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REGION F WATER PLANNING AREA

TECHNICAL MEMORANDUM

Prepared for:

Texas Water Development Board

On behalf of the Region F Water Planning Group

November 2018

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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 fifth cycle of regional water plan development. Included in this report are the required Texas Water Development Board (TWDB) Database 2022 (DB22) reports (nine) along with the additional information required for the Technical Memorandum submittal as set forth in Section 13.1.1 of TWDB's *Second Amended Exhibit C (General Guidelines for Fifth Cycle of the Regional Water Plan Development)* dated April 2018. A public meeting was held on November 15, 2018 to discuss the contents of this memorandum. Notice of the meeting was posted on November 1, 2018. Public comments were solicited at the public meeting and for two weeks following the meeting, closing on November 29, 2018.

1.0 TWDB DB22 REPORTS

All DB22 reports are located in Appendix A of this document. The nine required DB22 reports for this Technical Memorandum are summarized below. These include DB22 reports numbered 1 through 6, 9, and 10 (10a and 10b). DB22 reports 7 and 8 (concerning needs after implementation of conservation and direct reuse strategies) are not required for the Technical Memorandum but are required for the Initially Prepared Plan and Final Plan.

1.1 POPULATION AND WATER DEMAND PROJECTIONS

In early 2017, TWDB released their draft population and demand projections for all regions. Each Regional Planning Group was given the ability to make limited adjustments to the projections. The Region F Water Planning Group (RFWPG) recommended adjustments to the projections which were reviewed by TWDB staff prior to approval by the RFWPG. At the November 16, 2017 RFWPG Meeting, the RFWPG approved these updated population and demand projections. TWDB approved the projections in April 2018.

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

- **TWDB DB22 Report #1 - WUG Population Projections**
- **TWDB DB22 Report #2 - WUG Water Demand Projections**
- **TWDB DB22 Report #3 - WUG Category Summary**

TWDB DB22 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 DB22 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. **TWDB DB22 Report #3** summarizes the population, demands, supplies, and water needs by each water use type (municipal, manufacturing, mining, livestock, irrigation, and steam electric power).

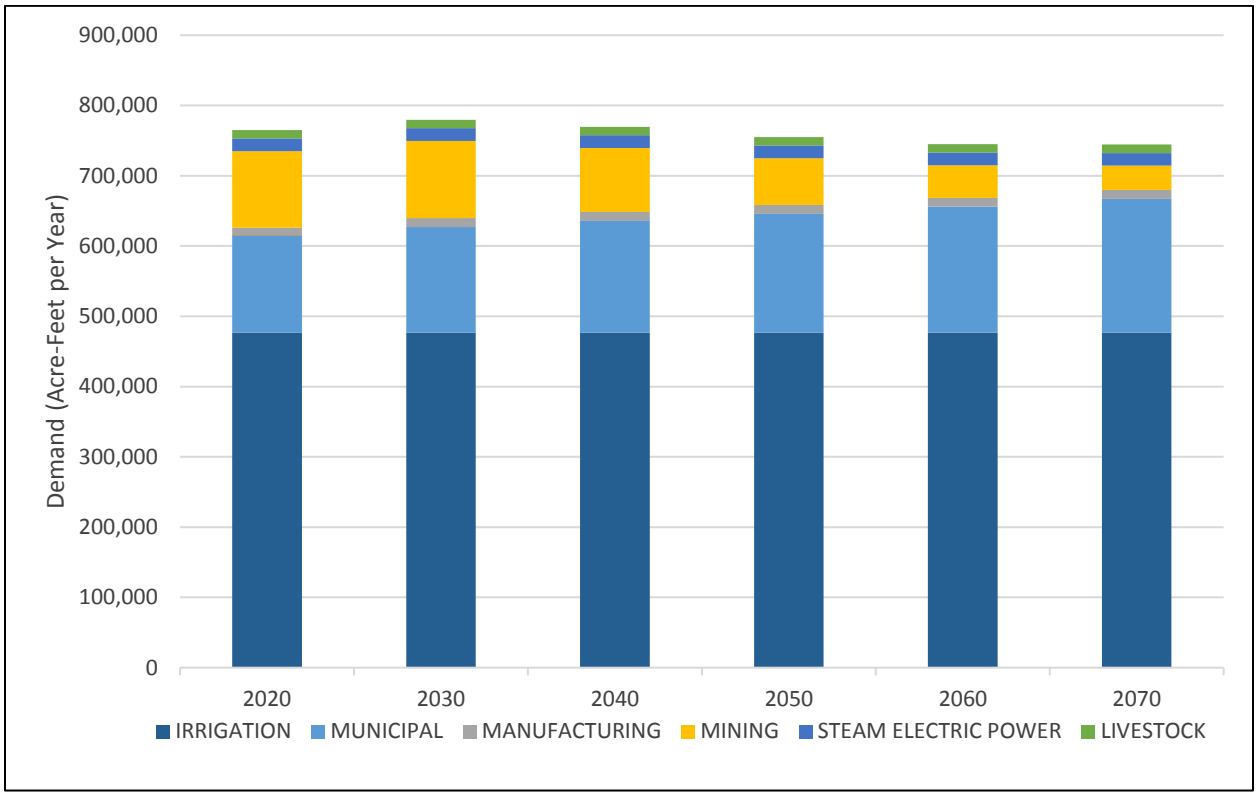
In additional to these summary tables, **Table 1-1** shows the population projections by county. The population for Region F is expected to increase from 715,773 to 1,039,502 over the planning horizon. Most of the increase in population and municipal demands occur in Ector, Midland, and Tom Green Counties.

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

County	2020	2030	2040	2050	2060	2070
ANDREWS	19,089	22,847	26,246	30,111	34,526	39,574
BORDEN	659	671	671	671	671	671
BROWN	39,761	40,717	40,717	40,717	40,717	40,717
COKE	3,320	3,320	3,320	3,320	3,320	3,320
COLEMAN	9,103	9,307	9,307	9,307	9,307	9,307
CONCHO	2,781	2,852	2,852	2,852	2,852	2,852
CRANE	5,056	5,713	6,241	6,737	7,151	7,501
CROCKETT	4,111	4,386	4,446	4,486	4,500	4,506
ECTOR	164,289	187,604	210,926	233,048	255,083	278,740
GLASSCOCK	1,341	1,429	1,429	1,429	1,429	1,429
HOWARD	37,310	38,936	39,603	39,603	39,603	39,603
IRION	1,684	1,702	1,702	1,702	1,702	1,702
KIMBLE	4,710	4,754	4,754	4,754	4,754	4,754
LOVING	82	82	82	82	82	82
MARTIN	5,433	5,986	6,382	6,735	7,000	7,205
MASON	4,012	4,012	4,012	4,012	4,012	4,012
MCCULLOCH	8,635	9,000	9,030	9,125	9,152	9,165
MENARD	2,242	2,242	2,242	2,242	2,242	2,242
MIDLAND	169,062	195,286	213,581	232,357	250,264	269,070
MITCHELL	10,531	11,329	11,566	11,706	11,826	11,930
PECOS	17,718	19,224	20,802	22,021	23,109	24,090
REAGAN	3,853	4,303	4,571	4,812	4,980	5,102
REEVES	15,125	16,193	17,057	17,650	18,106	18,443
RUNNELS	10,883	11,300	11,300	11,300	11,300	11,300
SCHLEICHER	3,811	4,106	4,259	4,350	4,406	4,440
SCURRY	19,911	22,497	24,249	26,236	28,246	30,322
STERLING	1,215	1,260	1,275	1,275	1,275	1,275
SUTTON	3,817	4,094	4,198	4,279	4,322	4,347
TOM GREEN	123,052	137,486	145,685	154,230	163,215	172,642
UPTON	3,690	3,990	4,128	4,272	4,360	4,421
WARD	11,454	12,144	12,634	13,029	13,329	13,557
WINKLER	8,033	8,817	9,459	10,147	10,702	11,181
Region F Total	**715,773**	**797,589**	**858,726**	**918,597**	**977,543**	**1,039,502**

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 population and 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 for Region F by Use Type and Decade in Acre-Feet per Year



1.2 SOURCE WATER AVAILABILITY

TWDB Report #4 – 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).

The Region F has 1.3 million acre-feet per year of available water in 2020. 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)

	2020	2030	2040	2050	2060	2070
RESERVOIRS	103,860	102,620	101,380	100,140	98,900	97,660
RUN-OF-RIVER	26,457	26,457	26,457	26,457	26,457	26,457
LOCAL SUPPLY[1]	5,272	5,272	5,272	5,272	5,272	5,272
GROUNDWATER	1,135,369	1,113,627	1,100,027	1,091,697	1,085,680	1,082,668
REUSE	32,773	32,773	32,773	32,773	32,773	32,773
REGION F TOTAL	**1,303,731**	**1,280,749**	**1,265,909**	**1,256,339**	**1,249,082**	**1,244,830**

1. Local supplies are surface water supplies that do not require a State water right permit. These supplies generally consist of stock tanks for livestock use.

1.2.2 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) a water management strategy. Water management strategies will be discussed as the next phase of regional planning and are not considered a current supply. Current surface water supplies (not constrained by infrastructure) in Region F are 135,696 acre-feet in 2020 and 129,496 acre-feet in 2070. The small decrease in these supplies over time is due to sedimentation in the region's reservoirs.

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.

1.2.3 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
- 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" including the newly designated Cross Timbers 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 a decrease of groundwater availability in all aquifers except Other Aquifer, due to the addition of the groundwater volume discharging to the surface from the San Andres Formation in Pecos County. In GMA-7, the three major aquifers have been combined since the last planning cycle. The Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers are lumped into one volume in the MAG estimate. The Ogallala and Edwards-Trinity (High Plains) are also combined (as they were in the previous planning cycle).

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 availability volume for Region F

represents estimates of existing supplies plus potentially recoverable groundwater supply volumes from areas that have not been developed. **Table 1-3** totals the groundwater supply availability estimates for MAGs, non-relevant aquifers and other aquifers.

Table 1-3. Overall Groundwater Supplies Available to Region F in Acre-Feet per Year

Source	2020	2030	2040	2050	2060	2070
OGALLALA AND EDWARDS-TRINITY (HIGH PLAINS) AQUIFER	168,536	146,798	133,194	124,868	118,847	115,839
EDWARDS-TRINITY (PLATEAU), PECOS VALLEY, AND TRNITY AQUIFERS (GMA-7)	758,749	758,749	758,749	758,749	758,749	758,749
TRINITY AQUIFER (GMA-8)	1,450	1,446	1,450	1,446	1,450	1,446
CAPITAN REEF COMPLEX AQUIFER	27,552	27,552	27,552	27,552	27,552	27,552
DOCKUM AQUIFER	42,038	42,038	42,038	42,038	42,038	42,038
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
MARBLE FALLS AQUIFER	275	275	275	275	275	275
RUSTLER AQUIFER	11,130	11,130	11,130	11,130	11,130	11,130
IGNEOUS AQUIFER	380	380	380	380	380	380
LIPAN AQUIFER	46,539	46,539	46,539	46,539	46,539	46,539
SEYMOUR AQUIFER	10	10	10	10	10	10
OTHER AQUIFER	29,130	29,130	29,130	29,130	29,130	29,130
RFWPA TOTAL	**1,135,369**	**1,113,627**	**1,100,027**	**1,091,697**	**1,085,680**	**1,082,668**

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 1-5 shows the Existing Water Supplies in Region F by different source types.

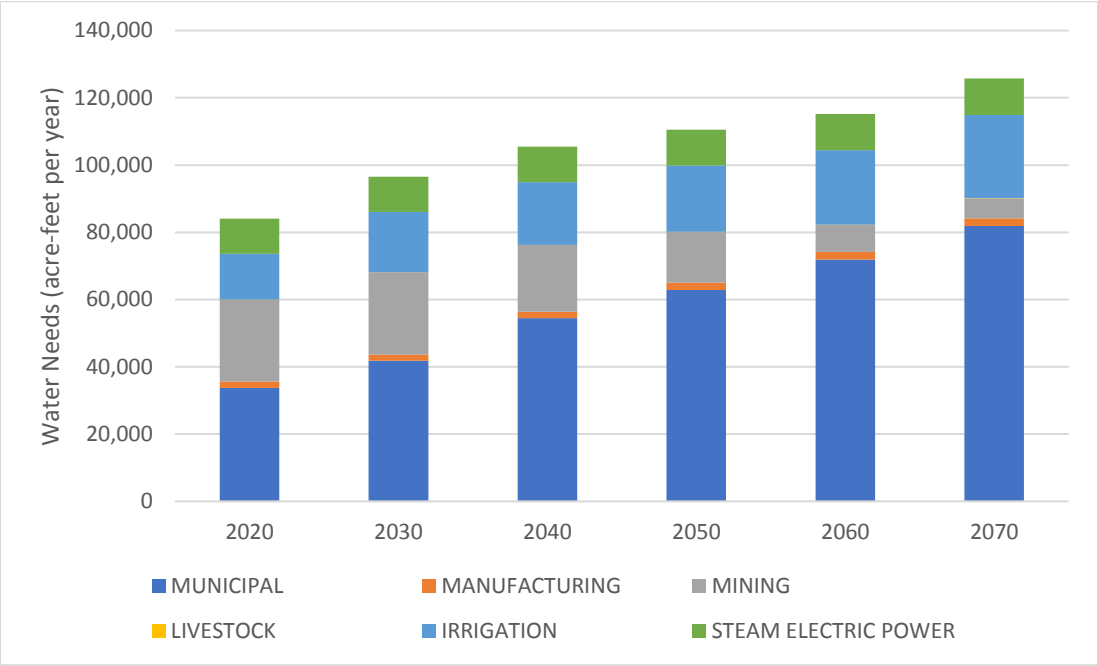
Table 1-4: Existing Water Supplies Available to Region F by Source in Acre-Feet per Year

Source	2020	2030	2040	2050	2060	2070
RESERVOIRS	63,447	62,622	61,621	60,681	59,799	58,931
RUN-OF-RIVER	26,387	26,387	26,387	26,387	26,387	26,387
LOCAL SUPPLY	5,272	5,272	5,272	5,272	5,272	5,272
GROUNDWATER	569,828	570,848	553,409	536,883	528,676	521,929
REUSE	23,916	23,914	23,915	23,915	23,916	23,916
REGION F TOTAL	**688,850**	**689,043**	**670,604**	**653,138**	**644,050**	**636,435**

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 84,000 acre-feet in 2020 to over 125,000 acre-feet in 2070. This is largely driven by anticipated population growth and the resulting municipal water demand. 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 DB22 Report #6 – WUG Identified Water Needs/Surpluses** is a compilation of this information for all WUGs. As previously discussed, a summary of the water needs by water use category is presented in **TWDB Report #3**.

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



1.5 SOURCE WATER BALANCE

TWDB DB22 Report #9 – Source Water Balance shows the remaining balance of supply after all allocations to WUGs have been made. Table 1-5 shows sources available for new development in Region F, the majority (95%) of which is from groundwater. Some of this supply is quality impaired and may require blending, desalination, or other types of advanced treatment before use. Supplies from other sources could be sold or transferred from current users.

Table 1-5: Source Water Balance in Region F by Source in Acre-Feet per Year

Source	2020	2030	2040	2050	2060	2070
RESERVOIRS	31,148	30,955	30,763	30,570	30,378	30,185
RUN-OF-RIVER	70	70	70	70	70	70
LOCAL SUPPLY	0	0	0	0	0	0
GROUNDWATER	569,470	546,782	550,766	558,976	561,170	564,911
REUSE	552	552	552	552	552	552
REGION F TOTAL	**601,240**	**578,359**	**582,151**	**590,168**	**592,170**	**595,718**

1.6 COMPARISON TO 2016 REGIONAL WATER PLAN

Using its online database (DB22), TWDB has developed comparisons of information from this 2021 Regional Water Plan to information from the 2016 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 DB22 Report #10a – Comparison of Supply, Demands, and Needs to 2016 RWP** and **TWDB DB22 Report #10b – Comparison of Availability to 2016 RWP**. Both reports are included in **Appendix A**.

In Region F, total source availability (before allocation to users) increased from the 2016 to 2021 plan slightly. Groundwater availability went up about 7.5 percent due to changes in MAGs. Reuse availability increased as more users implemented reuse strategies (about 31 percent). Total surface water availability decreased very slightly (less than one percent) due to updates to the TCEQ WAM.

Projected demands in Region F decreased between 7 and 13 percent over the planning horizon from the 2016 to 2021 plan. This is mostly due to changes in demand projection methodology for non-municipal water use types. Existing supplies to water user groups increased slightly and overall water needs decreased significantly. This is largely due to updated MAG availabilities in Andrews, Martin, and McCulloch counties that reduced artificial MAG related shortages in the 2016 plan.

The availability from the Hickory Aquifer in McCulloch County increased by nearly 130 percent. The Ogallala Aquifer MAG volumes for Andrews, Borden, Howard, and Martin Counites all increased significantly because the DFCs in the Southern portion of GMA-2 are much less restrictive than what were initially adopted in 2010. However, in Glasscock County, the MAG decreased by about 15 percent (13,424 afy). Also, Ward County MAG volumes decreased ten percent primarily in the Dockum, Capitan Reef Complex and Rustler Aquifers.

2.0 DETERMINING SOURCE AVAILABILITY

2.1 SURFACE WATER

2.1.1 Hydrologic Models

Surface water supplies in Region F are obtained from 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 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 (instead of firm) yield, to more accurately reflect some of the other current conditions and operations in the region. This request is detailed in **Appendix B**.

2.1.2 Versions and Dates of Hydrologic Models

The following information is required for the hydrologic models used to determine Source Water Availability. More discussion on Source Water Availability is included in **Section 1.2** of this report.

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 **Table 2-1**. The respective input and output files are provided electronically with this Technical Memorandum.

Table 2-1: Hydrologic Models Used in Determining Surface Water Availability

Hydrologic Model	Date Used	Run Used	Comments
Colorado WAM	August 2018	Run 3	Current and 2070 Firm and Safe Yield
Rio Grande WAM	February 2018	Run 3	Current and 2070 Firm and Safe Yield
Brazos WAM	See Region G Tech Memo	Run 3	Used to determine run-of-river supplies

Modifications to the surface water availability analysis are described in **Appendix B**, which contains the letter of request dated December 1, 2017 for hydrologic variances including modifications to the WAM. TWDB's response letter dated February 9, 2018 approving the requested modifications is also included in **Appendix B**. The analyses of surface water availability were carried out by Freese and Nichols, Inc. for the Colorado and Rio Grande River Basins, and by HDR, Inc. 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)	35,700	34,580	33,460	32,340	31,220	30,100
Safe Yield (ac-ft/yr)	30,350	29,320	28,290	27,260	26,230	25,200
Lake Brownwood						
Firm Yield (ac-ft/yr)	24,000	23,820	23,640	23,460	23,280	23,100
Safe Yield (ac-ft/yr)	18,900	18,760	18,620	18,480	18,340	18,200
Lake Balmorhea						
Firm Yield (ac-ft/yr)	18,800	18,800	18,800	18,800	18,800	18,800
Red Bluff Reservoir						
Firm Yield (ac-ft/yr)	38,630	38,548	38,466	38,384	38,302	38,220
Safe Yield (ac-ft/yr)	30,050	29,980	29,910	29,840	29,770	29,700

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 16-028, which summarizes the MAG volumes for all aquifers within GMA-2,
- GAM RUN 16-027, which summarizes the MAG volumes for all aquifers in GMA-3,
- GAM RUN 16-026 Version 2, which summarizes the MAG volumes for all aquifers in GMA-7, and
- GAM RUN 16-029, which summarizes the MAG volumes for all aquifers in GMA-8.

Table 2-3: GAM Models Used in Determining Ground Water Availability

GAM Version	Date Results Published	Model Inputs/ Outputs Files Used	GMA
GR 16-028	May 12, 2017	High Plains Aquifer System GAM; adopted DFCs	GMA-2[1]
GR 16-027	March 14, 2018	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; adopted DFCs	GMA-3
GR 16-026 Version 2	September 21, 2018	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; adopted DFCs	GMA-7
GR 16-029	January 19, 2018	North Trinity Woodbine GAM; adopted DFCs	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 16-028 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 114,157 acre-feet per year in 2020 to 71,177 acre-feet per year in 2070 for Andrews, Borden, Howard and Martin Counties only. The MAG estimate for the Dockum Aquifer for Andrews, Borden, Howard and Martin Counties is 3,817 acre-feet a year for the 50-year planning cycle.

GR 16-027 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 381, 17,378, and 2,590 acre-feet per year, respectively.

GR 16-026 Version 2 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 590,469 in 202 and 589, 114 acre-feet per year in 2070.

GR116-029 summarizes MAG volumes for all aquifers within GMA-8. However, the only availability volumes that apply to Region F are the Trinity Aquifer MAG estimates for Brown County, which range between 1,450 and 1,446 acre-feet per year. The units of the Trinity Aquifer that have DFCs in Brown County are the Antlers, Travis Peak, Hensell and Hosston Formations. However, only the MAG volumes for the Antlers and the Travis Peak are applicable.

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	2020	2030	2040	2050	2060	2070
OGALLALA AND EDWARDS-TRINITY (HIGH PLAINS) AQUIFER	122,082	102,204	91,361	85,000	80,755	77,747
EDWARDS-TRINITY (PLATEAU), PECOS VALLEY, AND TRNITY AQUIFERS (GMA-7)	752,584	752,584	752,584	752,584	752,584	752,584
TRINITY AQUIFER (GMA-8)	1,450	1,446	1,450	1,446	1,450	1,446
CAPITAN REEF COMPLEX AQUIFER	26,545	26,545	26,545	26,545	26,545	26,545
DOCKUM AQUIFER	23,519	23,519	23,519	23,519	23,519	23,519
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
RFWPA TOTAL	**984,915**	**965,033**	**954,194**	**947,829**	**943,588**	**940,576**

2.2.2 Documented Methodologies Utilized for Non-MAGs Availabilities

The total estimated groundwater availability for non-MAG aquifers or portions of aquifers is 149,298 acre-feet per year. The availability volumes and methodologies used to derive these estimates are tabulated in Appendix C.

2.2.3 Declaration that No GAM Models were Used

Non-MAG and partial-MAG estimates determined by the TWDB were adopted where they were available. For the county/ aquifer/ basin areas that did not already have TWDB-estimated volumes available, no GAM models were used to determine availability volumes. These estimates are detailed in Appendix C.

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 March 15, 2018 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 D**.

3.2 LIST OF POTENTIALLY FEASIBLE WMS

A list of potentially feasible water management strategies is included in **Appendix E**. These strategies are based on preliminary discussions with wholesale water providers, water user survey responses, and recommendations from the 2016 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 additional groundwater
- Water treatment
- Direct potable reuse
- Indirect potable reuse
- Direct non-potable reuse
- Brush control
- Conjunctive Use (may be combined with other strategy types)
- Aquifer, storage and recovery (may be combined with other strategy types)

4.0 SIMPLIFIED PLANNING OPTION

The RFWPG will not pursue the simplified planning option offered by TWDB for the fifth cycle of regional water planning.

5.0 PUBLIC COMMENT

Per the TWDB Regional Planning Rules [31 TAC Section 357.21(c)(7)(C)], written comments from the public were accepted for the period of 14 days after the public meeting on November 15, 2018 when this Technical Memorandum was presented and considered for approval by the RFWPG. Public comments

were also accepted at this meeting. One public comment was received at the RFWPG Meeting. The comment was presented orally by Raymond Straub and expressed concern over large, named aquifers being declared non-relevant by the GMA resulting in no MAG values. This comment was specifically directed at the Ogallala aquifer in Midland county. Region F noted this comment. No additional comments were received.

