	2,151	2,151	2,151
Dockum Aquifer	Scurry	Colorado	Fresh	9,546	9,546	9,335	9,248	9,175	9,175
Dockum Aquifer	Sterling	Colorado	Fresh	300	300	300	300	300	300
Dockum Aquifer	Tom Green	Colorado	Fresh/ Brackish	200	200	200	200	200	200
Dockum Aquifer	Upton	Rio Grande	Fresh	1,000	1,000	1,000	1,000	1,000	1,000
Dockum Aquifer	Ward	Rio Grande	Fresh	2,150	2,150	2,150	2,150	2,150	2,150
Dockum Aquifer	Winkler	Colorado	Fresh	13	13	13	13	13	13
Dockum Aquifer	Winkler	Rio Grande	Fresh	5,987	5,987	5,987	5,987	5,987	5,987
Edwards-Trinity-Plateau and Pecos Valley Aquifers	Crane	Rio Grande	Fresh	4,991	4,991	4,991	4,991	4,991	4,991

* 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 F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Edwards-Trinity-Plateau and Pecos Valley Aquifers	Loving	Rio Grande	Fresh	2,982	2,982	2,982	2,982	2,982	2,982
Edwards-Trinity-Plateau and Pecos Valley Aquifers	Pecos	Rio Grande	Fresh	122,899	122,899	122,899	122,899	122,899	122,899
Edwards-Trinity-Plateau and Pecos Valley Aquifers	Reeves	Rio Grande	Fresh	189,744	189,744	189,744	189,744	189,744	189,744
Edwards-Trinity-Plateau and Pecos Valley Aquifers	Ward	Rio Grande	Fresh	49,976	49,976	49,976	49,976	49,976	49,976
Edwards-Trinity-Plateau and Pecos Valley Aquifers	Winkler	Rio Grande	Fresh	49,949	49,949	49,949	49,949	49,949	49,949
Edwards-Trinity-Plateau Aquifer	Andrews	Colorado	Fresh	1,198	1,198	1,198	1,198	1,198	1,198
Edwards-Trinity-Plateau Aquifer	Howard	Colorado	Fresh	672	672	672	672	672	672
Edwards-Trinity-Plateau Aquifer	Martin	Colorado	Fresh	242	242	242	242	242	242
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Coke	Colorado	Fresh	997	997	997	997	997	997
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Concho	Colorado	Fresh	459	459	459	459	459	459
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Crockett	Colorado	Fresh	20	20	20	20	20	20
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Crockett	Rio Grande	Fresh	5,427	5,427	5,427	5,427	5,427	5,427
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Ector	Colorado	Fresh	4,925	4,925	4,925	4,925	4,925	4,925
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Ector	Rio Grande	Fresh	617	617	617	617	617	617
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Glasscock	Colorado	Fresh	65,186	65,186	65,186	65,186	65,186	65,186

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

DRAFT Region F Source Total Availability

Source Name	County	Basin	Salinity*	Source Availability (acre-feet per year)					
				2030	2040	2050	2060	2070	2080
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Irion	Colorado	Fresh	3,289	3,289	3,289	3,289	3,289	3,289
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Kimble	Colorado	Fresh	1,386	1,386	1,386	1,386	1,386	1,386
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Mason	Colorado	Fresh	18	18	18	18	18	18
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	McCulloch	Colorado	Fresh	600	600	600	600	600	600
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Menard	Colorado	Fresh	2,597	2,597	2,597	2,597	2,597	2,597
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Midland	Colorado	Fresh	23,233	23,233	23,233	23,233	23,233	23,233
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Mitchell	Colorado	Fresh	0	0	0	0	0	0
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Pecos	Rio Grande	Fresh/Brackish	117,309	117,309	117,309	117,309	117,309	117,309
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Reagan	Colorado	Fresh	68,205	68,205	68,205	68,205	68,205	68,205
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Reagan	Rio Grande	Fresh	28	28	28	28	28	28
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Schleicher	Colorado	Fresh	6,403	6,403	6,403	6,403	6,403	6,403
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Schleicher	Rio Grande	Fresh	1,631	1,631	1,631	1,631	1,631	1,631
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Sterling	Colorado	Fresh	2,495	2,495	2,495	2,495	2,495	2,495
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Sutton	Colorado	Fresh	388	388	388	388	388	388

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DRAFT Region F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Sutton	Rio Grande	Fresh	6,022	6,022	6,022	6,022	6,022	6,022
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Tom Green	Colorado	Fresh	2,797	2,797	2,797	2,797	2,797	2,797
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Upton	Colorado	Fresh	21,243	21,243	21,243	21,243	21,243	21,243
Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Upton	Rio Grande	Fresh	1,126	1,126	1,126	1,126	1,126	1,126
Ellenburger-San Saba Aquifer	Brown	Colorado	Fresh	131	131	131	131	131	131
Ellenburger-San Saba Aquifer	Coleman	Colorado	Fresh	0	0	0	0	0	0
Ellenburger-San Saba Aquifer	Kimble	Colorado	Fresh	521	521	521	521	521	521
Ellenburger-San Saba Aquifer	Mason	Colorado	Fresh	3,237	3,237	3,237	3,237	3,237	3,237
Ellenburger-San Saba Aquifer	McCulloch	Colorado	Fresh	4,364	4,364	4,364	4,364	4,364	4,364
Ellenburger-San Saba Aquifer	Menard	Colorado	Fresh	309	309	309	309	309	309
Hickory Aquifer	Brown	Colorado	Fresh	12	12	12	12	12	12
Hickory Aquifer	Coleman	Colorado	Fresh	500	500	500	500	500	500
Hickory Aquifer	Concho	Colorado	Fresh	27	27	27	27	27	27
Hickory Aquifer	Kimble	Colorado	Fresh	165	165	165	165	165	165
Hickory Aquifer	Mason	Colorado	Fresh	13,212	13,212	13,212	13,212	13,212	13,212
Hickory Aquifer	McCulloch	Colorado	Fresh	24,377	24,377	24,377	24,377	24,377	24,377
Hickory Aquifer	Menard	Colorado	Fresh	2,725	2,725	2,725	2,725	2,725	2,725
Igneous Aquifer	Pecos	Rio Grande	Fresh	80	80	80	80	80	80
Igneous Aquifer	Reeves	Rio Grande	Fresh	300	300	300	300	300	300

* 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 F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Lipan Aquifer	Coke	Colorado	Fresh/ Brackish	160	160	160	160	160	160
Lipan Aquifer	Concho	Colorado	Fresh	4,000	4,000	4,000	4,000	4,000	4,000
Lipan Aquifer	Glasscock	Colorado	Fresh	10	10	10	10	10	10
Lipan Aquifer	Irion	Colorado	Fresh	13	13	13	13	13	13
Lipan Aquifer	Runnels	Colorado	Fresh	45	45	45	45	45	45
Lipan Aquifer	Schleicher	Colorado	Fresh	0	0	0	0	0	0
Lipan Aquifer	Sterling	Colorado	Fresh	850	850	850	850	850	850
Lipan Aquifer	Tom Green	Colorado	Fresh	43,568	43,568	43,568	43,568	43,568	43,568
Marble Falls Aquifer	Brown	Colorado	Fresh	25	25	25	25	25	25
Marble Falls Aquifer	Kimble	Colorado	Fresh	100	100	100	100	100	100
Marble Falls Aquifer	Mason	Colorado	Fresh	100	100	100	100	100	100
Marble Falls Aquifer	McCulloch	Colorado	Fresh	50	50	50	50	50	50
Ogallala and Edwards-Trinity-High Plains Aquifers	Andrews	Colorado	Fresh	19,391	17,897	16,937	16,260	15,764	15,378
Ogallala and Edwards-Trinity-High Plains Aquifers	Andrews	Rio Grande	Fresh	0	0	0	0	0	0
Ogallala and Edwards-Trinity-High Plains Aquifers	Borden	Brazos	Fresh	673	615	581	559	543	532
Ogallala and Edwards-Trinity-High Plains Aquifers	Borden	Colorado	Fresh	3,759	3,278	3,010	2,834	2,684	2,540
Ogallala and Edwards-Trinity-High Plains Aquifers	Howard	Colorado	Fresh	15,631	14,818	14,365	14,090	13,915	13,800
Ogallala and Edwards-Trinity-High Plains Aquifers	Martin	Colorado	Fresh	48,293	43,032	39,019	36,358	34,521	33,171

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DRAFT Region F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Ogallala Aquifer	Ector	Colorado	Fresh	206	213	218	222	226	226
Ogallala Aquifer	Ector	Rio Grande	Fresh	0	0	0	0	0	0
Ogallala Aquifer	Glasscock	Colorado	Fresh	7,673	7,372	7,058	6,803	6,570	6,570
Ogallala Aquifer	Midland	Colorado	Fresh	15,442	14,369	13,732	13,258	12,745	12,745
Ogallala Aquifer	Winkler	Rio Grande	Fresh	40	40	40	40	40	40
Other Aquifer	Borden	Colorado	Fresh	2,598	2,598	2,598	2,598	2,598	2,598
Other Aquifer	Coke	Colorado	Fresh	2,100	2,100	2,100	2,100	2,100	2,100
Other Aquifer	Coleman	Colorado	Fresh	109	109	109	109	109	109
Other Aquifer	Concho	Colorado	Fresh	5,964	5,964	5,964	5,964	5,964	5,964
Other Aquifer	Mason	Colorado	Fresh	873	873	873	873	873	873
Other Aquifer	McCulloch	Colorado	Fresh	103	103	103	103	103	103
Other Aquifer	Mitchell	Colorado	Fresh	789	789	789	789	789	789
Other Aquifer	Pecos	Rio Grande	Fresh	10,000	10,000	10,000	10,000	10,000	10,000
Other Aquifer	Runnels	Colorado	Fresh	5,001	5,001	5,001	5,001	5,001	5,001
Other Aquifer	Scurry	Brazos	Brackish	74	74	74	74	74	74
Other Aquifer	Scurry	Colorado	Fresh	315	315	315	315	315	315
Pecos Valley Aquifer	Andrews	Rio Grande	Fresh	150	150	150	150	150	150
Rustler Aquifer	Crane	Rio Grande	Brackish	1,000	1,000	1,000	1,000	1,000	1,000
Rustler Aquifer	Loving	Rio Grande	Fresh	200	200	200	200	200	200
Rustler Aquifer	Pecos	Rio Grande	Fresh	7,043	7,043	7,043	7,043	7,043	7,043
Rustler Aquifer	Reeves	Rio Grande	Fresh	2,387	2,387	2,387	2,387	2,387	2,387

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

DRAFT Region F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Rustler Aquifer	Ward	Rio Grande	Fresh	0	0	0	0	0	0
Rustler Aquifer	Winkler	Rio Grande	Brackish	0	0	0	0	0	0
Seymour Aquifer	Scurry	Brazos	Fresh	10	10	10	10	10	10
Trinity Aquifer	Brown	Brazos	Fresh	51	51	51	51	51	51
Trinity Aquifer	Brown	Colorado	Fresh	1,376	1,376	1,376	1,376	1,376	1,376

Reuse Source Availability Total				50,049	50,049	49,936	49,707	49,304	49,037
Direct Reuse	Andrews	Colorado	Fresh	709	709	709	709	709	709
Direct Reuse	Concho	Colorado	Fresh	187	187	187	187	187	187
Direct Reuse	Crane	Rio Grande	Fresh	123	123	123	123	123	123
Direct Reuse	Ector	Colorado	Fresh	9,530	9,530	9,530	9,530	9,530	9,530
Direct Reuse	Howard	Colorado	Fresh	1,855	1,855	1,855	1,855	1,855	1,855
Direct Reuse	Midland	Colorado	Fresh	11,210	11,210	11,210	11,210	11,210	11,210
Direct Reuse	Mitchell	Colorado	Fresh	0	0	0	0	0	0
Direct Reuse	Pecos	Rio Grande	Fresh	1,511	1,511	1,511	1,511	1,511	1,511
Direct Reuse	Runnels	Colorado	Fresh	0	0	0	0	0	0
Direct Reuse	Scurry	Colorado	Fresh	1,124	1,124	1,124	1,124	1,124	1,124
Direct Reuse	Ward	Rio Grande	Fresh	1,017	1,017	1,017	1,017	1,017	1,017
Indirect Reuse	Tom Green	Colorado	Fresh	8,300	8,300	8,300	8,300	8,300	8,300
Water Recycling	Borden	Colorado	Fresh	596	596	546	447	315	199
Water Recycling	Crane	Rio Grande	Fresh	109	109	109	108	5	5
Water Recycling	Loving	Rio Grande	Fresh	2,118	2,118	2,118	2,118	2,118	2,118

* 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 F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Water Recycling	Pecos	Rio Grande	Fresh	2,851	2,851	2,851	2,851	2,851	2,851
Water Recycling	Reeves	Rio Grande	Fresh	6,175	6,175	6,175	6,175	6,175	6,175
Water Recycling	Scurry	Colorado	Fresh	54	54	50	41	29	18
Water Recycling	Sterling	Colorado	Fresh	538	538	493	403	285	179
Water Recycling	Tom Green	Colorado	Fresh	174	174	160	130	92	58
Water Recycling	Winkler	Rio Grande	Fresh	1,868	1,868	1,868	1,868	1,868	1,868

Surface Water Source Availability Total				131,066	130,108	127,531	123,333	118,083	113,321
Ballinger/Moonen Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Balmorhea Lake/Reservoir	Reservoir**	Rio Grande	Fresh	19,600	19,600	19,600	19,600	19,600	19,600
Brady Creek Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Brazos Livestock Local Supply	Borden	Brazos	Fresh	7	7	7	7	7	7
Brazos Livestock Local Supply	Brown	Brazos	Fresh	78	78	78	78	78	78
Brazos Livestock Local Supply	Scurry	Brazos	Fresh	130	130	130	130	130	130
Brownwood Lake/Reservoir	Reservoir**	Colorado	Fresh	15,550	15,420	15,290	15,160	15,030	14,900
Coleman Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Colorado City-Champion Lake/Reservoir System	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Colorado Livestock Local Supply	Borden	Colorado	Fresh	221	221	221	221	221	221
Colorado Livestock Local Supply	Brown	Colorado	Fresh	825	825	825	825	825	825
Colorado Livestock Local Supply	Coke	Colorado	Fresh	62	62	62	62	62	62
Colorado Livestock Local Supply	Coleman	Colorado	Fresh	797	797	797	797	797	797

* 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 F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Colorado Livestock Local Supply	Concho	Colorado	Fresh	287	287	287	287	287	287
Colorado Livestock Local Supply	Crockett	Colorado	Fresh	5	5	5	5	5	5
Colorado Livestock Local Supply	Ector	Colorado	Fresh	17	17	17	17	17	17
Colorado Livestock Local Supply	Glasscock	Colorado	Fresh	24	24	24	24	24	24
Colorado Livestock Local Supply	Howard	Colorado	Fresh	33	33	33	33	33	33
Colorado Livestock Local Supply	Irion	Colorado	Fresh	55	55	55	55	55	55
Colorado Livestock Local Supply	Kimble	Colorado	Fresh	104	104	104	104	104	104
Colorado Livestock Local Supply	Martin	Colorado	Fresh	25	25	25	25	25	25
Colorado Livestock Local Supply	Mason	Colorado	Fresh	176	176	176	176	176	176
Colorado Livestock Local Supply	McCulloch	Colorado	Fresh	136	136	136	136	136	136
Colorado Livestock Local Supply	Menard	Colorado	Fresh	49	49	49	49	49	49
Colorado Livestock Local Supply	Midland	Colorado	Fresh	2	2	2	2	2	2
Colorado Livestock Local Supply	Mitchell	Colorado	Fresh	266	266	266	266	266	266
Colorado Livestock Local Supply	Reagan	Colorado	Fresh	40	40	40	40	40	40
Colorado Livestock Local Supply	Runnels	Colorado	Fresh	383	383	383	383	383	383
Colorado Livestock Local Supply	Schleicher	Colorado	Fresh	15	15	15	15	15	15
Colorado Livestock Local Supply	Scurry	Colorado	Fresh	240	240	240	240	240	240
Colorado Livestock Local Supply	Sterling	Colorado	Fresh	26	26	26	26	26	26
Colorado Livestock Local Supply	Sutton	Colorado	Fresh	4	4	4	4	4	4
Colorado Livestock Local Supply	Tom Green	Colorado	Fresh	209	209	209	209	209	209

* 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 F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Colorado Other Local Supply	Andrews	Colorado	Fresh	741	741	680	556	392	247
Colorado Other Local Supply	Ector	Colorado	Fresh	363	363	332	272	191	120
Colorado Other Local Supply	Glasscock	Colorado	Fresh	2,445	2,445	2,241	1,833	1,293	815
Colorado Other Local Supply	Howard	Colorado	Fresh	2,178	2,178	1,997	1,634	1,153	726
Colorado Other Local Supply	Irion	Colorado	Fresh	1,882	1,882	1,725	1,411	996	627
Colorado Other Local Supply	Martin	Colorado	Fresh	2,928	2,928	2,684	2,196	1,549	976
Colorado Other Local Supply	Midland	Colorado	Fresh	2,595	2,595	2,379	1,946	1,373	864
Colorado Other Local Supply	Reagan	Colorado	Fresh	3,499	3,499	3,207	2,624	1,851	1,166
Colorado River MWD Lake/Reservoir System	Reservoir**	Colorado	Fresh	13,277	12,955	12,674	12,368	12,030	11,685
Colorado Run-of-River	Brown	Colorado	Fresh	162	162	162	162	162	162
Colorado Run-of-River	Coke	Colorado	Fresh	7	7	7	7	7	7
Colorado Run-of-River	Coleman	Colorado	Fresh	5	5	5	5	5	5
Colorado Run-of-River	Concho	Colorado	Fresh	181	181	181	181	181	181
Colorado Run-of-River	Ector	Colorado	Fresh	0	0	0	0	0	0
Colorado Run-of-River	Irion	Colorado	Fresh	111	111	111	111	111	111
Colorado Run-of-River	Kimble	Colorado	Fresh	902	902	902	902	902	902
Colorado Run-of-River	McCulloch	Colorado	Fresh	68	68	68	68	68	68
Colorado Run-of-River	Menard	Colorado	Fresh	1,175	1,175	1,175	1,175	1,175	1,175
Colorado Run-of-River	Mitchell	Colorado	Fresh	8	8	8	8	8	8
Colorado Run-of-River	Runnels	Colorado	Fresh	196	196	196	196	196	196
Colorado Run-of-River	Scurry	Colorado	Fresh	0	0	0	0	0	0

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

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

DRAFT Region F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Colorado Run-of-River	Sterling	Colorado	Fresh	27	27	27	27	27	27
Colorado Run-of-River	Sutton	Colorado	Fresh	0	0	0	0	0	0
Colorado Run-of-River	Tom Green	Colorado	Fresh	2,117	2,117	2,117	2,117	2,117	2,117
CRMWD Diverted Water System	Reservoir**	Colorado	Brackish	0	0	0	0	0	0
EV Spence Lake/Reservoir Non-System Portion	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Hords Creek Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Imperial Lake/Reservoir	Reservoir**	Rio Grande	Fresh	0	0	0	0	0	0
Mountain Creek Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Oak Creek Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
OH Ivie Lake/Reservoir Non-System Portion	Reservoir**	Colorado	Fresh	15,263	14,785	14,266	13,772	13,310	12,855
Red Bluff Lake/Reservoir	Reservoir**	Rio Grande	Fresh	16,180	16,152	16,124	16,096	16,068	16,040
Rio Grande Livestock Local Supply	Crane	Rio Grande	Fresh	3	3	3	3	3	3
Rio Grande Livestock Local Supply	Crockett	Rio Grande	Fresh	22	22	22	22	22	22
Rio Grande Livestock Local Supply	Loving	Rio Grande	Fresh	1	1	1	1	1	1
Rio Grande Livestock Local Supply	Pecos	Rio Grande	Fresh	32	32	32	32	32	32
Rio Grande Livestock Local Supply	Schleicher	Rio Grande	Fresh	9	9	9	9	9	9
Rio Grande Livestock Local Supply	Sutton	Rio Grande	Fresh	5	5	5	5	5	5
Rio Grande Livestock Local Supply	Ward	Rio Grande	Fresh	4	4	4	4	4	4
Rio Grande Livestock Local Supply	Winkler	Rio Grande	Fresh	2	2	2	2	2	2
Rio Grande Other Local Supply	Crockett	Rio Grande	Fresh	0	0	0	0	0	0

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

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

DRAFT Region F Source Total Availability

				Source Availability (acre-feet per year)					
Source Name	County	Basin	Salinity*	2030	2040	2050	2060	2070	2080
Rio Grande Other Local Supply	Upton	Rio Grande	Fresh	2,798	2,798	2,565	2,098	1,480	933
Rio Grande Other Local Supply	Ward	Rio Grande	Fresh	1,159	1,159	1,159	1,159	1,159	1,159
Rio Grande Run-of-River	Pecos	Rio Grande	Fresh	19,642	19,642	19,642	19,642	19,642	19,642
Rio Grande Run-of-River	Reeves	Rio Grande	Fresh	733	733	733	733	733	733
Rio Grande Run-of-River	Ward	Rio Grande	Fresh	980	980	980	980	980	980
San Angelo Lakes Lake/Reservoir System	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Winters Lake/Reservoir	Reservoir**	Colorado	Fresh	0	0	0	0	0	0
Region F Source Availability Total				1,290,287	1,279,855	1,270,280	1,261,230	1,252,088	1,245,053

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

TWDB DB27 Report #4 – 2026 RWP WUG Existing Water Supply

DRAFT Region F 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
Andrews County WUG Total			19,825	18,635	17,924	17,518	17,324	17,186
Andrews County / Colorado Basin WUG Total			19,618	18,428	17,722	17,325	17,144	17,017
Andrews	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	4,037	4,387	4,325	4,157	4,035	3,943
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	727	850	1,010	1,168	1,334	1,506
Manufacturing	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	526	478	457	447	441	437
Mining	F	Direct Reuse	1,412	1,263	1,364	1,652	2,036	2,375
Mining	F	Local Surface Water Supply	741	741	680	556	392	231
Livestock	F	Dockum Aquifer Andrews County	2	2	2	2	2	2
Livestock	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	106	93	85	80	76	72
Irrigation	F	Direct Reuse	709	709	709	709	709	709
Irrigation	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	11,358	9,905	9,090	8,554	8,119	7,742
Andrews County / Rio Grande Basin WUG Total			207	207	202	193	180	169
County-Other	F	Pecos Valley Aquifer Andrews County	1	1	1	1	2	2
Mining	F	Direct Reuse	57	57	52	43	30	19
Livestock	F	Pecos Valley Aquifer Andrews County	18	18	18	18	18	18
Irrigation	F	Pecos Valley Aquifer Andrews County	131	131	131	131	130	130