APPENDIX A
TWDB DB22 Reports

TWDB DB22 Report #1 - WUG Population Projections

Region F Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
ANDREWS	14,661	17,907	20,804	24,171	28,082	32,627
COUNTY-OTHER	4,415	4,925	5,426	5,923	6,425	6,927
COLORADO BASIN TOTAL	**19,076**	**22,832**	**26,230**	**30,094**	**34,507**	**39,554**
COUNTY-OTHER	13	15	16	17	19	20
RIO GRANDE BASIN TOTAL	**13**	**15**	**16**	**17**	**19**	**20**
ANDREWS COUNTY TOTAL	**19,089**	**22,847**	**26,246**	**30,111**	**34,526**	**39,574**
COUNTY-OTHER	40	41	41	41	41	41
BRAZOS BASIN TOTAL	**40**	**41**	**41**	**41**	**41**	**41**
COUNTY-OTHER	619	630	630	630	630	630
COLORADO BASIN TOTAL	**619**	**630**	**630**	**630**	**630**	**630**
BORDEN COUNTY TOTAL	**659**	**671**	**671**	**671**	**671**	**671**
COUNTY-OTHER	75	77	77	77	77	77
BRAZOS BASIN TOTAL	**75**	**77**	**77**	**77**	**77**	**77**
BANGS	2,506	2,566	2,566	2,566	2,566	2,566
BROOKESMITH SUD	8,047	8,240	8,241	8,240	8,240	8,241
BROWNWOOD	19,926	20,406	20,406	20,406	20,406	20,406
COLEMAN COUNTY SUD	195	199	199	199	199	199
EARLY	2,907	2,978	2,978	2,978	2,978	2,978
ZEPHYR WSC	4,173	4,274	4,274	4,274	4,274	4,274
COUNTY-OTHER	1,932	1,977	1,976	1,977	1,977	1,976
COLORADO BASIN TOTAL	**39,686**	**40,640**	**40,640**	**40,640**	**40,640**	**40,640**
BROWN COUNTY TOTAL	**39,761**	**40,717**	**40,717**	**40,717**	**40,717**	**40,717**
BRONTE	1,085	1,085	1,085	1,085	1,085	1,085
ROBERT LEE	1,050	1,050	1,050	1,050	1,050	1,050
COUNTY-OTHER	1,185	1,185	1,185	1,185	1,185	1,185
COLORADO BASIN TOTAL	**3,320**	**3,320**	**3,320**	**3,320**	**3,320**	**3,320**
COKE COUNTY TOTAL	**3,320**	**3,320**	**3,320**	**3,320**	**3,320**	**3,320**
BROOKESMITH SUD	41	42	42	42	42	42
COLEMAN	4,820	4,928	4,928	4,928	4,928	4,928
COLEMAN COUNTY SUD	2,927	2,998	2,998	2,998	2,998	2,998
SANTA ANNA	1,121	1,148	1,148	1,148	1,148	1,148
COUNTY-OTHER	194	191	191	191	191	191
COLORADO BASIN TOTAL	**9,103**	**9,307**	**9,307**	**9,307**	**9,307**	**9,307**
COLEMAN COUNTY TOTAL	**9,103**	**9,307**	**9,307**	**9,307**	**9,307**	**9,307**
EDEN	1,264	1,310	1,310	1,310	1,310	1,310
MILLERSVIEW-DOOLE WSC	650	661	661	661	661	661
COUNTY-OTHER	867	881	881	881	881	881
COLORADO BASIN TOTAL	**2,781**	**2,852**	**2,852**	**2,852**	**2,852**	**2,852**
CONCHO COUNTY TOTAL	**2,781**	**2,852**	**2,852**	**2,852**	**2,852**	**2,852**
CRANE	3,645	3,926	4,152	4,365	4,542	4,692

Region F Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	1,411	1,787	2,089	2,372	2,609	2,809
RIO GRANDE BASIN TOTAL	**5,056**	**5,713**	**6,241**	**6,737**	**7,151**	**7,501**
CRANE COUNTY TOTAL	**5,056**	**5,713**	**6,241**	**6,737**	**7,151**	**7,501**
CROCKETT COUNTY WCID 1	3,885	4,214	4,286	4,334	4,351	4,359
COUNTY-OTHER	226	172	160	152	149	147
RIO GRANDE BASIN TOTAL	**4,111**	**4,386**	**4,446**	**4,486**	**4,500**	**4,506**
CROCKETT COUNTY TOTAL	**4,111**	**4,386**	**4,446**	**4,486**	**4,500**	**4,506**
ECTOR COUNTY UTILITY DISTRICT	19,539	22,054	24,704	27,421	30,172	32,945
GREATER GARDENDALE WSC	2,547	2,876	3,221	3,575	3,934	4,295
ODESSA	125,103	144,875	161,382	178,056	194,572	212,668
COUNTY-OTHER	16,198	16,860	20,478	22,730	25,012	27,311
COLORADO BASIN TOTAL	**163,387**	**186,665**	**209,785**	**231,782**	**253,690**	**277,219**
COUNTY-OTHER	902	939	1,141	1,266	1,393	1,521
RIO GRANDE BASIN TOTAL	**902**	**939**	**1,141**	**1,266**	**1,393**	**1,521**
ECTOR COUNTY TOTAL	**164,289**	**187,604**	**210,926**	**233,048**	**255,083**	**278,740**
COUNTY-OTHER	1,341	1,429	1,429	1,429	1,429	1,429
COLORADO BASIN TOTAL	**1,341**	**1,429**	**1,429**	**1,429**	**1,429**	**1,429**
GLASSCOCK COUNTY TOTAL	**1,341**	**1,429**	**1,429**	**1,429**	**1,429**	**1,429**
BIG SPRING	29,443	30,727	31,253	31,253	31,253	31,253
COAHOMA	2,503	2,612	2,658	2,658	2,658	2,658
COUNTY-OTHER	5,364	5,597	5,692	5,692	5,692	5,692
COLORADO BASIN TOTAL	**37,310**	**38,936**	**39,603**	**39,603**	**39,603**	**39,603**
HOWARD COUNTY TOTAL	**37,310**	**38,936**	**39,603**	**39,603**	**39,603**	**39,603**
MERTZON	823	832	832	832	832	832
COUNTY-OTHER	861	870	870	870	870	870
COLORADO BASIN TOTAL	**1,684**	**1,702**	**1,702**	**1,702**	**1,702**	**1,702**
IRION COUNTY TOTAL	**1,684**	**1,702**	**1,702**	**1,702**	**1,702**	**1,702**
JUNCTION	2,632	2,657	2,657	2,657	2,657	2,657
COUNTY-OTHER	2,078	2,097	2,097	2,097	2,097	2,097
COLORADO BASIN TOTAL	**4,710**	**4,754**	**4,754**	**4,754**	**4,754**	**4,754**
KIMBLE COUNTY TOTAL	**4,710**	**4,754**	**4,754**	**4,754**	**4,754**	**4,754**
COUNTY-OTHER	82	82	82	82	82	82
RIO GRANDE BASIN TOTAL	**82**	**82**	**82**	**82**	**82**	**82**
LOVING COUNTY TOTAL	**82**	**82**	**82**	**82**	**82**	**82**
STANTON	2,693	2,967	3,164	3,339	3,469	3,572
COUNTY-OTHER	2,740	3,019	3,218	3,396	3,531	3,633
COLORADO BASIN TOTAL	**5,433**	**5,986**	**6,382**	**6,735**	**7,000**	**7,205**
MARTIN COUNTY TOTAL	**5,433**	**5,986**	**6,382**	**6,735**	**7,000**	**7,205**
MASON	2,134	2,134	2,134	2,134	2,134	2,134

Region F Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	1,878	1,878	1,878	1,878	1,878	1,878
COLORADO BASIN TOTAL	**4,012**	**4,012**	**4,012**	**4,012**	**4,012**	**4,012**
MASON COUNTY TOTAL	**4,012**	**4,012**	**4,012**	**4,012**	**4,012**	**4,012**
BRADY	5,773	6,018	6,039	6,101	6,119	6,129
MILLERSVIEW-DOOLE WSC	1,025	1,068	1,072	1,083	1,087	1,087
RICHLAND SUD	999	1,041	1,045	1,056	1,058	1,060
COUNTY-OTHER	838	873	874	885	888	889
COLORADO BASIN TOTAL	**8,635**	**9,000**	**9,030**	**9,125**	**9,152**	**9,165**
MCCULLOCH COUNTY TOTAL	**8,635**	**9,000**	**9,030**	**9,125**	**9,152**	**9,165**
MENARD	1,492	1,492	1,492	1,492	1,492	1,492
COUNTY-OTHER	750	750	750	750	750	750
COLORADO BASIN TOTAL	**2,242**	**2,242**	**2,242**	**2,242**	**2,242**	**2,242**
MENARD COUNTY TOTAL	**2,242**	**2,242**	**2,242**	**2,242**	**2,242**	**2,242**
AIRLINE MOBILE HOME PARK LTD	2,221	2,407	2,660	2,917	3,169	3,417
GREATER GARDENDALE WSC	1,299	1,514	1,723	1,933	2,141	2,346
GREENWOOD WATER	993	1,075	1,189	1,303	1,416	1,527
MIDLAND	141,690	164,437	179,850	194,767	208,838	223,926
ODESSA	2,455	3,161	3,768	4,372	4,956	5,563
COUNTY-OTHER	20,404	22,692	24,391	27,065	29,744	32,291
COLORADO BASIN TOTAL	**169,062**	**195,286**	**213,581**	**232,357**	**250,264**	**269,070**
MIDLAND COUNTY TOTAL	**169,062**	**195,286**	**213,581**	**232,357**	**250,264**	**269,070**
COLORADO CITY	5,149	5,781	5,898	5,957	6,017	6,078
LORAINE	656	677	691	701	708	713
MITCHELL COUNTY UTILITY	1,596	1,717	1,753	1,774	1,792	1,807
COUNTY-OTHER	3,130	3,154	3,224	3,274	3,309	3,332
COLORADO BASIN TOTAL	**10,531**	**11,329**	**11,566**	**11,706**	**11,826**	**11,930**
MITCHELL COUNTY TOTAL	**10,531**	**11,329**	**11,566**	**11,706**	**11,826**	**11,930**
FORT STOCKTON	11,776	12,731	13,774	14,498	15,143	15,726
IRAAN	1,347	1,447	1,546	1,636	1,717	1,790
PECOS COUNTY FRESH WATER	748	804	858	908	954	994
PECOS COUNTY WCID 1	3,019	3,244	3,465	3,668	3,849	4,012
COUNTY-OTHER	828	998	1,159	1,311	1,446	1,568
RIO GRANDE BASIN TOTAL	**17,718**	**19,224**	**20,802**	**22,021**	**23,109**	**24,090**
PECOS COUNTY TOTAL	**17,718**	**19,224**	**20,802**	**22,021**	**23,109**	**24,090**
BIG LAKE	3,357	3,749	3,982	4,193	4,339	4,445
COUNTY-OTHER	496	554	589	619	641	657
COLORADO BASIN TOTAL	**3,853**	**4,303**	**4,571**	**4,812**	**4,980**	**5,102**
REAGAN COUNTY TOTAL	**3,853**	**4,303**	**4,571**	**4,812**	**4,980**	**5,102**
BALMORHEA	517	553	583	603	619	630

Region F Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
MADERA VALLEY WSC	1,541	1,650	1,738	1,798	1,845	1,879
PECOS	9,398	10,062	10,599	10,967	11,250	11,460
COUNTY-OTHER	3,669	3,928	4,137	4,282	4,392	4,474
RIO GRANDE BASIN TOTAL	**15,125**	**16,193**	**17,057**	**17,650**	**18,106**	**18,443**
REEVES COUNTY TOTAL	**15,125**	**16,193**	**17,057**	**17,650**	**18,106**	**18,443**
BALLINGER	3,864	3,966	3,966	3,966	3,966	3,966
COLEMAN COUNTY SUD	165	169	169	169	169	169
MILES	977	1,135	1,135	1,135	1,135	1,135
MILLERSVIEW-DOOLE WSC	749	749	749	749	749	749
NORTH RUNNELS WSC	1,594	1,656	1,672	1,684	1,693	1,700
WINTERS	2,763	2,835	2,835	2,835	2,835	2,835
COUNTY-OTHER	771	790	774	762	753	746
COLORADO BASIN TOTAL	**10,883**	**11,300**	**11,300**	**11,300**	**11,300**	**11,300**
RUNNELS COUNTY TOTAL	**10,883**	**11,300**	**11,300**	**11,300**	**11,300**	**11,300**
ELDORADO	2,104	2,104	2,104	2,104	2,104	2,104
COUNTY-OTHER	1,496	1,755	1,889	1,968	2,017	2,047
COLORADO BASIN TOTAL	**3,600**	**3,859**	**3,993**	**4,072**	**4,121**	**4,151**
COUNTY-OTHER	211	247	266	278	285	289
RIO GRANDE BASIN TOTAL	**211**	**247**	**266**	**278**	**285**	**289**
SCHLEICHER COUNTY TOTAL	**3,811**	**4,106**	**4,259**	**4,350**	**4,406**	**4,440**
COUNTY-OTHER	2,053	2,235	2,409	2,605	2,803	3,009
BRAZOS BASIN TOTAL	**2,053**	**2,235**	**2,409**	**2,605**	**2,803**	**3,009**
SNYDER	13,307	15,307	16,500	17,855	19,228	20,642
COUNTY-OTHER	4,551	4,955	5,340	5,776	6,215	6,671
COLORADO BASIN TOTAL	**17,858**	**20,262**	**21,840**	**23,631**	**25,443**	**27,313**
SCURRY COUNTY TOTAL	**19,911**	**22,497**	**24,249**	**26,236**	**28,246**	**30,322**
STERLING CITY	944	979	991	991	991	991
COUNTY-OTHER	271	281	284	284	284	284
COLORADO BASIN TOTAL	**1,215**	**1,260**	**1,275**	**1,275**	**1,275**	**1,275**
STERLING COUNTY TOTAL	**1,215**	**1,260**	**1,275**	**1,275**	**1,275**	**1,275**
COUNTY-OTHER	189	203	209	213	215	216
COLORADO BASIN TOTAL	**189**	**203**	**209**	**213**	**215**	**216**
SONORA	2,800	2,999	3,075	3,133	3,165	3,183
COUNTY-OTHER	828	892	914	933	942	948
RIO GRANDE BASIN TOTAL	**3,628**	**3,891**	**3,989**	**4,066**	**4,107**	**4,131**
SUTTON COUNTY TOTAL	**3,817**	**4,094**	**4,198**	**4,279**	**4,322**	**4,347**
CONCHO RURAL WATER	6,376	6,800	7,126	7,423	7,710	7,981
DADS Supported Living Center	253	253	253	253	253	253
GOODFELLOW AIR FORCE BASE	2,500	2,820	2,995	3,179	3,376	3,584
MILLERSVIEW-DOOLE WSC	1,825	1,931	2,019	2,097	2,170	2,237

Region F Water User Group (WUG) Population

	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
SAN ANGELO	103,243	116,437	123,653	131,315	139,451	148,090
TOM GREEN COUNTY FWSD 3	1,132	1,265	1,340	1,419	1,502	1,589
COUNTY-OTHER	7,723	7,980	8,299	8,544	8,753	8,908
COLORADO BASIN TOTAL	**123,052**	**137,486**	**145,685**	**154,230**	**163,215**	**172,642**
TOM GREEN COUNTY TOTAL	**123,052**	**137,486**	**145,685**	**154,230**	**163,215**	**172,642**
COUNTY-OTHER	235	254	263	272	278	281
COLORADO BASIN TOTAL	**235**	**254**	**263**	**272**	**278**	**281**
MCCAMEY	2,215	2,395	2,478	2,564	2,617	2,654
RANKIN	856	926	958	991	1,012	1,026
COUNTY-OTHER	384	415	429	445	453	460
RIO GRANDE BASIN TOTAL	**3,455**	**3,736**	**3,865**	**4,000**	**4,082**	**4,140**
UPTON COUNTY TOTAL	**3,690**	**3,990**	**4,128**	**4,272**	**4,360**	**4,421**
BARSTOW	375	398	414	427	436	444
GRANDFALLS	427	453	471	486	497	505
MONAHANS	7,473	7,923	8,243	8,500	8,696	8,845
SOUTHWEST SANDHILLS WSC	1,937	2,053	2,136	2,203	2,253	2,292
WICKETT	512	543	565	582	596	606
COUNTY-OTHER	730	774	805	831	851	865
RIO GRANDE BASIN TOTAL	**11,454**	**12,144**	**12,634**	**13,029**	**13,329**	**13,557**
WARD COUNTY TOTAL	**11,454**	**12,144**	**12,634**	**13,029**	**13,329**	**13,557**
KERMIT	5,917	5,993	6,057	6,124	6,178	6,225
WINK	1,059	1,162	1,246	1,337	1,410	1,473
COUNTY-OTHER	1,057	1,662	2,156	2,686	3,114	3,483
RIO GRANDE BASIN TOTAL	**8,033**	**8,817**	**9,459**	**10,147**	**10,702**	**11,181**
WINKLER COUNTY TOTAL	**8,033**	**8,817**	**9,459**	**10,147**	**10,702**	**11,181**
REGION F TOTAL POPULATION	**715,773**	**797,589**	**858,726**	**918,597**	**977,543**	**1,039,502**

TWDB DB22 Report #2 - WUG Water Demand Projections

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
ANDREWS	4,182	5,026	5,785	6,692	7,767	9,021
COUNTY-OTHER	535	575	616	664	718	774
MANUFACTURING	580	617	617	617	617	617
MINING	3,682	3,450	2,955	2,333	1,794	1,379
LIVESTOCK	178	178	178	178	178	178
IRRIGATION	19,550	19,550	19,550	19,550	19,550	19,550
COLORADO BASIN TOTAL	**28,707**	**29,396**	**29,701**	**30,034**	**30,624**	**31,519**
COUNTY-OTHER	2	2	2	2	2	2
MINING	277	260	222	176	135	104
LIVESTOCK	32	32	32	32	32	32
IRRIGATION	815	815	815	815	815	815
RIO GRANDE BASIN TOTAL	**1,126**	**1,109**	**1,071**	**1,025**	**984**	**953**
ANDREWS COUNTY TOTAL	**29,833**	**30,505**	**30,772**	**31,059**	**31,608**	**32,472**
COUNTY-OTHER	11	11	11	11	11	11
LIVESTOCK	12	12	12	12	12	12
IRRIGATION	826	826	826	826	826	826
BRAZOS BASIN TOTAL	**849**	**849**	**849**	**849**	**849**	**849**
COUNTY-OTHER	167	167	164	164	164	164
MINING	679	927	784	494	244	121
LIVESTOCK	163	163	163	163	163	163
IRRIGATION	2,123	2,123	2,123	2,123	2,123	2,123
COLORADO BASIN TOTAL	**3,132**	**3,380**	**3,234**	**2,944**	**2,694**	**2,571**
BORDEN COUNTY TOTAL	**3,981**	**4,229**	**4,083**	**3,793**	**3,543**	**3,420**
COUNTY-OTHER	6	6	6	6	6	6
LIVESTOCK	12	12	12	12	12	12
IRRIGATION	387	387	387	387	387	387
BRAZOS BASIN TOTAL	**405**	**405**	**405**	**405**	**405**	**405**
BANGS	310	305	296	291	290	290
BROOKESMITH SUD	1,199	1,195	1,170	1,156	1,153	1,153
BROWNWOOD	3,717	3,713	3,640	3,600	3,593	3,593
COLEMAN COUNTY SUD	24	24	23	23	23	23
EARLY	292	287	277	271	270	270
ZEPHYR WSC	343	339	330	325	324	324
COUNTY-OTHER	164	166	165	164	163	163
MANUFACTURING	548	651	651	651	651	651
MINING	943	948	951	952	948	944
LIVESTOCK	1,107	1,107	1,107	1,107	1,107	1,107
IRRIGATION	7,738	7,738	7,738	7,738	7,738	7,738
COLORADO BASIN TOTAL	**16,385**	**16,473**	**16,348**	**16,278**	**16,260**	**16,256**
BROWN COUNTY TOTAL	**16,790**	**16,878**	**16,753**	**16,683**	**16,665**	**16,661**
BRONTE	273	269	265	262	262	262
ROBERT LEE	295	290	286	286	285	285
COUNTY-OTHER	118	112	107	105	105	105
MINING	488	482	430	376	328	286
LIVESTOCK	306	306	306	306	306	306
IRRIGATION	689	689	689	689	689	689

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COLORADO BASIN TOTAL	**2,169**	**2,148**	**2,083**	**2,024**	**1,975**	**1,933**
COKE COUNTY TOTAL	**2,169**	**2,148**	**2,083**	**2,024**	**1,975**	**1,933**
BROOKESMITH SUD	6	6	6	6	6	6
COLEMAN	821	814	795	793	792	792
COLEMAN COUNTY SUD	363	358	347	341	340	340
SANTA ANNA	156	154	149	149	148	148
COUNTY-OTHER	24	22	22	21	21	21
MANUFACTURING	2	2	2	2	2	2
MINING	108	107	97	86	77	69
LIVESTOCK	705	705	705	705	705	705
IRRIGATION	465	465	465	465	465	465
COLORADO BASIN TOTAL	**2,650**	**2,633**	**2,588**	**2,568**	**2,556**	**2,548**
COLEMAN COUNTY TOTAL	**2,650**	**2,633**	**2,588**	**2,568**	**2,556**	**2,548**
EDEN	206	210	207	205	204	204
MILLERSVIEW-DOOLE WSC	94	93	90	89	89	89
COUNTY-OTHER	114	112	109	108	107	107
MINING	480	474	422	367	320	279
LIVESTOCK	382	382	382	382	382	382
IRRIGATION	4,902	4,902	4,902	4,902	4,902	4,902
COLORADO BASIN TOTAL	**6,178**	**6,173**	**6,112**	**6,053**	**6,004**	**5,963**
CONCHO COUNTY TOTAL	**6,178**	**6,173**	**6,112**	**6,053**	**6,004**	**5,963**
CRANE	1,261	1,339	1,401	1,467	1,525	1,575
COUNTY-OTHER	170	207	238	268	294	316
MANUFACTURING	455	468	468	468	468	468
MINING	617	840	861	692	531	407
LIVESTOCK	72	72	72	72	72	72
RIO GRANDE BASIN TOTAL	**2,575**	**2,926**	**3,040**	**2,967**	**2,890**	**2,838**
CRANE COUNTY TOTAL	**2,575**	**2,926**	**3,040**	**2,967**	**2,890**	**2,838**
LIVESTOCK	14	14	14	14	14	14
IRRIGATION	6	6	6	6	6	6
COLORADO BASIN TOTAL	**20**	**20**	**20**	**20**	**20**	**20**
CROCKETT COUNTY WCID 1	1,533	1,641	1,655	1,672	1,677	1,680
COUNTY-OTHER	27	20	18	17	17	17
MANUFACTURING	14	15	15	15	15	15
MINING	4,500	4,500	3,100	1,700	500	200
LIVESTOCK	513	513	513	513	513	513
IRRIGATION	129	129	129	129	129	129
RIO GRANDE BASIN TOTAL	**6,716**	**6,818**	**5,430**	**4,046**	**2,851**	**2,554**
CROCKETT COUNTY TOTAL	**6,736**	**6,838**	**5,450**	**4,066**	**2,871**	**2,574**
ECTOR COUNTY UTILITY DISTRICT	2,385	2,645	2,935	3,240	3,556	3,880
GREATER GARDENDALE WSC	211	228	247	270	296	323
ODESSA	24,523	27,724	30,382	33,254	36,278	39,632
COUNTY-OTHER	2,047	2,090	2,510	2,768	3,037	3,314
MANUFACTURING	2,152	2,381	2,381	2,381	2,381	2,381
MINING	1,325	1,450	1,291	1,055	853	721
STEAM ELECTRIC POWER	4,837	4,837	4,837	4,837	4,837	4,837

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
LIVESTOCK	169	169	169	169	169	169
IRRIGATION	678	678	678	678	678	678
COLORADO BASIN TOTAL	**38,327**	**42,202**	**45,430**	**48,652**	**52,085**	**55,935**
COUNTY-OTHER	114	116	140	154	169	185
MINING	652	714	635	519	419	355
LIVESTOCK	30	30	30	30	30	30
IRRIGATION	78	78	78	78	78	78
RIO GRANDE BASIN TOTAL	**874**	**938**	**883**	**781**	**696**	**648**
ECTOR COUNTY TOTAL	**39,201**	**43,140**	**46,313**	**49,433**	**52,781**	**56,583**
COUNTY-OTHER	161	165	160	160	159	159
MANUFACTURING	25	33	33	33	33	33
MINING	5,900	5,900	4,500	3,200	2,100	1,500
LIVESTOCK	147	147	147	147	147	147
IRRIGATION	51,254	51,254	51,254	51,254	51,254	51,254
COLORADO BASIN TOTAL	**57,487**	**57,499**	**56,094**	**54,794**	**53,693**	**53,093**
GLASSCOCK COUNTY TOTAL	**57,487**	**57,499**	**56,094**	**54,794**	**53,693**	**53,093**
BIG SPRING	6,227	6,368	6,379	6,327	6,316	6,316
COAHOMA	526	534	537	537	536	536
COUNTY-OTHER	652	650	646	644	642	642
MANUFACTURING	3,723	3,746	3,746	3,746	3,746	3,746
MINING	3,400	3,400	2,400	1,400	600	300
STEAM ELECTRIC POWER	427	427	427	427	427	427
LIVESTOCK	229	229	229	229	229	229
IRRIGATION	6,883	6,883	6,883	6,883	6,883	6,883
COLORADO BASIN TOTAL	**22,067**	**22,237**	**21,247**	**20,193**	**19,379**	**19,079**
HOWARD COUNTY TOTAL	**22,067**	**22,237**	**21,247**	**20,193**	**19,379**	**19,079**
MERTZON	101	99	96	94	94	94
COUNTY-OTHER	104	101	98	97	97	97
MANUFACTURING	6	7	7	7	7	7
MINING	4,600	4,600	3,300	2,000	1,000	500
LIVESTOCK	232	232	232	232	232	232
IRRIGATION	1,053	1,053	1,053	1,053	1,053	1,053
COLORADO BASIN TOTAL	**6,096**	**6,092**	**4,786**	**3,483**	**2,483**	**1,983**
IRION COUNTY TOTAL	**6,096**	**6,092**	**4,786**	**3,483**	**2,483**	**1,983**
JUNCTION	626	620	609	605	604	604
COUNTY-OTHER	254	248	241	237	236	236
MANUFACTURING	605	706	706	706	706	706
MINING	19	19	19	19	19	19
LIVESTOCK	320	320	320	320	320	320
IRRIGATION	2,657	2,657	2,657	2,657	2,657	2,657
COLORADO BASIN TOTAL	**4,481**	**4,570**	**4,552**	**4,544**	**4,542**	**4,542**
KIMBLE COUNTY TOTAL	**4,481**	**4,570**	**4,552**	**4,544**	**4,542**	**4,542**
COUNTY-OTHER	10	10	9	9	9	9
MINING	7,500	7,500	6,600	5,400	4,300	3,400
LIVESTOCK	32	32	32	32	32	32
RIO GRANDE BASIN TOTAL	**7,542**	**7,542**	**6,641**	**5,441**	**4,341**	**3,441**
LOVING COUNTY TOTAL	**7,542**	**7,542**	**6,641**	**5,441**	**4,341**	**3,441**