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

DRAFT Region F 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
Borden County WUG Total			5,874	5,882	5,848	5,586	4,821	4,137
Borden County / Brazos Basin WUG Total			719	718	716	714	712	709
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Borden County	13	12	10	8	6	3
Livestock	F	Local Surface Water Supply	7	7	7	7	7	7
Irrigation	F	Ogallala and Edwards-Trinity-High Plains Aquifers Borden County	699	699	699	699	699	699
Borden County / Colorado Basin WUG Total			5,155	5,164	5,132	4,872	4,109	3,428
Borden County Water System	O	Ogallala and Edwards-Trinity-High Plains Aquifers Dawson County	138	155	184	201	201	201
U & F WSC	F	Dockum Aquifer Scurry County	1	1	1	1	1	1
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Borden County	68	60	49	36	19	10
County-Other	F	Other Aquifer Borden County	21	21	21	21	21	9
Mining	F	Other Aquifer Borden County	2,249	2,249	2,249	2,084	1,470	926
Mining	F	Water Recycling	596	596	546	447	315	199
Livestock	F	Dockum Aquifer Borden County	20	20	20	20	20	20
Livestock	F	Local Surface Water Supply	221	221	221	221	221	221
Livestock	F	Ogallala and Edwards-Trinity-High Plains Aquifers Borden County	45	45	45	45	45	45
Irrigation	F	Ogallala and Edwards-Trinity-High Plains Aquifers Borden County	1,468	1,468	1,468	1,468	1,468	1,468
Irrigation	F	Other Aquifer Borden County	328	328	328	328	328	328
Brown County WUG Total			16,052	16,125	16,156	16,197	16,241	16,288
Brown County / Brazos Basin WUG Total			129	129	129	129	129	129
County-Other	F	Trinity Aquifer Brown County	5	5	5	5	5	5

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

DRAFT Region F 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	F	Local Surface Water Supply	78	78	78	78	78	78
Irrigation	F	Trinity Aquifer Brown County	46	46	46	46	46	46
Brown County / Colorado Basin WUG Total			15,923	15,996	16,027	16,068	16,112	16,159
Bangs	F	Brownwood Lake/Reservoir	346	347	348	349	350	351
Brookesmith SUD	F	Brownwood Lake/Reservoir	1,227	1,244	1,247	1,252	1,257	1,262
Brownwood	F	Brownwood Lake/Reservoir	3,827	3,854	3,862	3,875	3,889	3,906
Coleman County SUD*	F	Brownwood Lake/Reservoir	30	30	31	31	31	31
Coleman County SUD*	F	Coleman Lake/Reservoir	0	0	0	0	0	0
Coleman County SUD*	F	Hords Creek Lake/Reservoir	0	0	0	0	0	0
Early	F	Brownwood Lake/Reservoir	454	455	455	457	459	460
Zephyr WSC	F	Brownwood Lake/Reservoir	572	580	581	582	584	587
County-Other	F	Cross Timbers Aquifer Brown County	50	50	50	50	50	50
County-Other	F	Trinity Aquifer Brown County	190	192	192	193	194	195
Manufacturing	F	Brownwood Lake/Reservoir	454	471	488	506	525	544
Mining	F	Brownwood Lake/Reservoir	560	560	560	560	560	560
Livestock	F	Cross Timbers Aquifer Brown County	35	35	35	35	35	35
Livestock	F	Local Surface Water Supply	825	825	825	825	825	825
Livestock	F	Trinity Aquifer Brown County	34	34	34	34	34	34
Irrigation	F	Brownwood Lake/Reservoir	6,000	6,000	6,000	6,000	6,000	6,000
Irrigation	F	Colorado Run-of-River	162	162	162	162	162	162
Irrigation	F	Cross Timbers Aquifer Brown County	20	20	20	20	20	20

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DRAFT Region F 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	F	Trinity Aquifer Brown County	1,137	1,137	1,137	1,137	1,137	1,137
Coke County WUG Total			1,560	1,567	1,574	1,585	1,597	1,610
Coke County / Colorado Basin WUG Total			1,560	1,567	1,574	1,585	1,597	1,610
Bronte	F	Oak Creek Lake/Reservoir	0	0	0	0	0	0
Bronte	F	Other Aquifer Coke County	249	249	249	249	249	249
Robert Lee	F	Oak Creek Lake/Reservoir	0	0	0	0	0	0
Robert Lee	F	Other Aquifer Coke County	176	173	170	165	159	152
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Coke County	31	31	31	31	31	31
County-Other	F	Oak Creek Lake/Reservoir	0	0	0	0	0	0
County-Other	F	Other Aquifer Coke County	116	126	136	152	170	190
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Coke County	106	106	106	106	106	106
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Coke County	66	66	66	66	66	66
Livestock	F	Local Surface Water Supply	62	62	62	62	62	62
Livestock	F	Other Aquifer Coke County	137	137	137	137	137	137
Irrigation	F	Colorado Run-of-River	4	4	4	4	4	4
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Coke County	43	43	43	43	43	43
Irrigation	F	Other Aquifer Coke County	570	570	570	570	570	570
Coleman County WUG Total			1,517	1,476	1,440	1,414	1,392	1,369
Coleman County / Colorado Basin WUG Total			1,517	1,476	1,440	1,414	1,392	1,369
Brookesmith SUD	F	Brownwood Lake/Reservoir	5	4	3	2	2	1
Coleman	F	Coleman Lake/Reservoir	0	0	0	0	0	0

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DRAFT Region F 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
Coleman	F	Hords Creek Lake/Reservoir	0	0	0	0	0	0
Coleman County SUD*	F	Brownwood Lake/Reservoir	586	551	520	498	477	455
Coleman County SUD*	F	Coleman Lake/Reservoir	0	0	0	0	0	0
Coleman County SUD*	F	Hords Creek Lake/Reservoir	0	0	0	0	0	0
Santa Anna	F	Brownwood Lake/Reservoir	128	123	119	116	115	115
County-Other	F	Coleman Lake/Reservoir	0	0	0	0	0	0
County-Other	F	Hords Creek Lake/Reservoir	0	0	0	0	0	0
Manufacturing	F	Coleman Lake/Reservoir	0	0	0	0	0	0
Manufacturing	F	Hords Creek Lake/Reservoir	0	0	0	0	0	0
Livestock	F	Local Surface Water Supply	721	721	721	721	721	721
Livestock	F	Other Aquifer Coleman County	20	20	20	20	20	20
Irrigation	F	Coleman Lake/Reservoir	0	0	0	0	0	0
Irrigation	F	Colorado Run-of-River	5	5	5	5	5	5
Irrigation	F	Cross Timbers Aquifer Coleman County	52	52	52	52	52	52
Concho County WUG Total			6,214	6,206	6,185	6,158	6,131	6,105
Concho County / Colorado Basin WUG Total			6,214	6,206	6,185	6,158	6,131	6,105
Eden	F	Direct Reuse	187	187	187	187	187	187
Eden	F	Hickory Aquifer Concho County	27	27	27	27	27	27
Eden	F	Other Aquifer Concho County	0	0	0	0	0	0
Millersview-Doole WSC	F	Hickory Aquifer McCulloch County	60	76	79	71	63	56
Millersview-Doole WSC	F	OH Ivie Lake/Reservoir Non-System Portion	87	73	57	46	37	31
County-Other	F	Colorado Run-of-River	35	35	35	35	35	35
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Concho County	135	125	117	109	99	86

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DRAFT Region F 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	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Concho County	151	151	151	151	151	151
Livestock	F	Local Surface Water Supply	287	287	287	287	287	287
Livestock	F	Other Aquifer Concho County	41	41	41	41	41	41
Irrigation	F	Colorado Run-of-River	146	146	146	146	146	146
Irrigation	F	Lipan Aquifer Concho County	4,000	4,000	4,000	4,000	4,000	4,000
Irrigation	F	Other Aquifer Concho County	1,058	1,058	1,058	1,058	1,058	1,058
Crane County WUG Total			4,966	5,253	5,438	5,437	5,334	5,334
Crane County / Rio Grande Basin WUG Total			4,966	5,253	5,438	5,437	5,334	5,334
Crane	F	Direct Reuse	123	123	123	123	123	123
Crane	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Crane County	947	960	964	964	964	964
Crane	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	114	117	118	118	118	118
County-Other	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Crane County	182	228	272	308	348	392
Manufacturing	F	Dockum Aquifer Crane County	94	94	94	94	94	94
Manufacturing	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Crane County	375	392	410	429	448	468
Mining	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Crane County	2,962	3,170	3,288	3,233	3,174	3,110
Mining	F	Water Recycling	109	109	109	108	5	5
Livestock	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Crane County	57	57	57	57	57	57
Livestock	F	Local Surface Water Supply	3	3	3	3	3	3

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DRAFT Region F 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
Crockett County WUG Total			5,459	5,459	5,459	5,459	4,608	3,361
Crockett County / Colorado Basin WUG Total			11	10	10	10	10	10
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	1	0	0	0	0	0
Livestock	F	Local Surface Water Supply	5	5	5	5	5	5
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	5	5	5	5	5	5
Crockett County / Rio Grande Basin WUG Total			5,448	5,449	5,449	5,449	4,598	3,351
Crockett County WCID 1	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	995	920	843	788	731	671
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	65	61	55	51	47	43
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	36	37	38	39	40	41
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	3,771	3,850	3,932	3,990	3,199	2,015
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	487	487	487	487	487	487
Livestock	F	Local Surface Water Supply	22	22	22	22	22	22
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Crockett County	72	72	72	72	72	72
Ector County WUG Total			40,701	41,899	40,893	39,014	37,995	37,019
Ector County / Colorado Basin WUG Total			39,725	40,944	40,048	38,210	37,241	36,298
Ector County Utility District	F	Colorado River MWD Lake/Reservoir System	817	879	906	931	952	968
Ector County Utility District	F	Direct Reuse	114	126	133	140	147	154
Ector County Utility District	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	2,282	2,572	2,584	2,459	2,444	2,413

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DRAFT Region F 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
Ector County Utility District	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	64	63	60	59	59	59
Greater Gardendale WSC	F	Colorado River MWD Lake/Reservoir System	15	31	63	64	64	65
Greater Gardendale WSC	F	Direct Reuse	2	4	9	10	10	10
Greater Gardendale WSC	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	43	92	180	169	166	162
Greater Gardendale WSC	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	181	139	0	0	0	0
Greater Gardendale WSC	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	1	2	4	4	4	4
Odessa	F	Colorado River MWD Lake/Reservoir System	5,424	5,562	5,729	5,701	5,644	5,565
Odessa	F	Direct Reuse	759	797	837	854	870	885
Odessa	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	15,163	16,279	16,343	15,055	14,491	13,872
Odessa	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	420	396	378	358	347	339
County-Other	F	Dockum Aquifer Ector County	20	20	20	20	20	20
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	4,306	4,126	3,389	3,456	3,588	3,792
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	60	52	48	45	43	41
County-Other	F	Ogallala Aquifer Ector County	202	209	214	218	222	222
Manufacturing	F	Colorado River MWD Lake/Reservoir System	87	78	70	66	61	57
Manufacturing	F	Direct Reuse	12	11	10	10	9	9
Manufacturing	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	244	229	199	173	157	143

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DRAFT Region F 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
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	154	234	318	388	448	505
Manufacturing	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	215	188	172	162	154	147
Manufacturing	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	7	6	5	4	4	3
Mining	F	Direct Reuse	1,141	1,290	1,218	988	682	409
Mining	F	Local Surface Water Supply	363	363	332	272	191	120
Mining	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	264	115	70	66	63	60
Steam Electric Power	F	Colorado River MWD Lake/Reservoir System	559	501	448	420	393	367
Steam Electric Power	F	Direct Reuse	78	72	66	63	61	58
Steam Electric Power	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	1,561	1,468	1,278	1,108	1,008	916
Steam Electric Power	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	15	15	15	15	15	15
Steam Electric Power	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	1,011	881	808	762	722	689
Steam Electric Power	O	Ogallala and Edwards-Trinity-High Plains Aquifers Gaines County	3,222	3,293	3,387	3,493	3,574	3,647
Steam Electric Power	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	44	36	30	26	24	22
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	51	51	51	51	51	51
Livestock	F	Local Surface Water Supply	17	17	17	17	17	17

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DRAFT Region F 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	F	Ogallala Aquifer Ector County	4	4	4	4	4	4
Irrigation	F	Colorado River MWD Lake/Reservoir System	200	179	161	150	141	132
Irrigation	F	Direct Reuse	28	26	24	22	22	20
Irrigation	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	559	526	458	397	361	328
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	0	0	0	0	0	0
Irrigation	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	16	12	10	10	8	8
Irrigation	F	Ogallala Aquifer Ector County	0	0	0	0	0	0
Ector County / Rio Grande Basin WUG Total			976	955	845	804	754	721
County-Other	F	Dockum Aquifer Ector County	66	66	66	66	66	66
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	474	453	367	375	390	414
Mining	F	Direct Reuse	193	193	169	120	55	0
Mining	F	Dockum Aquifer Ector County	100	100	100	100	100	98
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	68	68	68	68	68	68
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	75	75	75	75	75	75
Glasscock County WUG Total			57,548	57,541	56,385	54,069	51,002	48,281
Glasscock County / Colorado Basin WUG Total			57,548	57,541	56,385	54,069	51,002	48,281
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Glasscock County	123	114	110	101	92	82

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DRAFT Region F 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
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Glasscock County	42	44	46	48	50	52
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Glasscock County	11,409	11,409	10,459	8,558	6,038	3,803
Mining	F	Local Surface Water Supply	2,445	2,445	2,241	1,833	1,293	815
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Glasscock County	68	68	68	68	68	68
Livestock	F	Local Surface Water Supply	24	24	24	24	24	24
Livestock	F	Ogallala Aquifer Glasscock County	24	24	24	24	24	24
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Glasscock County	36,901	36,901	36,901	36,901	36,901	36,901
Irrigation	F	Ogallala Aquifer Glasscock County	6,512	6,512	6,512	6,512	6,512	6,512
Howard County WUG Total			28,236	26,899	25,271	23,667	22,298	19,415
Howard County / Colorado Basin WUG Total			28,236	26,899	25,271	23,667	22,298	19,415
Big Spring	F	Colorado River MWD Lake/Reservoir System	1,636	1,505	1,364	1,254	1,148	1,049
Big Spring	F	Direct Reuse	229	215	200	188	177	167
Big Spring	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	4,573	4,404	3,890	3,311	2,949	2,615
Big Spring	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	128	107	90	79	71	64
Coahoma	F	Colorado River MWD Lake/Reservoir System	90	84	76	70	63	58
Coahoma	F	Direct Reuse	13	12	11	10	10	9
Coahoma	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	252	245	217	184	162	143

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DRAFT Region F 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
Coahoma	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	7	6	5	4	4	4
County-Other	F	Dockum Aquifer Howard County	77	77	77	77	77	77
County-Other	F	Edwards-Trinity-Plateau Aquifer Howard County	150	150	150	150	150	150
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Howard County	796	824	842	816	788	757
Manufacturing	F	Colorado River MWD Lake/Reservoir System	374	335	300	281	263	246
Manufacturing	F	Direct Reuse	52	48	44	42	41	39
Manufacturing	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	1,045	982	855	742	675	613
Manufacturing	F	Edwards-Trinity-Plateau Aquifer Howard County	110	110	110	110	110	110
Manufacturing	F	Ogallala and Edwards-Trinity-High Plains Aquifers Howard County	2,306	2,451	2,601	2,757	2,919	3,087
Manufacturing	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	29	24	20	18	16	15
Mining	F	Local Surface Water Supply	2,178	2,178	1,997	1,634	1,153	726
Mining	F	Ogallala and Edwards-Trinity-High Plains Aquifers Howard County	7,756	6,770	6,149	5,744	5,377	3,387
Steam Electric Power	F	Colorado River MWD Lake/Reservoir System	214	192	171	161	150	141
Steam Electric Power	F	Direct Reuse	30	27	25	24	23	22
Steam Electric Power	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	597	562	489	424	386	350
Steam Electric Power	F	Ogallala and Edwards-Trinity-High Plains Aquifers Howard County	282	282	282	282	282	282
Steam Electric Power	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	17	14	11	10	9	9

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DRAFT Region F 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	F	Dockum Aquifer Howard County	20	20	20	20	20	20
Livestock	F	Edwards-Trinity-Plateau Aquifer Howard County	40	40	40	40	40	40
Livestock	F	Local Surface Water Supply	33	33	33	33	33	33
Livestock	F	Ogallala and Edwards-Trinity-High Plains Aquifers Howard County	106	106	106	106	106	106
Irrigation	F	Dockum Aquifer Howard County	339	339	339	339	339	339
Irrigation	F	Edwards-Trinity-Plateau Aquifer Howard County	372	372	372	372	372	372
Irrigation	F	Ogallala and Edwards-Trinity-High Plains Aquifers Howard County	4,385	4,385	4,385	4,385	4,385	4,385
Irion County WUG Total			5,500	5,500	5,343	5,029	4,614	4,245
Irion County / Colorado Basin WUG Total			5,500	5,500	5,343	5,029	4,614	4,245
Mertzon	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Irion County	78	75	75	74	73	72
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Irion County	90	84	81	76	71	64
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Irion County	7	7	7	7	7	7
Mining	F	Dockum Aquifer Irion County	150	150	150	150	150	150
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Irion County	2,602	2,611	2,614	2,620	2,626	2,634
Mining	F	Lipan Aquifer Irion County	13	13	13	13	13	13
Mining	F	Local Surface Water Supply	1,882	1,882	1,725	1,411	996	627
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Irion County	187	187	187	187	187	187
Livestock	F	Local Surface Water Supply	55	55	55	55	55	55

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DRAFT Region F 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	F	Colorado Run-of-River	111	111	111	111	111	111
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Irion County	325	325	325	325	325	325
Kimble County WUG Total			1,881	1,856	1,839	1,837	1,833	1,827
Kimble County / Colorado Basin WUG Total			1,881	1,856	1,839	1,837	1,833	1,827
Junction	F	Colorado Run-of-River	0	0	0	0	0	0
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Kimble County	194	169	152	150	146	140
County-Other	F	Marble Falls Aquifer Kimble County	20	20	20	20	20	20
Manufacturing	F	Colorado Run-of-River	13	13	13	13	13	13
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Kimble County	2	2	2	2	2	2
Mining	F	Colorado Run-of-River	0	0	0	0	0	0
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Kimble County	1	1	1	1	1	1
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Kimble County	203	203	203	203	203	203
Livestock	F	Local Surface Water Supply	104	104	104	104	104	104
Irrigation	F	Colorado Run-of-River	889	889	889	889	889	889
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Kimble County	400	400	400	400	400	400
Irrigation	F	Hickory Aquifer Kimble County	55	55	55	55	55	55
Loving County WUG Total			5,325	5,325	5,325	5,325	5,326	5,326
Loving County / Rio Grande Basin WUG Total			5,325	5,325	5,325	5,325	5,326	5,326
County-Other	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Loving County	8	7	7	7	7	7
Mining	F	Dockum Aquifer Loving County	429	430	431	432	433	434

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DRAFT Region F 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
Mining	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Loving County	2,530	2,530	2,529	2,528	2,528	2,527
Mining	F	Rustler Aquifer Loving County	200	200	200	200	200	200
Mining	F	Water Recycling	2,118	2,118	2,118	2,118	2,118	2,118
Livestock	F	Dockum Aquifer Loving County	24	23	22	21	20	19
Livestock	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Loving County	15	16	17	18	19	20
Livestock	F	Local Surface Water Supply	1	1	1	1	1	1
Martin County WUG Total			49,836	45,046	41,128	38,200	35,869	34,056
Martin County / Colorado Basin WUG Total			49,836	45,046	41,128	38,200	35,869	34,056
Stanton	F	Colorado River MWD Lake/Reservoir System	77	69	61	57	54	50
Stanton	F	Direct Reuse	11	10	9	9	8	8
Stanton	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	213	201	175	152	138	125
Stanton	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	159	158	157	157	156	156
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	359	367	379	362	342	319
Mining	F	Direct Reuse	2,803	2,803	2,803	2,803	2,803	2,803
Mining	F	Local Surface Water Supply	2,928	2,928	2,684	2,196	1,549	976
Mining	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	10,715	9,531	7,928	5,971	3,643	1,492
Livestock	F	Local Surface Water Supply	25	25	25	25	25	25
Livestock	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	50	50	50	50	50	50

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DRAFT Region F 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	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	32,496	28,904	26,857	26,418	27,101	28,052
Mason County WUG Total			6,423	6,394	6,375	6,373	6,371	6,369
Mason County / Colorado Basin WUG Total			6,423	6,394	6,375	6,373	6,371	6,369
Mason	F	Hickory Aquifer Mason County	561	561	561	561	561	561
County-Other	F	Ellenburger-San Saba Aquifer Mason County	15	15	15	15	15	15
County-Other	F	Hickory Aquifer Mason County	154	125	106	104	102	100
County-Other	F	Other Aquifer Mason County	25	25	25	25	25	25
Mining	F	Hickory Aquifer Mason County	176	176	176	176	176	176
Livestock	F	Ellenburger-San Saba Aquifer Mason County	50	50	50	50	50	50
Livestock	F	Hickory Aquifer Mason County	462	462	462	462	462	462
Livestock	F	Local Surface Water Supply	176	176	176	176	176	176
Irrigation	F	Hickory Aquifer Mason County	4,804	4,804	4,804	4,804	4,804	4,804
McCulloch County WUG Total			4,927	4,916	4,906	4,894	4,876	4,854
McCulloch County / Colorado Basin WUG Total			4,927	4,916	4,906	4,894	4,876	4,854
Brady	F	Brady Creek Lake/Reservoir	0	0	0	0	0	0
Brady	F	Hickory Aquifer McCulloch County	1,116	1,116	1,116	1,116	1,116	1,116
Millersview-Doole WSC	F	Hickory Aquifer McCulloch County	16	20	22	19	18	17
Millersview-Doole WSC	F	OH Ivie Lake/Reservoir Non-System Portion	24	20	16	12	11	9
Richland SUD*	K	Ellenburger-San Saba Aquifer San Saba County	156	156	156	158	156	155
Richland SUD*	K	Marble Falls Aquifer San Saba County	156	156	156	158	156	155

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DRAFT Region F 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
County-Other	F	Hickory Aquifer McCulloch County	110	97	82	71	58	41
County-Other	F	Other Aquifer McCulloch County	50	50	50	50	50	50
Mining	F	Hickory Aquifer McCulloch County	673	675	682	684	685	685
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers McCulloch County	3	3	3	3	3	3
Livestock	F	Ellenburger-San Saba Aquifer McCulloch County	154	170	170	170	170	170
Livestock	F	Hickory Aquifer McCulloch County	206	190	190	190	190	190
Livestock	F	Local Surface Water Supply	136	136	136	136	136	136
Livestock	F	Other Aquifer McCulloch County	53	53	53	53	53	53
Irrigation	F	Colorado Run-of-River	68	68	68	68	68	68
Irrigation	F	Hickory Aquifer McCulloch County	1,986	1,986	1,986	1,986	1,986	1,986
Irrigation	F	Marble Falls Aquifer McCulloch County	20	20	20	20	20	20
Menard County WUG Total			4,069	4,063	4,058	4,057	4,056	4,055
Menard County / Colorado Basin WUG Total			4,069	4,063	4,058	4,057	4,056	4,055
Menard	F	Colorado Run-of-River	213	213	213	213	213	213
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Menard County	71	66	63	63	62	61
County-Other	F	Ellenburger-San Saba Aquifer Menard County	5	4	2	1	1	1
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Menard County	260	260	260	260	260	260
Livestock	F	Ellenburger-San Saba Aquifer Menard County	6	6	6	6	6	6
Livestock	F	Local Surface Water Supply	49	49	49	49	49	49
Irrigation	F	Colorado Run-of-River	962	962	962	962	962	962

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DRAFT Region F 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	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Menard County	468	468	468	468	468	468
Irrigation	F	Hickory Aquifer Menard County	2,035	2,035	2,035	2,035	2,035	2,035
Midland County WUG Total			85,077	85,430	83,938	79,912	75,250	70,649
Midland County / Colorado Basin WUG Total			85,077	85,430	83,938	79,912	75,250	70,649
Airline Mobile Home Park Ltd	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Midland County	235	272	311	339	369	399
Airline Mobile Home Park Ltd	F	Ogallala Aquifer Midland County	41	41	41	41	41	41
Greater Gardendale WSC	F	Colorado River MWD Lake/Reservoir System	9	21	44	46	47	49
Greater Gardendale WSC	F	Direct Reuse	1	3	6	7	7	8
Greater Gardendale WSC	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	27	61	125	121	121	121
Greater Gardendale WSC	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Ector County	113	92	0	0	0	0
Greater Gardendale WSC	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	1	1	3	3	3	3
Greenwood Water	F	Ogallala Aquifer Midland County	221	216	213	211	209	209
Midland	F	Colorado River MWD Lake/Reservoir System	2,719	2,433	2,165	2,025	1,890	1,763
Midland	F	Direct Reuse	390	359	327	315	303	291
Midland	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	7,801	7,332	6,382	5,537	5,038	4,575
Midland	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	16,815	16,815	16,815	16,815	16,815	16,815
Midland	F	Ogallala and Edwards-Trinity-High Plains Aquifers Andrews County	1,087	948	870	818	777	741

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DRAFT Region F 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
Midland	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	3,703	3,283	2,964	2,756	2,612	2,506
Midland	F	OH Ivie Lake/Reservoir Non-System Portion	4,721	4,588	4,456	4,324	4,191	4,059
Odessa	F	Colorado River MWD Lake/Reservoir System	267	366	461	520	571	616
Odessa	F	Direct Reuse	37	52	68	78	88	98
Odessa	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	747	1,071	1,316	1,373	1,467	1,535
Odessa	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	21	26	30	33	35	37
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Midland County	2,342	2,524	2,656	2,916	3,198	3,470
County-Other	F	Ogallala Aquifer Midland County	3,416	4,323	5,059	4,202	3,016	1,464
Manufacturing	F	Colorado River MWD Lake/Reservoir System	72	72	72	72	72	72
Manufacturing	F	Direct Reuse	6,727	6,727	6,727	6,727	6,727	6,727
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Midland County	668	907	1,155	1,412	1,679	1,956
Manufacturing	F	Ogallala Aquifer Midland County	18	18	18	18	18	18
Mining	F	Direct Reuse	2,803	2,803	2,803	2,803	2,803	2,803
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Midland County	9,305	9,306	8,297	6,279	3,605	1,234
Mining	F	Local Surface Water Supply	2,595	2,595	2,379	1,946	1,373	864
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Midland County	120	120	120	120	120	120
Livestock	F	Local Surface Water Supply	2	2	2	2	2	2
Livestock	F	Ogallala Aquifer Midland County	58	58	58	58	58	58
Irrigation	F	Colorado River MWD Lake/Reservoir System	204	183	163	153	143	134

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DRAFT Region F 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	F	Direct Reuse	28	26	24	23	22	21
Irrigation	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	569	535	466	404	367	334
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Midland County	6,126	7,525	8,988	8,677	8,051	6,543
Irrigation	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	16	13	11	10	9	8
Irrigation	F	Ogallala Aquifer Midland County	11,052	9,713	8,343	8,728	9,403	10,955
Mitchell County WUG Total			13,809	13,792	13,754	13,752	13,750	13,747
Mitchell County / Colorado Basin WUG Total			13,809	13,792	13,754	13,752	13,750	13,747
Colorado City	F	Dockum Aquifer Mitchell County	1,386	1,386	1,386	1,386	1,386	1,386
Corix Utilities Texas Inc*	K	Carrizo-Wilcox Aquifer Bastrop County	0	0	0	0	0	0
Loraine	F	Dockum Aquifer Mitchell County	188	169	123	119	114	109
County-Other	F	Dockum Aquifer Mitchell County	159	177	217	224	232	241
Manufacturing	F	Dockum Aquifer Mitchell County	4	4	4	4	4	4
Mining	F	Dockum Aquifer Mitchell County	324	323	296	244	173	110
Steam Electric Power	F	Colorado City-Champion Lake/Reservoir System	0	0	0	0	0	0
Livestock	F	Dockum Aquifer Mitchell County	32	32	32	32	32	32
Livestock	F	Local Surface Water Supply	266	266	266	266	266	266
Livestock	F	Other Aquifer Mitchell County	20	20	20	20	20	20
Irrigation	F	Colorado Run-of-River	8	8	8	8	8	8
Irrigation	F	Dockum Aquifer Mitchell County	11,422	11,407	11,402	11,449	11,515	11,571

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DRAFT Region F 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
Pecos County WUG Total			159,999	160,104	160,212	160,421	160,655	160,910
Pecos County / Rio Grande Basin WUG Total			159,999	160,104	160,212	160,421	160,655	160,910
Fort Stockton	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	3,808	3,804	3,842	4,066	4,319	4,605
Iraan	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	364	371	378	387	399	411
Pecos County Fresh Water	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	252	238	235	264	297	336
Pecos County WCID 1	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Pecos County	582	652	690	648	598	537
Pecos County WCID 1	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	3	3	3	3	3	3
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	314	351	370	349	325	294
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	243	252	261	271	281	291
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	13,301	13,301	13,301	13,301	13,301	13,301
Mining	F	Water Recycling	2,851	2,851	2,851	2,851	2,851	2,851
Livestock	F	Capitan Reef Complex Aquifer Pecos County	12	12	12	12	12	12
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	532	532	532	532	532	532
Livestock	F	Local Surface Water Supply	32	32	32	32	32	32
Livestock	F	Other Aquifer Pecos County	21	21	21	21	21	21
Livestock	F	Rustler Aquifer Pecos County	12	12	12	12	12	12
Irrigation	F	Capitan Reef Complex Aquifer Pecos County	1,787	1,787	1,787	1,787	1,787	1,787
Irrigation	F	Direct Reuse	1,511	1,511	1,511	1,511	1,511	1,511

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DRAFT Region F 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	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Pecos County	46,000	46,000	46,000	46,000	46,000	46,000
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	61,384	61,386	61,389	61,391	61,394	61,395
Irrigation	F	Red Bluff Lake/Reservoir	1,348	1,346	1,343	1,341	1,338	1,337
Irrigation	F	Rio Grande Run-of-River	19,642	19,642	19,642	19,642	19,642	19,642
Irrigation	F	Rustler Aquifer Pecos County	6,000	6,000	6,000	6,000	6,000	6,000
Reagan County WUG Total			42,446	42,467	40,825	37,523	33,147	29,268
Reagan County / Colorado Basin WUG Total			42,395	42,416	40,774	37,472	33,096	29,217
Big Lake	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Reagan County	760	781	790	792	793	795
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Reagan County	67	67	68	68	68	69
Mining	F	Direct Reuse	2,803	2,803	2,803	2,803	2,803	2,803
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Reagan County	13,521	13,521	12,161	9,440	5,836	2,639
Mining	F	Local Surface Water Supply	3,499	3,499	3,207	2,624	1,851	1,166
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Reagan County	203	203	203	203	203	203
Livestock	F	Local Surface Water Supply	40	40	40	40	40	40
Irrigation	F	Dockum Aquifer Reagan County	96	96	96	96	96	96
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Reagan County	21,406	21,406	21,406	21,406	21,406	21,406
Reagan County / Rio Grande Basin WUG Total			51	51	51	51	51	51
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Reagan County	51	51	51	51	51	51

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DRAFT Region F 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
Reeves County WUG Total			99,413	99,521	99,626	99,703	99,784	99,874
Reeves County / Rio Grande Basin WUG Total			99,413	99,521	99,626	99,703	99,784	99,874
Balmorhea	E	Edwards-Trinity-Plateau and Pecos Valley Aquifers Jeff Davis County	185	208	231	245	260	278
Madera Valley WSC	E	Edwards-Trinity-Plateau and Pecos Valley Aquifers Jeff Davis County	60	60	60	91	149	213
Madera Valley WSC	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves County	772	850	924	947	947	947
Pecos	F	Dockum Aquifer Reeves County	2,367	2,347	2,325	2,307	2,286	2,264
Pecos	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	150	150	150	150	150	150
County-Other	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves County	495	520	548	573	600	628
County-Other	F	Rio Grande Run-of-River	19	19	19	19	19	19
Manufacturing	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves County	45	47	49	51	53	55
Mining	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves County	28,811	28,811	28,811	28,811	28,811	28,811
Mining	F	Water Recycling	6,175	6,175	6,175	6,175	6,175	6,175
Livestock	F	Dockum Aquifer Reeves County	18	18	18	18	18	18
Livestock	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves County	275	275	275	275	275	275
Livestock	F	Igneous Aquifer Reeves County	16	16	16	16	16	16
Irrigation	F	Balmorhea Lake/Reservoir	19,600	19,600	19,600	19,600	19,600	19,600
Irrigation	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves County	35,696	35,698	35,701	35,703	35,706	35,707
Irrigation	F	Igneous Aquifer Reeves County	280	280	280	280	280	280
Irrigation	F	Red Bluff Lake/Reservoir	1,348	1,346	1,343	1,341	1,338	1,337
Irrigation	F	Rio Grande Run-of-River	714	714	714	714	714	714

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DRAFT Region F 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	F	Rustler Aquifer Reeves County	2,387	2,387	2,387	2,387	2,387	2,387
Runnels County WUG Total			4,834	4,808	4,748	4,691	4,653	4,614
Runnels County / Colorado Basin WUG Total			4,834	4,808	4,748	4,691	4,653	4,614
Ballinger	F	Ballinger/Moonen Lake/Reservoir	0	0	0	0	0	0
Ballinger	F	OH Ivie Lake/Reservoir Non-System Portion	344	321	283	254	235	217
Coleman County SUD*	F	Brownwood Lake/Reservoir	22	21	18	16	14	13
Coleman County SUD*	F	Coleman Lake/Reservoir	0	0	0	0	0	0
Coleman County SUD*	F	Hords Creek Lake/Reservoir	0	0	0	0	0	0
Miles	F	Colorado Run-of-River	4	4	4	3	2	2
Miles	F	Hickory Aquifer McCulloch County	47	54	54	52	52	50
Miles	F	Lipan Aquifer Runnels County	19	17	19	19	19	19
Miles	F	OH Ivie Lake/Reservoir Non-System Portion	22	21	18	16	19	17
Millersview-Doole WSC	F	Hickory Aquifer McCulloch County	46	58	59	53	46	41
Millersview-Doole WSC	F	OH Ivie Lake/Reservoir Non-System Portion	67	55	43	34	28	23
North Runnels WSC*	F	Winters Lake/Reservoir	0	0	0	0	0	0
Winters	F	Winters Lake/Reservoir	0	0	0	0	0	0
County-Other	F	OH Ivie Lake/Reservoir Non-System Portion	27	23	19	15	12	10
County-Other	F	Other Aquifer Runnels County	36	34	31	29	26	22
Manufacturing	F	OH Ivie Lake/Reservoir Non-System Portion	4	4	4	4	4	4
Livestock	F	Lipan Aquifer Runnels County	26	26	26	26	26	26
Livestock	F	Local Surface Water Supply	383	383	383	383	383	383

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DRAFT Region F 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	F	Other Aquifer Runnels County	270	270	270	270	270	270
Irrigation	F	Colorado Run-of-River	196	196	196	196	196	196
Irrigation	F	Other Aquifer Runnels County	3,321	3,321	3,321	3,321	3,321	3,321
Schleicher County WUG Total			6,521	6,446	6,082	5,436	4,594	3,837
Schleicher County / Colorado Basin WUG Total			5,622	5,551	5,191	4,547	3,708	2,953
Eldorado	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	474	415	360	313	261	205
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	61	49	38	29	22	14
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	3,529	3,529	3,235	2,647	1,867	1,176
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	253	253	253	253	253	253
Livestock	F	Local Surface Water Supply	15	15	15	15	15	15
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	1,290	1,290	1,290	1,290	1,290	1,290
Schleicher County / Rio Grande Basin WUG Total			899	895	891	889	886	884
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	20	16	12	10	7	5
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	145	145	145	145	145	145
Livestock	F	Local Surface Water Supply	9	9	9	9	9	9

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DRAFT Region F 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	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Schleicher County	725	725	725	725	725	725
Scurry County WUG Total			10,363	10,301	10,125	9,940	9,794	9,681
Scurry County / Brazos Basin WUG Total			1,919	1,924	1,927	1,926	1,923	1,922
County-Other	F	Dockum Aquifer Scurry County	95	100	103	104	104	105
Mining	F	Dockum Aquifer Scurry County	11	11	11	9	6	4
Livestock	F	Dockum Aquifer Scurry County	26	26	26	26	26	26
Livestock	F	Local Surface Water Supply	130	130	130	130	130	130
Irrigation	F	Dockum Aquifer Scurry County	1,657	1,657	1,657	1,657	1,657	1,657
Scurry County / Colorado Basin WUG Total			8,444	8,377	8,198	8,014	7,871	7,759
Snyder	F	Colorado River MWD Lake/Reservoir System	426	389	353	334	316	299
Snyder	F	Direct Reuse	59	56	52	50	49	47
Snyder	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	1,191	1,138	1,006	882	811	745
Snyder	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	33	28	23	21	19	18
U & F WSC	F	Colorado River MWD Lake/Reservoir System	1	1	1	1	1	1
U & F WSC	F	Dockum Aquifer Scurry County	89	86	85	87	89	91
U & F WSC	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	4	3	3	2	2	2
County-Other	F	Colorado River MWD Lake/Reservoir System	22	20	18	17	16	15
County-Other	F	Direct Reuse	3	3	3	3	2	2
County-Other	F	Dockum Aquifer Scurry County	401	436	462	473	483	490

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DRAFT Region F 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
County-Other	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	63	59	51	44	40	37
County-Other	F	Ogallala and Edwards-Trinity-High Plains Aquifers Martin County	2	1	1	1	1	1
County-Other	F	Other Aquifer Scurry County	37	37	37	37	37	37
Manufacturing	F	Dockum Aquifer Scurry County	199	206	214	222	230	239
Mining	F	Dockum Aquifer Scurry County	241	241	220	180	127	98
Mining	F	Water Recycling	54	54	50	41	29	18
Livestock	F	Dockum Aquifer Scurry County	49	49	49	49	49	49
Livestock	F	Local Surface Water Supply	240	240	240	240	240	240
Livestock	F	Other Aquifer Scurry County	4	4	4	4	4	4
Irrigation	F	Colorado Run-of-River	0	0	0	0	0	0
Irrigation	F	Direct Reuse	1,124	1,124	1,124	1,124	1,124	1,124
Irrigation	F	Dockum Aquifer Scurry County	4,202	4,202	4,202	4,202	4,202	4,202
Sterling County WUG Total			2,986	3,128	3,307	3,425	3,425	3,038
Sterling County / Colorado Basin WUG Total			2,986	3,128	3,307	3,425	3,425	3,038
Sterling City	F	Lipan Aquifer Sterling County	411	553	732	850	850	850
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sterling County	32	35	44	53	61	69
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sterling County	902	899	935	1,016	1,126	837
Mining	F	Water Recycling	538	538	493	403	285	179
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sterling County	222	222	222	222	222	222
Livestock	F	Local Surface Water Supply	26	26	26	26	26	26
Irrigation	F	Colorado Run-of-River	27	27	27	27	27	27

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DRAFT Region F 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	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sterling County	828	828	828	828	828	828
Sutton County WUG Total			2,737	2,633	2,529	2,451	2,368	2,282
Sutton County / Colorado Basin WUG Total			427	425	422	420	418	416
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	22	20	17	15	13	11
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	3	3	3	3	3	3
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	27	27	27	27	27	27
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	192	192	192	192	192	192
Livestock	F	Local Surface Water Supply	4	4	4	4	4	4
Irrigation	F	Colorado Run-of-River	0	0	0	0	0	0
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	179	179	179	179	179	179
Sutton County / Rio Grande Basin WUG Total			2,310	2,208	2,107	2,031	1,950	1,866
Sonora	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	1,048	960	870	802	730	655
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	99	85	74	66	57	48
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	214	214	214	214	214	214
Livestock	F	Local Surface Water Supply	5	5	5	5	5	5
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Sutton County	944	944	944	944	944	944

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DRAFT Region F 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
Tom Green County WUG Total			70,449	65,778	65,688	65,518	65,343	65,174
Tom Green County / Colorado Basin WUG Total			70,449	65,778	65,688	65,518	65,343	65,174
Concho Rural Water	F	Colorado Run-of-River	3	3	3	3	3	3
Concho Rural Water	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Tom Green County	107	107	107	107	107	107
Concho Rural Water	F	Hickory Aquifer McCulloch County	80	91	84	80	74	70
Concho Rural Water	F	Lipan Aquifer Tom Green County	688	803	908	1,014	1,128	1,254
Concho Rural Water	F	Mountain Creek Lake/Reservoir	0	0	0	0	0	0
Concho Rural Water	F	OH Ivie Lake/Reservoir Non-System Portion	38	34	32	29	25	23
DADS Supported Living Center	F	Lipan Aquifer Tom Green County	183	183	183	183	183	183
Goodfellow Air Force Base	F	Colorado Run-of-River	12	11	11	10	10	9
Goodfellow Air Force Base	F	Hickory Aquifer McCulloch County	247	281	265	251	237	224
Goodfellow Air Force Base	F	OH Ivie Lake/Reservoir Non-System Portion	117	106	97	89	81	74
Millersview-Doole WSC	F	Hickory Aquifer McCulloch County	291	427	516	533	549	562
Millersview-Doole WSC	F	OH Ivie Lake/Reservoir Non-System Portion	422	409	374	344	326	307
San Angelo	F	Colorado Run-of-River	462	464	464	466	468	469
San Angelo	F	Hickory Aquifer McCulloch County	9,280	11,371	11,410	11,443	11,477	11,509
San Angelo	F	OH Ivie Lake/Reservoir Non-System Portion	4,380	4,276	4,167	4,056	3,943	3,829
San Angelo	F	San Angelo Lakes Lake/Reservoir System	0	0	0	0	0	0
Tom Green County FWSD 3	F	Lipan Aquifer Tom Green County	114	127	139	150	163	177
County-Other	F	Colorado Run-of-River	6	5	5	5	5	5
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Tom Green County	360	361	360	360	361	360

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DRAFT Region F 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
County-Other	F	Hickory Aquifer McCulloch County	132	150	141	132	124	116
County-Other	F	Lipan Aquifer Tom Green County	1,210	1,571	1,899	2,213	2,543	2,888
County-Other	F	OH Ivie Lake/Reservoir Non-System Portion	63	56	52	48	42	39
Manufacturing	F	Colorado Run-of-River	10	10	10	10	9	9
Manufacturing	F	Hickory Aquifer McCulloch County	209	247	241	237	232	227
Manufacturing	F	Lipan Aquifer Tom Green County	473	470	511	550	593	636
Manufacturing	F	OH Ivie Lake/Reservoir Non-System Portion	99	93	88	84	80	76
Mining	F	Colorado Run-of-River	0	0	0	0	0	0
Mining	F	Hickory Aquifer McCulloch County	5	6	5	5	4	4
Mining	F	Lipan Aquifer Tom Green County	808	808	741	606	426	266
Mining	F	Mountain Creek Lake/Reservoir	0	0	0	0	0	0
Mining	F	OH Ivie Lake/Reservoir Non-System Portion	2	2	2	2	1	1
Mining	F	Water Recycling	174	174	160	130	92	58
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Tom Green County	592	592	592	592	592	592
Livestock	F	Lipan Aquifer Tom Green County	73	73	73	73	73	73
Livestock	F	Local Surface Water Supply	209	209	209	209	209	209
Irrigation	F	Colorado Indirect Reuse	8,300	0	0	0	0	0
Irrigation	F	Colorado Run-of-River	1,620	1,620	1,620	1,620	1,620	1,620
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Tom Green County	1,105	1,105	1,105	1,105	1,105	1,105
Irrigation	F	Lipan Aquifer Tom Green County	38,575	39,533	39,114	38,779	38,458	38,090

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DRAFT Region F 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
Upton County WUG Total			25,571	25,611	24,325	21,728	18,278	15,232
Upton County / Colorado Basin WUG Total			22,235	22,240	21,094	18,797	15,751	13,051
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	23	23	23	22	21	20
Manufacturing	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	122	127	132	137	141	146
Mining	F	Direct Reuse	2,440	2,440	2,440	2,440	2,440	2,440
Mining	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	11,368	11,368	10,217	7,916	4,867	2,163
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	33	33	33	33	33	33
Irrigation	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	8,249	8,249	8,249	8,249	8,249	8,249
Upton County / Rio Grande Basin WUG Total			3,336	3,371	3,231	2,931	2,527	2,181
McCamey	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Pecos County	685	709	731	764	803	850
Rankin	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	260	269	277	288	300	314
County-Other	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	85	87	87	84	79	72
Manufacturing	F	Dockum Aquifer Upton County	6	6	6	6	7	7
Mining	F	Direct Reuse	361	361	361	361	361	361
Mining	F	Local Surface Water Supply	1,682	1,682	1,512	1,171	720	320
Livestock	F	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Upton County	88	88	88	88	88	88
Irrigation	F	Dockum Aquifer Upton County	169	169	169	169	169	169

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DRAFT Region F 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
Ward County WUG Total			15,157	15,660	16,185	16,639	17,127	17,647
Ward County / Rio Grande Basin WUG Total			15,157	15,660	16,185	16,639	17,127	17,647
Barstow	F	Dockum Aquifer Reeves County	154	174	196	214	235	257
Grandfalls	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	225	255	287	315	344	377
Monahans	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	2,249	2,540	2,848	3,118	3,413	3,733
Monahans	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	562	635	712	780	853	933
Southwest Sandhills WSC	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	378	426	479	524	574	628
Wickett	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	194	219	246	269	295	323
County-Other	F	Dockum Aquifer Ward County	15	15	15	15	15	15
County-Other	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	158	179	202	223	246	271
Mining	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	5,617	5,612	5,595	5,576	5,547	5,505
Mining	F	Local Surface Water Supply	1,159	1,159	1,159	1,159	1,159	1,159
Steam Electric Power	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	43	43	43	43	43	43
Livestock	F	Dockum Aquifer Ward County	5	5	5	5	5	5
Livestock	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	61	61	61	61	61	61
Livestock	F	Local Surface Water Supply	4	4	4	4	4	4
Irrigation	F	Direct Reuse	1,017	1,017	1,017	1,017	1,017	1,017
Irrigation	F	Dockum Aquifer Ward County	30	30	30	30	30	30