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
STANTON	514	552	578	605	628	646
COUNTY-OTHER	358	380	394	410	426	438
MINING	7,200	7,200	5,400	3,500	1,900	1,000
LIVESTOCK	119	119	119	119	119	119
IRRIGATION	36,491	36,491	36,491	36,491	36,491	36,491
COLORADO BASIN TOTAL	**44,682**	**44,742**	**42,982**	**41,125**	**39,564**	**38,694**
MARTIN COUNTY TOTAL	**44,682**	**44,742**	**42,982**	**41,125**	**39,564**	**38,694**
MASON	700	690	682	677	676	676
COUNTY-OTHER	231	224	218	215	214	214
MINING	1,023	941	708	568	460	372
LIVESTOCK	714	714	714	714	714	714
IRRIGATION	4,966	4,966	4,966	4,966	4,966	4,966
COLORADO BASIN TOTAL	**7,634**	**7,535**	**7,288**	**7,140**	**7,030**	**6,942**
MASON COUNTY TOTAL	**7,634**	**7,535**	**7,288**	**7,140**	**7,030**	**6,942**
BRADY	1,391	1,420	1,402	1,410	1,412	1,414
MILLERSVIEW-DOOLE WSC	148	150	147	146	147	147
RICHLAND SUD	234	240	238	239	239	240
COUNTY-OTHER	132	135	134	135	135	135
MANUFACTURING	523	609	609	609	609	609
MINING	8,927	8,347	6,641	5,627	4,836	4,201
LIVESTOCK	651	651	651	651	651	651
IRRIGATION	2,324	2,324	2,324	2,324	2,324	2,324
COLORADO BASIN TOTAL	**14,330**	**13,876**	**12,146**	**11,141**	**10,353**	**9,721**
MCCULLOCH COUNTY TOTAL	**14,330**	**13,876**	**12,146**	**11,141**	**10,353**	**9,721**
MENARD	350	342	336	335	335	335
COUNTY-OTHER	92	89	86	85	84	84
MINING	1,086	1,071	952	827	717	622
LIVESTOCK	294	294	294	294	294	294
IRRIGATION	3,663	3,663	3,663	3,663	3,663	3,663
COLORADO BASIN TOTAL	**5,485**	**5,459**	**5,331**	**5,204**	**5,093**	**4,998**
MENARD COUNTY TOTAL	**5,485**	**5,459**	**5,331**	**5,204**	**5,093**	**4,998**
AIRLINE MOBILE HOME PARK LTD	228	236	252	273	295	318
GREATER GARDENDALE WSC	108	120	132	146	161	176
GREENWOOD WATER	211	224	244	265	288	310
MIDLAND	27,972	31,803	34,256	36,811	39,405	42,232
ODESSA	481	605	709	817	924	1,037
COUNTY-OTHER	3,253	3,506	3,689	4,050	4,441	4,819
MANUFACTURING	981	1,177	1,177	1,177	1,177	1,177
MINING	10,600	10,600	8,200	5,500	3,300	2,300
LIVESTOCK	243	243	243	243	243	243
IRRIGATION	18,107	18,107	18,107	18,107	18,107	18,107
COLORADO BASIN TOTAL	**62,184**	**66,621**	**67,009**	**67,389**	**68,341**	**70,719**
MIDLAND COUNTY TOTAL	**62,184**	**66,621**	**67,009**	**67,389**	**68,341**	**70,719**
COLORADO CITY	1,308	1,440	1,451	1,462	1,475	1,490
LORAINE	76	75	74	74	75	75
MITCHELL COUNTY UTILITY	210	217	215	217	218	220

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	545	538	541	544	549	553
MANUFACTURING	4	5	5	5	5	5
MINING	593	738	632	493	375	290
STEAM ELECTRIC POWER	10,326	10,326	10,326	10,326	10,326	10,326
LIVESTOCK	376	376	376	376	376	376
IRRIGATION	12,787	12,787	12,787	12,787	12,787	12,787
COLORADO BASIN TOTAL	**26,225**	**26,502**	**26,407**	**26,284**	**26,186**	**26,122**
MITCHELL COUNTY TOTAL	**26,225**	**26,502**	**26,407**	**26,284**	**26,186**	**26,122**
FORT STOCKTON	4,841	5,172	5,548	5,813	6,067	6,300
IRAAN	458	485	513	540	567	591
PECOS COUNTY FRESH WATER	201	212	223	235	247	257
PECOS COUNTY WCID 1	384	398	415	433	453	472
COUNTY-OTHER	110	127	147	165	182	197
MANUFACTURING	413	433	433	433	433	433
MINING	7,700	7,700	7,700	6,200	4,800	3,700
LIVESTOCK	687	687	687	687	687	687
IRRIGATION	143,345	143,345	143,345	143,345	143,345	143,345
RIO GRANDE BASIN TOTAL	**158,139**	**158,559**	**159,011**	**157,851**	**156,781**	**155,982**
PECOS COUNTY TOTAL	**158,139**	**158,559**	**159,011**	**157,851**	**156,781**	**155,982**
BIG LAKE	730	795	834	877	906	928
COUNTY-OTHER	70	76	79	82	85	87
MINING	9,857	9,857	7,161	4,092	1,581	558
LIVESTOCK	175	175	175	175	175	175
IRRIGATION	22,031	22,031	22,031	22,031	22,031	22,031
COLORADO BASIN TOTAL	**32,863**	**32,934**	**30,280**	**27,257**	**24,778**	**23,779**
MINING	743	743	539	308	119	42
LIVESTOCK	8	8	8	8	8	8
RIO GRANDE BASIN TOTAL	**751**	**751**	**547**	**316**	**127**	**50**
REAGAN COUNTY TOTAL	**33,614**	**33,685**	**30,827**	**27,573**	**24,905**	**23,829**
BALMORHEA	203	214	225	233	238	243
MADERA VALLEY WSC	446	468	489	506	518	528
PECOS	2,916	3,065	3,215	3,322	3,405	3,468
COUNTY-OTHER	532	561	586	603	617	628
MANUFACTURING	286	305	305	305	305	305
MINING	12,600	12,600	12,100	9,900	7,800	6,200
LIVESTOCK	368	368	368	368	368	368
IRRIGATION	58,937	58,937	58,937	58,937	58,937	58,937
RIO GRANDE BASIN TOTAL	**76,288**	**76,518**	**76,225**	**74,174**	**72,188**	**70,677**
REEVES COUNTY TOTAL	**76,288**	**76,518**	**76,225**	**74,174**	**72,188**	**70,677**
BALLINGER	689	687	671	669	667	667
COLEMAN COUNTY SUD	20	20	20	19	19	19
MILES	113	126	122	121	120	120
MILLERSVIEW-DOOLE WSC	108	105	103	101	101	101
NORTH RUNNELS WSC	169	167	163	162	162	163
WINTERS	226	218	206	205	204	204
COUNTY-OTHER	76	74	69	68	67	66

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MANUFACTURING	10	11	11	11	11	11
MINING	272	269	240	210	184	161
LIVESTOCK	705	705	705	705	705	705
IRRIGATION	3,105	3,105	3,105	3,105	3,105	3,105
COLORADO BASIN TOTAL	**5,493**	**5,487**	**5,415**	**5,376**	**5,345**	**5,322**
RUNNELS COUNTY TOTAL	**5,493**	**5,487**	**5,415**	**5,376**	**5,345**	**5,322**
ELDORADO	662	652	643	639	638	638
COUNTY-OTHER	216	247	262	272	278	281
MINING	460	542	416	290	179	110
LIVESTOCK	293	293	293	293	293	293
IRRIGATION	1,160	1,160	1,160	1,160	1,160	1,160
COLORADO BASIN TOTAL	**2,791**	**2,894**	**2,774**	**2,654**	**2,548**	**2,482**
COUNTY-OTHER	31	35	37	38	39	40
MINING	161	190	146	102	62	38
LIVESTOCK	96	96	96	96	96	96
IRRIGATION	651	651	651	651	651	651
RIO GRANDE BASIN TOTAL	**939**	**972**	**930**	**887**	**848**	**825**
SCHLEICHER COUNTY TOTAL	**3,730**	**3,866**	**3,704**	**3,541**	**3,396**	**3,307**
COUNTY-OTHER	251	263	275	293	315	337
MINING	78	127	135	101	69	47
LIVESTOCK	92	92	92	92	92	92
IRRIGATION	1,698	1,698	1,698	1,698	1,698	1,698
BRAZOS BASIN TOTAL	**2,119**	**2,180**	**2,200**	**2,184**	**2,174**	**2,174**
SNYDER	1,980	2,201	2,320	2,499	2,686	2,882
COUNTY-OTHER	557	583	611	650	697	748
MANUFACTURING	156	186	186	186	186	186
MINING	202	329	348	262	177	120
LIVESTOCK	369	369	369	369	369	369
IRRIGATION	5,861	5,861	5,861	5,861	5,861	5,861
COLORADO BASIN TOTAL	**9,125**	**9,529**	**9,695**	**9,827**	**9,976**	**10,166**
SCURRY COUNTY TOTAL	**11,244**	**11,709**	**11,895**	**12,011**	**12,150**	**12,340**
STERLING CITY	276	281	281	280	280	280
COUNTY-OTHER	32	32	32	32	32	32
MINING	780	953	812	522	270	140
LIVESTOCK	234	234	234	234	234	234
IRRIGATION	899	899	899	899	899	899
COLORADO BASIN TOTAL	**2,221**	**2,399**	**2,258**	**1,967**	**1,715**	**1,585**
STERLING COUNTY TOTAL	**2,221**	**2,399**	**2,258**	**1,967**	**1,715**	**1,585**
COUNTY-OTHER	26	27	27	28	28	28
MANUFACTURING	3	3	3	3	3	3
MINING	89	144	152	114	78	53
LIVESTOCK	198	198	198	198	198	198
IRRIGATION	179	179	179	179	179	179
COLORADO BASIN TOTAL	**495**	**551**	**559**	**522**	**486**	**461**
SONORA	1,045	1,105	1,123	1,139	1,150	1,156

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COUNTY-OTHER	115	119	119	120	121	122
MINING	357	576	611	459	311	211
LIVESTOCK	246	246	246	246	246	246
IRRIGATION	941	941	941	941	941	941
RIO GRANDE BASIN TOTAL	**2,704**	**2,987**	**3,040**	**2,905**	**2,769**	**2,676**
SUTTON COUNTY TOTAL	**3,199**	**3,538**	**3,599**	**3,427**	**3,255**	**3,137**
CONCHO RURAL WATER	560	576	588	604	624	646
DADS Supported Living Center	109	108	108	107	107	107
GOODFELLOW AIR FORCE BASE	513	568	596	629	666	707
MILLERSVIEW-DOOLE WSC	263	271	276	283	293	302
SAN ANGELO	17,924	19,657	20,494	21,556	22,847	24,250
TOM GREEN COUNTY FWSD 3	131	142	147	154	162	172
COUNTY-OTHER	1,011	1,001	1,037	1,065	1,088	1,106
MANUFACTURING	850	962	962	962	962	962
MINING	1,056	1,080	1,119	1,112	1,134	1,156
LIVESTOCK	1,125	1,125	1,125	1,125	1,125	1,125
IRRIGATION	42,493	42,493	42,493	42,493	42,493	42,493
COLORADO BASIN TOTAL	**66,035**	**67,983**	**68,945**	**70,090**	**71,501**	**73,026**
TOM GREEN COUNTY TOTAL	**66,035**	**67,983**	**68,945**	**70,090**	**71,501**	**73,026**
COUNTY-OTHER	28	30	30	30	31	31
MANUFACTURING	182	205	205	205	205	205
MINING	2,736	2,736	2,166	1,444	874	608
LIVESTOCK	48	48	48	48	48	48
IRRIGATION	10,195	10,195	10,195	10,195	10,195	10,195
COLORADO BASIN TOTAL	**13,189**	**13,214**	**12,644**	**11,922**	**11,353**	**11,087**
MCCAMEY	827	881	906	936	955	968
RANKIN	276	294	302	312	318	322
COUNTY-OTHER	47	48	48	50	50	51
MANUFACTURING	2	2	2	2	2	2
MINING	4,464	4,464	3,534	2,356	1,426	992
LIVESTOCK	78	78	78	78	78	78
IRRIGATION	208	208	208	208	208	208
RIO GRANDE BASIN TOTAL	**5,902**	**5,975**	**5,078**	**3,942**	**3,037**	**2,621**
UPTON COUNTY TOTAL	**19,091**	**19,189**	**17,722**	**15,864**	**14,390**	**13,708**
BARSTOW	119	125	128	132	135	137
GRANDFALLS	135	141	145	149	152	155
MONAHANS	2,518	2,628	2,704	2,785	2,846	2,895
SOUTHWEST SANDHILLS WSC	185	186	185	190	194	197
WICKETT	208	218	225	231	237	241
COUNTY-OTHER	137	141	144	148	152	154
MANUFACTURING	7	7	7	7	7	7
MINING	1,900	1,900	1,700	1,300	900	600
STEAM ELECTRIC POWER	2,502	2,502	2,502	2,502	2,502	2,502
LIVESTOCK	83	83	83	83	83	83
IRRIGATION	3,160	3,160	3,160	3,160	3,160	3,160

Region F Water User Group (WUG) Demand

	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
RIO GRANDE BASIN TOTAL	**10,954**	**11,091**	**10,983**	**10,687**	**10,368**	**10,131**
WARD COUNTY TOTAL	**10,954**	**11,091**	**10,983**	**10,687**	**10,368**	**10,131**
LIVESTOCK	1	1	1	1	1	1
COLORADO BASIN TOTAL	**1**	**1**	**1**	**1**	**1**	**1**
KERMIT	1,811	1,803	1,799	1,816	1,830	1,844
WINK	358	387	412	441	465	486
COUNTY-OTHER	188	293	378	470	545	609
MANUFACTURING	64	76	76	76	76	76
MINING	787	1,169	991	756	531	373
LIVESTOCK	100	100	100	100	100	100
IRRIGATION	3,507	3,507	3,507	3,507	3,507	3,507
RIO GRANDE BASIN TOTAL	**6,815**	**7,335**	**7,263**	**7,166**	**7,054**	**6,995**
WINKLER COUNTY TOTAL	**6,816**	**7,336**	**7,264**	**7,167**	**7,055**	**6,996**
REGION F TOTAL DEMAND	**765,150**	**779,505**	**769,525**	**755,112**	**744,947**	**744,366**

TWDB DB22 Report #3 - WUG Category Summary

Region F Water User Group (WUG) Category Summary*

MUNICIPAL	2020	2030	2040	2050	2060	2070
POPULATION	622,738	697,545	750,008	801,928	853,242	907,937
DEMAND (acre-feet per year)	125,009	136,751	144,752	153,550	162,965	173,202
EXISTING SUPPLIES (acre-feet per year)	93,926	96,011	91,437	91,895	92,394	92,844
NEEDS (acre-feet per year)	33,113	41,105	53,681	62,020	70,929	80,707

COUNTY-OTHER	2020	2030	2040	2050	2060	2070
POPULATION	93,035	100,044	108,718	116,669	124,301	131,565
DEMAND (acre-feet per year)	12,718	13,309	14,205	15,152	16,133	17,088
EXISTING SUPPLIES (acre-feet per year)	12,229	12,808	13,585	14,384	15,209	16,005
NEEDS (acre-feet per year)	655	679	759	875	1,003	1,138

MANUFACTURING	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	11,591	12,607	12,607	12,607	12,607	12,607
EXISTING SUPPLIES (acre-feet per year)	9,936	10,968	10,752	10,519	10,378	10,271
NEEDS (acre-feet per year)	1,849	1,866	1,980	2,110	2,229	2,336

MINING	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	108,841	109,847	90,970	66,812	46,251	34,478
EXISTING SUPPLIES (acre-feet per year)	86,527	87,335	73,783	56,558	48,984	43,018
NEEDS (acre-feet per year)	24,419	24,428	19,839	15,124	8,037	5,924

STEAM ELECTRIC POWER	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	18,092	18,092	18,092	18,092	18,092	18,092
EXISTING SUPPLIES (acre-feet per year)	7,599	7,576	7,509	7,408	7,323	7,247
NEEDS (acre-feet per year)	10,493	10,516	10,583	10,684	10,769	10,845

LIVESTOCK	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	11,958	11,958	11,958	11,958	11,958	11,958
EXISTING SUPPLIES (acre-feet per year)	12,053	12,045	12,037	12,023	12,012	12,002
NEEDS (acre-feet per year)	9	17	25	39	50	60

IRRIGATION	2020	2030	2040	2050	2060	2070
DEMAND (acre-feet per year)	476,941	476,941	476,941	476,941	476,941	476,941
EXISTING SUPPLIES (acre-feet per year)	466,580	462,300	461,501	460,351	457,750	455,048
NEEDS (acre-feet per year)	13,528	17,957	18,618	19,676	22,157	24,740

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

TWDB Report #4 – Source Water Availability

Region F Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
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	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	1,319	1,319	1,319	1,319	1,319	1,319
DOCKUM AQUIFER	ANDREWS	RIO GRANDE	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	BORDEN	BRAZOS	FRESH	284	284	284	284	284	284
DOCKUM AQUIFER	BORDEN	COLORADO	FRESH	617	617	617	617	617	617
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	2	2	2	2	2	2
DOCKUM AQUIFER	CROCKETT	RIO GRANDE	FRESH	2	2	2	2	2	2
DOCKUM AQUIFER	ECTOR	COLORADO	FRESH	13	13	13	13	13	13
DOCKUM AQUIFER	ECTOR	RIO GRANDE	FRESH	515	515	515	515	515	515
DOCKUM AQUIFER	GLASSCOCK	COLORADO	FRESH	900	900	900	900	900	900
DOCKUM AQUIFER	HOWARD	COLORADO	FRESH	1,589	1,589	1,589	1,589	1,589	1,589
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	8	8	8	8	8	8
DOCKUM AQUIFER	MIDLAND	COLORADO	FRESH/ BRACKISH	400	400	400	400	400	400
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	302	302	302	302	302	302
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	306	306	306	306	306	306
DOCKUM AQUIFER	SCURRY	COLORADO	FRESH	903	903	903	903	903	903
DOCKUM AQUIFER	STERLING	COLORADO	FRESH	10	10	10	10	10	10
DOCKUM AQUIFER	TOM GREEN	COLORADO	FRESH/ BRACKISH	200	200	200	200	200	200
DOCKUM AQUIFER	UPTON	COLORADO	FRESH	0	0	0	0	0	0
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 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

*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.

Region F Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
EDWARDS-TRINITY-PLATEAU AQUIFER	MARTIN	COLORADO	FRESH	242	242	242	242	242	242
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	COKE	COLORADO	FRESH	997	997	997	997	997	997
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	CONCHO	COLORADO	FRESH	459	459	459	459	459	459
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	CROCKETT	COLORADO	FRESH	20	20	20	20	20	20
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	CROCKETT	RIO GRANDE	FRESH	5,427	5,427	5,427	5,427	5,427	5,427
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	ECTOR	COLORADO	FRESH	4,925	4,925	4,925	4,925	4,925	4,925
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	ECTOR	RIO GRANDE	FRESH	617	617	617	617	617	617
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	GLASSCOCK	COLORADO	FRESH	65,186	65,186	65,186	65,186	65,186	65,186
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	IRION	COLORADO	FRESH	3,289	3,289	3,289	3,289	3,289	3,289
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	KIMBLE	COLORADO	FRESH	1,386	1,386	1,386	1,386	1,386	1,386
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MASON	COLORADO	FRESH	18	18	18	18	18	18
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MCCULLOCH	COLORADO	FRESH	148	148	148	148	148	148
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MENARD	COLORADO	FRESH	2,594	2,594	2,594	2,594	2,594	2,594
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MIDLAND	COLORADO	FRESH	23,233	23,233	23,233	23,233	23,233	23,233
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	PECOS	RIO GRANDE	FRESH/ BRACKISH	117,309	117,309	117,309	117,309	117,309	117,309
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	REAGAN	COLORADO	FRESH	68,205	68,205	68,205	68,205	68,205	68,205
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	REAGAN	RIO GRANDE	FRESH	28	28	28	28	28	28
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SCHLEICHER	COLORADO	FRESH	6,403	6,403	6,403	6,403	6,403	6,403
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SCHLEICHER	RIO GRANDE	FRESH	1,631	1,631	1,631	1,631	1,631	1,631
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	STERLING	COLORADO	FRESH	2,495	2,495	2,495	2,495	2,495	2,495
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SUTTON	COLORADO	FRESH	388	388	388	388	388	388
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SUTTON	RIO GRANDE	FRESH	6,022	6,022	6,022	6,022	6,022	6,022
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	TOM GREEN	COLORADO	FRESH	2,797	2,797	2,797	2,797	2,797	2,797
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	UPTON	COLORADO	FRESH	21,243	21,243	21,243	21,243	21,243	21,243
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	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	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

*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.

Region F Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
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
LIPAN AQUIFER	COKE	COLORADO	FRESH/ BRACKISH	160	160	160	160	160	160
LIPAN AQUIFER	CONCHO	COLORADO	FRESH	1,893	1,893	1,893	1,893	1,893	1,893
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	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 AQUIFER	ECTOR	COLORADO	FRESH	8,026	7,730	7,171	7,135	6,727	6,727
OGALLALA AQUIFER	GLASSCOCK	COLORADO	FRESH	7,925	7,673	7,372	7,058	6,803	6,570
OGALLALA AQUIFER	MIDLAND	COLORADO	FRESH	38,388	36,824	34,623	32,693	31,325	31,325
OGALLALA AQUIFER	WINKLER	RIO GRANDE	FRESH	40	40	40	40	40	40
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	ANDREWS	COLORADO	FRESH	24,937	21,375	19,795	18,774	18,040	17,474
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	ANDREWS	RIO GRANDE	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	BORDEN	BRAZOS	FRESH	842	699	635	597	572	555
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	BORDEN	COLORADO	FRESH	5,080	3,940	3,433	3,140	2,849	2,657
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	HOWARD	COLORADO	FRESH	19,835	17,391	16,264	15,638	15,281	15,066
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	MARTIN	COLORADO	FRESH	63,463	51,126	43,861	39,793	37,210	35,425
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	MCCULLOCH	COLORADO	FRESH	103	103	103	103	103	103
OTHER AQUIFER	MENARD	COLORADO	FRESH	0	0	0	0	0	0
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

*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.

Region F Source Availability

GROUNDWATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
OTHER AQUIFER	SCURRY	COLORADO	FRESH	315	315	315	315	315	315
OTHER AQUIFER	TOM GREEN	COLORADO	FRESH/ BRACKISH	0	0	0	0	0	0
OTHER AQUIFER	MASON	COLORADO	FRESH	873	873	873	873	873	873
PECOS VALLEY AQUIFER	ANDREWS	RIO GRANDE	FRESH	150	150	150	150	150	150
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	CRANE	RIO GRANDE	FRESH	4,991	4,991	4,991	4,991	4,991	4,991
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	LOVING	RIO GRANDE	FRESH	2,982	2,982	2,982	2,982	2,982	2,982
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	PECOS	RIO GRANDE	FRESH	122,899	122,899	122,899	122,899	122,899	122,899
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	REEVES	RIO GRANDE	FRESH	189,744	189,744	189,744	189,744	189,744	189,744
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	WARD	RIO GRANDE	FRESH	49,976	49,976	49,976	49,976	49,976	49,976
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	WINKLER	RIO GRANDE	FRESH	49,949	49,949	49,949	49,949	49,949	49,949
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
RUSTLER AQUIFER	WARD	RIO GRANDE	FRESH	0	0	0	0	0	0
RUSTLER AQUIFER	CRANE	RIO GRANDE	FRESH/ BRACKISH	1,000	1,000	1,000	1,000	1,000	1,000
RUSTLER AQUIFER	WINKLER	RIO GRANDE	BRACKISH	500	500	500	500	500	500
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	1,399	1,395	1,399	1,395	1,399	1,395
GROUNDWATER TOTAL SOURCE AVAILABILITY				**1,135,369**	**1,113,627**	**1,100,027**	**1,091,697**	**1,085,680**	**1,082,668**

REUSE SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
DIRECT REUSE	ANDREWS	COLORADO	FRESH	560	560	560	560	560	560
DIRECT REUSE	CRANE	RIO GRANDE	FRESH	73	73	73	73	73	73
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	11,211	11,211	11,211	11,211	11,211	11,211
DIRECT REUSE	MITCHELL	COLORADO	FRESH	552	552	552	552	552	552
DIRECT REUSE	RUNNELS	COLORADO	FRESH	22	22	22	22	22	22
DIRECT REUSE	TOM GREEN	COLORADO	FRESH	8,300	8,300	8,300	8,300	8,300	8,300
DIRECT REUSE	WARD	RIO GRANDE	FRESH	670	670	670	670	670	670
REUSE TOTAL SOURCE AVAILABILITY				**32,773**	**32,773**	**32,773**	**32,773**	**32,773**	**32,773**

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
BALLINGER/MOONEN LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
BALMORHEA LAKE/RESERVOIR	RESERVOIR	RIO GRANDE	FRESH	18,800	18,800	18,800	18,800	18,800	18,800
BRADY CREEK LAKE/RESERVOIR	RESERVOIR	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.