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DRAFT Region F 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	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Ward County	957	961	962	966	967	970
Irrigation	F	Red Bluff Lake/Reservoir	1,349	1,345	1,344	1,340	1,339	1,336
Irrigation	F	Rio Grande Run-of-River	980	980	980	980	980	980
Winkler County WUG Total			18,949	19,944	20,960	21,813	22,615	23,073
Winkler County / Colorado Basin WUG Total			620	651	685	712	736	756
Mining	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	620	651	685	712	736	756
Winkler County / Rio Grande Basin WUG Total			18,329	19,293	20,275	21,101	21,879	22,317
Kermit	F	Dockum Aquifer Winkler County	2,169	2,494	2,801	3,072	3,367	3,405
Wink	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	341	345	345	346	348	350
County-Other	F	Dockum Aquifer Winkler County	116	115	113	112	111	110
Manufacturing	F	Dockum Aquifer Winkler County	107	111	115	119	123	128
Mining	F	Dockum Aquifer Winkler County	3,588	3,260	2,951	2,677	2,379	2,329
Mining	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	6,972	7,932	8,914	9,739	10,515	10,959
Mining	F	Water Recycling	1,868	1,868	1,868	1,868	1,868	1,868
Livestock	F	Dockum Aquifer Winkler County	7	7	7	7	7	7
Livestock	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	91	91	91	91	91	91
Livestock	F	Local Surface Water Supply	2	2	2	2	2	2
Irrigation	F	Edwards-Trinity-Plateau and Pecos Valley Aquifers Winkler County	3,068	3,068	3,068	3,068	3,068	3,068
Region F WUG Existing Water Supply Total			824,224	815,665	803,851	784,771	762,471	739,863

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TWDB DB27 Report #5 – 2026 RWP WUG Needs/Surplus

DRAFT Region F 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
Andrews	Andrews	Colorado	(450)	(1,085)	(2,278)	(3,589)	(4,955)	(6,403)
County-Other	Andrews	Colorado	(100)	(258)	(425)	(596)	(789)	(1,008)
Manufacturing	Andrews	Colorado	(70)	(140)	(184)	(218)	(249)	(279)
Mining	Andrews	Colorado	(1,990)	(2,139)	(1,754)	(899)	235	1,225
Livestock	Andrews	Colorado	(15)	(28)	(36)	(41)	(45)	(49)
Irrigation	Andrews	Colorado	(4,794)	(6,247)	(7,062)	(7,598)	(8,033)	(8,410)
County-Other	Andrews	Rio Grande	(2)	(3)	(4)	(5)	(5)	(6)
Mining	Andrews	Rio Grande	0	0	0	0	0	0
Livestock	Andrews	Rio Grande	(59)	(59)	(59)	(59)	(59)	(59)
Irrigation	Andrews	Rio Grande	(571)	(571)	(571)	(571)	(572)	(572)
County-Other	Borden	Brazos	0	0	0	0	0	0
Livestock	Borden	Brazos	0	0	0	0	0	0
Irrigation	Borden	Brazos	0	0	0	0	0	0
Borden County Water System	Borden	Colorado	0	0	0	(22)	(71)	(134)
U & F WSC	Borden	Colorado	0	0	0	0	0	0
County-Other	Borden	Colorado	0	0	0	0	0	0
Mining	Borden	Colorado	(529)	(529)	(298)	0	0	0
Livestock	Borden	Colorado	54	54	54	54	54	54
Irrigation	Borden	Colorado	0	0	0	0	0	0
County-Other	Brown	Brazos	0	0	0	0	0	0
Livestock	Brown	Brazos	0	0	0	0	0	0
Irrigation	Brown	Brazos	(319)	(319)	(319)	(319)	(319)	(319)
Bangs	Brown	Colorado	0	0	0	0	0	0
Brookesmith SUD	Brown	Colorado	0	0	0	0	0	0
Brownwood	Brown	Colorado	0	0	0	0	0	0
Coleman County SUD*	Brown	Colorado	(3)	(3)	(3)	(3)	(3)	(3)
Early	Brown	Colorado	0	0	0	0	0	0
Zephyr WSC	Brown	Colorado	0	0	0	0	0	0
County-Other	Brown	Colorado	0	0	0	0	0	0
Manufacturing	Brown	Colorado	0	0	0	0	0	0
Mining	Brown	Colorado	0	0	0	0	0	0
Livestock	Brown	Colorado	0	0	0	0	0	0

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DRAFT Region F 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
Irrigation	Brown	Colorado	0	0	0	0	0	0
Bronte	Coke	Colorado	(31)	(49)	(69)	(100)	(134)	(171)
Robert Lee	Coke	Colorado	(100)	(121)	(144)	(179)	(218)	(262)
County-Other	Coke	Colorado	0	0	0	0	0	0
Mining	Coke	Colorado	0	0	0	0	0	0
Livestock	Coke	Colorado	0	0	0	0	0	0
Irrigation	Coke	Colorado	0	0	0	0	0	0
Brookesmith SUD	Coleman	Colorado	0	0	0	0	0	0
Coleman	Coleman	Colorado	(712)	(616)	(520)	(446)	(365)	(272)
Coleman County SUD*	Coleman	Colorado	(65)	(61)	(58)	(55)	(53)	(51)
Santa Anna	Coleman	Colorado	0	0	0	0	0	0
County-Other	Coleman	Colorado	(17)	(13)	(10)	(7)	(4)	(2)
Manufacturing	Coleman	Colorado	(1)	(1)	(1)	(1)	(1)	(1)
Livestock	Coleman	Colorado	0	0	0	0	0	0
Irrigation	Coleman	Colorado	(361)	(361)	(361)	(361)	(361)	(361)
Eden	Concho	Colorado	(450)	(435)	(421)	(407)	(397)	(390)
Millersview-Doole WSC	Concho	Colorado	0	0	(15)	(36)	(56)	(73)
County-Other	Concho	Colorado	0	0	0	0	0	0
Livestock	Concho	Colorado	0	0	0	0	0	0
Irrigation	Concho	Colorado	0	0	0	0	0	0
Crane	Crane	Rio Grande	0	0	0	0	0	0
County-Other	Crane	Rio Grande	0	0	0	0	0	0
Manufacturing	Crane	Rio Grande	0	0	0	0	0	0
Mining	Crane	Rio Grande	0	0	(78)	(299)	(15)	(191)
Livestock	Crane	Rio Grande	0	0	0	0	0	0
County-Other	Crockett	Colorado	0	0	0	0	0	0
Livestock	Crockett	Colorado	0	0	0	0	0	0
Irrigation	Crockett	Colorado	0	0	0	0	0	0
Crockett County WCID 1	Crockett	Rio Grande	0	0	0	0	0	0
County-Other	Crockett	Rio Grande	0	0	0	0	0	0
Manufacturing	Crockett	Rio Grande	0	0	0	0	0	0
Mining	Crockett	Rio Grande	(2,275)	(2,196)	(1,610)	(545)	0	0
Livestock	Crockett	Rio Grande	0	0	0	0	0	0
Irrigation	Crockett	Rio Grande	0	0	0	0	0	0
Ector County Utility District	Ector	Colorado	0	(289)	(852)	(1,386)	(1,831)	(2,314)

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DRAFT Region F 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
Greater Gardendale WSC	Ector	Colorado	0	(11)	(59)	(94)	(124)	(155)
Odessa	Ector	Colorado	0	(1,834)	(5,394)	(8,489)	(10,864)	(13,303)
County-Other	Ector	Colorado	0	0	0	0	0	0
Manufacturing	Ector	Colorado	0	0	0	0	0	0
Mining	Ector	Colorado	0	0	0	0	0	0
Steam Electric Power	Ector	Colorado	(1,399)	(1,623)	(1,857)	(2,002)	(2,092)	(2,175)
Livestock	Ector	Colorado	0	0	0	0	0	0
Irrigation	Ector	Colorado	127	67	(23)	(97)	(144)	(188)
County-Other	Ector	Rio Grande	0	0	0	0	0	0
Mining	Ector	Rio Grande	0	0	0	0	0	0
Livestock	Ector	Rio Grande	0	0	0	0	0	0
Irrigation	Ector	Rio Grande	0	0	0	0	0	0
County-Other	Glasscock	Colorado	0	0	0	0	0	0
Manufacturing	Glasscock	Colorado	0	0	0	0	0	0
Mining	Glasscock	Colorado	0	0	0	0	0	0
Livestock	Glasscock	Colorado	0	0	0	0	0	0
Irrigation	Glasscock	Colorado	0	0	0	0	0	0
Big Spring	Howard	Colorado	0	(497)	(1,282)	(1,865)	(2,211)	(2,507)
Coahoma	Howard	Colorado	0	(27)	(72)	(104)	(122)	(137)
County-Other	Howard	Colorado	0	0	0	0	0	0
Manufacturing	Howard	Colorado	0	(111)	(281)	(417)	(505)	(587)
Mining	Howard	Colorado	(2,406)	(3,392)	(3,166)	(1,877)	0	0
Steam Electric Power	Howard	Colorado	(1)	(64)	(163)	(240)	(291)	(337)
Livestock	Howard	Colorado	0	0	0	0	0	0
Irrigation	Howard	Colorado	0	0	0	0	0	0
Mertzon	Irion	Colorado	0	0	0	0	0	0
County-Other	Irion	Colorado	0	0	0	0	0	0
Manufacturing	Irion	Colorado	0	0	0	0	0	0
Mining	Irion	Colorado	(6,015)	(6,006)	(5,272)	(3,803)	(1,857)	(130)
Livestock	Irion	Colorado	0	0	0	0	0	0
Irrigation	Irion	Colorado	(618)	(618)	(618)	(618)	(618)	(618)
Junction	Kimble	Colorado	(523)	(512)	(506)	(505)	(506)	(511)
County-Other	Kimble	Colorado	0	0	0	0	0	0
Manufacturing	Kimble	Colorado	(35)	(35)	(35)	(35)	(35)	(35)
Mining	Kimble	Colorado	0	0	0	0	0	0

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DRAFT Region F 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
Livestock	Kimble	Colorado	0	0	0	0	0	0
Irrigation	Kimble	Colorado	(1,258)	(1,258)	(1,258)	(1,258)	(1,258)	(1,258)
County-Other	Loving	Rio Grande	0	0	0	0	0	0
Mining	Loving	Rio Grande	(6,725)	(6,724)	(6,724)	(6,724)	(6,723)	(6,723)
Livestock	Loving	Rio Grande	0	0	0	0	0	0
Stanton	Martin	Colorado	(51)	(122)	(219)	(311)	(403)	(504)
County-Other	Martin	Colorado	0	0	0	0	0	0
Mining	Martin	Colorado	(144)	(1,328)	(1,793)	(1,473)	(784)	(259)
Livestock	Martin	Colorado	0	0	0	0	0	0
Irrigation	Martin	Colorado	(437)	(4,029)	(6,076)	(6,515)	(5,832)	(4,881)
Mason	Mason	Colorado	(148)	(187)	(225)	(229)	(233)	(237)
County-Other	Mason	Colorado	0	0	0	0	0	0
Mining	Mason	Colorado	0	0	0	0	0	0
Livestock	Mason	Colorado	0	0	0	0	0	0
Irrigation	Mason	Colorado	0	0	0	0	0	0
Brady	McCulloch	Colorado	(200)	(154)	(108)	(85)	(62)	(39)
Millersview-Doole WSC	McCulloch	Colorado	0	0	(3)	(11)	(15)	(21)
Richland SUD*	McCulloch	Colorado	(2)	16	30	44	47	46
County-Other	McCulloch	Colorado	0	0	0	0	0	0
Mining	McCulloch	Colorado	0	0	0	0	0	0
Livestock	McCulloch	Colorado	0	0	0	0	0	0
Irrigation	McCulloch	Colorado	0	0	0	0	0	0
Menard	Menard	Colorado	(44)	(25)	(8)	(5)	0	4
County-Other	Menard	Colorado	0	0	0	0	0	0
Livestock	Menard	Colorado	0	0	0	0	0	0
Irrigation	Menard	Colorado	0	0	0	0	0	0
Airline Mobile Home Park Ltd	Midland	Colorado	0	0	0	0	0	0
Greater Gardendale WSC	Midland	Colorado	0	(7)	(41)	(68)	(92)	(116)
Greenwood Water	Midland	Colorado	0	0	0	0	0	0
Midland	Midland	Colorado	14,132	10,568	6,396	1,995	(2,424)	(7,274)
Odessa	Midland	Colorado	0	(121)	(435)	(773)	(1,100)	(1,471)
County-Other	Midland	Colorado	0	0	0	0	0	0
Manufacturing	Midland	Colorado	1,023	1,023	1,023	1,023	1,023	1,023
Mining	Midland	Colorado	0	0	0	0	0	0
Livestock	Midland	Colorado	0	0	0	0	0	0

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DRAFT Region F 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
Irrigation	Midland	Colorado	0	0	0	0	0	0
Colorado City	Mitchell	Colorado	(264)	(266)	(250)	(266)	(284)	(302)
Corix Utilities Texas Inc*	Mitchell	Colorado	(503)	(520)	(558)	(560)	(562)	(565)
Loraine	Mitchell	Colorado	0	0	0	0	0	0
County-Other	Mitchell	Colorado	0	0	0	0	0	0
Manufacturing	Mitchell	Colorado	0	0	0	0	0	0
Mining	Mitchell	Colorado	(44)	(45)	(41)	(32)	(22)	(13)
Steam Electric Power	Mitchell	Colorado	(6,725)	(6,725)	(6,725)	(6,725)	(6,725)	(6,725)
Livestock	Mitchell	Colorado	0	0	0	0	0	0
Irrigation	Mitchell	Colorado	(1,555)	(1,570)	(1,575)	(1,528)	(1,462)	(1,406)
Fort Stockton	Pecos	Rio Grande	0	0	0	0	0	0
Iraan	Pecos	Rio Grande	0	0	0	0	0	0
Pecos County Fresh Water	Pecos	Rio Grande	0	0	0	0	0	0
Pecos County WCID 1	Pecos	Rio Grande	0	0	0	0	0	0
County-Other	Pecos	Rio Grande	0	0	0	0	0	0
Manufacturing	Pecos	Rio Grande	0	0	0	0	0	0
Mining	Pecos	Rio Grande	0	0	0	0	0	0
Livestock	Pecos	Rio Grande	0	0	0	0	0	0
Irrigation	Pecos	Rio Grande	0	0	0	0	0	0
Big Lake	Reagan	Colorado	0	0	0	0	0	0
County-Other	Reagan	Colorado	0	0	0	0	0	0
Mining	Reagan	Colorado	0	0	0	0	0	0
Livestock	Reagan	Colorado	0	0	0	0	0	0
Irrigation	Reagan	Colorado	0	0	0	0	0	0
Livestock	Reagan	Rio Grande	0	0	0	0	0	0
Balmorhea	Reeves	Rio Grande	0	0	0	0	0	0
Madera Valley WSC	Reeves	Rio Grande	0	0	0	0	0	0
Pecos	Reeves	Rio Grande	(1,326)	(1,820)	(2,291)	(2,606)	(2,951)	(3,328)
County-Other	Reeves	Rio Grande	(16)	(16)	(16)	(16)	(16)	(16)
Manufacturing	Reeves	Rio Grande	0	0	0	0	0	0
Mining	Reeves	Rio Grande	0	0	0	0	0	0
Livestock	Reeves	Rio Grande	0	0	0	0	0	0
Irrigation	Reeves	Rio Grande	0	0	0	0	0	0
Ballinger	Runnels	Colorado	(365)	(390)	(432)	(469)	(499)	(530)

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DRAFT Region F 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
Coleman County SUD*	Runnels	Colorado	(2)	(2)	(2)	(2)	(2)	(1)
Miles	Runnels	Colorado	(2)	0	(5)	(14)	(16)	(26)
Millersview-Doole WSC	Runnels	Colorado	0	0	(11)	(27)	(41)	(53)
North Runnels WSC*	Runnels	Colorado	(158)	(163)	(170)	(178)	(187)	(198)
Winters	Runnels	Colorado	(359)	(342)	(321)	(303)	(283)	(258)
County-Other	Runnels	Colorado	(28)	(28)	(28)	(28)	(26)	(23)
Manufacturing	Runnels	Colorado	0	0	0	0	0	0
Livestock	Runnels	Colorado	0	0	0	0	0	0
Irrigation	Runnels	Colorado	0	0	0	0	0	0
Eldorado	Schleicher	Colorado	0	0	0	0	0	0
County-Other	Schleicher	Colorado	0	0	0	0	0	0
Mining	Schleicher	Colorado	0	0	0	0	0	0
Livestock	Schleicher	Colorado	0	0	0	0	0	0
Irrigation	Schleicher	Colorado	0	0	0	0	0	0
County-Other	Schleicher	Rio Grande	0	0	0	0	0	0
Livestock	Schleicher	Rio Grande	0	0	0	0	0	0
Irrigation	Schleicher	Rio Grande	0	0	0	0	0	0
County-Other	Scurry	Brazos	0	0	0	0	0	0
Mining	Scurry	Brazos	0	0	0	0	0	0
Livestock	Scurry	Brazos	0	0	0	0	0	0
Irrigation	Scurry	Brazos	0	0	0	0	0	0
Snyder	Scurry	Colorado	0	(127)	(331)	(497)	(609)	(716)
U & F WSC	Scurry	Colorado	0	(1)	(1)	(2)	(2)	(2)
County-Other	Scurry	Colorado	0	0	0	0	0	0
Manufacturing	Scurry	Colorado	0	0	0	0	0	0
Mining	Scurry	Colorado	0	0	0	0	0	18
Livestock	Scurry	Colorado	4	4	4	4	4	4
Irrigation	Scurry	Colorado	0	0	0	0	0	0
Sterling City	Sterling	Colorado	0	0	0	(119)	(380)	(669)
County-Other	Sterling	Colorado	0	0	0	0	0	0
Mining	Sterling	Colorado	(1,607)	(1,610)	(1,365)	(866)	(201)	0
Livestock	Sterling	Colorado	0	0	0	0	0	0
Irrigation	Sterling	Colorado	0	0	0	0	0	0
County-Other	Sutton	Colorado	0	0	0	0	0	0
Manufacturing	Sutton	Colorado	0	0	0	0	0	0

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DRAFT Region F 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
Mining	Sutton	Colorado	0	0	0	0	0	0
Livestock	Sutton	Colorado	0	0	0	0	0	0
Irrigation	Sutton	Colorado	0	0	0	0	0	0
Sonora	Sutton	Rio Grande	0	0	0	0	0	0
County-Other	Sutton	Rio Grande	0	0	0	0	0	0
Livestock	Sutton	Rio Grande	0	0	0	0	0	0
Irrigation	Sutton	Rio Grande	0	0	0	0	0	0
Concho Rural Water	Tom Green	Colorado	(29)	(22)	(31)	(38)	(48)	(54)
DADS Supported Living Center	Tom Green	Colorado	0	0	0	0	0	0
Goodfellow Air Force Base	Tom Green	Colorado	(93)	(69)	(94)	(117)	(139)	(160)
Millersview-Doole WSC	Tom Green	Colorado	0	0	(93)	(279)	(485)	(731)
San Angelo	Tom Green	Colorado	(3,471)	(2,792)	(4,073)	(5,340)	(6,718)	(8,219)
Tom Green County FWSD 3	Tom Green	Colorado	0	0	0	0	0	0
County-Other	Tom Green	Colorado	0	0	0	0	0	1
Manufacturing	Tom Green	Colorado	0	0	0	0	0	0
Mining	Tom Green	Colorado	(1)	0	0	0	(1)	(1)
Livestock	Tom Green	Colorado	0	0	0	0	0	0
Irrigation	Tom Green	Colorado	0	(7,342)	(7,761)	(8,096)	(8,417)	(8,785)
County-Other	Upton	Colorado	0	0	0	0	0	0
Manufacturing	Upton	Colorado	0	0	0	0	0	0
Mining	Upton	Colorado	0	0	0	0	0	0
Livestock	Upton	Colorado	0	0	0	0	0	0
Irrigation	Upton	Colorado	0	0	0	0	0	0
McCamey	Upton	Rio Grande	0	0	0	0	0	0
Rankin	Upton	Rio Grande	0	0	0	0	0	0
County-Other	Upton	Rio Grande	0	0	0	0	0	0
Manufacturing	Upton	Rio Grande	0	0	0	0	0	0
Mining	Upton	Rio Grande	0	0	0	0	0	0
Livestock	Upton	Rio Grande	0	0	0	0	0	0
Irrigation	Upton	Rio Grande	0	0	0	0	0	0
Barstow	Ward	Rio Grande	0	0	0	0	0	0
Grandfalls	Ward	Rio Grande	0	0	0	0	0	0
Monahans	Ward	Rio Grande	0	0	0	0	0	0
Southwest Sandhills WSC	Ward	Rio Grande	0	0	0	0	0	0

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DRAFT Region F 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
Wickett	Ward	Rio Grande	0	0	0	0	0	0
County-Other	Ward	Rio Grande	0	0	0	0	0	0
Mining	Ward	Rio Grande	(1,394)	(1,461)	(1,528)	(1,586)	(1,645)	(1,706)
Steam Electric Power	Ward	Rio Grande	0	0	0	0	0	0
Livestock	Ward	Rio Grande	0	0	0	0	0	0
Irrigation	Ward	Rio Grande	0	0	0	0	0	0
Mining	Winkler	Colorado	0	0	0	0	0	0
Kermit	Winkler	Rio Grande	0	0	0	0	0	(284)
Wink	Winkler	Rio Grande	0	0	0	0	0	0
County-Other	Winkler	Rio Grande	0	0	0	0	0	0
Manufacturing	Winkler	Rio Grande	0	0	0	0	0	0
Mining	Winkler	Rio Grande	0	0	0	0	0	0
Livestock	Winkler	Rio Grande	0	0	0	0	0	0
Irrigation	Winkler	Rio Grande	0	0	0	0	0	0

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TWDB DB27 Report #6 – WUG Data Comparison to 2021 RWP

DRAFT Region F 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 (%)
Andrews County Municipal WUG Type						
Existing WUG supply total	5,129	4,765	-7.1%	6,722	5,371	-20.1%
Projected demand total	5,603	5,317	-5.1%	9,797	11,120	13.5%
Water supply needs total**	474	552	16.5%	3,075	5,749	87.0%
Andrews County Manufacturing WUG Type						
Existing WUG supply total	558	526	-5.7%	408	441	8.1%
Projected demand total	617	596	-3.4%	617	690	11.8%
Water supply needs total**	59	70	18.6%	209	249	19.1%
Andrews County Mining WUG Type						
Existing WUG supply total	2,582	2,210	-14.4%	2,878	2,458	-14.6%
Projected demand total	3,710	4,200	13.2%	1,483	2,223	49.9%
Water supply needs total**	1,128	1,990	76.4%	0	0	0.0%
Andrews County Livestock WUG Type						
Existing WUG supply total	193	126	-34.7%	150	96	-36.0%
Projected demand total	210	200	-4.8%	210	200	-4.8%
Water supply needs total**	17	74	335.3%	60	104	73.3%
Andrews County Irrigation WUG Type						
Existing WUG supply total	14,677	12,198	-16.9%	10,231	8,958	-12.4%
Projected demand total	20,365	17,563	-13.8%	20,365	17,563	-13.8%
Water supply needs total**	5,688	5,365	-5.7%	10,134	8,605	-15.1%
Borden County Municipal WUG Type						
Existing WUG supply total	178	241	35.4%	175	248	41.7%
Projected demand total	178	241	35.4%	175	319	82.3%
Water supply needs total**	0	0	0.0%	0	71	100.0%
Borden County Mining WUG Type						
Existing WUG supply total	927	2,845	206.9%	121	1,785	1375.2%

*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 F 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	927	3,374	264.0%	121	1,785	1375.2%
Water supply needs total**	0	529	100.0%	0	0	0.0%
Borden County Livestock WUG Type						
Existing WUG supply total	175	293	67.4%	175	293	67.4%
Projected demand total	175	239	36.6%	175	239	36.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Borden County Irrigation WUG Type						
Existing WUG supply total	2,811	2,495	-11.2%	2,667	2,495	-6.4%
Projected demand total	2,949	2,495	-15.4%	2,949	2,495	-15.4%
Water supply needs total**	138	0	-100.0%	282	0	-100.0%
Brown County Municipal WUG Type						
Existing WUG supply total	6,023	6,701	11.3%	5,812	6,819	17.3%
Projected demand total	6,035	6,704	11.1%	5,822	6,822	17.2%
Water supply needs total**	12	3	-75.0%	11	3	-72.7%
Brown County Manufacturing WUG Type						
Existing WUG supply total	651	454	-30.3%	651	525	-19.4%
Projected demand total	651	454	-30.3%	651	525	-19.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Brown County Mining WUG Type						
Existing WUG supply total	682	560	-17.9%	681	560	-17.8%
Projected demand total	948	560	-40.9%	944	560	-40.7%
Water supply needs total**	266	0	-100.0%	263	0	-100.0%
Brown County Livestock WUG Type						
Existing WUG supply total	1,119	972	-13.1%	1,119	972	-13.1%
Projected demand total	1,119	972	-13.1%	1,119	972	-13.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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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 F 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 (%)
Brown County Irrigation WUG Type						
Existing WUG supply total	6,413	7,365	14.8%	6,414	7,365	14.8%
Projected demand total	8,125	7,684	-5.4%	8,125	7,684	-5.4%
Water supply needs total**	1,712	319	-81.4%	1,711	319	-81.4%
Coke County Municipal WUG Type						
Existing WUG supply total	227	572	152.0%	215	609	183.3%
Projected demand total	671	703	4.8%	652	961	47.4%
Water supply needs total**	444	131	-70.5%	437	352	-19.5%
Coke County Mining WUG Type						
Existing WUG supply total	482	106	-78.0%	286	106	-62.9%
Projected demand total	482	106	-78.0%	286	106	-62.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Coke County Livestock WUG Type						
Existing WUG supply total	306	265	-13.4%	306	265	-13.4%
Projected demand total	306	265	-13.4%	306	265	-13.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Coke County Irrigation WUG Type						
Existing WUG supply total	689	617	-10.4%	689	617	-10.4%
Projected demand total	689	617	-10.4%	689	617	-10.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Coleman County Municipal WUG Type						
Existing WUG supply total	340	719	111.5%	325	594	82.8%
Projected demand total	1,354	1,513	11.7%	1,307	1,016	-22.3%
Water supply needs total**	1,014	794	-21.7%	982	422	-57.0%
Coleman County Manufacturing WUG Type						
Existing WUG supply total	0	0	0.0%	0	0	0.0%

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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 F 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	1	-50.0%	2	1	-50.0%
Water supply needs total**	2	1	-50.0%	2	1	-50.0%
Coleman County Mining WUG Type						
Existing WUG supply total	107	0	-100.0%	69	0	-100.0%
Projected demand total	107	0	-100.0%	69	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Coleman County Livestock WUG Type						
Existing WUG supply total	769	741	-3.6%	769	741	-3.6%
Projected demand total	705	741	5.1%	705	741	5.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Coleman County Irrigation WUG Type						
Existing WUG supply total	69	57	-17.4%	69	57	-17.4%
Projected demand total	465	418	-10.1%	465	418	-10.1%
Water supply needs total**	396	361	-8.8%	396	361	-8.8%
Concho County Municipal WUG Type						
Existing WUG supply total	467	531	13.7%	439	448	2.1%
Projected demand total	415	981	136.4%	400	901	125.3%
Water supply needs total**	0	450	100.0%	0	453	100.0%
Concho County Mining WUG Type						
Existing WUG supply total	474	0	-100.0%	279	0	-100.0%
Projected demand total	474	0	-100.0%	279	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Concho County Livestock WUG Type						
Existing WUG supply total	382	479	25.4%	382	479	25.4%
Projected demand total	382	479	25.4%	382	479	25.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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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 F 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 (%)
Concho County Irrigation WUG Type						
Existing WUG supply total	4,902	5,204	6.2%	4,902	5,204	6.2%
Projected demand total	4,902	5,204	6.2%	4,902	5,204	6.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crane County Municipal WUG Type						
Existing WUG supply total	1,546	1,366	-11.6%	1,891	1,553	-17.9%
Projected demand total	1,546	1,366	-11.6%	1,891	1,553	-17.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crane County Manufacturing WUG Type						
Existing WUG supply total	468	469	0.2%	468	542	15.8%
Projected demand total	468	469	0.2%	468	542	15.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crane County Mining WUG Type						
Existing WUG supply total	840	3,071	265.6%	407	3,179	681.1%
Projected demand total	840	3,071	265.6%	407	3,194	684.8%
Water supply needs total**	0	0	0.0%	0	15	100.0%
Crane County Livestock WUG Type						
Existing WUG supply total	72	60	-16.7%	72	60	-16.7%
Projected demand total	72	60	-16.7%	72	60	-16.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crockett County Municipal WUG Type						
Existing WUG supply total	1,661	1,061	-36.1%	1,697	778	-54.2%
Projected demand total	1,661	1,061	-36.1%	1,697	778	-54.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crockett County Manufacturing WUG Type						
Existing WUG supply total	15	36	140.0%	15	40	166.7%

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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 F 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	15	36	140.0%	15	40	166.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crockett County Mining WUG Type						
Existing WUG supply total	5,087	3,771	-25.9%	2,162	3,199	48.0%
Projected demand total	4,500	6,046	34.4%	200	3,199	1499.5%
Water supply needs total**	0	2,275	100.0%	0	0	0.0%
Crockett County Livestock WUG Type						
Existing WUG supply total	527	514	-2.5%	527	514	-2.5%
Projected demand total	527	514	-2.5%	527	514	-2.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Crockett County Irrigation WUG Type						
Existing WUG supply total	135	77	-43.0%	135	77	-43.0%
Projected demand total	135	77	-43.0%	135	77	-43.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Ector County Municipal WUG Type						
Existing WUG supply total	32,720	30,413	-7.1%	34,858	29,527	-15.3%
Projected demand total	32,803	30,413	-7.3%	47,334	42,346	-10.5%
Water supply needs total**	83	0	-100.0%	12,476	12,819	2.7%
Ector County Manufacturing WUG Type						
Existing WUG supply total	3,442	719	-79.1%	2,381	833	-65.0%
Projected demand total	2,381	719	-69.8%	2,381	833	-65.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Ector County Mining WUG Type						
Existing WUG supply total	2,389	2,061	-13.7%	2,008	1,091	-45.7%
Projected demand total	2,164	2,061	-4.8%	1,076	1,091	1.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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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 F 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 (%)
Ector County Steam Electric Power WUG Type						
Existing WUG supply total	4,837	6,490	34.2%	4,521	5,797	28.2%
Projected demand total	4,837	7,889	63.1%	4,837	7,889	63.1%
Water supply needs total**	0	1,399	100.0%	316	2,092	562.0%
Ector County Livestock WUG Type						
Existing WUG supply total	199	140	-29.6%	199	140	-29.6%
Projected demand total	199	140	-29.6%	199	140	-29.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Ector County Irrigation WUG Type						
Existing WUG supply total	1,789	878	-50.9%	1,335	607	-54.5%
Projected demand total	756	751	-0.7%	756	751	-0.7%
Water supply needs total**	0	0	0.0%	0	144	100.0%
Glasscock County Municipal WUG Type						
Existing WUG supply total	165	123	-25.5%	159	92	-42.1%
Projected demand total	165	123	-25.5%	159	92	-42.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Glasscock County Manufacturing WUG Type						
Existing WUG supply total	33	42	27.3%	33	50	51.5%
Projected demand total	33	42	27.3%	33	50	51.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Glasscock County Mining WUG Type						
Existing WUG supply total	5,900	13,854	134.8%	1,500	7,331	388.7%
Projected demand total	5,900	13,854	134.8%	1,500	7,331	388.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Glasscock County Livestock WUG Type						
Existing WUG supply total	147	116	-21.1%	147	116	-21.1%

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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 F 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	147	116	-21.1%	147	116	-21.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Glasscock County Irrigation WUG Type						
Existing WUG supply total	51,254	43,413	-15.3%	51,254	43,413	-15.3%
Projected demand total	51,254	43,413	-15.3%	51,254	43,413	-15.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Howard County Municipal WUG Type						
Existing WUG supply total	7,552	7,951	5.3%	5,557	5,599	0.8%
Projected demand total	7,552	7,951	5.3%	7,494	7,932	5.8%
Water supply needs total**	0	0	0.0%	1,937	2,333	20.4%
Howard County Manufacturing WUG Type						
Existing WUG supply total	3,746	3,916	4.5%	3,322	4,024	21.1%
Projected demand total	3,746	3,916	4.5%	3,746	4,529	20.9%
Water supply needs total**	0	0	0.0%	424	505	19.1%
Howard County Mining WUG Type						
Existing WUG supply total	3,400	9,934	192.2%	300	6,530	2076.7%
Projected demand total	3,400	12,340	262.9%	300	6,530	2076.7%
Water supply needs total**	0	2,406	100.0%	0	0	0.0%
Howard County Steam Electric Power WUG Type						
Existing WUG supply total	441	1,140	158.5%	382	850	122.5%
Projected demand total	427	1,141	167.2%	427	1,141	167.2%
Water supply needs total**	0	1	100.0%	45	291	546.7%
Howard County Livestock WUG Type						
Existing WUG supply total	269	199	-26.0%	269	199	-26.0%
Projected demand total	229	199	-13.1%	229	199	-13.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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DRAFT Region F 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 (%)
Howard County Irrigation WUG Type						
Existing WUG supply total	6,883	5,096	-26.0%	6,883	5,096	-26.0%
Projected demand total	6,883	5,096	-26.0%	6,883	5,096	-26.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Irion County Municipal WUG Type						
Existing WUG supply total	200	168	-16.0%	191	144	-24.6%
Projected demand total	200	168	-16.0%	191	144	-24.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Irion County Manufacturing WUG Type						
Existing WUG supply total	7	7	0.0%	7	7	0.0%
Projected demand total	7	7	0.0%	7	7	0.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Irion County Mining WUG Type						
Existing WUG supply total	2,838	4,647	63.7%	593	3,785	538.3%
Projected demand total	4,600	10,662	131.8%	500	5,642	1028.4%
Water supply needs total**	1,762	6,015	241.4%	0	1,857	100.0%
Irion County Livestock WUG Type						
Existing WUG supply total	232	242	4.3%	232	242	4.3%
Projected demand total	232	242	4.3%	232	242	4.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Irion County Irrigation WUG Type						
Existing WUG supply total	546	436	-20.1%	546	436	-20.1%
Projected demand total	1,053	1,054	0.1%	1,053	1,054	0.1%
Water supply needs total**	507	618	21.9%	507	618	21.9%
Kimble County Municipal WUG Type						
Existing WUG supply total	248	214	-13.7%	236	166	-29.7%

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DRAFT Region F 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	868	737	-15.1%	840	672	-20.0%
Water supply needs total**	620	523	-15.6%	604	506	-16.2%
Kimble County Manufacturing WUG Type						
Existing WUG supply total	2	15	650.0%	2	15	650.0%
Projected demand total	706	50	-92.9%	706	50	-92.9%
Water supply needs total**	704	35	-95.0%	704	35	-95.0%
Kimble County Mining WUG Type						
Existing WUG supply total	19	1	-94.7%	19	1	-94.7%
Projected demand total	19	1	-94.7%	19	1	-94.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Kimble County Livestock WUG Type						
Existing WUG supply total	320	307	-4.1%	320	307	-4.1%
Projected demand total	320	307	-4.1%	320	307	-4.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Kimble County Irrigation WUG Type						
Existing WUG supply total	1,554	1,344	-13.5%	1,554	1,344	-13.5%
Projected demand total	2,657	2,602	-2.1%	2,657	2,602	-2.1%
Water supply needs total**	1,103	1,258	14.1%	1,103	1,258	14.1%
Loving County Municipal WUG Type						
Existing WUG supply total	10	8	-20.0%	9	7	-22.2%
Projected demand total	10	8	-20.0%	9	7	-22.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Loving County Mining WUG Type						
Existing WUG supply total	3,594	5,277	46.8%	2,400	5,279	120.0%
Projected demand total	7,500	12,002	60.0%	3,400	12,002	253.0%
Water supply needs total**	3,906	6,725	72.2%	1,000	6,723	572.3%

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DRAFT Region F 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 (%)
Loving County Livestock WUG Type						
Existing WUG supply total	32	40	25.0%	32	40	25.0%
Projected demand total	32	40	25.0%	32	40	25.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Martin County Municipal WUG Type						
Existing WUG supply total	948	819	-13.6%	994	698	-29.8%
Projected demand total	932	870	-6.7%	1,084	1,101	1.6%
Water supply needs total**	0	51	100.0%	90	403	347.8%
Martin County Mining WUG Type						
Existing WUG supply total	7,200	16,446	128.4%	4,617	7,995	73.2%
Projected demand total	7,200	16,590	130.4%	1,000	8,779	777.9%
Water supply needs total**	0	144	100.0%	0	784	100.0%
Martin County Livestock WUG Type						
Existing WUG supply total	119	75	-37.0%	119	75	-37.0%
Projected demand total	119	75	-37.0%	119	75	-37.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Martin County Irrigation WUG Type						
Existing WUG supply total	36,491	32,496	-10.9%	31,609	27,101	-14.3%
Projected demand total	36,491	32,933	-9.8%	36,491	32,933	-9.8%
Water supply needs total**	0	437	100.0%	4,882	5,832	19.5%
Mason County Municipal WUG Type						
Existing WUG supply total	224	755	237.1%	214	703	228.5%
Projected demand total	914	903	-1.2%	890	936	5.2%
Water supply needs total**	690	148	-78.6%	676	233	-65.5%
Mason County Mining WUG Type						
Existing WUG supply total	941	176	-81.3%	372	176	-52.7%

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DRAFT Region F 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	941	176	-81.3%	372	176	-52.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Mason County Livestock WUG Type						
Existing WUG supply total	714	688	-3.6%	714	688	-3.6%
Projected demand total	714	688	-3.6%	714	688	-3.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Mason County Irrigation WUG Type						
Existing WUG supply total	4,966	4,804	-3.3%	4,966	4,804	-3.3%
Projected demand total	4,966	4,804	-3.3%	4,966	4,804	-3.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
McCulloch County Municipal WUG Type						
Existing WUG supply total	640	1,628	154.4%	615	1,565	154.5%
Projected demand total	1,945	1,830	-5.9%	1,936	1,595	-17.6%
Water supply needs total**	1,420	202	-85.8%	1,414	77	-94.6%
McCulloch County Manufacturing WUG Type						
Existing WUG supply total	609	0	-100.0%	609	0	-100.0%
Projected demand total	609	0	-100.0%	609	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
McCulloch County Mining WUG Type						
Existing WUG supply total	8,348	673	-91.9%	4,202	685	-83.7%
Projected demand total	8,347	673	-91.9%	4,201	685	-83.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
McCulloch County Livestock WUG Type						
Existing WUG supply total	651	552	-15.2%	651	552	-15.2%
Projected demand total	651	552	-15.2%	651	552	-15.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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DRAFT Region F 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 (%)
McCulloch County Irrigation WUG Type						
Existing WUG supply total	2,324	2,074	-10.8%	2,324	2,074	-10.8%
Projected demand total	2,324	2,074	-10.8%	2,324	2,074	-10.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Menard County Municipal WUG Type						
Existing WUG supply total	228	289	26.8%	223	276	23.8%
Projected demand total	431	333	-22.7%	419	276	-34.1%
Water supply needs total**	203	44	-78.3%	196	0	-100.0%
Menard County Mining WUG Type						
Existing WUG supply total	1,071	0	-100.0%	622	0	-100.0%
Projected demand total	1,071	0	-100.0%	622	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Menard County Livestock WUG Type						
Existing WUG supply total	294	315	7.1%	294	315	7.1%
Projected demand total	294	315	7.1%	294	315	7.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Menard County Irrigation WUG Type						
Existing WUG supply total	3,663	3,465	-5.4%	3,663	3,465	-5.4%
Projected demand total	3,663	3,465	-5.4%	3,663	3,465	-5.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Midland County Municipal WUG Type						
Existing WUG supply total	30,618	44,714	46.0%	29,838	40,798	36.7%
Projected demand total	36,494	30,582	-16.2%	48,892	44,414	-9.2%
Water supply needs total**	5,876	0	-100.0%	19,054	3,616	-81.0%
Midland County Manufacturing WUG Type						
Existing WUG supply total	1,177	7,485	535.9%	1,177	8,496	621.8%

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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 F 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	1,177	6,462	449.0%	1,177	7,473	534.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Midland County Mining WUG Type						
Existing WUG supply total	10,600	14,703	38.7%	3,313	7,781	134.9%
Projected demand total	10,600	14,703	38.7%	2,300	7,781	238.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Midland County Livestock WUG Type						
Existing WUG supply total	243	180	-25.9%	243	180	-25.9%
Projected demand total	243	180	-25.9%	243	180	-25.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Midland County Irrigation WUG Type						
Existing WUG supply total	18,107	17,995	-0.6%	18,107	17,995	-0.6%
Projected demand total	18,107	17,995	-0.6%	18,107	17,995	-0.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Mitchell County Municipal WUG Type						
Existing WUG supply total	2,137	1,733	-18.9%	2,155	1,732	-19.6%
Projected demand total	2,270	2,500	10.1%	2,338	2,578	10.3%
Water supply needs total**	133	767	476.7%	183	846	362.3%
Mitchell County Manufacturing WUG Type						
Existing WUG supply total	5	4	-20.0%	5	4	-20.0%
Projected demand total	5	4	-20.0%	5	4	-20.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Mitchell County Mining WUG Type						
Existing WUG supply total	738	324	-56.1%	290	173	-40.3%
Projected demand total	738	368	-50.1%	290	195	-32.8%
Water supply needs total**	0	44	100.0%	0	22	100.0%

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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 F 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 (%)
Mitchell County Steam Electric Power WUG Type						
Existing WUG supply total	0	0	0.0%	0	0	0.0%
Projected demand total	10,326	6,725	-34.9%	10,326	6,725	-34.9%
Water supply needs total**	10,326	6,725	-34.9%	10,326	6,725	-34.9%
Mitchell County Livestock WUG Type						
Existing WUG supply total	376	318	-15.4%	376	318	-15.4%
Projected demand total	376	318	-15.4%	376	318	-15.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Mitchell County Irrigation WUG Type						
Existing WUG supply total	10,929	11,430	4.6%	11,305	11,523	1.9%
Projected demand total	12,787	12,985	1.5%	12,787	12,985	1.5%
Water supply needs total**	1,858	1,555	-16.3%	1,482	1,462	-1.3%
Pecos County Municipal WUG Type						
Existing WUG supply total	6,394	5,323	-16.8%	7,817	5,941	-24.0%
Projected demand total	6,394	5,323	-16.8%	7,817	5,941	-24.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Pecos County Manufacturing WUG Type						
Existing WUG supply total	433	243	-43.9%	433	281	-35.1%
Projected demand total	433	243	-43.9%	433	281	-35.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Pecos County Mining WUG Type						
Existing WUG supply total	4,200	16,152	284.6%	4,200	16,152	284.6%
Projected demand total	7,700	16,152	109.8%	3,700	16,152	336.5%
Water supply needs total**	3,500	0	-100.0%	0	0	0.0%
Pecos County Livestock WUG Type						
Existing WUG supply total	687	609	-11.4%	687	609	-11.4%

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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 F 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	687	609	-11.4%	687	609	-11.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Pecos County Irrigation WUG Type						
Existing WUG supply total	143,345	137,672	-4.0%	143,345	137,672	-4.0%
Projected demand total	143,345	137,672	-4.0%	143,345	137,672	-4.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reagan County Municipal WUG Type						
Existing WUG supply total	871	827	-5.1%	1,015	861	-15.2%
Projected demand total	871	827	-5.1%	1,015	861	-15.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reagan County Mining WUG Type						
Existing WUG supply total	10,600	19,823	87.0%	4,663	10,490	125.0%
Projected demand total	10,600	19,823	87.0%	600	10,490	1648.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reagan County Livestock WUG Type						
Existing WUG supply total	183	294	60.7%	183	294	60.7%
Projected demand total	183	294	60.7%	183	294	60.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reagan County Irrigation WUG Type						
Existing WUG supply total	22,031	21,502	-2.4%	22,031	21,502	-2.4%
Projected demand total	22,031	21,502	-2.4%	22,031	21,502	-2.4%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reeves County Municipal WUG Type						
Existing WUG supply total	4,190	4,048	-3.4%	4,720	4,411	-6.5%
Projected demand total	4,308	5,390	25.1%	4,867	7,378	51.6%
Water supply needs total**	118	1,342	1037.3%	147	2,967	1918.4%

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DRAFT Region F 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 (%)
Reeves County Manufacturing WUG Type						
Existing WUG supply total	305	45	-85.2%	305	53	-82.6%
Projected demand total	305	45	-85.2%	305	53	-82.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reeves County Mining WUG Type						
Existing WUG supply total	2,200	34,986	1490.3%	2,200	34,986	1490.3%
Projected demand total	12,600	34,986	177.7%	6,200	34,986	464.3%
Water supply needs total**	10,400	0	-100.0%	4,000	0	-100.0%
Reeves County Livestock WUG Type						
Existing WUG supply total	368	309	-16.0%	368	309	-16.0%
Projected demand total	368	309	-16.0%	368	309	-16.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Reeves County Irrigation WUG Type						
Existing WUG supply total	58,937	60,025	1.8%	58,937	60,025	1.8%
Projected demand total	58,937	60,025	1.8%	58,937	60,025	1.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Runnels County Municipal WUG Type						
Existing WUG supply total	1,846	634	-65.7%	1,770	453	-74.4%
Projected demand total	1,397	1,548	10.8%	1,340	1,507	12.5%
Water supply needs total**	442	914	106.8%	436	1,054	141.7%
Runnels County Manufacturing WUG Type						
Existing WUG supply total	11	4	-63.6%	11	4	-63.6%
Projected demand total	11	4	-63.6%	11	4	-63.6%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Runnels County Mining WUG Type						
Existing WUG supply total	269	0	-100.0%	161	0	-100.0%