Region F Source Availability

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
BRAZOS LIVESTOCK LOCAL SUPPLY	BORDEN	BRAZOS	FRESH	12	12	12	12	12	12
BRAZOS LIVESTOCK LOCAL SUPPLY	BROWN	BRAZOS	FRESH	12	12	12	12	12	12
BRAZOS LIVESTOCK LOCAL SUPPLY	SCURRY	BRAZOS	FRESH	88	88	88	88	88	88
BROWNWOOD LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	18,900	18,760	18,620	18,480	18,340	18,200
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	152	152	152	152	152	152
COLORADO LIVESTOCK LOCAL SUPPLY	BROWN	COLORADO	FRESH	1,050	1,050	1,050	1,050	1,050	1,050
COLORADO LIVESTOCK LOCAL SUPPLY	COKE	COLORADO	FRESH	84	84	84	84	84	84
COLORADO LIVESTOCK LOCAL SUPPLY	COLEMAN	COLORADO	FRESH	769	769	769	769	769	769
COLORADO LIVESTOCK LOCAL SUPPLY	CONCHO	COLORADO	FRESH	223	223	223	223	223	223
COLORADO LIVESTOCK LOCAL SUPPLY	CROCKETT	COLORADO	FRESH	14	14	14	14	14	14
COLORADO LIVESTOCK LOCAL SUPPLY	ECTOR	COLORADO	FRESH	25	25	25	25	25	25
COLORADO LIVESTOCK LOCAL SUPPLY	GLASSCOCK	COLORADO	FRESH	38	38	38	38	38	38
COLORADO LIVESTOCK LOCAL SUPPLY	HOWARD	COLORADO	FRESH	39	39	39	39	39	39
COLORADO LIVESTOCK LOCAL SUPPLY	IRION	COLORADO	FRESH	57	57	57	57	57	57
COLORADO LIVESTOCK LOCAL SUPPLY	KIMBLE	COLORADO	FRESH	138	138	138	138	138	138
COLORADO LIVESTOCK LOCAL SUPPLY	MARTIN	COLORADO	FRESH	47	47	47	47	47	47
COLORADO LIVESTOCK LOCAL SUPPLY	MASON	COLORADO	FRESH	227	227	227	227	227	227
COLORADO LIVESTOCK LOCAL SUPPLY	MCCULLOCH	COLORADO	FRESH	235	235	235	235	235	235
COLORADO LIVESTOCK LOCAL SUPPLY	MENARD	COLORADO	FRESH	48	48	48	48	48	48
COLORADO LIVESTOCK LOCAL SUPPLY	MIDLAND	COLORADO	FRESH	3	3	3	3	3	3
COLORADO LIVESTOCK LOCAL SUPPLY	MITCHELL	COLORADO	FRESH	308	308	308	308	308	308
COLORADO LIVESTOCK LOCAL SUPPLY	REAGAN	COLORADO	FRESH	60	60	60	60	60	60
COLORADO LIVESTOCK LOCAL SUPPLY	RUNNELS	COLORADO	FRESH	475	475	475	475	475	475
COLORADO LIVESTOCK LOCAL SUPPLY	SCHLEICHER	COLORADO	FRESH	17	17	17	17	17	17
COLORADO LIVESTOCK LOCAL SUPPLY	SCURRY	COLORADO	FRESH	352	352	352	352	352	352
COLORADO LIVESTOCK LOCAL SUPPLY	STERLING	COLORADO	FRESH	25	25	25	25	25	25
COLORADO LIVESTOCK LOCAL SUPPLY	SUTTON	COLORADO	FRESH	172	172	172	172	172	172
COLORADO LIVESTOCK LOCAL SUPPLY	TOM GREEN	COLORADO	FRESH	317	317	317	317	317	317
COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	RESERVOIR	COLORADO	FRESH	14,806	14,143	13,681	13,205	12,732	12,256
COLORADO RUN-OF-RIVER	BROWN	COLORADO	FRESH	276	276	276	276	276	276
COLORADO RUN-OF-RIVER	COKE	COLORADO	FRESH	16	16	16	16	16	16
COLORADO RUN-OF-RIVER	COLEMAN	COLORADO	FRESH	25	25	25	25	25	25
COLORADO RUN-OF-RIVER	CONCHO	COLORADO	FRESH	244	244	244	244	244	244
COLORADO RUN-OF-RIVER	ECTOR	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	IRION	COLORADO	FRESH	221	221	221	221	221	221
COLORADO RUN-OF-RIVER	KIMBLE	COLORADO	FRESH	1,113	1,113	1,113	1,113	1,113	1,113
COLORADO RUN-OF-RIVER	MCCULLOCH	COLORADO	FRESH	69	69	69	69	69	69
COLORADO RUN-OF-RIVER	MENARD	COLORADO	FRESH	2,090	2,090	2,090	2,090	2,090	2,090
COLORADO RUN-OF-RIVER	MITCHELL	COLORADO	FRESH	14	14	14	14	14	14
COLORADO RUN-OF-RIVER	RUNNELS	COLORADO	FRESH	262	262	262	262	262	262
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.

Region F Source Availability

SURFACE WATER SOURCE TYPE				SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY *	2020	2030	2040	2050	2060	2070
COLORADO RUN-OF-RIVER	STERLING	COLORADO	FRESH	30	30	30	30	30	30
COLORADO RUN-OF-RIVER	SUTTON	COLORADO	FRESH	2	2	2	2	2	2
COLORADO RUN-OF-RIVER	TOM GREEN	COLORADO	FRESH	1,969	1,969	1,969	1,969	1,969	1,969
CRMWD DIVERTED WATER SYSTEM	RESERVOIR	COLORADO	BRACKISH	5,760	5,760	5,760	5,760	5,760	5,760
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
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	15,544	15,177	14,609	14,055	13,498	12,944
RED BLUFF LAKE/RESERVOIR	RESERVOIR	RIO GRANDE	FRESH	30,050	29,980	29,910	29,840	29,770	29,700
RIO GRANDE LIVESTOCK LOCAL SUPPLY	CRANE	RIO GRANDE	FRESH	4	4	4	4	4	4
RIO GRANDE LIVESTOCK LOCAL SUPPLY	CROCKETT	RIO GRANDE	FRESH	16	16	16	16	16	16
RIO GRANDE LIVESTOCK LOCAL SUPPLY	LOVING	RIO GRANDE	FRESH	1	1	1	1	1	1
RIO GRANDE LIVESTOCK LOCAL SUPPLY	PECOS	RIO GRANDE	FRESH	37	37	37	37	37	37
RIO GRANDE LIVESTOCK LOCAL SUPPLY	SCHLEICHER	RIO GRANDE	FRESH	6	6	6	6	6	6
RIO GRANDE LIVESTOCK LOCAL SUPPLY	SUTTON	RIO GRANDE	FRESH	214	214	214	214	214	214
RIO GRANDE LIVESTOCK LOCAL SUPPLY	WARD	RIO GRANDE	FRESH	5	5	5	5	5	5
RIO GRANDE LIVESTOCK LOCAL SUPPLY	WINKLER	RIO GRANDE	FRESH	2	2	2	2	2	2
RIO GRANDE RUN-OF-RIVER	PECOS	RIO GRANDE	FRESH	18,672	18,672	18,672	18,672	18,672	18,672
RIO GRANDE RUN-OF-RIVER	REEVES	RIO GRANDE	FRESH	573	573	573	573	573	573
RIO GRANDE RUN-OF-RIVER	WARD	RIO GRANDE	FRESH	881	881	881	881	881	881
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
SURFACE WATER TOTAL SOURCE AVAILABILITY				**135,589**	**134,349**	**133,109**	**131,869**	**130,629**	**129,389**

REGION F TOTAL SOURCE AVAILABILITY				**1,303,731**	**1,280,749**	**1,265,909**	**1,256,339**	**1,249,082**	**1,244,830**

*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.

TWDB Report #5 – WUG Existing Water Supplies

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
ANDREWS	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	3,990	4,610	5,070	5,395	5,788	6,221
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	505	517	525	512	506	499
MANUFACTURING	F	DOCKUM AQUIFER | ANDREWS COUNTY	10	10	10	10	10	10
MANUFACTURING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	539	548	520	473	433	398
MINING	F	DIRECT REUSE	657	674	712	758	799	830
MINING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	47	45	43	39	35	32
LIVESTOCK	F	DOCKUM AQUIFER | ANDREWS COUNTY	9	9	9	9	9	9
LIVESTOCK	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	160	152	144	130	119	109
IRRIGATION	F	DIRECT REUSE	560	560	560	560	560	560
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU AQUIFER | ANDREWS COUNTY	1,198	1,198	1,198	1,198	1,198	1,198
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	16,792	12,803	12,120	10,981	10,023	9,174
COLORADO BASIN TOTAL			**24,467**	**21,126**	**20,911**	**20,065**	**19,480**	**19,040**
COUNTY-OTHER	F	PECOS VALLEY AQUIFER | ANDREWS COUNTY	2	2	2	2	2	2
MINING	F	DIRECT REUSE	277	260	222	176	135	104
LIVESTOCK	F	PECOS VALLEY AQUIFER | ANDREWS COUNTY	32	32	32	32	32	32
IRRIGATION	F	PECOS VALLEY AQUIFER | ANDREWS COUNTY	116	116	116	116	116	116
RIO GRANDE BASIN TOTAL			**427**	**410**	**372**	**326**	**285**	**254**
ANDREWS COUNTY TOTAL			**24,894**	**21,536**	**21,283**	**20,391**	**19,765**	**19,294**
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | BORDEN COUNTY	11	11	11	11	11	11
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	12	12	12	12	12	12
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | BORDEN COUNTY	826	688	624	586	561	544
BRAZOS BASIN TOTAL			**849**	**711**	**647**	**609**	**584**	**567**
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | BORDEN COUNTY	21	21	18	18	18	18
COUNTY-OTHER	O	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | DAWSON COUNTY	72	72	72	72	72	72
COUNTY-OTHER	F	OTHER AQUIFER | BORDEN COUNTY	74	74	74	74	74	74
MINING	F	OTHER AQUIFER | BORDEN COUNTY	679	927	784	494	244	121
LIVESTOCK	F	DOCKUM AQUIFER | BORDEN COUNTY	11	11	11	11	11	11
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	152	152	152	152	152	152
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | BORDEN COUNTY	1,720	1,720	1,720	1,720	1,720	1,720
IRRIGATION	F	OTHER AQUIFER | BORDEN COUNTY	403	403	403	403	403	403
COLORADO BASIN TOTAL			**3,132**	**3,380**	**3,234**	**2,944**	**2,694**	**2,571**
BORDEN COUNTY TOTAL			**3,981**	**4,091**	**3,881**	**3,553**	**3,278**	**3,138**
COUNTY-OTHER	F	TRINITY AQUIFER | BROWN COUNTY	6	6	6	6	6	6
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	12	12	12	12	12	12
IRRIGATION	F	TRINITY AQUIFER | BROWN COUNTY	45	45	45	45	45	45
BRAZOS BASIN TOTAL			**63**	**63**	**63**	**63**	**63**	**63**
BANGS	F	BROWNWOOD LAKE/RESERVOIR	310	305	296	291	290	290
BROOKESMITH SUD	F	BROWNWOOD LAKE/RESERVOIR	1,199	1,195	1,170	1,156	1,154	1,154
BROWNWOOD	F	BROWNWOOD LAKE/RESERVOIR	3,717	3,713	3,640	3,600	3,593	3,593

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COLEMAN COUNTY SUD	F	BROWNWOOD LAKE/RESERVOIR	12	12	12	12	12	12
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	292	287	277	271	270	270
ZEPHYR WSC	F	BROWNWOOD LAKE/RESERVOIR	343	339	330	325	324	324
COUNTY-OTHER	F	BROWNWOOD LAKE/RESERVOIR	129	129	129	129	129	129
COUNTY-OTHER	F	CROSS TIMBERS AQUIFER | BROWN COUNTY	16	18	17	17	15	15
COUNTY-OTHER	F	TRINITY AQUIFER | BROWN COUNTY	19	19	19	18	19	19
MANUFACTURING	F	BROWNWOOD LAKE/RESERVOIR	548	651	651	651	651	651
MINING	F	CROSS TIMBERS AQUIFER | BROWN COUNTY	300	300	300	300	300	300
MINING	F	TRINITY AQUIFER | BROWN COUNTY	382	382	385	384	384	381
LIVESTOCK	F	CROSS TIMBERS AQUIFER | BROWN COUNTY	45	45	45	45	45	45
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	1,050	1,050	1,050	1,050	1,050	1,050
LIVESTOCK	F	TRINITY AQUIFER | BROWN COUNTY	12	12	12	12	12	12
IRRIGATION	F	BROWNWOOD LAKE/RESERVOIR	5,000	5,000	5,000	5,000	5,000	5,000
IRRIGATION	F	COLORADO RUN-OF-RIVER	276	276	276	276	276	276
IRRIGATION	F	CROSS TIMBERS AQUIFER | BROWN COUNTY	110	110	110	110	110	110
IRRIGATION	F	TRINITY AQUIFER | BROWN COUNTY	986	982	983	981	984	983
		COLORADO BASIN TOTAL	**14,746**	**14,825**	**14,702**	**14,628**	**14,618**	**14,614**
		BROWN COUNTY TOTAL	**14,809**	**14,888**	**14,765**	**14,691**	**14,681**	**14,677**
BRONTE	F	OAK CREEK LAKE/RESERVOIR	0	0	0	0	0	0
BRONTE	F	OTHER AQUIFER | COKE COUNTY	71	68	66	65	65	65
ROBERT LEE	F	EV SPENCE LAKE/RESERVOIR NON-SYSTEM PORTION	0	0	0	0	0	0
ROBERT LEE	F	OAK CREEK LAKE/RESERVOIR	0	0	0	0	0	0
ROBERT LEE	F	OTHER AQUIFER | COKE COUNTY	56	55	53	53	53	53
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | COKE COUNTY	25	25	25	25	25	25
COUNTY-OTHER	F	OAK CREEK LAKE/RESERVOIR	0	0	0	0	0	0
COUNTY-OTHER	F	OTHER AQUIFER | COKE COUNTY	85	79	74	72	72	72
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | COKE COUNTY	488	482	430	376	328	286
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | COKE COUNTY	91	91	91	91	91	91
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	84	84	84	84	84	84
LIVESTOCK	F	OTHER AQUIFER | COKE COUNTY	131	131	131	131	131	131
IRRIGATION	F	COLORADO RUN-OF-RIVER	11	11	11	11	11	11
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | COKE COUNTY	43	43	43	43	43	43
IRRIGATION	F	OTHER AQUIFER | COKE COUNTY	635	635	635	635	635	635
		COLORADO BASIN TOTAL	**1,720**	**1,704**	**1,643**	**1,586**	**1,538**	**1,496**
		COKE COUNTY TOTAL	**1,720**	**1,704**	**1,643**	**1,586**	**1,538**	**1,496**
BROOKESMITH SUD	F	BROWNWOOD LAKE/RESERVOIR	6	6	6	6	6	6
COLEMAN	F	COLEMAN LAKE/RESERVOIR	0	0	0	0	0	0
COLEMAN	F	HORDS CREEK LAKE/RESERVOIR	0	0	0	0	0	0
COLEMAN COUNTY SUD	F	BROWNWOOD LAKE/RESERVOIR	182	180	175	172	171	171
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	156	154	149	149	148	148
COUNTY-OTHER	F	COLEMAN LAKE/RESERVOIR	0	0	0	0	0	0

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	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
MINING	F	OTHER AQUIFER | COLEMAN COUNTY	108	107	97	86	77	69
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	769	769	769	769	769	769
IRRIGATION	F	COLEMAN LAKE/RESERVOIR	0	0	0	0	0	0
IRRIGATION	F	COLORADO RUN-OF-RIVER	25	25	25	25	25	25
IRRIGATION	F	CROSS TIMBERS AQUIFER | COLEMAN COUNTY	44	44	44	44	44	44
		COLORADO BASIN TOTAL	**1,290**	**1,285**	**1,265**	**1,251**	**1,240**	**1,232**
		COLEMAN COUNTY TOTAL	**1,290**	**1,285**	**1,265**	**1,251**	**1,240**	**1,232**
EDEN	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CONCHO COUNTY	206	210	207	205	204	204
EDEN	F	OTHER AQUIFER | CONCHO COUNTY	0	0	0	0	0	0
MILLERSVIEW-DOOLE WSC	F	HICKORY AQUIFER | MCCULLOCH COUNTY	31	30	29	29	28	28
MILLERSVIEW-DOOLE WSC	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	40	51	46	41	37	34
COUNTY-OTHER	F	COLORADO RUN-OF-RIVER	38	38	38	38	38	38
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CONCHO COUNTY	56	54	51	50	49	49
COUNTY-OTHER	F	MOUNTAIN CREEK LAKE/RESERVOIR	0	0	0	0	0	0
COUNTY-OTHER	F	OTHER AQUIFER | CONCHO COUNTY	0	0	0	0	0	0
MINING	F	OTHER AQUIFER | CONCHO COUNTY	480	474	422	367	320	279
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CONCHO COUNTY	159	159	159	159	159	159
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	223	223	223	223	223	223
IRRIGATION	F	COLORADO RUN-OF-RIVER	206	206	206	206	206	206
IRRIGATION	F	LIPAN AQUIFER | CONCHO COUNTY	1,893	1,893	1,893	1,893	1,893	1,893
IRRIGATION	F	OTHER AQUIFER | CONCHO COUNTY	2,803	2,803	2,803	2,803	2,803	2,803
		COLORADO BASIN TOTAL	**6,135**	**6,141**	**6,077**	**6,014**	**5,960**	**5,916**
		CONCHO COUNTY TOTAL	**6,135**	**6,141**	**6,077**	**6,014**	**5,960**	**5,916**
CRANE	F	DIRECT REUSE	73	73	73	73	73	73
CRANE	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | CRANE COUNTY	1,002	1,063	1,112	1,164	1,210	1,250
CRANE	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	186	203	216	230	242	252
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | CRANE COUNTY	143	174	199	224	245	263
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	27	33	39	44	49	53
MANUFACTURING	F	DOCKUM AQUIFER | CRANE COUNTY	80	80	80	80	80	80
MANUFACTURING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | CRANE COUNTY	375	388	388	388	388	388
MINING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | CRANE COUNTY	617	840	861	692	531	407
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	4	4	4	4	4	4
LIVESTOCK	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | CRANE COUNTY	68	68	68	68	68	68
		RIO GRANDE BASIN TOTAL	**2,575**	**2,926**	**3,040**	**2,967**	**2,890**	**2,838**
		CRANE COUNTY TOTAL	**2,575**	**2,926**	**3,040**	**2,967**	**2,890**	**2,838**
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	14	14	14	14	14	14
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	6	6	6	6	6	6

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
		COLORADO BASIN TOTAL	**20**	**20**	**20**	**20**	**20**	**20**
CROCKETT COUNTY WCID 1	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	1,533	1,641	1,655	1,672	1,677	1,680
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	27	20	18	17	17	17
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	14	15	15	15	15	15
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	3,227	3,125	3,100	1,700	500	200
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	497	497	497	497	497	497
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	16	16	16	16	16	16
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | CROCKETT COUNTY	129	129	129	129	129	129
		RIO GRANDE BASIN TOTAL	**5,443**	**5,443**	**5,430**	**4,046**	**2,851**	**2,554**
		CROCKETT COUNTY TOTAL	**5,463**	**5,463**	**5,450**	**4,066**	**2,871**	**2,574**
ECTOR COUNTY UTILITY DISTRICT	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	579	811	814	811	803	788
ECTOR COUNTY UTILITY DISTRICT	F	DIRECT REUSE	73	106	110	114	117	119
ECTOR COUNTY UTILITY DISTRICT	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	41	59	62	64	65	67
ECTOR COUNTY UTILITY DISTRICT	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	368	539	559	577	593	604
GREATER GARDENDALE WSC	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	211	125	63	31	31	31
ODESSA	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	5,957	8,495	8,426	8,327	8,195	8,050
ODESSA	F	DIRECT REUSE	746	1,117	1,144	1,168	1,195	1,219
ODESSA	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	417	620	638	653	665	680
ODESSA	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	3,784	5,647	5,791	5,929	6,052	6,173
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	1,555	1,352	1,752	2,016	2,289	2,570
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	64	61	58	52	48	44
COUNTY-OTHER	F	OGALLALA AQUIFER | ECTOR COUNTY	428	677	700	700	700	700
MANUFACTURING	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	462	598	541	489	441	396
MANUFACTURING	F	DIRECT REUSE	58	78	73	69	64	60
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	1,270	1,270	1,270	1,270	1,341	1,430
MANUFACTURING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	231	220	209	189	173	158
MANUFACTURING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	32	44	41	38	36	33
MANUFACTURING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	293	398	372	348	326	304
MINING	F	DIRECT REUSE	2,164	2,102	2,181	2,297	2,397	2,461
MINING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	47	45	43	39	35	32
STEAM ELECTRIC POWER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	1,085	1,035	978	887	809	741
STEAM ELECTRIC POWER	O	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | GAINES COUNTY	3,687	3,687	3,687	3,687	3,687	3,687
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	134	134	134	134	134	134

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	25	25	25	25	25	25
LIVESTOCK	F	OGALLALA AQUIFER | ECTOR COUNTY	10	10	10	10	10	10
IRRIGATION	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	388	489	442	398	359	322
IRRIGATION	F	DIRECT REUSE	48	64	60	56	52	49
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	80	80	80	80	80	80
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	27	36	33	31	29	27
IRRIGATION	F	OGALLALA AQUIFER | ECTOR COUNTY	37	37	37	37	37	37
IRRIGATION	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	247	324	303	283	265	247
		COLORADO BASIN TOTAL	**24,548**	**30,285**	**30,636**	**30,809**	**31,053**	**31,278**
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	114	116	140	154	169	185
MINING	F	DIRECT REUSE	452	514	435	319	219	155
MINING	F	DOCKUM AQUIFER | ECTOR COUNTY	100	100	100	100	100	100
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	100	100	100	100	100	100
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	30	30	30	30	30	30
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	78	78	78	78	78	78
		RIO GRANDE BASIN TOTAL	**874**	**938**	**883**	**781**	**696**	**648**
		ECTOR COUNTY TOTAL	**25,422**	**31,223**	**31,519**	**31,590**	**31,749**	**31,926**
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | GLASSCOCK COUNTY	161	165	160	160	159	159
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | GLASSCOCK COUNTY	25	33	33	33	33	33
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | GLASSCOCK COUNTY	5,900	5,900	4,500	3,200	2,100	1,500
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | GLASSCOCK COUNTY	85	85	85	85	85	85
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	38	38	38	38	38	38
LIVESTOCK	F	OGALLALA AQUIFER | GLASSCOCK COUNTY	24	24	24	24	24	24
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | GLASSCOCK COUNTY	44,701	44,701	44,701	44,701	44,701	44,708
IRRIGATION	F	OGALLALA AQUIFER | GLASSCOCK COUNTY	6,553	6,553	6,553	6,553	6,553	6,546
		COLORADO BASIN TOTAL	**57,487**	**57,499**	**56,094**	**54,794**	**53,693**	**53,093**
		GLASSCOCK COUNTY TOTAL	**57,487**	**57,499**	**56,094**	**54,794**	**53,693**	**53,093**
BIG SPRING	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	1,513	1,952	1,769	1,584	1,427	1,283
BIG SPRING	F	DIRECT REUSE	190	256	240	223	208	194
BIG SPRING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	106	143	134	124	116	108
BIG SPRING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	960	1,297	1,216	1,128	1,053	984
COAHOMA	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	128	164	149	134	121	109
COAHOMA	F	DIRECT REUSE	16	21	20	19	18	16
COAHOMA	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	9	12	11	11	10	9
COAHOMA	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	81	109	102	96	89	83
COUNTY-OTHER	F	DOCKUM AQUIFER | HOWARD COUNTY	52	52	52	52	52	52
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU AQUIFER | HOWARD COUNTY	100	100	100	100	100	100

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | HOWARD COUNTY	500	498	494	492	490	490
MANUFACTURING	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	364	460	416	376	339	305
MANUFACTURING	F	DIRECT REUSE	46	60	56	53	49	46
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU AQUIFER | HOWARD COUNTY	110	110	110	110	110	110
MANUFACTURING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | HOWARD COUNTY	2,113	2,136	2,136	2,136	2,136	2,136
MANUFACTURING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	25	34	31	29	28	26
MANUFACTURING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	231	306	286	267	250	234
MINING	F	DOCKUM AQUIFER | HOWARD COUNTY	106	106	106	106	106	106
MINING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | HOWARD COUNTY	3,294	3,294	2,294	1,294	494	194
STEAM ELECTRIC POWER	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	51	64	58	52	47	42
STEAM ELECTRIC POWER	F	DIRECT REUSE	6	8	8	7	7	6
STEAM ELECTRIC POWER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | HOWARD COUNTY	232	232	232	232	232	232
STEAM ELECTRIC POWER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	4	5	4	4	4	4
STEAM ELECTRIC POWER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	32	43	40	37	35	33
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	39	39	39	39	39	39
LIVESTOCK	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | HOWARD COUNTY	170	170	170	170	170	170
IRRIGATION	F	DOCKUM AQUIFER | HOWARD COUNTY	326	326	326	326	326	326
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU AQUIFER | HOWARD COUNTY	422	422	422	422	422	422
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | HOWARD COUNTY	6,135	6,135	6,135	6,135	6,135	6,135
		COLORADO BASIN TOTAL	**17,421**	**18,614**	**17,216**	**15,818**	**14,673**	**14,054**
		HOWARD COUNTY TOTAL	**17,421**	**18,614**	**17,216**	**15,818**	**14,673**	**14,054**
MERTZON	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | IRION COUNTY	101	99	96	94	94	94
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | IRION COUNTY	104	101	98	97	97	97
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | IRION COUNTY	6	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 AQUIFER | IRION COUNTY	2,578	2,582	2,588	1,837	837	337
MINING	F	LIPAN AQUIFER | IRION COUNTY	13	13	13	13	13	13
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | IRION COUNTY	175	175	175	175	175	175
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	57	57	57	57	57	57
IRRIGATION	F	COLORADO RUN-OF-RIVER	221	221	221	221	221	221
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | IRION COUNTY	325	325	325	325	325	325
		COLORADO BASIN TOTAL	**3,730**	**3,730**	**3,730**	**2,976**	**1,976**	**1,476**
		IRION COUNTY TOTAL	**3,730**	**3,730**	**3,730**	**2,976**	**1,976**	**1,476**
JUNCTION	F	COLORADO RUN-OF-RIVER	0	0	0	0	0	0
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | KIMBLE COUNTY	234	228	221	217	216	216