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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 F 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	269	0	-100.0%	161	0	-100.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Runnels County Livestock WUG Type						
Existing WUG supply total	705	679	-3.7%	705	679	-3.7%
Projected demand total	705	679	-3.7%	705	679	-3.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Runnels County Irrigation WUG Type						
Existing WUG supply total	3,105	3,517	13.3%	3,105	3,517	13.3%
Projected demand total	3,105	3,517	13.3%	3,105	3,517	13.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Schleicher County Municipal WUG Type						
Existing WUG supply total	934	555	-40.6%	959	290	-69.8%
Projected demand total	934	555	-40.6%	959	290	-69.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Schleicher County Mining WUG Type						
Existing WUG supply total	732	3,529	382.1%	148	1,867	1161.5%
Projected demand total	732	3,529	382.1%	148	1,867	1161.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Schleicher County Livestock WUG Type						
Existing WUG supply total	389	422	8.5%	389	422	8.5%
Projected demand total	389	422	8.5%	389	422	8.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Schleicher County Irrigation WUG Type						
Existing WUG supply total	1,811	2,015	11.3%	1,811	2,015	11.3%
Projected demand total	1,811	2,015	11.3%	1,811	2,015	11.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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DRAFT Region F 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 (%)
Scurry County Municipal WUG Type						
Existing WUG supply total	2,633	2,426	-7.9%	2,461	1,970	-20.0%
Projected demand total	3,047	2,426	-20.4%	3,967	2,581	-34.9%
Water supply needs total**	414	0	-100.0%	1,506	611	-59.4%
Scurry County Manufacturing WUG Type						
Existing WUG supply total	30	199	563.3%	30	230	666.7%
Projected demand total	186	199	7.0%	186	230	23.7%
Water supply needs total**	156	0	-100.0%	156	0	-100.0%
Scurry County Mining WUG Type						
Existing WUG supply total	61	306	401.6%	23	162	604.3%
Projected demand total	456	306	-32.9%	167	162	-3.0%
Water supply needs total**	395	0	-100.0%	144	0	-100.0%
Scurry County Livestock WUG Type						
Existing WUG supply total	461	449	-2.6%	461	449	-2.6%
Projected demand total	461	445	-3.5%	461	445	-3.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Scurry County Irrigation WUG Type						
Existing WUG supply total	1,004	6,983	595.5%	996	6,983	601.1%
Projected demand total	7,559	6,983	-7.6%	7,559	6,983	-7.6%
Water supply needs total**	6,555	0	-100.0%	6,563	0	-100.0%
Sterling County Municipal WUG Type						
Existing WUG supply total	313	443	41.5%	312	911	192.0%
Projected demand total	313	443	41.5%	312	1,291	313.8%
Water supply needs total**	0	0	0.0%	0	380	100.0%
Sterling County Mining WUG Type						
Existing WUG supply total	953	1,440	51.1%	140	1,411	907.9%

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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 F 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	953	3,047	219.7%	140	1,612	1051.4%
Water supply needs total**	0	1,607	100.0%	0	201	100.0%
Sterling County Livestock WUG Type						
Existing WUG supply total	234	248	6.0%	234	248	6.0%
Projected demand total	234	248	6.0%	234	248	6.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Sterling County Irrigation WUG Type						
Existing WUG supply total	899	855	-4.9%	899	855	-4.9%
Projected demand total	899	855	-4.9%	899	855	-4.9%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Sutton County Municipal WUG Type						
Existing WUG supply total	1,251	1,169	-6.6%	1,306	800	-38.7%
Projected demand total	1,251	1,169	-6.6%	1,306	800	-38.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Sutton County Manufacturing WUG Type						
Existing WUG supply total	3	3	0.0%	3	3	0.0%
Projected demand total	3	3	0.0%	3	3	0.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Sutton County Mining WUG Type						
Existing WUG supply total	720	27	-96.3%	264	27	-89.8%
Projected demand total	720	27	-96.3%	264	27	-89.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Sutton County Livestock WUG Type						
Existing WUG supply total	444	415	-6.5%	444	415	-6.5%
Projected demand total	444	415	-6.5%	444	415	-6.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%

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DRAFT Region F 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 (%)
Sutton County Irrigation WUG Type						
Existing WUG supply total	1,120	1,123	0.3%	1,120	1,123	0.3%
Projected demand total	1,120	1,123	0.3%	1,120	1,123	0.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Tom Green County Municipal WUG Type						
Existing WUG supply total	15,806	18,195	15.1%	15,315	21,849	42.7%
Projected demand total	22,323	21,788	-2.4%	27,290	29,239	7.1%
Water supply needs total**	6,849	3,593	-47.5%	12,133	7,390	-39.1%
Tom Green County Manufacturing WUG Type						
Existing WUG supply total	818	791	-3.3%	747	914	22.4%
Projected demand total	962	791	-17.8%	962	914	-5.0%
Water supply needs total**	144	0	-100.0%	215	0	-100.0%
Tom Green County Mining WUG Type						
Existing WUG supply total	1,080	989	-8.4%	1,156	523	-54.8%
Projected demand total	1,080	990	-8.3%	1,156	524	-54.7%
Water supply needs total**	0	1	100.0%	0	1	100.0%
Tom Green County Livestock WUG Type						
Existing WUG supply total	1,125	874	-22.3%	1,125	874	-22.3%
Projected demand total	1,125	874	-22.3%	1,125	874	-22.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Tom Green County Irrigation WUG Type						
Existing WUG supply total	43,002	49,600	15.3%	42,825	41,183	-3.8%
Projected demand total	42,493	49,600	16.7%	42,493	49,600	16.7%
Water supply needs total**	0	0	0.0%	0	8,417	100.0%
Upton County Municipal WUG Type						
Existing WUG supply total	1,253	1,053	-16.0%	1,372	1,203	-12.3%

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DRAFT Region F 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	1,253	1,053	-16.0%	1,372	1,203	-12.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Upton County Manufacturing WUG Type						
Existing WUG supply total	207	128	-38.2%	207	148	-28.5%
Projected demand total	207	128	-38.2%	207	148	-28.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Upton County Mining WUG Type						
Existing WUG supply total	7,706	15,851	105.7%	4,805	8,388	74.6%
Projected demand total	7,200	15,851	120.2%	1,600	8,388	424.3%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Upton County Livestock WUG Type						
Existing WUG supply total	126	121	-4.0%	126	121	-4.0%
Projected demand total	126	121	-4.0%	126	121	-4.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Upton County Irrigation WUG Type						
Existing WUG supply total	10,403	8,418	-19.1%	10,403	8,418	-19.1%
Projected demand total	10,403	8,418	-19.1%	10,403	8,418	-19.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Ward County Municipal WUG Type						
Existing WUG supply total	5,773	3,935	-31.8%	5,801	5,975	3.0%
Projected demand total	3,439	3,935	14.4%	3,779	5,975	58.1%
Water supply needs total**	0	0	0.0%	155	0	-100.0%
Ward County Manufacturing WUG Type						
Existing WUG supply total	7	0	-100.0%	7	0	-100.0%
Projected demand total	7	0	-100.0%	7	0	-100.0%
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 F 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 (%)
Ward County Mining WUG Type						
Existing WUG supply total	1,900	6,776	256.6%	600	6,706	1017.7%
Projected demand total	1,900	8,170	330.0%	600	8,351	1291.8%
Water supply needs total**	0	1,394	100.0%	0	1,645	100.0%
Ward County Steam Electric Power WUG Type						
Existing WUG supply total	150	43	-71.3%	150	43	-71.3%
Projected demand total	2,502	43	-98.3%	2,502	43	-98.3%
Water supply needs total**	2,352	0	-100.0%	2,352	0	-100.0%
Ward County Livestock WUG Type						
Existing WUG supply total	83	70	-15.7%	83	70	-15.7%
Projected demand total	83	70	-15.7%	83	70	-15.7%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Ward County Irrigation WUG Type						
Existing WUG supply total	6,053	4,333	-28.4%	6,076	4,333	-28.7%
Projected demand total	3,160	4,333	37.1%	3,160	4,333	37.1%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Winkler County Municipal WUG Type						
Existing WUG supply total	2,483	2,626	5.8%	2,939	3,826	30.2%
Projected demand total	2,483	2,626	5.8%	2,939	3,826	30.2%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Winkler County Manufacturing WUG Type						
Existing WUG supply total	76	107	40.8%	76	123	61.8%
Projected demand total	76	107	40.8%	76	123	61.8%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Winkler County Mining WUG Type						
Existing WUG supply total	1,169	13,048	1016.2%	373	15,498	4055.0%

*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 F 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	1,169	13,048	1016.2%	373	15,498	4055.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Winkler County Livestock WUG Type						
Existing WUG supply total	101	100	-1.0%	101	100	-1.0%
Projected demand total	101	100	-1.0%	101	100	-1.0%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Winkler County Irrigation WUG Type						
Existing WUG supply total	3,507	3,068	-12.5%	3,507	3,068	-12.5%
Projected demand total	3,507	3,068	-12.5%	3,507	3,068	-12.5%
Water supply needs total**	0	0	0.0%	0	0	0.0%
Region F Total						
Existing WUG supply total	718,312	824,224	14.7%	665,624	762,471	14.5%
Projected demand total	779,505	859,746	10.3%	744,366	849,659	14.1%
Water supply needs total**	71,866	50,862	-29.2%	102,788	88,551	-13.9%

*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.

TWDB DB27 Report #7 – 2026 RWP Source Data Comparison to 2021 RWP

DRAFT Region F 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 (%)
Andrews County						
Groundwater availability total	24,042	22,242	-7.5%	20,141	18,615	-7.6%
Reuse availability total	560	709	26.6%	560	709	26.6%
Surface Water availability total	44	741	1584.1%	44	392	790.9%
Borden County						
Groundwater availability total	8,138	8,056	-1.0%	6,711	6,851	2.1%
Surface Water availability total	164	228	39.0%	164	228	39.0%
Brown County						
Groundwater availability total	2,607	2,588	-0.7%	2,607	2,588	-0.7%
Surface Water availability total	1,338	1,065	-20.4%	1,338	1,065	-20.4%
Coke County						
Groundwater availability total	3,357	3,357	0.0%	3,357	3,357	0.0%
Surface Water availability total	100	69	-31.0%	100	69	-31.0%
Coleman County						
Groundwater availability total	717	717	0.0%	717	717	0.0%
Surface Water availability total	794	802	1.0%	794	802	1.0%
Concho County						
Groundwater availability total	8,343	10,450	25.3%	8,343	10,450	25.3%
Reuse availability total	25	187	648.0%	25	187	648.0%
Surface Water availability total	467	468	0.2%	467	468	0.2%
Crane County						
Groundwater availability total	6,085	6,085	0.0%	6,085	6,085	0.0%
Reuse availability total	73	232	217.8%	73	128	75.3%
Surface Water availability total	4	3	-25.0%	4	3	-25.0%
Crockett County						
Groundwater availability total	5,451	5,453	0.0%	5,451	5,453	0.0%
Surface Water availability total	1,992	27	-98.6%	1,992	27	-98.6%
Ector County						
Groundwater availability total	13,800	6,497	-52.9%	12,797	6,517	-49.1%
Reuse availability total	9,530	9,530	0.0%	9,530	9,530	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 F 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 (%)
Surface Water availability total	54	380	603.7%	54	208	285.2%
Glasscock County						
Groundwater availability total	73,769	73,769	0.0%	72,666	72,666	0.0%
Surface Water availability total	144	2,469	1614.6%	144	1,317	814.6%
Howard County						
Groundwater availability total	19,652	23,073	17.4%	17,327	21,357	23.3%
Reuse availability total	1,855	1,855	0.0%	1,855	1,855	0.0%
Surface Water availability total	100	2,211	2111.0%	100	1,186	1086.0%
Irion County						
Groundwater availability total	3,452	3,452	0.0%	3,452	3,452	0.0%
Surface Water availability total	371	2,048	452.0%	371	1,162	213.2%
Kimble County						
Groundwater availability total	2,172	2,172	0.0%	2,172	2,172	0.0%
Surface Water availability total	1,251	1,006	-19.6%	1,251	1,006	-19.6%
Loving County						
Groundwater availability total	3,635	3,635	0.0%	3,635	3,635	0.0%
Surface Water availability total	1	1	0.0%	1	1	0.0%
Martin County						
Groundwater availability total	51,376	59,984	16.8%	35,675	46,212	29.5%
Surface Water availability total	179	2,953	1549.7%	179	1,574	779.3%
Mason County						
Groundwater availability total	17,440	17,440	0.0%	17,440	17,440	0.0%
Surface Water availability total	227	176	-22.5%	227	176	-22.5%
McCulloch County						
Groundwater availability total	29,145	29,597	1.6%	29,145	29,597	1.6%
Surface Water availability total	304	204	-32.9%	304	204	-32.9%
Menard County						
Groundwater availability total	5,628	5,631	0.1%	5,628	5,631	0.1%
Surface Water availability total	2,138	1,224	-42.8%	2,138	1,224	-42.8%
Midland County						
Groundwater availability total	60,457	39,675	-34.4%	54,958	36,978	-32.7%

*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 F 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	11,211	11,210	0.0%	11,211	11,210	0.0%
Surface Water availability total	213	2,597	1119.2%	213	1,375	545.5%
Mitchell County						
Groundwater availability total	14,807	14,807	0.0%	14,807	14,807	0.0%
Reuse availability total	552	0	-100.0%	552	0	-100.0%
Surface Water availability total	322	274	-14.9%	322	274	-14.9%
Pecos County						
Groundwater availability total	291,663	291,663	0.0%	291,663	291,663	0.0%
Surface Water availability total	18,709	19,674	5.2%	18,709	19,674	5.2%
Reagan County						
Groundwater availability total	68,535	69,195	1.0%	68,535	69,195	1.0%
Surface Water availability total	238	3,539	1387.0%	238	1,891	694.5%
Reeves County						
Groundwater availability total	195,977	195,977	0.0%	195,977	195,977	0.0%
Surface Water availability total	573	733	27.9%	573	733	27.9%
Reservoir** County						
Surface Water availability total	102,620	79,870	-22.2%	97,660	76,038	-22.1%
Runnels County						
Groundwater availability total	5,046	5,046	0.0%	5,046	5,046	0.0%
Reuse availability total	22	0	-100.0%	22	0	-100.0%
Surface Water availability total	737	579	-21.4%	737	579	-21.4%
Schleicher County						
Groundwater availability total	8,034	8,034	0.0%	8,034	8,034	0.0%
Surface Water availability total	23	24	4.3%	23	24	4.3%
Scurry County						
Groundwater availability total	1,608	12,096	652.2%	1,608	11,725	629.2%
Surface Water availability total	440	370	-15.9%	440	370	-15.9%
Sterling County						
Groundwater availability total	3,355	3,645	8.6%	3,355	3,645	8.6%
Surface Water availability total	55	53	-3.6%	55	53	-3.6%
Sutton County						

*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 F 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 (%)
Groundwater availability total	6,410	6,410	0.0%	6,410	6,410	0.0%
Surface Water availability total	388	9	-97.7%	388	9	-97.7%
Tom Green County						
Groundwater availability total	46,565	46,565	0.0%	46,565	46,565	0.0%
Reuse availability total	8,400	8,474	0.9%	8,400	8,392	-0.1%
Surface Water availability total	2,286	2,326	1.7%	2,286	2,326	1.7%
Upton County						
Groundwater availability total	23,369	23,369	0.0%	23,369	23,369	0.0%
Surface Water availability total	121	2,798	2212.4%	121	1,480	1123.1%
Ward County						
Groundwater availability total	52,229	52,229	0.0%	52,229	52,229	0.0%
Reuse availability total	670	1,017	51.8%	670	1,017	51.8%
Surface Water availability total	919	2,143	133.2%	919	2,143	133.2%
Winkler County						
Groundwater availability total	56,763	56,263	-0.9%	56,763	56,263	-0.9%
Surface Water availability total	2	2	0.0%	2	2	0.0%
Region F Total						
Groundwater availability total	1,113,627	1,109,172	-0.4%	1,082,668	1,084,701	0.2%
Reuse availability total	32,898	33,214	1.0%	32,898	33,028	0.4%
Surface Water availability total	137,318	131,066	-4.6%	132,358	118,083	-10.8%

*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.

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

APPENDIX B
Hydrologic Variance Request and Approval for Surface Water

July 20, 2023

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

Re: Hydrologic Variance Requests for Water Availability Determination of Current Surface Water Supplies in Region F

Dear Mr. Walker:

Region F is one of the largest regions in the state, encompassing 32 counties in west Texas. Surface water supplies are obtained from the upper Colorado River Basin and Pecos River Basin, which is a tributary of the Rio Grande River Basin. A small portion of the region lies in the Brazos River Basin but there is little to no surface water supplied to Region F from this river basin.

In accordance with regional planning rules and guidelines, Region F intends to use the Full Authorization Run (Run 3) of the TCEQ-approved WAMs to determine surface water availability in the region. However, to more accurately reflect the current conditions and operations of the region, some following modifications to WAM Run 3 are requested. In accordance with *Exhibit C First Amended General Guidelines for Development of the 2026 Regional Water Plans*, the Region has completed the Hydrologic Variance Checklist for each of the three river basins partially lie within the boundaries of Region F and the checklists are attached to this letter. These requests were reviewed and approved by the Region F Water Planning Group at a public meeting held on July 20, 2023.

Please call me or our consultant Lissa Gregg (817-946-2058) if you have any questions regarding our request.

Sincerely,



Cole Walker
Region F Chairman

Attachments:

Upper Colorado River Basin Surface Water Hydrologic Variance Checklist
Rio Grande River Basin Surface Water Hydrologic Variance Checklist
Brazos River Basin Surface Water Hydrologic Variance Checklist

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: F

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 Basin

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.

- **Safe Yield.** Region F requests the use of safe yield for the allocation and distribution of surface water supplies from all reservoirs within the region. Safe yield is the amount of water that can be used during the critical drought while leaving a minimum one-year supply in reserve. Safe yield is consistent with the current operations of surface water in the region and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.
- **Adoption of Region G Modifications.** The Brazos basin is largely located in Region G, with some areas extending into Region F. Region F proposes to adopt the version of the Brazos WAM (including any hydrologic variances) that Region G requests and is approved to use.

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

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

Modification request is the same as in the previous cycle of planning.

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

Existing and Strategy Supply

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

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

Region F requests the use of safe yield for the allocation and distribution of surface water supplies from all reservoirs within the region. Safe yield is the amount of water that can be used during the critical drought while leaving a minimum one-year supply in reserve. Safe yield is consistent with the current operations of surface water in the region and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.

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

Existing and Strategy Supply

[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

Existing and Strategy Supply

[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

Adoption of Region G Modifications. The Brazos basin is largely located in Region G, with some areas extending into Region F. Region F proposes to adopt the version of the Brazos WAM (including any hydrologic variances) that Region G requests and is approved to use.

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

Existing and Strategy Supply

[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.

Yes

Region G

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.

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.](#)

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: F

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.

Upper Colorado River Basin

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.

- **Safe Yield.** Region F requests the use of safe yield for the allocation and distribution of surface water supplies from all reservoirs within the region. Safe yield is the amount of water that can be used during the critical drought while leaving a minimum one-year supply in reserve. Safe yield is consistent with the current operations of surface water in the region and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.
- **Subordination WMS Variance Requests.** In Region F, a major water management strategy is the subordination of downstream senior water rights in the lower Colorado basin (Region K) to junior water rights in the upper Colorado basin (Region F). For the subordination strategy, Region F requests to use the Region K Colorado WAM “cutoff model” (including any hydrologic variances) that Region K requests and is approved to use. The Region K cutoff model modifies the priority dates for all water rights at and

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

above Lakes Ivie and Brownwood by making them senior to water rights below those locations. The cutoff model does not change the relative seniority within the upper Colorado River Basin. In addition to the Region K hydrologic variances, Region F requests the following:

- Include the City of Junction run-of-river right and Brady Creek Reservoir's water right as senior to those downstream in Region K. These water rights are in the upper Colorado River Basin within Region F.
- Consistent with previous regional planning efforts, Region F requests to coordinate with reservoir owners in the Pecan Bayou watershed to establish mutually agreeable terms for priority calls within the Pecan Bayou watershed.
- Region F also requests the use of safe yield for all reservoirs under the subordination strategy.

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

This request is consistent with previous planning cycle requests.

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

Existing and Strategy Supply

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

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

Region F requests the use of safe yield for the allocation and distribution of surface water supplies from all reservoirs within the region. Safe yield is the amount of water that can be used during the critical drought while leaving a minimum one-year supply in reserve. Safe yield is consistent with the current operations of surface water in the region and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.

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

Existing and Strategy Supply

[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

Existing and Strategy Supply

[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

Strategy Supply

In Region F, a major water management strategy is the subordination of downstream senior water rights in the lower Colorado basin (Region K) to junior water rights in the upper Colorado basin (Region F). For the subordination strategy, Region F requests to use the Region K Colorado WAM “cutoff model” (including any hydrologic variances) that Region K requests and is approved to use. The Region K cutoff model modifies the priority dates for all water rights at and above Lakes Ivie and Brownwood by making them senior to water rights below those

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.

locations. The cutoff model does not change the relative seniority within the upper Colorado River Basin. In addition to the Region K hydrologic variances, Region F requests the following:

- Include the City of Junction run-of-river right and Brady Creek Reservoir's water right as senior to those downstream in Region K. These water rights are in the upper Colorado River Basin within Region F.
- Consistent with previous regional planning efforts, Region F requests to coordinate with reservoir owners in the Pecan Bayou watershed to establish mutually agreeable terms for priority calls within the Pecan Bayou watershed.
- Region F also requests the use of safe yield for all reservoirs under the subordination strategy.

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

Existing and Strategy Supply

[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.

Yes

Region K.

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.](#)

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: F

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.

Rio Grande River Basin

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.

- **Safe Yield.** Region F requests the use of safe yield for the allocation and distribution of surface water supplies from all reservoirs within the region. Safe yield is the amount of water that can be used during the critical drought while leaving a minimum one-year supply in reserve. Safe yield is consistent with the current operations of surface water in the region and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.
- **Adjust calls on spring flows by water rights on the Pecos River.** Availability of spring flow was being impacted by several large diversions on the main stem of the Pecos River associated with the Red Bluff Irrigation District. In the WAM, these are modeled as run-of-the-river diversions that are backed up by releases from Red Bluff Reservoir. In actual operation, these water rights are dependent on releases from Red Bluff Reservoir and do not use or make calls on spring flow from San Solomon or Griffin

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

Springs. Also, it is likely that a priority call on spring flow would be considered a futile call since almost all of the water would be lost before it reached the Red Bluff Irrigation District diversions. To address these issues we request the following modifications:

- Modify the WAM to direct excess flows (flows not diverted directly from the creek) to Lake Balmorhea for storage in accordance with the Lake Balmorhea water right. The storage would then be modeled as backup for the run of river diversions.
- Model the Toyah Creek watershed to reflect actual operations and address potential futile calls.

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

Modification request is the same as in the previous cycle of planning.

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

Existing and Strategy Supply

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

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

Region F requests the use of safe yield for the allocation and distribution of surface water supplies from all reservoirs within the region. Safe yield is the amount of water that can be used during the critical drought while leaving a minimum one-year supply in reserve. Safe yield is consistent with the current operations of surface water in the region and previous regional water planning. In accordance with the TWDB planning rules, firm yields will also be determined and reported in the plan.

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

Existing and Strategy Supply

[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

Existing and Strategy Supply

[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 Supply

Yes, see response to question No. 2. These changes better reflect the operation of the basin and avoid futile calls.

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

Existing and Strategy Supply

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.

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.

Unknown

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.

November 28, 2023

Mr. Cole Walker
General Manager
Colorado River Municipal Water District
400 E. 24th Street
Big Spring, TX 79720

Dear Mr. Walker:

I have reviewed your request dated July 20, 2023, and received on September 24, 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:

1. Use of one-year safe yield for all reservoirs in the Brazos, Colorado, and Rio Grande Basins within the region.
2. Use of the Brazos Water Availability Model (WAM) as modified by the Brazos G Planning Group (*i.e.*, the Brazos G WAM) for existing and strategy supplies from the Brazos River Basin as approved by the TWDB for Region G.
3. Use of Region K's cutoff WAM model (as approved for use by the TWDB for Region K), to model the Lower Colorado subordination strategy, including considering the City of Junction's run-of-river right and Brady Creek Reservoir's water right as senior to those downstream in Region K, and using safe yield for all reservoirs under the subordination strategy. This includes coordinating with reservoir owners in the Pecan Bayou watershed to establish mutually agreeable terms for priority calls.
4. Undertake several modifications to the Rio Grande WAM to reflect actual operations for modeling existing supply. These modifications include:
 - a. Model the Toyah Creek watershed to reflect actual operations where irrigation water rights within the Red Bluff Irrigation District are met with releases from Red Bluff Reservoir and are not reliant on spring flow from San Solomon Springs or Giffin Springs.
 - b. Direct flows not diverted from the creek to Lake Balmorhea for storage, and model storage at Lake Balmorhea as backup for run-of-river diversions.

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

Mr. Cole Walker
November 28, 2023
Page 2

While the use of these modified conditions may be reasonable for planning purposes, WAM RUN3 would be utilized by the Texas Commission on Environmental Quality for analyzing permit applications. It is acceptable to use the approved modified conditions for WMS supply evaluations only if the yield produced is more conservative (less) for surface water appropriations than WAM RUN3. For the purpose of evaluating potentially feasible surface water management strategies not addressed in this request, the appropriate TCEQ WAM Run 3 is to be used unless a separate hydrologic variance request is submitted and approved by the TWDB.

While the TWDB authorizes these modifications to evaluate existing and future water supplies for development of the 2026 Region F 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 contract Exhibit C, *General Guidelines for Sixth Cycle of Regional Water Plan Development*.

Please do not hesitate to contact Heather Rose of our Regional Water Planning staff at 512-475-1558 or heather.rose@twdb.texas.gov if you have any questions.

Sincerely,

Jeff Walker
Executive Administrator

c: Audra Hoback, Colorado River Municipal Water District
Lissa Gregg, Freese & Nichols, Inc.
Tony Smith, Carollo Engineers, Inc. (Region G)
Neil Deeds, INTERA (Region K)
Heather Rose, Water Supply Planning
Nelun Fernando, Ph.D., Surface Water

APPENDIX C
Summary of Model Runs to Determine Surface Water Availability

Summary of Model Runs to Determine Surface Water Availability

Modified Model Root File Name	Run 3 Version Date	Description	EA Approval Date	DB27 Source Name ¹	Model	Modeler	Date
Brazos Basin							
bwam3	10/1/2023	Using WAM results provided by Region G (in progress)	11/28/2023	Run-of-river	-	Region G	-
Colorado Basin							
C3	10/1/2023	Unmodified Colorado WAM Run 3	11/28/2023	Run-of-river	WRAP	FNI	December-23
C3_RegionF_2030	10/1/2023	Modifed Colorado WAM Run 3; Reservoir conditions reflect sedimentation for 2030	11/28/2023	Ballinger/Moonen Lake/Reservoir Brady Creek Lake/Reservoir Brownwood Lake/Reservoir Coleman Lake/Reservoir	WRAP	FNI	December-23
C3_RegionF_2050	10/1/2023	Modifed Colorado WAM Run 3; Reservoir conditions reflect sedimentation for 2050	11/28/2023	Colorado City-Champion Lake/Reservoir System Colorado River MWD Lake/Reservoir System EV Spence Lake/Reservoir Non-System Portion Hords Creek Lake/Reservoir Mountain Creek Lake/Reservoir			
C3_RegionF_2080	10/1/2023	Modifed Colorado WAM Run 3; Reservoir conditions reflect sedimentation for 2080	11/28/2023	Oak Creek Lake/Reservoir OH Ivie Lake/Reservoir Non-System Portion San Angelo Lakes Lake/Reservoir System Winters Lake/Reservoir			
Rio Grande Basin							
RG3ror	10/1/2023	Modified Rio Grande WAM Run 3	11/28/2023	Run-of-river	WRAP	FNI	January-24
ERG26_RegionF_2030	10/1/2023	Modifed Rio Grande WAM Run 3; Reservoir conditions reflect sedimentation for 2030. Includes modifications to Balmorhea area water rights.	11/28/2023	Balmorhea Lake/Reservoir Red Bluff Lake/Reservoir	WRAP	FNI	January-24
ERG26_RegionF_2050	10/1/2023	Modifed Rio Grande WAM Run 3; Reservoir conditions reflect sedimentation for 2030. Includes modifications to Balmorhea area water rights.	11/28/2023		WRAP	FNI	
ERG26_RegionF_2080	10/1/2023	Modifed Rio Grande WAM Run 3; Reservoir conditions reflect sedimentation for 2030. Includes modifications to Balmorhea area water rights.	11/28/2023		WRAP	FNI	

1 Only two reservoirs in the Colorado River Basin have a yield using WAM Run 3 (OH Ivie Reservoir, Lake Brownwood). For these reservoirs, the yield in 2040 was estimated by interpolating the yields between years 2030 and 2050; reservoir yields from 2060-2070 were estimated by interpolating the yields between years 2050 and 2080.

APPENDIX D
Methodology for Non-Relevant Areas and Other Aquifer Availabilities

Technical Memorandum

TO: Lissa Gregg, Freese and Nichols, Inc.
FROM: Andrew Donnelly, P.G. and James Beach, P.G.
SUBJECT: Region F Non-MAG Groundwater Availability
DATE: January 24, 2024

Introduction

This memo summarizes non-relevant aquifers within Region F and the 2027 non-MAG groundwater availabilities currently in the DB27 database and recommended changes to these non-MAG availabilities. The reasons and methodology for these recommended changes are described below.

History

In the last round of planning, Region F provided recommendations for changes to non-MAG availabilities that were approved by Region F and the TWDB (Laughlin and Beach, 2018). Although approved by TWDB and used in the 2022 State Water Plan, some of the availability estimates were not incorporated into model runs done by the Groundwater Management Areas (GMAs) while developing desired future conditions (DFCs). Therefore, some estimates have reverted back to estimates that were estimated prior to the 2022 State Water Plan.

Evaluation of Non-MAG Availability

Non-MAG availabilities include the availability in aquifers designated as non-relevant and the availability in “other” aquifers. Portion of aquifers declared non-relevant for this planning cycle are as follows:

GMA 2

- Edwards-Trinity (Plateau) Aquifer in Andrews, Howard, and Martin counties
- Pecos Valley Aquifer in Andrews County

GMA 3

- Ogallala and Igneous aquifers in the entire GMA

GMA 7

- Cross Timbers, Igneous, Lipan, Marble Falls, and Seymour aquifers in the entire GMA
- Edwards-Trinity (Plateau) Aquifer in Concho, Mason, McCulloch, and Tom Green counties
- Ogallala Aquifer in Ector and Midland counties

- Dockum Aquifer in Coke, Crockett, Ector, Glasscock, Irion, Midland, Mitchell, Scurry, Sterling, Tom Green, and Upton counties
- Ellenburger-San Saba Aquifer in Coleman, Concho, and Mason counties
- Hickory Aquifer in Coleman County

GMA 8

- No aquifers within Region F

The major and minor aquifers or portion of these aquifers that have been declared non-relevant are shown in Figures 1 and 2, respectively.

In addition to these non-relevant aquifers, several other aquifers, which are not defined by the TWDB as major or minor aquifers, have non-MAG availability. These “other” aquifers include Cambrian and Permian deposits, the Quartermaster Formation, and the Edwards Aquifer/Antlers Sand, as well as several other smaller, unnamed aquifers that do not have geologic or hydrogeologic description. These aquifers are water-bearing units that may be important locally and therefore have non-MAG availability defined for regional water planning purposes.

The current non-MAG availabilities developed by TWDB for this planning cycle are shown in Table 1. Also shown in Table 1 are the availabilities from the previous (2022) planning cycle and the change from the previous planning cycle availabilities. Note that because the planning period for the previous planning cycle did not extend past 2070, only the availabilities for 2030 through 2070 are included for the previous planning cycle and the differences in Table 1. Also, the availabilities in Table 1 reflect the recommended changes in this memo.

In order to assess the updated non-MAG availabilities and make recommended changes to these availabilities, the following was reviewed.

1. The historic pumping was reviewed for all counties with non-MAG availability to ensure that the 2027 availability and the amount of groundwater currently being produced from the aquifer were reasonable. Counties with availabilities lower than the historic groundwater pumping were evaluated in greater detail. Historic pumping trends were evaluated to determine if recommended availabilities were justified. In a few cases, increased non-MAG availability was recommended based on consistent, or in some cases increasing, historic pumping volumes from an aquifer.
2. The differences between the recommended 2027 availabilities and the 2022 availabilities were assessed. In most cases, the new availability was the same as the previous availability. Where an aquifer’s availability changed, the historic pumping was evaluated in greater detail to determine if the recommended availability was justified. Particular attention was paid to counties where the recommended non-MAG availability was lower than the previous availability.

3. The technical memorandum from the previous planning cycle that described the groundwater availability for the region was reviewed. This memorandum contained rationale for previously recommended non-MAG availabilities.

The current total non-MAG availability for Region F is 132,867 ac-ft/yr in 2030, decreasing to 129,819 ac-ft/yr in 2080. Of this total, 27,926 ac-ft/yr is availability from “other” aquifers, with the remainder being for non-relevant aquifers. In the 2022 State Water Plan, total non-MAG availability was 147,613 ac-ft/yr in 2030, decreasing to 141,111 ac-ft/yr in 2070. The decrease of approximately 15,000 ac-ft/yr of non-MAG availability can primarily be attributed to the reduced availability in the Ogallala Aquifer in Midland and Ector counties, which is partially offset by a significant increase in non-MAG availability in the Dockum Aquifer in Scurry County.

Based on our review of the work done in the previous round of planning, a review of new pumping estimates and demands in the region, and input from the planning group, we are recommending several changes in non-MAG availability estimates in this round of planning. Table 2 summarizes the current Region F non-MAG availabilities and the recommended availabilities, along with the reason for the recommended values.

Most of the proposed revisions are for current availabilities that have been reduced or eliminated from those used in the previous planning cycle. These include availabilities in the Dockum Aquifer in Coke, Glasscock, Irion, Tom Green, and Upton counties, the Pecos Valley Aquifer in Andrews County, the Hickory Aquifer in Coleman County, and the Capitan Reef Aquifer in Reeves County. Most of these availabilities were reduced to zero for the current planning cycle. The proposed revision is to change the availability in each of these counties to the amount used in the previous planning cycle. The original rationale for the previous planning cycle availabilities was detailed in the memo dated October 22, 2018, which is included as an attachment to this memo. The recommended availabilities are generally small (less than 1,000 ac-ft/yr) and are mostly based on small amounts of historic pumping which show that a limited amount of groundwater is available in each of these counties for the designated aquifer. These recommendations include:

In addition to these, several proposed revisions to the current availabilities are being made based on recent historic pumping and input from the Region F planning group. These include:

- Lipan Aquifer in Concho County/Colorado Basin- The initial availability is 1,893 ac-ft/yr, which is the same as in the previous planning cycle. However, the historic pumping from the Lipan Aquifer in Concho County has been greater than this amount almost every year since 1984. The average pumping from the Lipan Aquifer in Concho County since 1984 is 2,972 ac-ft/yr, and in several years it has been between 4,000 and 6,000 ac-ft/yr. We recommend an availability of 4,000 ac-ft/yr for the Lipan Aquifer in Concho County based on this historic pumping.

- Edwards-Trinity (Plateau) Aquifer in McCulloch County/Colorado Basin- The initial availability is 148 ac-ft/yr, which is the same as in the previous planning cycle. Recent groundwater pumping from the Edwards-Trinity (Plateau) Aquifer in McCulloch County has been between 150 and 550 ac-ft/yr. We recommend updating the availability of the Edwards-Trinity (Plateau) Aquifer in McCulloch County to 600 ac-ft/yr.
- Dockum Aquifer in Midland County/Colorado Basin- The initial availability is 0 ac-ft/yr. This is less than the availability of 400 ac-ft/yr from the previous planning cycle. Input from the Region F planning group indicated that groundwater production from the Dockum Aquifer in Midland County has increased significantly recently as a supply for fracking operations in the area. We recommend an availability of 1,000 ac-ft/yr for the Dockum Aquifer in Midland County.
- Dockum Aquifer in Mitchell County/Colorado Basin- The initial availability is 13,987 ac-ft/yr in 2030, decreasing to 10,540 ac-ft/yr in 2080. This is less than the availability of 14,018 ac-ft/yr from the previous planning cycle. Historic pumping from the Dockum Aquifer in Mitchell County has been increasing since the late 1990s and has averaged more than 15,000 ac-ft/yr since 2012. We recommend restoring the previous availability of 14,018 ac-ft/yr for the Dockum Aquifer in Mitchell County.
- Dockum Aquifer in Sterling County/Colorado Basin- The initial availability is 27 ac-ft/yr, which is higher than the availability in the previous planning cycle of 10 ac-ft/yr. However, in 2018 to 2020 there is reported municipal pumping from the Dockum Aquifer in Sterling County of more than 200 ac-ft/yr. We recommend an availability of 300 ac-ft/yr for the Dockum Aquifer in Sterling County.
- Dockum Aquifer in Scurry County/both basins- The non-MAG availability in the Colorado basin in Scurry County was increased from 903 ac-ft/yr in the previous planning cycle to 11,546 to 11,175 ac-ft/yr in the current cycle. However, the non-MAG availability in the Brazos basin decreased from 306 ac-ft/yr in the previous planning cycle to 151 ac-ft/yr in the current cycle, despite the significant presence of irrigation wells producing from the Dockum Aquifer in this basin. Due to the projected irrigation demand in the Brazos basin, we recommend shifting 2,000 ac-ft/yr of non-MAG availability from the Colorado to Brazos basin within Scurry County.

Summary

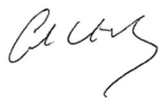
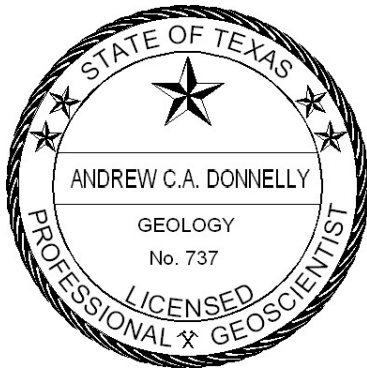
Numerous non-MAG availabilities in Region F were decreased or eliminated in the current planning cycle. In many cases, existing supplies or water management strategies may have been assigned/based on these availabilities. Region F recommends that these non-MAG availabilities be restored to the values from the previous planning cycle.

Historic pumping was also reviewed to ensure that the current non-MAG availabilities were sufficient to allow historic groundwater pumping to be assigned as a supply to the appropriate WUGs in each aquifer. Region F has identified five aquifer/county/basin non-MAG availabilities that should be increased based on the historic pumping. In addition, Region F recommends that 2,000 ac-ft/yr of non-MAG availability in the Colorado basin in Scurry County be shifted to the Brazos basin in order to meet projected irrigation demands in that basin.

References

Laughlin, K., and J. Beach, 2018. *Region F Groundwater Availability Volumes*. Memo to FNI and TWDB dated October 22, 2018.

Geoscientist's Seal:



The seal appearing on this document was authorized by Andrew C.A. Donnelly, P.G. 737 on 1/24/2024.
Advanced Groundwater Solutions, LLC TBPG Firm Registration No. 50639

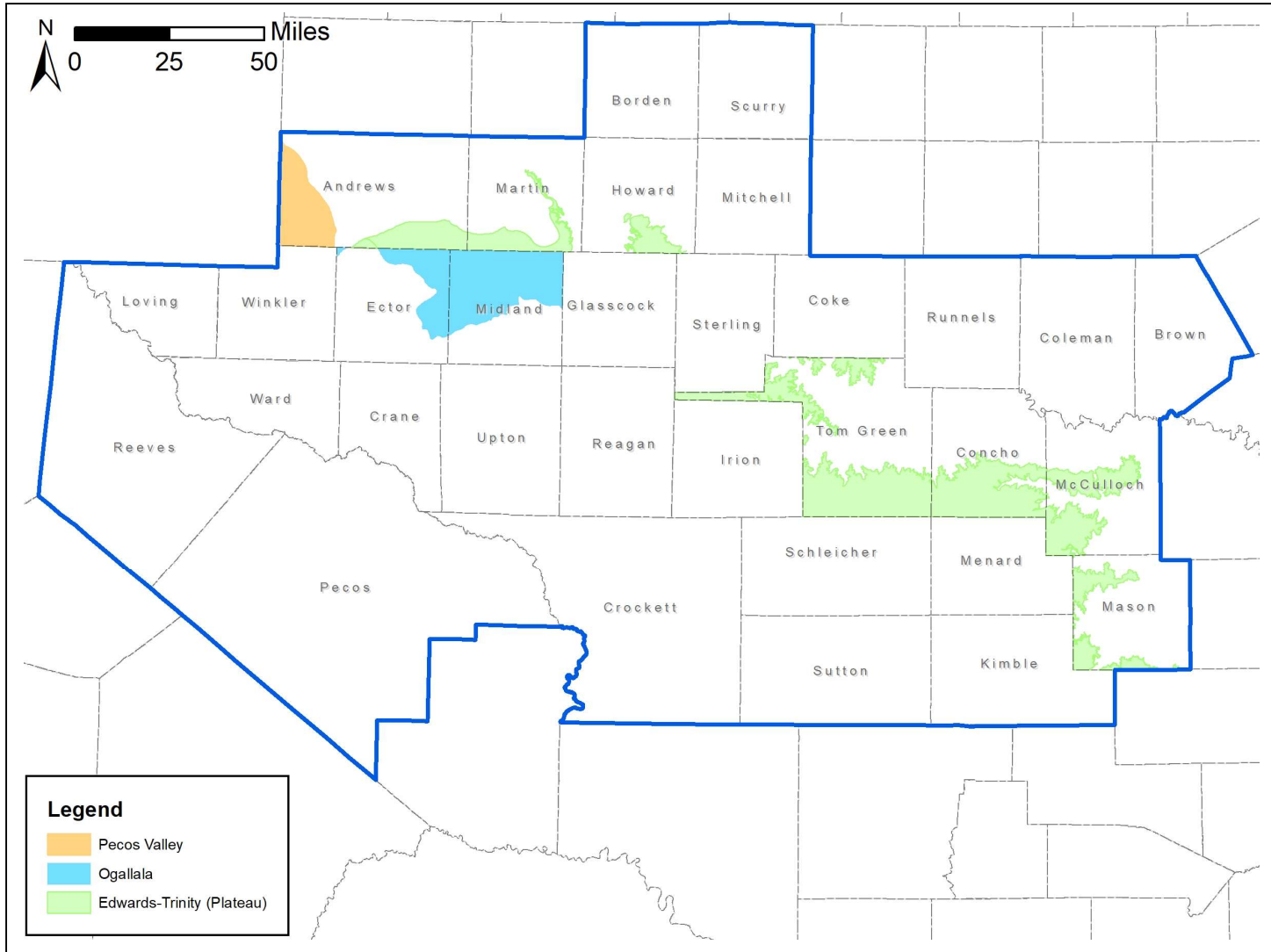


Figure 1. Non-relevant portion of major aquifers in Region F

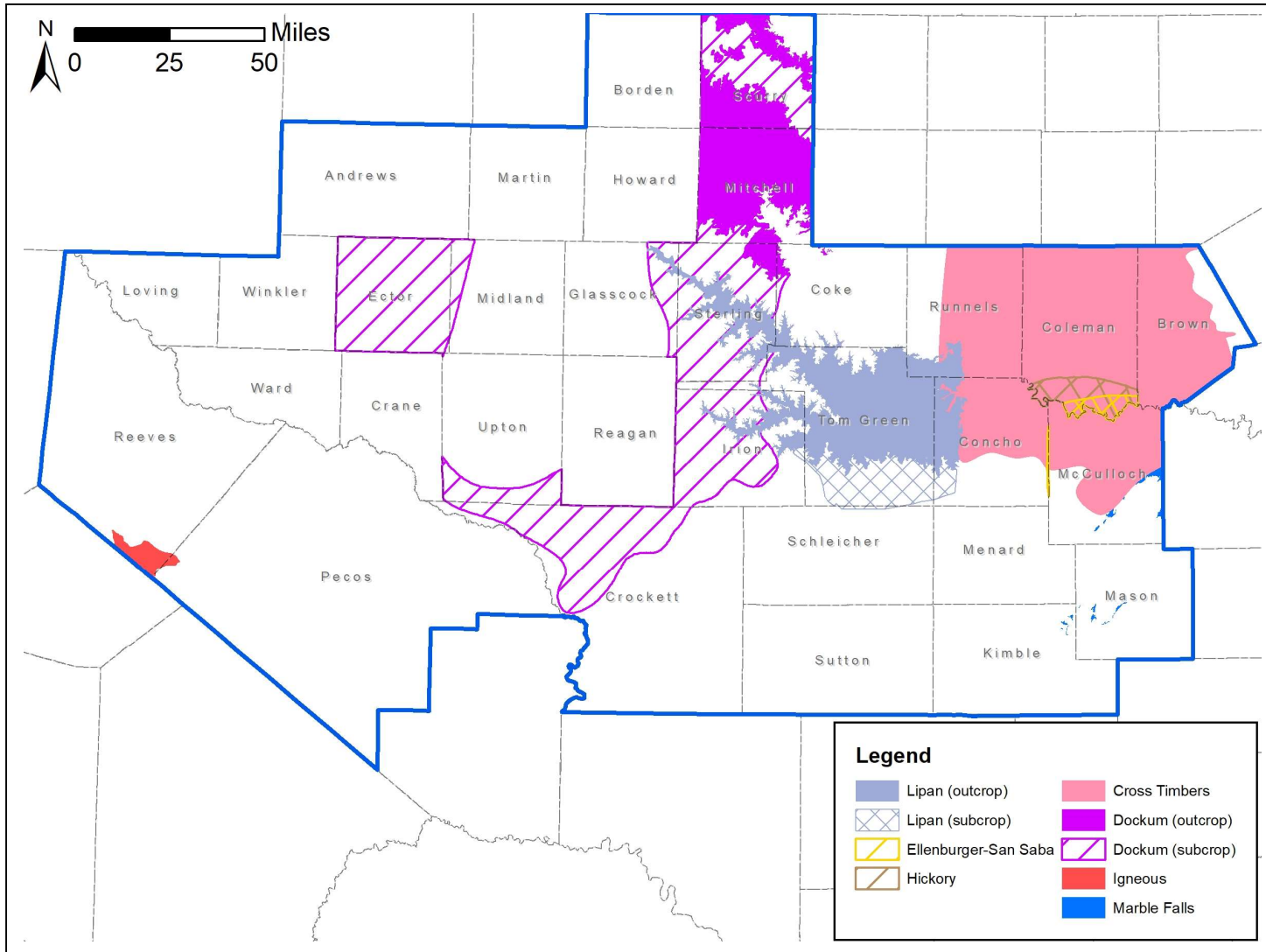


Figure 2. Non-relevant portions of minor aquifer

Table 1. Non-MAG Availabilities in Region F

County	Aquifer	Basin	2027 Non-MAG Availability (ac-ft/yr)						2022 Non-MAG Availability (ac-ft/yr)					Difference in Non-MAG Availability (ac-ft/yr)					
			2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	
Andrews	Edwards-Trinity-Plateau Aquifer	Colorado	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198	1,198	0	0	0	0	0	
	Pecos Valley Aquifer	Rio Grande	150	150	150	150	150	150	150	150	150	150	150	0	0	0	0	0	
Borden	Other Aquifer	Colorado	2,598	2,598	2,598	2,598	2,598	2,598	2,598	2,598	2,598	2,598	2,598	0	0	0	0	0	
Brown	Cross Timbers Aquifer	Brazos	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	0	0	0	0	0
		Colorado	993	993	993	993	993	993	993	993	993	993	993	993	0	0	0	0	0
Coke	Dockum Aquifer	Colorado	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	
	Lipan Aquifer	Colorado	160	160	160	160	160	160	160	160	160	160	160	0	0	0	0	0	
	Other Aquifer	Colorado	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	0	0	0	0	0	
Coleman	Cross Timbers Aquifer	Colorado	108	108	108	108	108	108	108	108	108	108	108	0	0	0	0	0	
	Ellenburger-San Saba Aquifer	Colorado	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	0	0	0	0	0
	Hickory Aquifer	Colorado	500	500	500	500	500	500	500	500	500	500	500	0	0	0	0	0	
	Other Aquifer (Edwards Aquifer and Antlers Sand)	Colorado	109	109	109	109	109	109	109	109	109	109	109	109	0	0	0	0	0
Concho	Cross Timbers Aquifer	Colorado	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	0	0	0	0	0
	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Colorado	459	459	459	459	459	459	459	459	459	459	459	459	0	0	0	0	0
	Lipan Aquifer	Colorado	4,000	4,000	4,000	4,000	4,000	4,000	4,000	1,893	1,893	1,893	1,893	1,893	2,107	2,107	2,107	2,107	2,107
	Other Aquifer (Cambrian Deposits)	Colorado	5,964	5,964	5,964	5,964	5,964	5,964	5,964	5,964	5,964	5,964	5,964	5,964	0	0	0	0	0
Crane	Rustler Aquifer (Outside official TWDB aquifer boundary)	Rio Grande	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	0	0	0	0	
Crockett	Dockum Aquifer	Colorado	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2
		Rio Grande	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0
Ector	Dockum Aquifer	Colorado	28	28	28	28	28	28	28	13	13	13	13	13	15	15	15	15	15
		Rio Grande	721	721	721	721	721	721	721	515	515	515	515	515	206	206	206	206	206
	Ogallala Aquifer	Colorado	206	213	218	222	226	226	226	7,730	7,171	7,135	6,727	6,727	-7,524	-6,958	-6,917	-6,505	-6,501
		Rio Grande	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	0	0	0	0	0
Glasscock	Dockum Aquifer	Colorado	900	900	900	900	900	900	900	900	900	900	900	0	0	0	0	0	
	Lipan Aquifer	Colorado	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	
Howard	Edwards-Trinity-Plateau Aquifer	Colorado	672	672	672	672	672	672	672	672	672	672	672	0	0	0	0	0	
Irion	Dockum Aquifer	Colorado	150	150	150	150	150	150	150	150	150	150	150	0	0	0	0	0	
	Lipan Aquifer	Colorado	13	13	13	13	13	13	13	13	13	13	13	0	0	0	0	0	
Kimble	Marble Falls Aquifer	Colorado	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	
Martin	Edwards-Trinity-Plateau Aquifer	Colorado	242	242	242	242	242	242	242	242	242	242	242	0	0	0	0	0	
Mason	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Colorado	18	18	18	18	18	18	18	18	18	18	18	18	0	0	0	0	0
	Marble Falls Aquifer	Colorado	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	