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	F	MARBLE FALLS AQUIFER | KIMBLE COUNTY	20	20	20	20	20	20
MANUFACTURING	F	COLORADO RUN-OF-RIVER	0	0	0	0	0	0
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | KIMBLE COUNTY	2	2	2	2	2	2
MINING	F	COLORADO RUN-OF-RIVER	14	14	14	14	14	14
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | KIMBLE COUNTY	5	5	5	5	5	5
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | KIMBLE COUNTY	182	182	182	182	182	182
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	138	138	138	138	138	138
IRRIGATION	F	COLORADO RUN-OF-RIVER	1,099	1,099	1,099	1,099	1,099	1,099
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | KIMBLE COUNTY	400	400	400	400	400	400
IRRIGATION	F	HICKORY AQUIFER | KIMBLE COUNTY	55	55	55	55	55	55
		COLORADO BASIN TOTAL	**2,149**	**2,143**	**2,136**	**2,132**	**2,131**	**2,131**
		KIMBLE COUNTY TOTAL	**2,149**	**2,143**	**2,136**	**2,132**	**2,131**	**2,131**
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | LOVING COUNTY	10	10	9	9	9	9
MINING	F	DOCKUM AQUIFER | LOVING COUNTY	437	438	439	440	441	442
MINING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | LOVING COUNTY	2,957	2,956	2,956	2,955	2,659	1,758
MINING	F	RUSTLER AQUIFER | LOVING COUNTY	200	200	200	200	200	200
LIVESTOCK	F	DOCKUM AQUIFER | LOVING COUNTY	16	15	14	13	12	11
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	1	1	1	1	1	1
LIVESTOCK	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | LOVING COUNTY	15	16	17	18	19	20
		RIO GRANDE BASIN TOTAL	**3,636**	**3,636**	**3,636**	**3,636**	**3,341**	**2,441**
		LOVING COUNTY TOTAL	**3,636**	**3,636**	**3,636**	**3,636**	**3,341**	**2,441**
STANTON	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	78	98	89	80	72	65
STANTON	F	DIRECT REUSE	10	13	12	11	11	10
STANTON	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	178	180	180	179	179	178
STANTON	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	49	65	61	57	53	50
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	358	380	394	410	426	438
MINING	F	DIRECT REUSE	4,485	4,485	4,485	4,485	4,485	4,485
MINING	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	2,715	2,715	915	0	0	0
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	47	47	47	47	47	47
LIVESTOCK	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	72	72	72	72	72	72
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	36,491	36,491	36,491	36,491	34,909	33,112
		COLORADO BASIN TOTAL	**44,483**	**44,546**	**42,746**	**41,832**	**40,254**	**38,457**
		MARTIN COUNTY TOTAL	**44,483**	**44,546**	**42,746**	**41,832**	**40,254**	**38,457**
MASON	F	HICKORY AQUIFER | MASON COUNTY	0	0	0	0	0	0
COUNTY-OTHER	F	ELLENBURGER-SAN SABA AQUIFER | MASON COUNTY	21	21	21	21	21	21
COUNTY-OTHER	F	HICKORY AQUIFER | MASON COUNTY	170	163	157	154	153	153
COUNTY-OTHER	F	OTHER AQUIFER | MASON COUNTY	40	40	40	40	40	40
MINING	F	HICKORY AQUIFER | MASON COUNTY	1,023	941	708	568	460	372
LIVESTOCK	F	ELLENBURGER-SAN SABA AQUIFER | MASON COUNTY	75	75	75	75	75	75

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
LIVESTOCK	F	HICKORY AQUIFER | MASON COUNTY	412	412	412	412	412	412
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	227	227	227	227	227	227
IRRIGATION	F	HICKORY AQUIFER | MASON COUNTY	4,966	4,966	4,966	4,966	4,966	4,966
		COLORADO BASIN TOTAL	**6,934**	**6,845**	**6,606**	**6,463**	**6,354**	**6,266**
		MASON COUNTY TOTAL	**6,934**	**6,845**	**6,606**	**6,463**	**6,354**	**6,266**
BRADY	F	BRADY CREEK LAKE/RESERVOIR	0	0	0	0	0	0
BRADY	F	HICKORY AQUIFER | MCCULLOCH COUNTY	0	0	0	0	0	0
MILLERSVIEW-DOOLE WSC	F	HICKORY AQUIFER | MCCULLOCH COUNTY	48	48	48	47	47	46
MILLERSVIEW-DOOLE WSC	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	64	83	74	68	62	55
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
COUNTY-OTHER	F	HICKORY AQUIFER | MCCULLOCH COUNTY	82	85	84	85	85	85
COUNTY-OTHER	F	OTHER AQUIFER | MCCULLOCH COUNTY	50	50	50	50	50	50
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MCCULLOCH COUNTY	72	72	72	72	72	72
MANUFACTURING	F	HICKORY AQUIFER | MCCULLOCH COUNTY	451	537	537	537	537	537
MINING	F	ELLENBURGER-SAN SABA AQUIFER | MCCULLOCH COUNTY	4,210	4,174	3,321	2,814	2,418	2,101
MINING	F	HICKORY AQUIFER | MCCULLOCH COUNTY	4,718	4,174	3,321	2,814	2,418	2,101
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MCCULLOCH COUNTY	3	3	3	3	3	3
LIVESTOCK	F	ELLENBURGER-SAN SABA AQUIFER | MCCULLOCH COUNTY	154	154	154	154	154	154
LIVESTOCK	F	HICKORY AQUIFER | MCCULLOCH COUNTY	206	206	206	206	206	206
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	235	235	235	235	235	235
LIVESTOCK	F	OTHER AQUIFER | MCCULLOCH COUNTY	53	53	53	53	53	53
IRRIGATION	F	COLORADO RUN-OF-RIVER	69	69	69	69	69	69
IRRIGATION	F	HICKORY AQUIFER | MCCULLOCH COUNTY	2,215	2,215	2,215	2,215	2,215	2,215
IRRIGATION	F	MARBLE FALLS AQUIFER | MCCULLOCH COUNTY	40	40	40	40	40	40
		COLORADO BASIN TOTAL	**12,982**	**12,510**	**10,794**	**9,778**	**8,976**	**8,332**
		MCCULLOCH COUNTY TOTAL	**12,982**	**12,510**	**10,794**	**9,778**	**8,976**	**8,332**
MENARD	F	COLORADO RUN-OF-RIVER	139	139	139	139	139	139
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MENARD COUNTY	87	85	84	84	83	83
COUNTY-OTHER	F	ELLENBURGER-SAN SABA AQUIFER | MENARD COUNTY	5	4	2	1	1	1
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MENARD COUNTY	788	773	672	577	517	422
MINING	F	ELLENBURGER-SAN SABA AQUIFER | MENARD COUNTY	298	298	280	250	200	200
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MENARD COUNTY	240	240	240	240	240	240
LIVESTOCK	F	ELLENBURGER-SAN SABA AQUIFER | MENARD COUNTY	6	6	6	6	6	6
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	48	48	48	48	48	48
IRRIGATION	F	COLORADO RUN-OF-RIVER	1,951	1,951	1,951	1,951	1,951	1,951
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MENARD COUNTY	468	468	468	468	468	468
IRRIGATION	F	HICKORY AQUIFER | MENARD COUNTY	1,244	1,244	1,244	1,244	1,244	1,244
		COLORADO BASIN TOTAL	**5,274**	**5,256**	**5,134**	**5,008**	**4,897**	**4,802**
		MENARD COUNTY TOTAL	**5,274**	**5,256**	**5,134**	**5,008**	**4,897**	**4,802**
AIRLINE MOBILE HOME PARK LTD	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MIDLAND COUNTY	171	177	189	205	221	238
AIRLINE MOBILE HOME PARK LTD	F	OGALLALA AQUIFER | MIDLAND COUNTY	57	59	63	68	74	80

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
GREATER GARDENDALE WSC	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | ECTOR COUNTY	108	66	33	17	17	17
GREENWOOD WATER	F	OGALLALA AQUIFER | MIDLAND COUNTY	211	224	244	265	288	310
MIDLAND	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	4,566	0	0	0	0	0
MIDLAND	F	DIRECT REUSE	572	0	0	0	0	0
MIDLAND	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MIDLAND COUNTY	560	560	0	0	0	0
MIDLAND	F	EV SPENCE LAKE/RESERVOIR NON-SYSTEM PORTION	0	0	0	0	0	0
MIDLAND	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | ANDREWS COUNTY	1,167	1,113	0	0	0	0
MIDLAND	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	3,804	3,485	0	0	0	0
MIDLAND	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	4,873	4,673	4,502	4,332	4,161	3,991
MIDLAND	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	2,899	0	0	0	0	0
MIDLAND	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	11,200	11,200	11,200	11,200	11,200	11,200
ODESSA	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	117	185	197	205	209	211
ODESSA	F	DIRECT REUSE	15	24	27	29	30	32
ODESSA	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	8	14	15	16	17	18
ODESSA	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	74	123	135	146	154	162
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MIDLAND COUNTY	2,342	2,524	2,656	2,916	3,198	3,470
COUNTY-OTHER	F	OGALLALA AQUIFER | MIDLAND COUNTY	911	982	1,033	1,134	1,243	1,349
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MIDLAND COUNTY	196	235	235	235	235	235
MANUFACTURING	F	OGALLALA AQUIFER | MIDLAND COUNTY	638	765	765	765	765	765
MANUFACTURING	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	147	177	177	177	177	177
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 AQUIFER | MIDLAND COUNTY	6,597	6,597	4,397	1,897	0	0
MINING	F	OGALLALA AQUIFER | MIDLAND COUNTY	1,200	1,200	1,000	800	500	300
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MIDLAND COUNTY	96	96	96	96	96	96
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	3	3	3	3	3	3
LIVESTOCK	F	OGALLALA AQUIFER | MIDLAND COUNTY	144	144	144	144	144	144
IRRIGATION	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	6	8	8	7	7	6
IRRIGATION	F	DIRECT REUSE	1	1	1	1	1	1
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | MIDLAND COUNTY	6,881	6,881	6,881	6,881	6,881	6,881
IRRIGATION	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	0	1	1	1	1	1
IRRIGATION	F	OGALLALA AQUIFER | MIDLAND COUNTY	11,215	11,211	11,211	11,212	11,212	11,213
IRRIGATION	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	4	5	5	5	5	5
		COLORADO BASIN TOTAL	**63,586**	**55,536**	**48,021**	**45,560**	**43,642**	**43,708**
		MIDLAND COUNTY TOTAL	**63,586**	**55,536**	**48,021**	**45,560**	**43,642**	**43,708**
COLORADO CITY	F	DOCKUM AQUIFER | MITCHELL COUNTY	1,308	1,307	1,307	1,307	1,307	1,307
LORAINE	F	DOCKUM AQUIFER | MITCHELL COUNTY	76	75	74	74	75	75
MITCHELL COUNTY UTILITY	F	DOCKUM AQUIFER | MITCHELL COUNTY	210	217	215	217	218	220
COUNTY-OTHER	F	DOCKUM AQUIFER | MITCHELL COUNTY	545	538	541	544	549	553

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MANUFACTURING	F	DOCKUM AQUIFER | MITCHELL COUNTY	4	5	5	5	5	5
MINING	F	DOCKUM AQUIFER | MITCHELL COUNTY	593	738	632	493	375	290
STEAM ELECTRIC POWER	F	COLORADO CITY-CHAMPION LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
LIVESTOCK	F	DOCKUM AQUIFER | MITCHELL COUNTY	48	48	48	48	48	48
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	308	308	308	308	308	308
LIVESTOCK	F	OTHER AQUIFER | MITCHELL COUNTY	20	20	20	20	20	20
IRRIGATION	F	COLORADO RUN-OF-RIVER	14	14	14	14	14	14
IRRIGATION	F	DOCKUM AQUIFER | MITCHELL COUNTY	11,189	10,915	11,010	11,128	11,207	11,291
		COLORADO BASIN TOTAL	**14,315**	**14,185**	**14,174**	**14,158**	**14,126**	**14,131**
		MITCHELL COUNTY TOTAL	**14,315**	**14,185**	**14,174**	**14,158**	**14,126**	**14,131**
FORT STOCKTON	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	4,841	5,172	5,548	5,813	6,067	6,300
IRAAN	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	458	485	513	540	567	591
PECOS COUNTY FRESH WATER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	201	212	223	235	247	257
PECOS COUNTY WCID 1	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | PECOS COUNTY	384	398	415	433	453	472
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	110	127	147	165	182	197
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	252	272	272	272	272	272
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	3,700	3,700	3,700	2,200	4,800	3,700
MINING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | PECOS COUNTY	500	500	500	500	500	500
LIVESTOCK	F	CAPITAN REEF COMPLEX AQUIFER | PECOS COUNTY	12	12	12	12	12	12
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	621	621	621	621	621	621
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	37	37	37	37	37	37
LIVESTOCK	F	OTHER AQUIFER | PECOS COUNTY	5	5	5	5	5	5
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	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	58,938	58,941	58,944	58,946	58,949	58,952
IRRIGATION	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | PECOS COUNTY	58,937	58,940	58,943	58,946	58,949	58,952
IRRIGATION	F	RED BLUFF LAKE/RESERVOIR	2,504	2,498	2,492	2,487	2,481	2,475
IRRIGATION	F	RIO GRANDE RUN-OF-RIVER	18,672	18,672	18,672	18,672	18,672	18,672
IRRIGATION	F	RUSTLER AQUIFER | PECOS COUNTY	2,507	2,507	2,507	2,507	2,507	2,507
		RIO GRANDE BASIN TOTAL	**154,478**	**154,898**	**155,350**	**154,190**	**157,120**	**156,321**
		PECOS COUNTY TOTAL	**154,478**	**154,898**	**155,350**	**154,190**	**157,120**	**156,321**
BIG LAKE	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | REAGAN COUNTY	730	795	834	877	906	928
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | REAGAN COUNTY	70	76	79	82	85	87
MINING	F	DIRECT REUSE	3,742	3,742	3,946	4,177	4,366	4,443
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | REAGAN COUNTY	6,115	6,115	3,215	0	0	0
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | REAGAN COUNTY	115	115	115	115	115	115
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	60	60	60	60	60	60
IRRIGATION	F	DOCKUM AQUIFER | REAGAN COUNTY	71	71	71	71	71	71

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | REAGAN COUNTY	21,960	21,960	21,960	21,960	21,960	21,960
		COLORADO BASIN TOTAL	**32,863**	**32,934**	**30,280**	**27,342**	**27,563**	**27,664**
MINING	F	DIRECT REUSE	743	743	539	308	119	42
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | REAGAN COUNTY	8	8	8	8	8	8
		RIO GRANDE BASIN TOTAL	**751**	**751**	**547**	**316**	**127**	**50**
		REAGAN COUNTY TOTAL	**33,614**	**33,685**	**30,827**	**27,658**	**27,690**	**27,714**
BALMORHEA	E	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | JEFF DAVIS COUNTY	96	96	96	96	96	96
MADERA VALLEY WSC	E	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | JEFF DAVIS COUNTY	60	60	60	60	60	60
MADERA VALLEY WSC	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | REEVES COUNTY	386	408	429	446	458	468
PECOS	F	DOCKUM AQUIFER | REEVES COUNTY	1,155	1,310	1,463	1,574	1,660	1,725
PECOS	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	1,880	1,880	1,880	1,880	1,880	1,880
COUNTY-OTHER	E	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | JEFF DAVIS COUNTY	40	40	40	40	40	40
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | REEVES COUNTY	492	521	546	563	577	588
MANUFACTURING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | REEVES COUNTY	286	305	305	305	305	305
MINING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | REEVES COUNTY	2,200	2,200	2,200	2,200	2,200	2,200
LIVESTOCK	F	DOCKUM AQUIFER | REEVES COUNTY	18	18	18	18	18	18
LIVESTOCK	F	IGNEOUS AQUIFER | REEVES COUNTY	16	16	16	16	16	16
LIVESTOCK	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | REEVES COUNTY	334	334	334	334	334	334
IRRIGATION	F	BALMORHEA LAKE/RESERVOIR	18,800	18,800	18,800	18,800	18,800	18,800
IRRIGATION	F	IGNEOUS AQUIFER | REEVES COUNTY	219	219	219	219	219	219
IRRIGATION	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | REEVES COUNTY	34,874	34,880	34,886	34,891	34,897	34,903
IRRIGATION	F	RED BLUFF LAKE/RESERVOIR	2,504	2,498	2,492	2,487	2,481	2,475
IRRIGATION	F	RIO GRANDE RUN-OF-RIVER	573	573	573	573	573	573
IRRIGATION	F	RUSTLER AQUIFER | REEVES COUNTY	1,967	1,967	1,967	1,967	1,967	1,967
		RIO GRANDE BASIN TOTAL	**65,900**	**66,125**	**66,324**	**66,469**	**66,581**	**66,667**
		REEVES COUNTY TOTAL	**65,900**	**66,125**	**66,324**	**66,469**	**66,581**	**66,667**
BALLINGER	F	BALLINGER/MOONEN LAKE/RESERVOIR	0	0	0	0	0	0
BALLINGER	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	143	187	171	157	143	130
COLEMAN COUNTY SUD	F	BROWNWOOD LAKE/RESERVOIR	10	10	10	10	10	10
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	HICKORY AQUIFER | MCCULLOCH COUNTY	52	69	65	62	58	54
MILES	F	LIPAN AQUIFER | RUNNELS COUNTY	18	17	17	17	17	17
MILES	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	41	39	35	32	29	27
MILLERSVIEW-DOOLE WSC	F	HICKORY AQUIFER | MCCULLOCH COUNTY	35	34	33	33	32	32
MILLERSVIEW-DOOLE WSC	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	47	58	52	47	42	38
NORTH RUNNELS WSC	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	3	5	4	4	4	3
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	9	12	10	9	8	7

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	F	OTHER AQUIFER | RUNNELS COUNTY	34	33	31	31	30	30
MANUFACTURING	F	LIPAN AQUIFER | RUNNELS COUNTY	1	2	2	2	2	2
MANUFACTURING	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	9	9	9	9	9	9
MINING	F	OTHER AQUIFER | RUNNELS COUNTY	272	269	240	210	184	161
LIVESTOCK	F	LIPAN AQUIFER | RUNNELS COUNTY	26	26	26	26	26	26
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	475	475	475	475	475	475
LIVESTOCK	F	OTHER AQUIFER | RUNNELS COUNTY	204	204	204	204	204	204
IRRIGATION	F	COLORADO RUN-OF-RIVER	197	197	197	197	197	197
IRRIGATION	F	DIRECT REUSE	22	22	22	22	22	22
IRRIGATION	F	OTHER AQUIFER | RUNNELS COUNTY	2,886	2,886	2,886	2,886	2,886	2,886
		COLORADO BASIN TOTAL	**4,484**	**4,554**	**4,489**	**4,433**	**4,378**	**4,330**
		RUNNELS COUNTY TOTAL	**4,484**	**4,554**	**4,489**	**4,433**	**4,378**	**4,330**
ELDORADO	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	662	652	643	639	638	638
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	216	247	262	272	278	281
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	460	542	416	290	179	110
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	276	276	276	276	276	276
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	17	17	17	17	17	17
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	1,160	1,160	1,160	1,160	1,160	1,160
		COLORADO BASIN TOTAL	**2,791**	**2,894**	**2,774**	**2,654**	**2,548**	**2,482**
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	31	35	37	38	39	40
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	161	190	146	102	62	38
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	90	90	90	90	90	90
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	6	6	6	6	6	6
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SCHLEICHER COUNTY	651	651	651	651	651	651
		RIO GRANDE BASIN TOTAL	**939**	**972**	**930**	**887**	**848**	**825**
		SCHLEICHER COUNTY TOTAL	**3,730**	**3,866**	**3,704**	**3,541**	**3,396**	**3,307**
COUNTY-OTHER	F	DOCKUM AQUIFER | SCURRY COUNTY	46	47	48	52	56	59
MINING	F	DOCKUM AQUIFER | SCURRY COUNTY	11	18	19	14	10	7
LIVESTOCK	F	DOCKUM AQUIFER | SCURRY COUNTY	1	1	1	1	1	1
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	88	88	88	88	88	88
LIVESTOCK	F	OTHER AQUIFER | SCURRY COUNTY	3	3	3	3	3	3
IRRIGATION	F	DOCKUM AQUIFER | SCURRY COUNTY	248	240	238	239	239	239
		BRAZOS BASIN TOTAL	**397**	**397**	**397**	**397**	**397**	**397**
SNYDER	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	481	675	643	626	607	585
SNYDER	F	DIRECT REUSE	60	88	87	88	88	89
SNYDER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	34	49	49	49	49	49
SNYDER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	305	448	442	445	448	449
COUNTY-OTHER	F	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	73	92	83	75	68	61
COUNTY-OTHER	F	DIRECT REUSE	9	12	11	11	10	9
COUNTY-OTHER	F	DOCKUM AQUIFER | SCURRY COUNTY	67	63	69	78	87	97

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	F	OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER | MARTIN COUNTY	5	7	6	6	6	5
COUNTY-OTHER	F	OTHER AQUIFER | SCURRY COUNTY	22	22	22	22	22	22
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	46	61	57	53	50	47
MANUFACTURING	F	DOCKUM AQUIFER | SCURRY COUNTY	26	30	30	30	30	30
MINING	F	DOCKUM AQUIFER | SCURRY COUNTY	27	43	45	34	23	16
LIVESTOCK	F	DOCKUM AQUIFER | SCURRY COUNTY	3	3	3	3	3	3
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	352	352	352	352	352	352
LIVESTOCK	F	OTHER AQUIFER | SCURRY COUNTY	14	14	14	14	14	14
IRRIGATION	F	COLORADO RUN-OF-RIVER	0	0	0	0	0	0
IRRIGATION	F	DOCKUM AQUIFER | SCURRY COUNTY	780	764	756	758	760	757
		COLORADO BASIN TOTAL	**2,304**	**2,723**	**2,669**	**2,644**	**2,617**	**2,585**
		SCURRY COUNTY TOTAL	**2,701**	**3,120**	**3,066**	**3,041**	**3,014**	**2,982**
STERLING CITY	F	LIPAN AQUIFER | STERLING COUNTY	276	281	281	280	280	280
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | STERLING COUNTY	32	32	32	32	32	32
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | STERLING COUNTY	780	953	812	522	270	140
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | STERLING COUNTY	209	209	209	209	209	209
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	25	25	25	25	25	25
IRRIGATION	F	COLORADO RUN-OF-RIVER	30	30	30	30	30	30
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | STERLING COUNTY	869	869	869	869	869	869
		COLORADO BASIN TOTAL	**2,221**	**2,399**	**2,258**	**1,967**	**1,715**	**1,585**
		STERLING COUNTY TOTAL	**2,221**	**2,399**	**2,258**	**1,967**	**1,715**	**1,585**
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	26	27	27	28	28	28
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	3	3	3	3	3	3
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	89	144	152	114	78	53
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	26	26	26	26	26	26
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	172	172	172	172	172	172
IRRIGATION	F	COLORADO RUN-OF-RIVER	2	2	2	2	2	2
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	177	177	177	177	177	177
		COLORADO BASIN TOTAL	**495**	**551**	**559**	**522**	**486**	**461**
SONORA	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	1,045	1,105	1,123	1,139	1,150	1,156
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	115	119	119	120	121	122
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	357	576	611	459	311	211
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	32	32	32	32	32	32
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	214	214	214	214	214	214
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | SUTTON COUNTY	941	941	941	941	941	941
		RIO GRANDE BASIN TOTAL	**2,704**	**2,987**	**3,040**	**2,905**	**2,769**	**2,676**
		SUTTON COUNTY TOTAL	**3,199**	**3,538**	**3,599**	**3,427**	**3,255**	**3,137**

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
CONCHO RURAL WATER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | TOM GREEN COUNTY	90	90	90	90	90	90
CONCHO RURAL WATER	F	HICKORY AQUIFER | MCCULLOCH COUNTY	70	82	80	76	72	68
CONCHO RURAL WATER	F	LIPAN AQUIFER | TOM GREEN COUNTY	510	526	538	554	574	596
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	54	46	44	40	37	33
DADS Supported Living Center	F	LIPAN AQUIFER | TOM GREEN COUNTY	109	108	108	107	107	107
GOODFELLOW AIR FORCE BASE	F	HICKORY AQUIFER | MCCULLOCH COUNTY	178	241	242	243	244	243
GOODFELLOW AIR FORCE BASE	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	139	136	132	128	124	119
MILLERSVIEW-DOOLE WSC	F	HICKORY AQUIFER | MCCULLOCH COUNTY	86	88	90	91	93	94
MILLERSVIEW-DOOLE WSC	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	113	150	140	132	123	113
SAN ANGELO	F	COLORADO RUN-OF-RIVER	214	214	214	214	214	214
SAN ANGELO	F	HICKORY AQUIFER | MCCULLOCH COUNTY	6,202	8,305	8,319	8,337	8,358	8,379
SAN ANGELO	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	4,631	4,480	4,329	4,181	4,032	3,884
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	131	142	147	154	162	172
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | TOM GREEN COUNTY	594	594	594	594	594	594
COUNTY-OTHER	F	HICKORY AQUIFER | MCCULLOCH COUNTY	47	54	53	51	48	45
COUNTY-OTHER	F	LIPAN AQUIFER | TOM GREEN COUNTY	500	500	500	500	500	500
COUNTY-OTHER	F	MOUNTAIN CREEK LAKE/RESERVOIR	0	0	0	0	0	0
COUNTY-OTHER	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	36	31	29	27	25	22
MANUFACTURING	F	HICKORY AQUIFER | MCCULLOCH COUNTY	147	203	196	186	175	166
MANUFACTURING	F	LIPAN AQUIFER | TOM GREEN COUNTY	500	500	500	500	500	500
MANUFACTURING	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	115	115	107	98	89	81
MINING	F	HICKORY AQUIFER | MCCULLOCH COUNTY	4	6	5	5	5	5
MINING	F	LIPAN AQUIFER | TOM GREEN COUNTY	1,048	1,071	1,111	1,104	1,127	1,149
MINING	F	MOUNTAIN CREEK LAKE/RESERVOIR	0	0	0	0	0	0
MINING	F	OH IVIE LAKE/RESERVOIR NON-SYSTEM PORTION	4	3	3	3	2	2
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | TOM GREEN COUNTY	562	562	562	562	562	562
LIVESTOCK	F	LIPAN AQUIFER | TOM GREEN COUNTY	246	246	246	246	246	246
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	317	317	317	317	317	317
IRRIGATION	F	COLORADO RUN-OF-RIVER	1,755	1,755	1,755	1,755	1,755	1,755
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | TOM GREEN COUNTY	772	772	772	772	772	772
IRRIGATION	F	LIPAN AQUIFER | TOM GREEN COUNTY	40,524	40,475	40,418	40,403	40,352	40,298
		COLORADO BASIN TOTAL	**59,698**	**61,812**	**61,641**	**61,470**	**61,299**	**61,126**
		TOM GREEN COUNTY TOTAL	**59,698**	**61,812**	**61,641**	**61,470**	**61,299**	**61,126**
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	28	30	30	30	31	31
MANUFACTURING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	182	205	205	205	205	205
MINING	F	DIRECT REUSE	2,709	2,709	2,709	2,709	2,709	2,709
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	1,000	1,000	500	150	100	100
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	48	48	48	48	48	48
IRRIGATION	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	10,195	10,195	10,195	10,195	10,195	10,195
		COLORADO BASIN TOTAL	**14,162**	**14,187**	**13,687**	**13,337**	**13,288**	**13,288**

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
MCCAMEY	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | PECOS COUNTY	827	881	906	936	955	968
RANKIN	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	276	294	302	312	318	322
COUNTY-OTHER	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	47	48	48	50	50	51
MANUFACTURING	F	DOCKUM AQUIFER | UPTON COUNTY	2	2	2	2	2	2
MINING	F	DIRECT REUSE	2,709	2,709	2,709	2,709	2,709	2,709
MINING	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	2,000	2,000	1,500	750	100	100
LIVESTOCK	F	EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER | UPTON COUNTY	78	78	78	78	78	78
IRRIGATION	F	DOCKUM AQUIFER | UPTON COUNTY	208	208	208	208	208	208
		RIO GRANDE BASIN TOTAL	**6,147**	**6,220**	**5,753**	**5,045**	**4,420**	**4,438**
		UPTON COUNTY TOTAL	**20,309**	**20,407**	**19,440**	**18,382**	**17,708**	**17,726**
BARSTOW	F	DOCKUM AQUIFER | REEVES COUNTY	119	125	128	132	135	137
GRANDFALLS	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	135	141	145	149	152	155
MONAHANS	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	2,140	2,234	2,298	2,367	2,419	2,461
MONAHANS	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	378	394	406	418	427	434
SOUTHWEST SANDHILLS WSC	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	185	186	185	190	194	197
WICKETT	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	208	218	225	231	237	241
COUNTY-OTHER	F	DOCKUM AQUIFER | WARD COUNTY	15	15	15	15	15	15
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	122	126	129	133	137	139
MANUFACTURING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	7	7	7	7	7	7
MINING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	1,900	1,900	1,700	1,300	900	600
STEAM ELECTRIC POWER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	2,502	2,502	2,502	2,502	2,502	2,502
LIVESTOCK	F	DOCKUM AQUIFER | WARD COUNTY	5	5	5	5	5	5
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	5	5	5	5	5	5
LIVESTOCK	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	73	73	73	73	73	73
IRRIGATION	F	DIRECT REUSE	670	670	670	670	670	670
IRRIGATION	F	DOCKUM AQUIFER | WARD COUNTY	269	269	269	269	269	269
IRRIGATION	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WARD COUNTY	1,296	1,296	1,296	1,296	1,296	1,296
IRRIGATION	F	RED BLUFF LAKE/RESERVOIR	2,504	2,499	2,493	2,486	2,480	2,475
IRRIGATION	F	RIO GRANDE RUN-OF-RIVER	881	881	881	881	881	881
		RIO GRANDE BASIN TOTAL	**13,414**	**13,546**	**13,432**	**13,129**	**12,804**	**12,562**
		WARD COUNTY TOTAL	**13,414**	**13,546**	**13,432**	**13,129**	**12,804**	**12,562**
LIVESTOCK	F	DOCKUM AQUIFER | WINKLER COUNTY	1	1	1	1	1	1
		COLORADO BASIN TOTAL	**1**	**1**	**1**	**1**	**1**	**1**
KERMIT	F	DOCKUM AQUIFER | WINKLER COUNTY	1,811	1,803	1,799	1,816	1,830	1,844
WINK	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	358	387	412	441	465	486
COUNTY-OTHER	F	DOCKUM AQUIFER | WINKLER COUNTY	30	47	60	75	87	97

Region F Water User Group (WUG) Existing Water Supply

WUG NAME	SOURCE REGION	SOURCE DESCRIPTION	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
			2020	2030	2040	2050	2060	2070
COUNTY-OTHER	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	158	246	318	395	458	512
MANUFACTURING	F	DOCKUM AQUIFER | WINKLER COUNTY	64	76	76	76	76	76
MINING	F	DOCKUM AQUIFER | WINKLER COUNTY	394	585	496	378	266	187
MINING	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	393	584	495	378	265	186
LIVESTOCK	F	DOCKUM AQUIFER | WINKLER COUNTY	15	15	15	15	15	15
LIVESTOCK	F	LOCAL SURFACE WATER SUPPLY	2	2	2	2	2	2
LIVESTOCK	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	83	83	83	83	83	83
IRRIGATION	F	PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER | WINKLER COUNTY	3,507	3,507	3,507	3,507	3,507	3,507
RIO GRANDE BASIN TOTAL			**6,815**	**7,335**	**7,263**	**7,166**	**7,054**	**6,995**
WINKLER COUNTY TOTAL			**6,816**	**7,336**	**7,264**	**7,167**	**7,055**	**6,996**
REGION F TOTAL EXISTING WATER SUPPLY			**688,850**	**689,043**	**670,604**	**653,138**	**644,050**	**636,435**

TWDB DB22 Report #6 – WUG Identified Water Needs/Surpluses

Region F Water User Group (WUG) Needs/Surplus*

	(NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
ANDREWS COUNTY - COLORADO BASIN						
ANDREWS	(192)	(416)	(715)	(1,297)	(1,979)	(2,800)
COUNTY-OTHER	(30)	(58)	(91)	(152)	(212)	(275)
MANUFACTURING	(31)	(59)	(87)	(134)	(174)	(209)
MINING	(2,978)	(2,731)	(2,200)	(1,536)	(960)	(517)
LIVESTOCK	(9)	(17)	(25)	(39)	(50)	(60)
IRRIGATION	(1,000)	(4,989)	(5,672)	(6,811)	(7,769)	(8,618)
ANDREWS COUNTY - RIO GRANDE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(699)	(699)	(699)	(699)	(699)	(699)
BORDEN COUNTY - BRAZOS BASIN						
COUNTY-OTHER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	(138)	(202)	(240)	(265)	(282)
BORDEN COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
BROWN COUNTY - BRAZOS BASIN						
COUNTY-OTHER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(342)	(342)	(342)	(342)	(342)	(342)
BROWN COUNTY - COLORADO BASIN						
BANGS	0	0	0	0	0	0
BROOKESMITH SUD	0	0	0	0	1	1
BROWNWOOD	0	0	0	0	0	0
COLEMAN COUNTY SUD	(12)	(12)	(11)	(11)	(11)	(11)
EARLY	0	0	0	0	0	0
ZEPHYR WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	(261)	(266)	(266)	(268)	(264)	(263)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(1,366)	(1,370)	(1,369)	(1,371)	(1,368)	(1,369)
COKE COUNTY - COLORADO BASIN						
BRONTE	(202)	(201)	(199)	(197)	(197)	(197)
ROBERT LEE	(239)	(235)	(233)	(233)	(232)	(232)
COUNTY-OTHER	(8)	(8)	(8)	(8)	(8)	(8)
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

*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.

Region F Water User Group (WUG) Needs/Surplus*

COLEMAN COUNTY - COLORADO BASIN						
BROOKESMITH SUD	0	0	0	0	0	0
COLEMAN	(821)	(814)	(795)	(793)	(792)	(792)
COLEMAN COUNTY SUD	(181)	(178)	(172)	(169)	(169)	(169)
SANTA ANNA	0	0	0	0	0	0
COUNTY-OTHER	(24)	(22)	(22)	(21)	(21)	(21)
MANUFACTURING	(2)	(2)	(2)	(2)	(2)	(2)
MINING	0	0	0	0	0	0
LIVESTOCK	64	64	64	64	64	64
IRRIGATION	(396)	(396)	(396)	(396)	(396)	(396)
CONCHO COUNTY - COLORADO BASIN						
EDEN	0	0	0	0	0	0
MILLERSVIEW-DOOLE WSC	(23)	(12)	(15)	(19)	(24)	(27)
COUNTY-OTHER	(20)	(20)	(20)	(20)	(20)	(20)
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
CRANE COUNTY - RIO GRANDE BASIN						
CRANE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
CROCKETT COUNTY - COLORADO BASIN						
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
CROCKETT COUNTY - RIO GRANDE BASIN						
CROCKETT COUNTY WCID 1	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	(1,273)	(1,375)	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
ECTOR COUNTY - COLORADO BASIN						
ECTOR COUNTY UTILITY DISTRICT	(1,324)	(1,130)	(1,390)	(1,674)	(1,978)	(2,302)
GREATER GARDENDALE WSC	0	(103)	(184)	(239)	(265)	(292)
ODESSA	(13,619)	(11,845)	(14,383)	(17,177)	(20,171)	(23,510)
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	194	227	125	22	0	0
MINING	886	697	933	1,281	1,579	1,772
STEAM ELECTRIC POWER	(65)	(115)	(172)	(263)	(341)	(409)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	149	352	277	207	144	84
ECTOR COUNTY - RIO GRANDE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0

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Region F Water User Group (WUG) Needs/Surplus*

IRRIGATION	0	0	0	0	0	0
GLASSCOCK COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
HOWARD COUNTY - COLORADO BASIN						
BIG SPRING	(3,458)	(2,720)	(3,020)	(3,268)	(3,512)	(3,747)
COAHOMA	(292)	(228)	(255)	(277)	(298)	(319)
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	(834)	(640)	(711)	(775)	(834)	(889)
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	(102)	(75)	(85)	(95)	(102)	(110)
LIVESTOCK	40	40	40	40	40	40
IRRIGATION	0	0	0	0	0	0
IRION COUNTY - COLORADO BASIN						
MERTZON	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	(1,859)	(1,855)	(549)	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(507)	(507)	(507)	(507)	(507)	(507)
KIMBLE COUNTY - COLORADO BASIN						
JUNCTION	(626)	(620)	(609)	(605)	(604)	(604)
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	(603)	(704)	(704)	(704)	(704)	(704)
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)
LOVING COUNTY - RIO GRANDE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	(3,906)	(3,906)	(3,005)	(1,805)	(1,000)	(1,000)
LIVESTOCK	0	0	0	0	0	0
MARTIN COUNTY - COLORADO BASIN						
STANTON	(199)	(196)	(236)	(278)	(313)	(343)
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	985	2,585	3,485
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	(1,582)	(3,379)
MASON COUNTY - COLORADO BASIN						
MASON	(700)	(690)	(682)	(677)	(676)	(676)
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

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Region F Water User Group (WUG) Needs/Surplus*

MCCULLOCH COUNTY - COLORADO BASIN						
BRADY	(1,391)	(1,420)	(1,402)	(1,410)	(1,412)	(1,414)
MILLERSVIEW-DOOLE WSC	(36)	(19)	(25)	(31)	(38)	(46)
RICHLAND SUD	78	72	74	77	73	70
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	1	1	1	1	0	1
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
MENARD COUNTY - COLORADO BASIN						
MENARD	(211)	(203)	(197)	(196)	(196)	(196)
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
MIDLAND COUNTY - COLORADO BASIN						
AIRLINE MOBILE HOME PARK LTD	0	0	0	0	0	0
GREATER GARDENDALE WSC	0	(54)	(99)	(129)	(144)	(159)
GREENWOOD WATER	0	0	0	0	0	0
MIDLAND	1,669	(10,772)	(18,554)	(21,279)	(24,044)	(27,041)
ODESSA	(267)	(259)	(335)	(421)	(514)	(614)
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	3	803
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
MITCHELL COUNTY - COLORADO BASIN						
COLORADO CITY	0	(133)	(144)	(155)	(168)	(183)
LORAINE	0	0	0	0	0	0
MITCHELL COUNTY UTILITY	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	(10,326)	(10,326)	(10,326)	(10,326)	(10,326)	(10,326)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(1,584)	(1,858)	(1,763)	(1,645)	(1,566)	(1,482)
PECOS COUNTY - RIO GRANDE BASIN						
FORT STOCKTON	0	0	0	0	0	0
IRAAN	0	0	0	0	0	0
PECOS COUNTY FRESH WATER	0	0	0	0	0	0
PECOS COUNTY WCID 1	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	(161)	(161)	(161)	(161)	(161)	(161)
MINING	(3,500)	(3,500)	(3,500)	(3,500)	500	500
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

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Region F Water User Group (WUG) Needs/Surplus*

REAGAN COUNTY - COLORADO BASIN						
BIG LAKE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	85	2,785	3,885
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
REAGAN COUNTY - RIO GRANDE BASIN						
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
REEVES COUNTY - RIO GRANDE BASIN						
BALMORHEA	(107)	(118)	(129)	(137)	(142)	(147)
MADERA VALLEY WSC	0	0	0	0	0	0
PECOS	119	125	128	132	135	137
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	(10,400)	(10,400)	(9,900)	(7,700)	(5,600)	(4,000)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
RUNNELS COUNTY - COLORADO BASIN						
BALLINGER	(546)	(500)	(500)	(512)	(524)	(537)
COLEMAN COUNTY SUD	(10)	(10)	(10)	(9)	(9)	(9)
MILES	(2)	(1)	(5)	(10)	(16)	(22)
MILLERSVIEW-DOOLE WSC	(26)	(13)	(18)	(21)	(27)	(31)
NORTH RUNNELS WSC	(166)	(162)	(159)	(158)	(158)	(160)
WINTERS	(226)	(218)	(206)	(205)	(204)	(204)
COUNTY-OTHER	(33)	(29)	(28)	(28)	(29)	(29)
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
SCHLEICHER COUNTY - COLORADO BASIN						
ELDORADO	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
SCHLEICHER COUNTY - RIO GRANDE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
SCURRY COUNTY - BRAZOS BASIN						
COUNTY-OTHER	(205)	(216)	(227)	(241)	(259)	(278)
MINING	(67)	(109)	(116)	(87)	(59)	(40)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(1,450)	(1,458)	(1,460)	(1,459)	(1,459)	(1,459)

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Region F Water User Group (WUG) Needs/Surplus*

SCURRY COUNTY - COLORADO BASIN						
SNYDER	(1,100)	(941)	(1,099)	(1,291)	(1,494)	(1,710)
COUNTY-OTHER	(335)	(326)	(363)	(405)	(454)	(507)
MANUFACTURING	(130)	(156)	(156)	(156)	(156)	(156)
MINING	(175)	(286)	(303)	(228)	(154)	(104)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(5,081)	(5,097)	(5,105)	(5,103)	(5,101)	(5,104)
STERLING COUNTY - COLORADO BASIN						
STERLING CITY	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
SUTTON COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
SUTTON COUNTY - RIO GRANDE BASIN						
SONORA	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
TOM GREEN COUNTY - COLORADO BASIN						
CONCHO RURAL WATER	164	168	164	156	149	141
DADS Supported Living Center	0	0	0	0	0	0
GOODFELLOW AIR FORCE BASE	(196)	(191)	(222)	(258)	(298)	(345)
MILLERSVIEW-DOOLE WSC	(64)	(33)	(46)	(60)	(77)	(95)
SAN ANGELO	(6,877)	(6,658)	(7,632)	(8,824)	(10,243)	(11,773)
TOM GREEN COUNTY FWSD 3	0	0	0	0	0	0
COUNTY-OTHER	166	178	139	107	79	55
MANUFACTURING	(88)	(144)	(159)	(178)	(198)	(215)
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	558	509	452	437	386	332
UPTON COUNTY - COLORADO BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	973	973	1,043	1,415	1,935	2,201
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
UPTON COUNTY - RIO GRANDE BASIN						
MCCAMEY	0	0	0	0	0	0
RANKIN	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0

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Region F Water User Group (WUG) Needs/Surplus*

MANUFACTURING	0	0	0	0	0	0
MINING	245	245	675	1,103	1,383	1,817
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
WARD COUNTY - RIO GRANDE BASIN						
BARSTOW	0	0	0	0	0	0
GRANDFALLS	0	0	0	0	0	0
MONAHANS	0	0	0	0	0	0
SOUTHWEST SANDHILLS WSC	0	0	0	0	0	0
WICKETT	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	2,460	2,455	2,449	2,442	2,436	2,431
WINKLER COUNTY - COLORADO BASIN						
LIVESTOCK	0	0	0	0	0	0
WINKLER COUNTY - RIO GRANDE BASIN						
KERMIT	0	0	0	0	0	0
WINK	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

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TWDB DB22 Report #9 – Source Water Balance

Region F Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
CAPITAN REEF COMPLEX AQUIFER	PECOS	RIO GRANDE	FRESH/ BRACKISH	24,369	24,369	24,369	24,369	24,369	24,369
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	COLORADO	FRESH	522	520	521	521	523	523
CROSS TIMBERS AQUIFER	COLEMAN	COLORADO	FRESH	64	64	64	64	64	64
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	1,300	1,300	1,300	1,300	1,300	1,300
DOCKUM AQUIFER	ANDREWS	RIO GRANDE	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	BORDEN	BRAZOS	FRESH	284	284	284	284	284	284
DOCKUM AQUIFER	BORDEN	COLORADO	FRESH	606	606	606	606	606	606
DOCKUM AQUIFER	COKE	COLORADO	FRESH/ BRACKISH	100	100	100	100	100	100
DOCKUM AQUIFER	CRANE	RIO GRANDE	FRESH	14	14	14	14	14	14
DOCKUM AQUIFER	CROCKETT	COLORADO	FRESH	2	2	2	2	2	2
DOCKUM AQUIFER	CROCKETT	RIO GRANDE	FRESH	2	2	2	2	2	2
DOCKUM AQUIFER	ECTOR	COLORADO	FRESH	13	13	13	13	13	13
DOCKUM AQUIFER	ECTOR	RIO GRANDE	FRESH	415	415	415	415	415	415
DOCKUM AQUIFER	GLASSCOCK	COLORADO	FRESH	900	900	900	900	900	900
DOCKUM AQUIFER	HOWARD	COLORADO	FRESH	1,085	1,085	1,085	1,085	1,085	1,085
DOCKUM AQUIFER	IRION	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	LOVING	RIO GRANDE	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	MARTIN	COLORADO	FRESH	8	8	8	8	8	8
DOCKUM AQUIFER	MIDLAND	COLORADO	FRESH/ BRACKISH	400	400	400	400	400	400
DOCKUM AQUIFER	MITCHELL	COLORADO	FRESH	45	175	186	202	234	229
DOCKUM AQUIFER	PECOS	RIO GRANDE	FRESH	8,164	8,164	8,164	8,164	8,164	8,164
DOCKUM AQUIFER	REAGAN	COLORADO	FRESH	231	231	231	231	231	231
DOCKUM AQUIFER	REAGAN	RIO GRANDE	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	REEVES	RIO GRANDE	FRESH	1,247	1,086	930	815	726	659
DOCKUM AQUIFER	SCURRY	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	SCURRY	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	STERLING	COLORADO	FRESH	10	10	10	10	10	10
DOCKUM AQUIFER	TOM GREEN	COLORADO	FRESH/ BRACKISH	200	200	200	200	200	200
DOCKUM AQUIFER	UPTON	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	UPTON	RIO GRANDE	FRESH	790	790	790	790	790	790
DOCKUM AQUIFER	WARD	RIO GRANDE	FRESH	1,861	1,861	1,861	1,861	1,861	1,861
DOCKUM AQUIFER	WINKLER	COLORADO	FRESH	12	12	12	12	12	12
DOCKUM AQUIFER	WINKLER	RIO GRANDE	FRESH	3,673	3,461	3,541	3,627	3,713	3,768
EDWARDS-TRINITY-PLATEAU AQUIFER	ANDREWS	COLORADO	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-PLATEAU AQUIFER	HOWARD	COLORADO	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-PLATEAU AQUIFER	MARTIN	COLORADO	FRESH	242	242	242	242	242	242

*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.

Region F Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	COKE	COLORADO	FRESH	350	356	408	462	510	552
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	CONCHO	COLORADO	FRESH	38	36	42	45	47	47
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	CROCKETT	COLORADO	FRESH	14	14	14	14	14	14
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	CROCKETT	RIO GRANDE	FRESH	0	0	13	1,397	2,592	2,889
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	ECTOR	COLORADO	FRESH	1,567	1,898	1,593	1,377	1,033	663
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	ECTOR	RIO GRANDE	FRESH	295	293	269	255	240	224
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	GLASSCOCK	COLORADO	FRESH	14,314	14,302	15,707	17,007	18,108	18,701
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	IRION	COLORADO	FRESH	0	0	0	754	1,754	2,254
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	KIMBLE	COLORADO	FRESH	563	569	576	580	581	581
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MASON	COLORADO	FRESH	18	18	18	18	18	18
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MCCULLOCH	COLORADO	FRESH	73	73	73	73	73	73
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MENARD	COLORADO	FRESH	1,011	1,028	1,130	1,225	1,286	1,381
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	MIDLAND	COLORADO	FRESH	6,390	6,163	8,779	11,003	12,602	12,313
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	PECOS	RIO GRANDE	FRESH/ BRACKISH	47,361	46,898	46,435	47,581	44,649	45,451
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	REAGAN	COLORADO	FRESH	39,215	39,144	42,002	45,171	45,139	45,115
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	REAGAN	RIO GRANDE	FRESH	20	20	20	20	20	20
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SCHLEICHER	COLORADO	FRESH	3,629	3,526	3,646	3,766	3,872	3,938
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SCHLEICHER	RIO GRANDE	FRESH	698	665	707	750	789	812
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	STERLING	COLORADO	FRESH	605	432	573	863	1,115	1,245
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SUTTON	COLORADO	FRESH	70	14	6	43	79	104
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	SUTTON	RIO GRANDE	FRESH	3,529	3,246	3,193	3,328	3,464	3,557
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	TOM GREEN	COLORADO	FRESH	779	779	779	779	779	779
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	UPTON	COLORADO	FRESH	9,790	9,765	10,265	10,615	10,664	10,664
EDWARDS-TRINITY-PLATEAU, PECOS VALLEY, AND TRINITY AQUIFER	UPTON	RIO GRANDE	FRESH	(1,275)	(1,294)	(802)	(64)	580	575
ELLENBURGER-SAN SABA AQUIFER	BROWN	COLORADO	FRESH	131	131	131	131	131	131
ELLENBURGER-SAN SABA AQUIFER	KIMBLE	COLORADO	FRESH	521	521	521	521	521	521
ELLENBURGER-SAN SABA AQUIFER	MASON	COLORADO	FRESH	3,141	3,141	3,141	3,141	3,141	3,141
ELLENBURGER-SAN SABA AQUIFER	MCCULLOCH	COLORADO	FRESH	0	36	889	1,396	1,792	2,109
ELLENBURGER-SAN SABA AQUIFER	MENARD	COLORADO	FRESH	0	1	21	52	102	102
HICKORY AQUIFER	BROWN	COLORADO	FRESH	12	12	12	12	12	12

*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.