Table 1. Non-MAG Availabilities in Region F

County	Aquifer	Basin	2027 Non-MAG Availability (ac-ft/yr)						2022 Non-MAG Availability (ac-ft/yr)					Difference in Non-MAG Availability (ac-ft/yr)					
			2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	
	Other Aquifer	Colorado	873	873	873	873	873	873	873	873	873	873	873	873	0	0	0	0	0
	Cross Timbers Aquifer	Colorado	103	103	103	103	103	103	103	103	103	103	103	103	0	0	0	0	0
McCulloch	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Colorado	600	600	600	600	600	600	148	148	148	148	148	452	452	452	452	452	
	Marble Falls Aquifer	Colorado	50	50	50	50	50	50	50	50	50	50	50	50	0	0	0	0	0
	Other Aquifer	Colorado	103	103	103	103	103	103	103	103	103	103	103	103	0	0	0	0	0
Midland	Dockum Aquifer	Colorado	1,000	1,000	1,000	1,000	1,000	1,000	400	400	400	400	400	600	600	600	600	600	
	Ogallala Aquifer	Colorado	15,442	14,369	13,732	13,258	12,745	12,745	36,824	34,623	32,693	31,325	31,325	-21,382	-20,254	-18,961	-18,067	-18,580	
Mitchell	Dockum Aquifer	Colorado	14,018	14,018	14,018	14,018	14,018	14,018	14,018	14,018	14,018	14,018	14,018	14,018	0	0	0	0	0
	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Colorado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other Aquifer (Permian Deposits)	Colorado	789	789	789	789	789	789	789	789	789	789	789	789	0	0	0	0	0
Pecos	Igneous Aquifer	Rio Grande	80	80	80	80	80	80	80	80	80	80	80	80	0	0	0	0	0
	Other Aquifer	Rio Grande	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	0	0	0	0	0
Reeves	Capitan Reef Complex Aquifer	Rio Grande	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	0	0	0	0	0
	Igneous Aquifer	Rio Grande	300	300	300	300	300	300	300	300	300	300	300	300	0	0	0	0	0
Runnels	Cross Timbers Aquifer	Colorado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lipan Aquifer	Colorado	45	45	45	45	45	45	45	45	45	45	45	45	0	0	0	0	0
	Other Aquifer	Colorado	5,001	5,001	5,001	5,001	5,001	5,001	5,001	5,001	5,001	5,001	5,001	5,001	0	0	0	0	0
Schleicher	Lipan Aquifer	Colorado	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scurry	Dockum Aquifer	Brazos	2,151	2,151	2,151	2,151	2,151	2,151	2,151	306	306	306	306	306	1,845	1,845	1,845	1,845	1,845
		Colorado	9,546	9,546	9,335	9,248	9,175	9,175	903	903	903	903	903	903	8,643	8,643	8,432	8,345	8,272
	Other Aquifer	Colorado	315	315	315	315	315	315	315	315	315	315	315	315	0	0	0	0	0
	Other Aquifer (Quartermaster Formation)	Brazos	74	74	74	74	74	74	74	74	74	74	74	74	0	0	0	0	0
	Seymour Aquifer	Brazos	10	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0
Sterling	Dockum Aquifer	Colorado	300	300	300	300	300	300	10	10	10	10	10	290	290	290	290	290	
	Lipan Aquifer	Colorado	850	850	850	850	850	850	850	850	850	850	850	850	0	0	0	0	0
Tom Green	Dockum Aquifer	Colorado	200	200	200	200	200	200	200	200	200	200	200	200	0	0	0	0	0
	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Colorado	2,797	2,797	2,797	2,797	2,797	2,797	2,797	2,797	2,797	2,797	2,797	2,797	0	0	0	0	0
	Lipan Aquifer	Colorado	43,568	43,568	43,568	43,568	43,568	43,568	43,568	43,568	43,568	43,568	43,568	43,568	0	0	0	0	0
Upton	Dockum Aquifer	Rio Grande	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	0	0	0	0
Winkler	Ogallala Aquifer	Rio Grande	40	40	40	40	40	40	40	40	40	40	40	40	0	0	0	0	0
TOTAL			132,867	131,801	130,958	130,401	129,819	129,819	147,613	144,853	142,887	141,111	141,111	-14,746	-13,052	-11,929	-10,710	-11,292	

Table 2. Recommended Changes to Non-MAG Availabilities in Region F

County	Aquifer	Basin	Initial Non-MAG Availability (ac-ft/yr)						Recommended Non-MAG Availability (ac-ft/yr)						Methodology
			2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
Andrews	Pecos Valley Aquifer	Rio Grande	0	0	0	0	0	0	150	150	150	150	150	150	Previous availability, based on historic pumping
Coke	Dockum Aquifer	Colorado	0	0	0	0	0	0	100	100	100	100	100	100	Previous availability, based on estimated rig supply use
Coleman	Hickory Aquifer	Colorado	0	0	0	0	0	0	500	500	500	500	500	500	Previous availability, based on estimated equivalent to Concho County
Concho	Lipan Aquifer	Colorado	1,893	1,893	1,893	1,893	1,893	1,893	4,000	4,000	4,000	4,000	4,000	4,000	Historic pumping
Glasscock	Dockum Aquifer	Colorado	0	0	0	0	0	0	900	900	900	900	900	900	Previous availability
Irion	Dockum Aquifer	Colorado	0	0	0	0	0	0	150	150	150	150	150	150	Previous availability
McCulloch	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers	Colorado	148	148	148	148	148	148	600	600	600	600	600	600	Recent pumping
Midland	Dockum Aquifer	Colorado	0	0	0	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	Recent pumping
Mitchell	Dockum Aquifer	Colorado	13,987	12,569	11,521	10,944	10,540	10,540	14,018	14,018	14,018	14,018	14,018	14,018	Recent pumping
Reeves	Capitan Reef Complex Aquifer	Rio Grande	0	0	0	0	0	0	1,007	1,007	1,007	1,007	1,007	1,007	Previous availability
Scurry	Dockum Aquifer	Brazos	151	151	151	151	151	151	2,151	2,151	2,151	2,151	2,151	2,151	Shifting basins within the county to meet irrigation demands
		Colorado	11,546	11,546	11,335	11,248	11,175	11,175	9,546	9,546	9,335	9,248	9,175	9,175	
Sterling	Dockum Aquifer	Colorado	27	27	27	27	27	27	300	300	300	300	300	300	Recent pumping
Tom Green	Dockum Aquifer	Colorado	0	0	0	0	0	0	200	200	200	200	200	200	Previous availability, based on estimated rig supply use
Upton	Dockum Aquifer	Rio Grande	67	67	67	67	67	67	1,000	1,000	1,000	1,000	1,000	1,000	Previous availability, based on well reports for fracking use

APPENDIX E
Methodology for Identifying Potentially Feasible WMSs

TO: Region F Water Planning Group

CC: File

FROM: Lissa Gregg, P.E.

SUBJECT: Methodology to Identify Potentially Feasible Water Management Strategies

DATE: October 6, 2023

PROJECT: CMD21867

The Regional Water Planning rules requires each region to develop and document the process to identify potentially feasible water management strategies (PFWMS). This process is in addition to the process set forth by the TWDB to evaluate each PFWMS. This memorandum presents the proposed process to be used by Region F.

For Region F, the identification process for PFWMS will follow the sequence below:

1. Identify entities with needs
2. Review recommended strategies in previous Regional Water Plan (RWP)
3. Review new studies/ reports
4. Determine if new or changed strategies are needed
5. Review strategy types appropriate for Region F
6. Contact entity for input
7. Contact RWPG representative for county-wide WUGs
8. Verify recommendations

As required by TWC §16.053(e)(3), and 31 TAC §357.34(c) the RWPG shall consider a specified list of strategy types. This list includes 24 water management strategy types that require screening as part of the process for identifying PFWMS.¹

While the TWDB list is comprehensive, each strategy type is not appropriate for every need, and some strategy types may not be appropriate for Region F water users. To determine whether a strategy is potentially feasible, the first considerations are:

- A strategy must use proven technology and must be technically feasible.
- A strategy should have an identifiable sponsor.
- A strategy must consider end use. This includes water quality, economics, geographic constraints, etc. For example, long transmission systems to move water for agricultural use is not economically feasible.
- A strategy must meet existing regulations.

The second consideration is whether a strategy would provide sufficient water to meet a projected need or a sizeable portion of the need. Considerations at this juncture include:

- Is there available existing supply that is not already allocated to another user?
- Can new water be developed? If yes, identify the potential sources.

¹ Second Amended General Guidelines for the Development of the 2026 Regional Water Plans, September 2023. https://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2026/projectdocs/2026RWP_ExhibitC.pdf

Methodology to Identify Potentially Feasible Water Management Strategies

Region F

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- 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?

Strategy types that will be reviewed for consideration as potentially feasible for Region F include:

- Water conservation
 - Review for applicability and consider for all WUGs with a need
 - Consider water conservation for all municipal WUGs
 - Consider the TWDB Water Loss Audit Report and conservation best management practices as part of this review
- Subordination
 - Consider for Colorado River Basin surface water users
- Reuse
 - Consider for WUGs with needs that generate a waste stream. This includes municipal, manufacturing and mining WUGs.
- Management of existing water supplies/System optimization
 - Consider for WUGs/WWPs that operate multiple water supply sources
- Conjunctive use
 - Consider for WUGs/WWPs that use or will use both surface water and groundwater sources
- Acquisition of available existing water supplies
 - Includes purchase of surface water and groundwater rights
- Developing regional water supply facilities or providing regional management of water supply facilities
- Developing large-scale desalination facilities for brackish groundwater that serve local or regional brackish groundwater production zones identified and designated under TWC §16.060(b)(5)
 - Consider for WUGs/WWPs that intend to develop large scale brackish groundwater for municipal use
- Voluntary transfer of water within the region using, but not limited to, contracts, water marketing, regional water banks, sales, leases, options, subordination agreements, and financing agreements
- Emergency transfer of water under TWC §11.139
- Reallocation of reservoir storage to new uses
 - Consider for reservoirs that are no longer being used for the permitted purpose
- Improvements to water quality
- New groundwater supply
- Interbasin transfers of surface water
 - This would likely be considered as part of a voluntary transfer of water strategy
- Brush control
 - Consider for areas with a brush control program
- Precipitation enhancement
 - Consider for areas with a precipitation enhancement program
- Aquifer storage and recovery

There are several strategy types that likely are not appropriate for Region F water users. However, they may be considered if a project sponsor requests a specific strategy.

- Drought management. Drought management is an emergency measure and is generally not recommended for long-term supply.
- New surface water supply. There are limited opportunities to develop new surface water supplies in Region F.
- Enhancements of yields. The sources of water for yield enhancement are limited in Region F.

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Three strategy types identified by the TWDB are not appropriate for Region F. These include:

- Developing large-scale desalination facilities for marine seawater that serve local or regional entities. Region F does not have access to seawater.
- Cancellation of water rights. The water rights in the Colorado River Basin have no reliability except Lakes Brownwood and Ivie. Cancellation of water rights in Region F would not provide additional water.
- Rainwater harvesting. The average rainfall over Region F from west to east ranges from 11 to 30 inches per year. During drought there is very little rainfall. This is not a reliable strategy for Region F.

APPENDIX F
List of Potentially Feasible Water Management Strategies

List of Potentially Feasible Strategies Identified for Region F To Date

Sponsor	County	WMS	Project Type
Andrews	Andrews	Additional Groundwater	New/Expansion of Groundwater
Ballinger	Runnels	Purchase Water Rights from Clyde (Fort Phantom Hill Reservoir)	Regional Project
Ballinger	Runnels	Subordination	Subordination
Balmorhea	Reeves	Additional Groundwater	New/Expansion of Groundwater
Big Spring	Howard	New Water Treatment Plant	Infrastructure Improvements
Big Spring	Howard	Subordination	Subordination
Borden County Water System	Borden	Additional Groundwater	New/Expansion of Groundwater
Brady	McCulloch	Subordination	Subordination
Bronte	Coke	Rehabilitation of the Oak Creek Pipeline	Infrastructure Improvements
Bronte	Coke	Water Treatment Plant Expansion	Infrastructure Improvements
Bronte	Coke	Regional System from Lake Brownwood to Runnels and Coke Counties	Regional Project
Bronte	Coke	Regional System from Fort Phantom Hill to Runnels and Coke Counties	Regional Project
Bronte	Coke	Additional Groundwater	New/Expansion of Groundwater
Bronte	Coke	Subordination	Subordination
Brown County WCID	Brown	Brush control	Brush Control
Brown County WCID	Brown	Groundwater Development	New/Expansion of Groundwater
Brown County WCID	Brown	Subordination	Subordination
Coleman	Coleman	Subordination	Subordination
Colorado City	Mitchell	Additional Groundwater	New/Expansion of Groundwater
Colorado River MWD	Multiple	Ward County Well Field Expansion and Development of Winkler County Well Field	New/Expansion of Groundwater
Colorado River MWD	Multiple	Develop Additional Groundwater Supplies in Pecos, Reeves, Ward, and Winkler	New/Expansion of Groundwater
Colorado River MWD	Multiple	Ward County Well Field Well Replacement	New/Expansion of Groundwater
Colorado River MWD	Multiple	Subordination	Subordination
Concho Rural WC	Ector	Purchase from Provider	Voluntary Re-distribution
County-Other, Andrews	Andrews	Additional Groundwater	New/Expansion of Groundwater
County-Other, Midland	Midland	Additional Groundwater	New/Expansion of Groundwater
County-Other, Scurry	Scurry	Purchase from Provider	Voluntary Re-distribution
County-Other, Ector	Ector	Purchase from Provider (Expanded Service Area of ECUD)	Voluntary Re-distribution
Texland Petroleum (Great Plains)	Andrews, Gaines	Additional Groundwater	New/Expansion of Groundwater

List of Potentially Feasible Strategies Identified for Region F To Date

Sponsor	County	WMS	Project Type
Greater Gardendale WSC	Ector	Purchase from Provider	Voluntary Re-distribution
Grandfalls	Ward	Additional Groundwater	New/Expansion of Groundwater
Grandfalls	Ward	Purchase from Provider	Voluntary Re-distribution
Irrigation WUGs	Multiple	Conservation	Conservation
Irrigation, Crockett	Crockett	Weather Modification	Regional Project
Irrigation, Irion	Irion	Weather Modification	Regional Project
Irrigation, Reagan	Reagan	Weather Modification	Regional Project
Irrigation, Pecos	Pecos	Weather Modification	Regional Project
Irrigation, Reeves	Reeves	Weather Modification	Regional Project
Irrigation, Schleicher	Schleicher	Weather Modification	Regional Project
Irrigation, Sterling	Sterling	Weather Modification	Regional Project
Irrigation, Sutton	Sutton	Weather Modification	Regional Project
Irrigation, Tom Green	Tom Green	Weather Modification	Regional Project
Irrigation, Ward	Ward	Weather Modification	Regional Project
Junction	Kimble	Dredge Intake	Infrastructure Improvements
Junction	Kimble	Additional Groundwater	New/Expansion of Groundwater
Junction	Kimble	Subordination	Subordination
Kermit	Winkler	Additional Groundwater	New/Expansion of Groundwater
Manufacturing, Howard	Howard	Purchase from Provider	Voluntary Re-distribution
Manufacturing, Kimble	Kimble	Additional Groundwater	New/Expansion of Groundwater
Manufacturing, Scurry	Scurry	Additional Groundwater	New/Expansion of Groundwater
Mason	Mason	Additional Water Treatment	Infrastructure Improvements
Menard	Menard	Develop New Groundwater	New/Expansion of Groundwater
Midland	Midland	Advanced Treatment with Expanded Use of the Paul Davis Well Field	New/Expansion of Groundwater
Midland	Midland	Purchase from Provider	Voluntary Re-distribution
Midland	Midland	West Texas Water Partnership	Regional Project
Mining WUGs	Multiple	Mining Conservation	Conservation
Municipal WUGs	Multiple	Conservation	Conservation
Municipal WUGs	Multiple	Water Audits and Leak Repairs	Conservation
Odessa	Ector	Development of Brackish Groundwater in Ward County	New/Expansion of Groundwater
Odessa	Ector	Development of Groundwater near Fort Stockton	New/Expansion of Groundwater
Odessa	Ector	Subordination	Subordination
Odessa	Ector	Advanced Treatment	Infrastructure Improvements
Odessa	Ector	Purchase from Provider	Voluntary Re-distribution
Pecos County WCID #1	Pecos	Additional Groundwater	New/Expansion of Groundwater

List of Potentially Feasible Strategies Identified for Region F To Date

Sponsor	County	WMS	Project Type
Pecos County WCID #1	Pecos	Transmission Pipeline Replacement	Infrastructure Improvements
Pecos City	Pecos	Advanced Water Treatment	Infrastructure Improvements
Pecos City	Pecos	Partner with Madera Valley WSC & Expand Well Field	New/Expansion of Groundwater
Pecos City	Pecos	Direct Non-potable Reuse	Reuse
Pecos City	Pecos	Direct Potable Reuse	Reuse
Pecos City	Pecos	Indirect Potable Reuse with ASR	Reuse
Robert Lee	Coke	Purchase from Provider	Voluntary Re-distribution
Robert Lee	Coke	Regional System from Forth Phantom Hill to Runnels and Coke Counties	Regional Project
Robert Lee	Coke	New Water Treatment Plant	Infrastructure Improvements
Robert Lee	Coke	Additional Groundwater	New/Expansion of Groundwater
San Angelo	Tom Green	Brush control	Brush Control
San Angelo	Tom Green	Hickory Well Field Expansion	Infrastructure Improvements
San Angelo	Tom Green	Concho River Water Project	Reuse
San Angelo	Tom Green	Additional Groundwater	New/Expansion of Groundwater
San Angelo	Tom Green	Subordination	Subordination
San Angelo	Tom Green	Desalination of Additional Groundwater Supplies	New/Expansion of Groundwater
San Angelo	Tom Green	West Texas Water Partnership	Regional Project
Sterling City	Sterling	Additional Groundwater	New/Expansion of Groundwater
Steam Electric Power, Mitchell	Mitchell	Subordination	Subordination
UCRA	Multiple	Brush Control	Brush Control
UCRA	Multiple	Subordination	Subordination
Winters	Runnels	Purchase from Provider	Voluntary Re-distribution
Winters	Runnels	Subordination	Subordination

APPENDIX G
**List of Infeasible Water Management Strategies and Water Management
Strategy Projects from the 2021 RWP**

List of Infeasible WMSs and WMSPs Identified in the 2021 Region F Plan

WMS/WMSP Sponsor and/or select WUG Beneficiary	WMS Name	WMS Type	WMS Description	Source Description	Strategy Supply 2020	Strategy Supply 2030	Strategy Supply 2040	Strategy Supply 2050	Strategy Supply 2060	Strategy Supply 2070	RWPG Comments
Junction	Develop Additional Edwards-Trinity Plateau Aquifer Supplies - Junction	Groundwater wells and other	Groundwater Well Development	Edwards-Trinity-Plateau, Pecos Valley, and Trinity Aquifers Kimble	370	370	370	370	370	370	City has not moved forward on strategy but plans to do so in the future. Recommend moving strategy online decade to 2030.
Balmorhea	Develop Edwards-Trinity-Plateau Aquifer Supplies - Balmorhea	Groundwater wells and other	Groundwater Well Development	Edwards-Trinity-Plateau and Pecos Valley Aquifers Reeves	150	150	150	150	150	150	City has taken no affirmative action for this strategy yet. Recommend moving strategy online decade to 2030.
Bronte	Develop Other Aquifer Supplies in Southwest Coke County - Bronte	Groundwater wells and other	Groundwater Well Development	Other Aquifer Coke	800	800	800	800	800	800	Bronte is studying groundwater opportunities in Nolan County, which was identified as an alternative strategy in the 2021 Region F Plan. Recommend substituting this strategy with the alternate strategy for groundwater development in Nolan County.
Colorado City	Reuse - Mitchell County SEP, Direct Non-Potable Sales From Colorado City	Other direct reuse	Non-Potable Reuse	Direct Reuse	500	500	500	500	500	500	Demand has not materialized and project is uncertain. Recommend removing the strategy from the 2021 plan.