Region F Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
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	110	110	110	110	110	110
HICKORY AQUIFER	MASON	COLORADO	FRESH	6,641	6,730	6,969	7,112	7,221	7,309
HICKORY AQUIFER	MCCULLOCH	COLORADO	FRESH	9,805	8,000	8,854	9,360	9,756	10,073
HICKORY AQUIFER	MENARD	COLORADO	FRESH	1,481	1,481	1,481	1,481	1,481	1,481
IGNEOUS AQUIFER	PECOS	RIO GRANDE	FRESH	80	80	80	80	80	80
IGNEOUS AQUIFER	REEVES	RIO GRANDE	FRESH	65	65	65	65	65	65
LIPAN AQUIFER	COKE	COLORADO	FRESH/ BRACKISH	160	160	160	160	160	160
LIPAN AQUIFER	CONCHO	COLORADO	FRESH	0	0	0	0	0	0
LIPAN AQUIFER	GLASSCOCK	COLORADO	FRESH	10	10	10	10	10	10
LIPAN AQUIFER	IRION	COLORADO	FRESH	0	0	0	0	0	0
LIPAN AQUIFER	RUNNELS	COLORADO	FRESH	0	0	0	0	0	0
LIPAN AQUIFER	STERLING	COLORADO	FRESH	574	569	569	570	570	570
LIPAN AQUIFER	TOM GREEN	COLORADO	FRESH	0	0	0	0	0	0
MARBLE FALLS AQUIFER	BROWN	COLORADO	FRESH	25	25	25	25	25	25
MARBLE FALLS AQUIFER	KIMBLE	COLORADO	FRESH	80	80	80	80	80	80
MARBLE FALLS AQUIFER	MASON	COLORADO	FRESH	100	100	100	100	100	100
MARBLE FALLS AQUIFER	MCCULLOCH	COLORADO	FRESH	10	10	10	10	10	10
OGALLALA AQUIFER	ECTOR	COLORADO	FRESH	7,551	7,006	6,424	6,388	5,980	5,980
OGALLALA AQUIFER	GLASSCOCK	COLORADO	FRESH	1,348	1,096	795	481	226	0
OGALLALA AQUIFER	MIDLAND	COLORADO	FRESH	24,012	22,239	20,163	18,305	17,099	17,164
OGALLALA AQUIFER	WINKLER	RIO GRANDE	FRESH	40	40	40	40	40	40
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	ANDREWS	COLORADO	FRESH	2	1	0	0	0	1
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	ANDREWS	RIO GRANDE	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	BORDEN	BRAZOS	FRESH	5	0	0	0	0	0
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	BORDEN	COLORADO	FRESH	3,339	2,199	1,695	1,402	1,111	919
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	HOWARD	COLORADO	FRESH	7,391	4,926	4,803	5,179	5,624	5,709
OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER	MARTIN	COLORADO	FRESH	19,134	6,775	4,781	1,612	595	595
OTHER AQUIFER	BORDEN	COLORADO	FRESH	1,442	1,194	1,337	1,627	1,877	2,000
OTHER AQUIFER	COKE	COLORADO	FRESH	1,122	1,132	1,141	1,144	1,144	1,144
OTHER AQUIFER	COLEMAN	COLORADO	FRESH	1	2	12	23	32	40
OTHER AQUIFER	CONCHO	COLORADO	FRESH	2,681	2,687	2,739	2,794	2,841	2,882
OTHER AQUIFER	MCCULLOCH	COLORADO	FRESH	0	0	0	0	0	0
OTHER AQUIFER	MENARD	COLORADO	FRESH	0	0	0	0	0	0
OTHER AQUIFER	MITCHELL	COLORADO	FRESH	769	769	769	769	769	769
OTHER AQUIFER	PECOS	RIO GRANDE	FRESH	9,995	9,995	9,995	9,995	9,995	9,995
OTHER AQUIFER	RUNNELS	COLORADO	FRESH	1,605	1,609	1,640	1,670	1,697	1,720
OTHER AQUIFER	SCURRY	BRAZOS	BRACKISH	71	71	71	71	71	71
OTHER AQUIFER	SCURRY	COLORADO	FRESH	279	279	279	279	279	279

*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.

Region F Source Water Balance (Availability - WUG Supply)

GROUNDWATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
OTHER AQUIFER	TOM GREEN	COLORADO	FRESH/ BRACKISH	0	0	0	0	0	0
OTHER AQUIFER	MASON	COLORADO	FRESH	833	833	833	833	833	833
PECOS VALLEY AQUIFER	ANDREWS	RIO GRANDE	FRESH	0	0	0	0	0	0
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	CRANE	RIO GRANDE	FRESH	2,786	2,458	2,363	2,455	2,549	2,615
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	LOVING	RIO GRANDE	FRESH	0	0	0	0	295	1,195
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	PECOS	RIO GRANDE	FRESH	63,078	63,061	63,041	63,020	62,997	62,975
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	REEVES	RIO GRANDE	FRESH	151,172	151,096	151,044	151,005	150,973	150,946
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	WARD	RIO GRANDE	FRESH	29,915	29,777	29,881	30,174	30,488	30,720
PECOS VALLEY/EDWARDS-TRINITY (PLATEAU) AQUIFER	WINKLER	RIO GRANDE	FRESH	33,872	33,548	33,528	33,527	33,544	33,541
RUSTLER AQUIFER	LOVING	RIO GRANDE	FRESH	0	0	0	0	0	0
RUSTLER AQUIFER	PECOS	RIO GRANDE	FRESH	4,524	4,524	4,524	4,524	4,524	4,524
RUSTLER AQUIFER	REEVES	RIO GRANDE	FRESH	420	420	420	420	420	420
RUSTLER AQUIFER	WARD	RIO GRANDE	FRESH	0	0	0	0	0	0
RUSTLER AQUIFER	CRANE	RIO GRANDE	FRESH/ BRACKISH	1,000	1,000	1,000	1,000	1,000	1,000
RUSTLER AQUIFER	WINKLER	RIO GRANDE	BRACKISH	500	500	500	500	500	500
SEYMOUR AQUIFER	SCURRY	BRAZOS	FRESH	10	10	10	10	10	10
TRINITY AQUIFER	BROWN	BRAZOS	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	BROWN	COLORADO	FRESH	0	0	0	0	0	0
GROUNDWATER TOTAL SOURCE WATER BALANCE				**569,470**	**546,782**	**550,766**	**558,976**	**561,170**	**564,911**

REUSE SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
DIRECT REUSE	ANDREWS	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	CRANE	RIO GRANDE	FRESH	0	0	0	0	0	0
DIRECT REUSE	ECTOR	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	HOWARD	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	MIDLAND	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	MITCHELL	COLORADO	FRESH	552	552	552	552	552	552
DIRECT REUSE	RUNNELS	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	TOM GREEN	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	WARD	RIO GRANDE	FRESH	0	0	0	0	0	0
REUSE TOTAL SOURCE WATER BALANCE				**552**	**552**	**552**	**552**	**552**	**552**

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
BALLINGER/MOONEN LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
BALMORHEA LAKE/RESERVOIR	RESERVOIR	RIO GRANDE	FRESH	0	0	0	0	0	0
BRADY CREEK LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	BORDEN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	BROWN	BRAZOS	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.

Region F Source Water Balance (Availability - WUG Supply)

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	COUNTY	BASIN	SALINITY*	2020	2030	2040	2050	2060	2070
BRAZOS LIVESTOCK LOCAL SUPPLY	SCURRY	BRAZOS	FRESH	0	0	0	0	0	0
BROWNWOOD LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	2,850	2,710	2,570	2,430	2,290	2,150
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	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	BROWN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	COKE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	COLEMAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	CONCHO	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	CROCKETT	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	ECTOR	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	GLASSCOCK	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	HOWARD	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	IRION	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	KIMBLE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	MARTIN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	MASON	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	MCCULLOCH	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	MENARD	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	MIDLAND	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	MITCHELL	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	REAGAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	RUNNELS	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	SCHLEICHER	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	SCURRY	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	STERLING	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	SUTTON	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	TOM GREEN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	BROWN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	COKE	COLORADO	FRESH	5	5	5	5	5	5
COLORADO RUN-OF-RIVER	COLEMAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	CONCHO	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	ECTOR	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	IRION	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	KIMBLE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	MCCULLOCH	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	MENARD	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	MITCHELL	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	RUNNELS	COLORADO	FRESH	65	65	65	65	65	65
COLORADO RUN-OF-RIVER	SCURRY	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	STERLING	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	SUTTON	COLORADO	FRESH	0	0	0	0	0	0
COLORADO RUN-OF-RIVER	TOM GREEN	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.

Region F Source Water Balance (Availability - WUG Supply)

SURFACE WATER SOURCE TYPE				SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
SOURCE NAME	**COUNTY**	**BASIN**	**SALINITY***	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
CRMWD DIVERTED WATER SYSTEM	RESERVOIR	COLORADO	BRACKISH	5,760	5,760	5,760	5,760	5,760	5,760
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
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	0	0	0	0	0	0
RED BLUFF LAKE/RESERVOIR	RESERVOIR	RIO GRANDE	FRESH	22,538	22,485	22,433	22,380	22,328	22,275
RIO GRANDE LIVESTOCK LOCAL SUPPLY	CRANE	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	CROCKETT	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	LOVING	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	PECOS	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	SCHLEICHER	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	SUTTON	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	WARD	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE LIVESTOCK LOCAL SUPPLY	WINKLER	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE RUN-OF-RIVER	PECOS	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE RUN-OF-RIVER	REEVES	RIO GRANDE	FRESH	0	0	0	0	0	0
RIO GRANDE RUN-OF-RIVER	WARD	RIO GRANDE	FRESH	0	0	0	0	0	0
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
SURFACE WATER TOTAL SOURCE WATER BALANCE				**31,218**	**31,025**	**30,833**	**30,640**	**30,448**	**30,255**

REGION F TOTAL SOURCE WATER BALANCE				**601,240**	**578,359**	**582,151**	**590,168**	**592,170**	**595,718**

*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.

TWDB DB22 Report #10a – WUG Data Comparison to 2016 RWP

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
ANDREWS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	293	507	73.0%	214	501	134.1%
PROJECTED DEMAND TOTAL	501	537	7.2%	700	776	10.9%
WATER SUPPLY NEEDS TOTAL	208	30	-85.6%	486	275	-43.4%
ANDREWS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	9,478	18,666	96.9%	5,236	11,048	111.0%
PROJECTED DEMAND TOTAL	37,898	20,365	-46.3%	36,306	20,365	-43.9%
WATER SUPPLY NEEDS TOTAL	28,420	1,699	-94.0%	31,070	9,317	-70.0%
ANDREWS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	225	201	-10.7%	159	150	-5.7%
PROJECTED DEMAND TOTAL	325	210	-35.4%	325	210	-35.4%
WATER SUPPLY NEEDS TOTAL	100	9	-91.0%	166	60	-63.9%
ANDREWS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	31	549	1671.0%	12	408	3300.0%
PROJECTED DEMAND TOTAL	49	580	1083.7%	66	617	834.8%
WATER SUPPLY NEEDS TOTAL	18	31	72.2%	54	209	287.0%
ANDREWS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,348	981	-27.2%	317	966	204.7%
PROJECTED DEMAND TOTAL	3,959	3,959	0.0%	1,483	1,483	0.0%
WATER SUPPLY NEEDS TOTAL	2,611	2,978	14.1%	1,166	517	-55.7%
ANDREWS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,683	3,990	48.7%	1,735	6,221	258.6%
PROJECTED DEMAND TOTAL	4,270	4,182	-2.1%	9,210	9,021	-2.1%
WATER SUPPLY NEEDS TOTAL	1,587	192	-87.9%	7,475	2,800	-62.5%
BORDEN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	178	178	0.0%	177	175	-1.1%
PROJECTED DEMAND TOTAL	178	178	0.0%	175	175	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
BORDEN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	757	2,949	289.6%	760	2,667	250.9%
PROJECTED DEMAND TOTAL	4,000	2,949	-26.3%	3,977	2,949	-25.8%
WATER SUPPLY NEEDS TOTAL	3,243	0	-100.0%	3,217	282	-91.2%
BORDEN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	250	175	-30.0%	250	175	-30.0%
PROJECTED DEMAND TOTAL	250	175	-30.0%	250	175	-30.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
BORDEN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	679	679	0.0%	121	121	0.0%
PROJECTED DEMAND TOTAL	679	679	0.0%	121	121	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
BROWN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	204	170	-16.7%	203	169	-16.7%
PROJECTED DEMAND TOTAL	204	170	-16.7%	203	169	-16.7%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
BROWN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	6,330	6,417	1.4%	6,329	6,414	1.3%
PROJECTED DEMAND TOTAL	9,435	8,125	-13.9%	9,275	8,125	-12.4%
WATER SUPPLY NEEDS TOTAL	3,105	1,708	-45.0%	2,946	1,711	-41.9%
BROWN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,368	1,119	-18.2%	1,368	1,119	-18.2%
PROJECTED DEMAND TOTAL	1,353	1,119	-17.3%	1,353	1,119	-17.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
BROWN COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	673	548	-18.6%	957	651	-32.0%
PROJECTED DEMAND TOTAL	673	548	-18.6%	957	651	-32.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
BROWN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	943	682	-27.7%	944	681	-27.9%
PROJECTED DEMAND TOTAL	943	943	0.0%	944	944	0.0%
WATER SUPPLY NEEDS TOTAL	0	261	100.0%	0	263	100.0%
BROWN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	5,825	5,873	0.8%	5,595	5,643	0.9%
PROJECTED DEMAND TOTAL	5,833	5,885	0.9%	5,603	5,653	0.9%
WATER SUPPLY NEEDS TOTAL	8	12	50.0%	8	11	37.5%
COKE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	76	110	44.7%	68	97	42.6%
PROJECTED DEMAND TOTAL	127	118	-7.1%	113	105	-7.1%
WATER SUPPLY NEEDS TOTAL	51	8	-84.3%	45	8	-82.2%
COKE COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	763	689	-9.7%	763	689	-9.7%
PROJECTED DEMAND TOTAL	965	689	-28.6%	962	689	-28.4%
WATER SUPPLY NEEDS TOTAL	202	0	-100.0%	199	0	-100.0%
COKE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	431	306	-29.0%	431	306	-29.0%
PROJECTED DEMAND TOTAL	431	306	-29.0%	431	306	-29.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
COKE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	170	488	187.1%	170	286	68.2%
PROJECTED DEMAND TOTAL	488	488	0.0%	286	286	0.0%
WATER SUPPLY NEEDS TOTAL	318	0	-100.0%	116	0	-100.0%
COKE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	116	127	9.5%	108	118	9.3%
PROJECTED DEMAND TOTAL	548	568	3.6%	528	547	3.6%
WATER SUPPLY NEEDS TOTAL	432	441	2.1%	420	429	2.1%
COKE COUNTY | STEAM ELECTRIC POWER WUG TYPE						
PROJECTED DEMAND TOTAL	247	0	-100.0%	528	0	-100.0%
WATER SUPPLY NEEDS TOTAL	247	0	-100.0%	528	0	-100.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
COLEMAN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL	24	24	0.0%	22	21	-4.5%
WATER SUPPLY NEEDS TOTAL	24	24	0.0%	22	21	-4.5%
COLEMAN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	27	69	155.6%	27	69	155.6%
PROJECTED DEMAND TOTAL	770	465	-39.6%	770	465	-39.6%
WATER SUPPLY NEEDS TOTAL	743	396	-46.7%	743	396	-46.7%
COLEMAN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,076	769	-28.5%	1,076	769	-28.5%
PROJECTED DEMAND TOTAL	1,076	705	-34.5%	1,076	705	-34.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
COLEMAN COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL	9	2	-77.8%	9	2	-77.8%
WATER SUPPLY NEEDS TOTAL	9	2	-77.8%	9	2	-77.8%
COLEMAN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	46	108	134.8%	46	69	50.0%
PROJECTED DEMAND TOTAL	108	108	0.0%	69	69	0.0%
WATER SUPPLY NEEDS TOTAL	62	0	-100.0%	23	0	-100.0%
COLEMAN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	344	344	0.0%	325	325	0.0%
PROJECTED DEMAND TOTAL	1,348	1,346	-0.1%	1,287	1,286	-0.1%
WATER SUPPLY NEEDS TOTAL	1,004	1,002	-0.2%	962	961	-0.1%
CONCHO COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	96	94	-2.1%	91	87	-4.4%
PROJECTED DEMAND TOTAL	96	114	18.8%	91	107	17.6%
WATER SUPPLY NEEDS TOTAL	0	20	100.0%	0	20	100.0%
CONCHO COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	4,485	4,902	9.3%	4,485	4,902	9.3%
PROJECTED DEMAND TOTAL	9,734	4,902	-49.6%	9,546	4,902	-48.6%
WATER SUPPLY NEEDS TOTAL	5,249	0	-100.0%	5,061	0	-100.0%
CONCHO COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	699	382	-45.4%	699	382	-45.4%
PROJECTED DEMAND TOTAL	699	382	-45.4%	699	382	-45.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CONCHO COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	268	480	79.1%	268	279	4.1%
PROJECTED DEMAND TOTAL	480	480	0.0%	279	279	0.0%
WATER SUPPLY NEEDS TOTAL	212	0	-100.0%	11	0	-100.0%
CONCHO COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	592	277	-53.2%	566	266	-53.0%
PROJECTED DEMAND TOTAL	577	300	-48.0%	558	293	-47.5%
WATER SUPPLY NEEDS TOTAL	0	23	100.0%	0	27	100.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
CRANE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	170	170	0.0%	317	316	-0.3%
PROJECTED DEMAND TOTAL	170	170	0.0%	317	316	-0.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CRANE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	172	72	-58.1%	172	72	-58.1%
PROJECTED DEMAND TOTAL	172	72	-58.1%	172	72	-58.1%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CRANE COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	455	100.0%	0	468	100.0%
PROJECTED DEMAND TOTAL	0	455	100.0%	0	468	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CRANE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	617	617	0.0%	407	407	0.0%
PROJECTED DEMAND TOTAL	617	617	0.0%	407	407	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CRANE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,262	1,261	-0.1%	1,576	1,575	-0.1%
PROJECTED DEMAND TOTAL	1,262	1,261	-0.1%	1,576	1,575	-0.1%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CROCKETT COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	28	27	-3.6%	17	17	0.0%
PROJECTED DEMAND TOTAL	28	27	-3.6%	17	17	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CROCKETT COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	479	135	-71.8%	437	135	-69.1%
PROJECTED DEMAND TOTAL	479	135	-71.8%	437	135	-69.1%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	1	0	-100.0%
CROCKETT COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	695	527	-24.2%	695	527	-24.2%
PROJECTED DEMAND TOTAL	681	527	-22.6%	681	527	-22.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CROCKETT COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	14	100.0%	0	15	100.0%
PROJECTED DEMAND TOTAL	0	14	100.0%	0	15	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
CROCKETT COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	550	3,227	486.7%	63	200	217.5%
PROJECTED DEMAND TOTAL	1,732	4,500	159.8%	63	200	217.5%
WATER SUPPLY NEEDS TOTAL	1,182	1,273	7.7%	0	0	0.0%
CROCKETT COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,533	1,533	0.0%	1,681	1,680	-0.1%
PROJECTED DEMAND TOTAL	1,533	1,533	0.0%	1,681	1,680	-0.1%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
CROCKETT COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL	776	0	-100.0%	1,662	0	-100.0%
WATER SUPPLY NEEDS TOTAL	776	0	-100.0%	1,662	0	-100.0%
ECTOR COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3,248	2,161	-33.5%	3,855	3,499	-9.2%
PROJECTED DEMAND TOTAL	3,451	2,161	-37.4%	5,587	3,499	-37.4%
WATER SUPPLY NEEDS TOTAL	208	0	-100.0%	1,732	0	-100.0%
ECTOR COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,118	905	-19.1%	740	840	13.5%
PROJECTED DEMAND TOTAL	1,432	756	-47.2%	1,345	756	-43.8%
WATER SUPPLY NEEDS TOTAL	314	0	-100.0%	606	0	-100.0%
ECTOR COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	268	199	-25.7%	268	199	-25.7%
PROJECTED DEMAND TOTAL	265	199	-24.9%	265	199	-24.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
ECTOR COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	4,534	2,346	-48.3%	5,123	2,381	-53.5%
PROJECTED DEMAND TOTAL	3,454	2,152	-37.7%	4,209	2,381	-43.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
ECTOR COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,248	2,863	27.4%	1,256	2,848	126.8%
PROJECTED DEMAND TOTAL	1,977	1,977	0.0%	1,076	1,076	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
ECTOR COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	13,438	12,176	-9.4%	20,817	17,731	-14.8%
PROJECTED DEMAND TOTAL	24,069	27,119	12.7%	38,613	43,835	13.5%
WATER SUPPLY NEEDS TOTAL	10,631	14,943	40.6%	17,796	26,104	46.7%
ECTOR COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,817	4,772	69.4%	2,639	4,428	67.8%
PROJECTED DEMAND TOTAL	9,436	4,837	-48.7%	21,672	4,837	-77.7%
WATER SUPPLY NEEDS TOTAL	6,619	65	-99.0%	19,033	409	-97.9%
GLASSCOCK COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	162	161	-0.6%	160	159	-0.6%
PROJECTED DEMAND TOTAL	162	161	-0.6%	160	159	-0.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
GLASSCOCK COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	56,707	51,254	-9.6%	54,439	51,254	-5.9%
PROJECTED DEMAND TOTAL	56,707	51,254	-9.6%	54,439	51,254	-5.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
GLASSCOCK COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	262	147	-43.9%	262	147	-43.9%
PROJECTED DEMAND TOTAL	262	147	-43.9%	262	147	-43.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
GLASSCOCK COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	25	100.0%	0	33	100.0%
PROJECTED DEMAND TOTAL	0	25	100.0%	0	33	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
GLASSCOCK COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3,423	5,900	72.4%	798	1,500	88.0%
PROJECTED DEMAND TOTAL	3,423	5,900	72.4%	798	1,500	88.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
HOWARD COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	447	652	45.9%	408	642	57.4%
PROJECTED DEMAND TOTAL	896	652	-27.2%	883	642	-27.3%
WATER SUPPLY NEEDS TOTAL	449	0	-100.0%	475	0	-100.0%
HOWARD COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3,489	6,883	97.3%	3,230	6,883	113.1%
PROJECTED DEMAND TOTAL	6,722	6,883	2.4%	6,337	6,883	8.6%
WATER SUPPLY NEEDS TOTAL	3,233	0	-100.0%	3,107	0	-100.0%
HOWARD COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	202	269	33.2%	187	269	43.9%
PROJECTED DEMAND TOTAL	316	229	-27.5%	316	229	-27.5%
WATER SUPPLY NEEDS TOTAL	114	0	-100.0%	129	0	-100.0%
HOWARD COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,429	2,889	102.2%	1,363	2,857	109.6%
PROJECTED DEMAND TOTAL	2,748	3,723	35.5%	3,495	3,746	7.2%
WATER SUPPLY NEEDS TOTAL	1,319	834	-36.8%	2,132	889	-58.3%
HOWARD COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	163	3,400	1985.9%	156	300	92.3%
PROJECTED DEMAND TOTAL	2,491	3,400	36.5%	199	300	50.8%
WATER SUPPLY NEEDS TOTAL	2,328	0	-100.0%	43	0	-100.0%
HOWARD COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3,358	3,003	-10.6%	3,274	2,786	-14.9%
PROJECTED DEMAND TOTAL	6,332	6,753	6.6%	6,424	6,852	6.7%
WATER SUPPLY NEEDS TOTAL	2,974	3,750	26.1%	3,150	4,066	29.1%
HOWARD COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	325	100.0%	0	317	100.0%
PROJECTED DEMAND TOTAL	0	427	100.0%	0	427	100.0%
WATER SUPPLY NEEDS TOTAL	0	102	100.0%	0	110	100.0%
IRION COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	105	104	-1.0%	97	97	0.0%
PROJECTED DEMAND TOTAL	105	104	-1.0%	97	97	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
IRION COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,108	546	-50.7%	948	546	-42.4%
PROJECTED DEMAND TOTAL	1,467	1,053	-28.2%	1,307	1,053	-19.4%
WATER SUPPLY NEEDS TOTAL	359	507	41.2%	359	507	41.2%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
IRION COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	268	232	-13.4%	268	232	-13.4%
PROJECTED DEMAND TOTAL	268	232	-13.4%	268	232	-13.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
IRION COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	6	100.0%	0	7	100.0%
PROJECTED DEMAND TOTAL	0	6	100.0%	0	7	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
IRION COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,373	2,741	99.6%	342	500	46.2%
PROJECTED DEMAND TOTAL	3,192	4,600	44.1%	342	500	46.2%
WATER SUPPLY NEEDS TOTAL	1,819	1,859	2.2%	0	0	0.0%
IRION COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	102	101	-1.0%	95	94	-1.1%
PROJECTED DEMAND TOTAL	102	101	-1.0%	95	94	-1.1%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
KIMBLE COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	242	254	5.0%	225	236	4.9%
PROJECTED DEMAND TOTAL	255	254	-0.4%	237	236	-0.4%
WATER SUPPLY NEEDS TOTAL	13	0	-100.0%	12	0	-100.0%
KIMBLE COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,443	1,554	7.7%	1,443	1,554	7.7%
PROJECTED DEMAND TOTAL	2,939	2,657	-9.6%	2,400	2,657	10.7%
WATER SUPPLY NEEDS TOTAL	1,496	1,103	-26.3%	957	1,103	15.3%
KIMBLE COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	402	320	-20.4%	402	320	-20.4%
PROJECTED DEMAND TOTAL	402	320	-20.4%	402	320	-20.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
KIMBLE COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2	2	0.0%	2	2	0.0%
PROJECTED DEMAND TOTAL	701	605	-13.7%	985	706	-28.3%
WATER SUPPLY NEEDS TOTAL	699	603	-13.7%	983	704	-28.4%
KIMBLE COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	19	19	0.0%	19	19	0.0%
PROJECTED DEMAND TOTAL	19	19	0.0%	19	19	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
KIMBLE COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL	627	626	-0.2%	604	604	0.0%
WATER SUPPLY NEEDS TOTAL	627	626	-0.2%	604	604	0.0%
LOVING COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	11	10	-9.1%	10	9	-10.0%
PROJECTED DEMAND TOTAL	11	10	-9.1%	10	9	-10.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
LOVING COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	101	32	-68.3%	101	32	-68.3%
PROJECTED DEMAND TOTAL	101	32	-68.3%	101	32	-68.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
LOVING COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	792	3,594	353.8%	474	2,400	406.3%
PROJECTED DEMAND TOTAL	792	7,500	847.0%	474	3,400	617.3%
WATER SUPPLY NEEDS TOTAL	0	3,906	100.0%	0	1,000	100.0%
MARTIN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	131	358	173.3%	175	438	150.3%
PROJECTED DEMAND TOTAL	342	358	4.7%	418	438	4.8%
WATER SUPPLY NEEDS TOTAL	211	0	-100.0%	243	0	-100.0%
MARTIN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	11,165	36,491	226.8%	11,079	33,112	198.9%
PROJECTED DEMAND TOTAL	36,322	36,491	0.5%	33,123	36,491	10.2%
WATER SUPPLY NEEDS TOTAL	25,157	0	-100.0%	22,044	3,379	-84.7%
MARTIN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	90	119	32.2%	93	119	28.0%
PROJECTED DEMAND TOTAL	128	119	-7.0%	128	119	-7.0%
WATER SUPPLY NEEDS TOTAL	38	0	-100.0%	35	0	-100.0%
MARTIN COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	16	0	-100.0%	21	0	-100.0%
PROJECTED DEMAND TOTAL	41	0	-100.0%	50	0	-100.0%
WATER SUPPLY NEEDS TOTAL	25	0	-100.0%	29	0	-100.0%
MARTIN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	488	7,200	1375.4%	531	4,485	744.6%
PROJECTED DEMAND TOTAL	3,527	7,200	104.1%	413	1,000	142.1%
WATER SUPPLY NEEDS TOTAL	3,039	0	-100.0%	0	0	0.0%
MARTIN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	294	315	7.1%	357	303	-15.1%
PROJECTED DEMAND TOTAL	539	514	-4.6%	677	646	-4.6%
WATER SUPPLY NEEDS TOTAL	245	199	-18.8%	320	343	7.2%
MASON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	225	231	2.7%	208	214	2.9%
PROJECTED DEMAND TOTAL	234	231	-1.3%	217	214	-1.4%
WATER SUPPLY NEEDS TOTAL	9	0	-100.0%	9	0	-100.0%
MASON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	8,353	4,966	-40.5%	7,758	4,966	-36.0%
PROJECTED DEMAND TOTAL	8,294	4,966	-40.1%	7,699	4,966	-35.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MASON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,248	714	-42.8%	1,248	714	-42.8%
PROJECTED DEMAND TOTAL	1,248	714	-42.8%	1,248	714	-42.8%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
MASON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,025	1,023	-0.2%	374	372	-0.5%
PROJECTED DEMAND TOTAL	1,023	1,023	0.0%	372	372	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MASON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL	694	700	0.9%	671	676	0.7%
WATER SUPPLY NEEDS TOTAL	694	700	0.9%	671	676	0.7%
MCCULLOCH COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	57	132	131.6%	59	135	128.8%
PROJECTED DEMAND TOTAL	92	132	43.5%	95	135	42.1%
WATER SUPPLY NEEDS TOTAL	35	0	-100.0%	36	0	-100.0%
MCCULLOCH COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,400	2,324	66.0%	1,417	2,324	64.0%
PROJECTED DEMAND TOTAL	3,584	2,324	-35.2%	3,361	2,324	-30.9%
WATER SUPPLY NEEDS TOTAL	2,184	0	-100.0%	1,944	0	-100.0%
MCCULLOCH COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	690	651	-5.7%	690	651	-5.7%
PROJECTED DEMAND TOTAL	714	651	-8.8%	714	651	-8.8%
WATER SUPPLY NEEDS TOTAL	24	0	-100.0%	24	0	-100.0%
MCCULLOCH COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	299	523	74.9%	435	609	40.0%
PROJECTED DEMAND TOTAL	500	523	4.6%	719	609	-15.3%
WATER SUPPLY NEEDS TOTAL	201	0	-100.0%	284	0	-100.0%
MCCULLOCH COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	5,309	8,928	68.2%	4,201	4,202	0.0%
PROJECTED DEMAND TOTAL	8,927	8,927	0.0%	4,201	4,201	0.0%
WATER SUPPLY NEEDS TOTAL	3,618	0	-100.0%	0	0	0.0%
MCCULLOCH COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	487	424	-12.9%	474	411	-13.3%
PROJECTED DEMAND TOTAL	1,718	1,773	3.2%	1,740	1,801	3.5%
WATER SUPPLY NEEDS TOTAL	1,389	1,427	2.7%	1,412	1,460	3.4%
MENARD COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	95	92	-3.2%	87	84	-3.4%
PROJECTED DEMAND TOTAL	95	92	-3.2%	87	84	-3.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MENARD COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,104	3,663	74.1%	2,104	3,663	74.1%
PROJECTED DEMAND TOTAL	2,530	3,663	44.8%	2,489	3,663	47.2%
WATER SUPPLY NEEDS TOTAL	426	0	-100.0%	385	0	-100.0%
MENARD COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	426	294	-31.0%	426	294	-31.0%
PROJECTED DEMAND TOTAL	408	294	-27.9%	408	294	-27.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
MENARD COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3	0	-100.0%	3	0	-100.0%
PROJECTED DEMAND TOTAL	3	0	-100.0%	3	0	-100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MENARD COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,086	1,086	0.0%	622	622	0.0%
PROJECTED DEMAND TOTAL	1,086	1,086	0.0%	622	622	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MENARD COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	136	139	2.2%	136	139	2.2%
PROJECTED DEMAND TOTAL	346	350	1.2%	331	335	1.2%
WATER SUPPLY NEEDS TOTAL	210	211	0.5%	195	196	0.5%
MIDLAND COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	4,232	3,253	-23.1%	6,510	4,819	-26.0%
PROJECTED DEMAND TOTAL	4,232	3,253	-23.1%	6,510	4,819	-26.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MIDLAND COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	33,276	18,107	-45.6%	31,981	18,107	-43.4%
PROJECTED DEMAND TOTAL	33,276	18,107	-45.6%	31,981	18,107	-43.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MIDLAND COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	394	243	-38.3%	394	243	-38.3%
PROJECTED DEMAND TOTAL	394	243	-38.3%	394	243	-38.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MIDLAND COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	230	981	326.5%	335	1,177	251.3%
PROJECTED DEMAND TOTAL	230	981	326.5%	335	1,177	251.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MIDLAND COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3,893	10,600	172.3%	743	3,103	317.6%
PROJECTED DEMAND TOTAL	3,893	10,600	172.3%	743	2,300	209.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MIDLAND COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	30,150	30,402	0.8%	17,053	16,259	-4.7%
PROJECTED DEMAND TOTAL	33,238	29,000	-12.8%	48,502	44,073	-9.1%
WATER SUPPLY NEEDS TOTAL	3,088	267	-91.4%	31,449	27,814	-11.6%
MITCHELL COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	843	545	-35.3%	875	553	-36.8%
PROJECTED DEMAND TOTAL	843	545	-35.3%	875	553	-36.8%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MITCHELL COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	11,519	11,203	-2.7%	11,236	11,305	0.6%
PROJECTED DEMAND TOTAL	11,519	12,787	11.0%	11,236	12,787	13.8%
WATER SUPPLY NEEDS TOTAL	0	1,584	100.0%	0	1,482	100.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
MITCHELL COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	413	376	-9.0%	413	376	-9.0%
PROJECTED DEMAND TOTAL	413	376	-9.0%	413	376	-9.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MITCHELL COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	4	100.0%	0	5	100.0%
PROJECTED DEMAND TOTAL	0	4	100.0%	0	5	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MITCHELL COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	593	593	0.0%	290	290	0.0%
PROJECTED DEMAND TOTAL	593	593	0.0%	290	290	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
MITCHELL COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,360	1,594	17.2%	1,539	1,602	4.1%
PROJECTED DEMAND TOTAL	1,360	1,594	17.2%	1,539	1,785	16.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	183	100.0%
MITCHELL COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	0	0.0%	0	0	0.0%
PROJECTED DEMAND TOTAL	4,847	10,326	113.0%	3,994	10,326	158.5%
WATER SUPPLY NEEDS TOTAL	4,847	10,326	113.0%	3,994	10,326	158.5%
PECOS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	415	110	-73.5%	522	197	-62.3%
PROJECTED DEMAND TOTAL	415	110	-73.5%	522	197	-62.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
PECOS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	126,028	143,345	13.7%	126,033	143,345	13.7%
PROJECTED DEMAND TOTAL	126,023	143,345	13.7%	126,023	143,345	13.7%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
PECOS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	932	687	-26.3%	932	687	-26.3%
PROJECTED DEMAND TOTAL	932	687	-26.3%	932	687	-26.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
PECOS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	103	252	144.7%	103	272	164.1%
PROJECTED DEMAND TOTAL	103	413	301.0%	103	433	320.4%
WATER SUPPLY NEEDS TOTAL	0	161	100.0%	0	161	100.0%
PECOS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	690	4,200	508.7%	524	4,200	701.5%
PROJECTED DEMAND TOTAL	690	7,700	1015.9%	524	3,700	606.1%
WATER SUPPLY NEEDS TOTAL	0	3,500	100.0%	0	0	0.0%
PECOS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	5,808	5,884	1.3%	7,529	7,620	1.2%
PROJECTED DEMAND TOTAL	5,808	5,884	1.3%	7,529	7,620	1.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
REAGAN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	70	70	0.0%	87	87	0.0%
PROJECTED DEMAND TOTAL	70	70	0.0%	87	87	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REAGAN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	19,130	22,031	15.2%	17,537	22,031	25.6%
PROJECTED DEMAND TOTAL	19,130	22,031	15.2%	17,537	22,031	25.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REAGAN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	266	183	-31.2%	266	183	-31.2%
PROJECTED DEMAND TOTAL	255	183	-28.2%	255	183	-28.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REAGAN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	4,226	10,600	150.8%	214	4,485	1995.8%
PROJECTED DEMAND TOTAL	4,211	10,600	151.7%	199	600	201.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REAGAN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	731	730	-0.1%	929	928	-0.1%
PROJECTED DEMAND TOTAL	731	730	-0.1%	929	928	-0.1%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REEVES COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	503	532	5.8%	594	628	5.7%
PROJECTED DEMAND TOTAL	503	532	5.8%	594	628	5.7%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REEVES COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	91,357	58,937	-35.5%	87,475	58,937	-32.6%
PROJECTED DEMAND TOTAL	91,357	58,937	-35.5%	87,475	58,937	-32.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REEVES COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	863	368	-57.4%	863	368	-57.4%
PROJECTED DEMAND TOTAL	862	368	-57.3%	862	368	-57.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REEVES COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	197	286	45.2%	233	305	30.9%
PROJECTED DEMAND TOTAL	197	286	45.2%	233	305	30.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REEVES COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,531	2,200	43.7%	1,288	2,200	70.8%
PROJECTED DEMAND TOTAL	1,531	12,600	723.0%	1,288	6,200	381.4%
WATER SUPPLY NEEDS TOTAL	0	10,400	100.0%	0	4,000	100.0%
REEVES COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3,576	3,577	0.0%	4,250	4,229	-0.5%
PROJECTED DEMAND TOTAL	3,576	3,565	-0.3%	4,250	4,239	-0.3%
WATER SUPPLY NEEDS TOTAL	0	107	100.0%	0	147	100.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
RUNNELS COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	51	43	-15.7%	10	37	270.0%
PROJECTED DEMAND TOTAL	252	76	-69.8%	234	66	-71.8%
WATER SUPPLY NEEDS TOTAL	201	33	-83.6%	224	29	-87.1%
RUNNELS COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,367	3,105	31.2%	2,367	3,105	31.2%
PROJECTED DEMAND TOTAL	4,009	3,105	-22.5%	3,919	3,105	-20.8%
WATER SUPPLY NEEDS TOTAL	1,642	0	-100.0%	1,552	0	-100.0%
RUNNELS COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	880	705	-19.9%	880	705	-19.9%
PROJECTED DEMAND TOTAL	880	705	-19.9%	880	705	-19.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
RUNNELS COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2	10	400.0%	0	11	100.0%
PROJECTED DEMAND TOTAL	48	10	-79.2%	69	11	-84.1%
WATER SUPPLY NEEDS TOTAL	46	0	-100.0%	69	0	-100.0%
RUNNELS COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	177	272	53.7%	177	161	-9.0%
PROJECTED DEMAND TOTAL	272	272	0.0%	161	161	0.0%
WATER SUPPLY NEEDS TOTAL	95	0	-100.0%	0	0	0.0%
RUNNELS COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	308	349	13.3%	121	311	157.0%
PROJECTED DEMAND TOTAL	1,144	1,325	15.8%	1,100	1,274	15.8%
WATER SUPPLY NEEDS TOTAL	851	976	14.7%	988	963	-2.5%
SCHLEICHER COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	292	247	-15.4%	373	321	-13.9%
PROJECTED DEMAND TOTAL	269	247	-8.2%	343	321	-6.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SCHLEICHER COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,414	1,811	28.1%	1,270	1,811	42.6%
PROJECTED DEMAND TOTAL	1,414	1,811	28.1%	1,270	1,811	42.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SCHLEICHER COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	552	389	-29.5%	552	389	-29.5%
PROJECTED DEMAND TOTAL	535	389	-27.3%	535	389	-27.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SCHLEICHER COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	661	621	-6.1%	158	148	-6.3%
PROJECTED DEMAND TOTAL	621	621	0.0%	148	148	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SCHLEICHER COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	614	662	7.8%	593	638	7.6%
PROJECTED DEMAND TOTAL	614	662	7.8%	593	638	7.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
SCURRY COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	314	268	-14.6%	373	300	-19.6%
PROJECTED DEMAND TOTAL	763	808	5.9%	1,021	1,085	6.3%
WATER SUPPLY NEEDS TOTAL	449	540	20.3%	648	785	21.1%
SCURRY COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	984	1,028	4.5%	923	996	7.9%
PROJECTED DEMAND TOTAL	7,305	7,559	3.5%	6,088	7,559	24.2%
WATER SUPPLY NEEDS TOTAL	6,321	6,531	3.3%	5,165	6,563	27.1%
SCURRY COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	412	461	11.9%	413	461	11.6%
PROJECTED DEMAND TOTAL	504	461	-8.5%	504	461	-8.5%
WATER SUPPLY NEEDS TOTAL	92	0	-100.0%	91	0	-100.0%
SCURRY COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	3	26	766.7%	3	30	900.0%
PROJECTED DEMAND TOTAL	3	156	5100.0%	3	186	6100.0%
WATER SUPPLY NEEDS TOTAL	0	130	100.0%	0	156	100.0%
SCURRY COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	48	38	-20.8%	46	23	-50.0%
PROJECTED DEMAND TOTAL	280	280	0.0%	167	167	0.0%
WATER SUPPLY NEEDS TOTAL	232	242	4.3%	121	144	19.0%
SCURRY COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,178	880	-25.3%	1,647	1,172	-28.8%
PROJECTED DEMAND TOTAL	2,036	1,980	-2.8%	2,963	2,882	-2.7%
WATER SUPPLY NEEDS TOTAL	858	1,100	28.2%	1,316	1,710	29.9%
STERLING COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	33	32	-3.0%	33	32	-3.0%
PROJECTED DEMAND TOTAL	33	32	-3.0%	33	32	-3.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
STERLING COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	983	899	-8.5%	782	899	15.0%
PROJECTED DEMAND TOTAL	983	899	-8.5%	782	899	15.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
STERLING COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	322	234	-27.3%	322	234	-27.3%
PROJECTED DEMAND TOTAL	322	234	-27.3%	322	234	-27.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
STERLING COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	780	780	0.0%	140	140	0.0%
PROJECTED DEMAND TOTAL	780	780	0.0%	140	140	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
STERLING COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	276	276	0.0%	281	280	-0.4%
PROJECTED DEMAND TOTAL	276	276	0.0%	281	280	-0.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
SUTTON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	167	141	-15.6%	179	150	-16.2%
PROJECTED DEMAND TOTAL	167	141	-15.6%	179	150	-16.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SUTTON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,803	1,120	-37.9%	1,629	1,120	-31.2%
PROJECTED DEMAND TOTAL	1,803	1,120	-37.9%	1,629	1,120	-31.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SUTTON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	489	444	-9.2%	489	444	-9.2%
PROJECTED DEMAND TOTAL	479	444	-7.3%	479	444	-7.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SUTTON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	3	100.0%	0	3	100.0%
PROJECTED DEMAND TOTAL	0	3	100.0%	0	3	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SUTTON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	446	446	0.0%	264	264	0.0%
PROJECTED DEMAND TOTAL	446	446	0.0%	264	264	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
SUTTON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,239	1,045	-15.7%	1,380	1,156	-16.2%
PROJECTED DEMAND TOTAL	1,239	1,045	-15.7%	1,380	1,156	-16.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
TOM GREEN COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	750	1,177	56.9%	750	1,161	54.8%
PROJECTED DEMAND TOTAL	1,306	1,011	-22.6%	1,518	1,106	-27.1%
WATER SUPPLY NEEDS TOTAL	556	0	-100.0%	768	0	-100.0%
TOM GREEN COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	61,928	43,051	-30.5%	61,828	42,825	-30.7%
PROJECTED DEMAND TOTAL	93,579	42,493	-54.6%	92,432	42,493	-54.0%
WATER SUPPLY NEEDS TOTAL	31,651	0	-100.0%	30,604	0	-100.0%
TOM GREEN COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,705	1,125	-34.0%	1,705	1,125	-34.0%
PROJECTED DEMAND TOTAL	1,688	1,125	-33.4%	1,688	1,125	-33.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
TOM GREEN COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,176	762	-35.2%	1,174	747	-36.4%
PROJECTED DEMAND TOTAL	2,387	850	-64.4%	3,531	962	-72.8%
WATER SUPPLY NEEDS TOTAL	1,211	88	-92.7%	2,357	215	-90.9%
TOM GREEN COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,056	1,056	0.0%	1,156	1,156	0.0%
PROJECTED DEMAND TOTAL	1,056	1,056	0.0%	1,156	1,156	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
TOM GREEN COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	9,910	12,527	26.4%	9,147	14,112	54.3%
PROJECTED DEMAND TOTAL	19,054	19,500	2.3%	25,583	26,184	2.3%
WATER SUPPLY NEEDS TOTAL	9,250	7,137	-22.8%	16,462	12,213	-25.8%
UPTON COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	140	75	-46.4%	140	82	-41.4%
PROJECTED DEMAND TOTAL	92	75	-18.5%	101	82	-18.8%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
UPTON COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	9,473	10,403	9.8%	8,800	10,403	18.2%
PROJECTED DEMAND TOTAL	9,473	10,403	9.8%	8,800	10,403	18.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
UPTON COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	119	126	5.9%	119	126	5.9%
PROJECTED DEMAND TOTAL	119	126	5.9%	119	126	5.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
UPTON COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	184	100.0%	0	207	100.0%
PROJECTED DEMAND TOTAL	0	184	100.0%	0	207	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
UPTON COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	4,237	8,418	98.7%	803	5,618	599.6%
PROJECTED DEMAND TOTAL	4,237	7,200	69.9%	803	1,600	99.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
UPTON COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	1,053	1,103	4.7%	1,231	1,290	4.8%
PROJECTED DEMAND TOTAL	1,053	1,103	4.7%	1,231	1,290	4.8%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WARD COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	829	137	-83.5%	916	154	-83.2%
PROJECTED DEMAND TOTAL	749	137	-81.7%	840	154	-81.7%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WARD COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	5,995	5,620	-6.3%	5,995	5,591	-6.7%
PROJECTED DEMAND TOTAL	5,613	3,160	-43.7%	5,266	3,160	-40.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WARD COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	109	83	-23.9%	109	83	-23.9%
PROJECTED DEMAND TOTAL	109	83	-23.9%	109	83	-23.9%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WARD COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	16	7	-56.3%	16	7	-56.3%
PROJECTED DEMAND TOTAL	16	7	-56.3%	16	7	-56.3%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
WARD COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	797	1,900	138.4%	329	600	82.4%
PROJECTED DEMAND TOTAL	797	1,900	138.4%	329	600	82.4%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WARD COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,518	3,165	25.7%	2,895	3,625	25.2%
PROJECTED DEMAND TOTAL	2,518	3,165	25.7%	2,895	3,625	25.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WARD COUNTY | STEAM ELECTRIC POWER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,700	2,502	-7.3%	2,700	2,502	-7.3%
PROJECTED DEMAND TOTAL	3,779	2,502	-33.8%	8,269	2,502	-69.7%
WATER SUPPLY NEEDS TOTAL	1,079	0	-100.0%	5,569	0	-100.0%
WINKLER COUNTY | COUNTY-OTHER WUG TYPE						
EXISTING WUG SUPPLY TOTAL	210	188	-10.5%	210	609	190.0%
PROJECTED DEMAND TOTAL	210	188	-10.5%	631	609	-3.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	421	0	-100.0%
WINKLER COUNTY | IRRIGATION WUG TYPE						
EXISTING WUG SUPPLY TOTAL	4,912	3,507	-28.6%	4,912	3,507	-28.6%
PROJECTED DEMAND TOTAL	4,912	3,507	-28.6%	4,912	3,507	-28.6%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WINKLER COUNTY | LIVESTOCK WUG TYPE						
EXISTING WUG SUPPLY TOTAL	389	101	-74.0%	389	101	-74.0%
PROJECTED DEMAND TOTAL	351	101	-71.2%	351	101	-71.2%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WINKLER COUNTY | MANUFACTURING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	0	64	100.0%	0	76	100.0%
PROJECTED DEMAND TOTAL	0	64	100.0%	0	76	100.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WINKLER COUNTY | MINING WUG TYPE						
EXISTING WUG SUPPLY TOTAL	787	787	0.0%	373	373	0.0%
PROJECTED DEMAND TOTAL	787	787	0.0%	373	373	0.0%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
WINKLER COUNTY | MUNICIPAL WUG TYPE						
EXISTING WUG SUPPLY TOTAL	2,134	2,169	1.6%	2,295	2,330	1.5%
PROJECTED DEMAND TOTAL	2,134	2,169	1.6%	2,295	2,330	1.5%
WATER SUPPLY NEEDS TOTAL	0	0	0.0%	0	0	0.0%
REGION F						
EXISTING WUG SUPPLY TOTAL	657,435	688,850	4.8%	618,909	636,435	2.8%
PROJECTED DEMAND TOTAL	837,974	765,150	-8.7%	853,311	744,366	-12.8%
WATER SUPPLY NEEDS TOTAL	182,987	84,066	-54.1%	236,937	125,750	-46.9%

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TWDB DB22 Report #10b – Source Data Comparison to 2016 RWP

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
ANDREWS COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	19,985	27,604	38.1%	12,268	20,141	64.2%
REUSE AVAILABILITY TOTAL (acre-feet per year)	560	560	0.0%	560	560	0.0%
BORDEN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	2,430	9,421	287.7%	2,430	6,711	176.2%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	268	164	-38.8%	268	164	-38.8%
BROWN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	8,329	2,611	-68.7%	8,329	2,607	-68.7%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,607	1,338	-16.7%	1,607	1,338	-16.7%
COKE COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	2,089	3,357	60.7%	2,089	3,357	60.7%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	386	100	-74.1%	386	100	-74.1%
COLEMAN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	679	717	5.6%	679	717	5.6%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,108	794	-28.3%	1,108	794	-28.3%
CONCHO COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	7,615	8,343	9.6%	7,615	8,343	9.6%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	160	467	191.9%	160	467	191.9%
CRANE COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	6,998	6,085	-13.0%	6,998	6,085	-13.0%
REUSE AVAILABILITY TOTAL (acre-feet per year)	73	73	0.0%	73	73	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	21	4	-81.0%	21	4	-81.0%
CROCKETT COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	5,539	5,451	-1.6%	5,539	5,451	-1.6%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	138	30	-78.3%	138	30	-78.3%
ECTOR COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	14,089	14,096	0.0%	12,790	12,797	0.1%
REUSE AVAILABILITY TOTAL (acre-feet per year)	6,720	9,530	41.8%	7,000	9,530	36.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	11	25	127.3%	11	25	127.3%
GLASSCOCK COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	87,445	74,021	-15.4%	80,991	72,666	-10.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	40	38	-5.0%	40	38	-5.0%
HOWARD COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	5,317	22,096	315.6%	4,945	17,327	250.4%
REUSE AVAILABILITY TOTAL (acre-feet per year)	1,855	1,855	0.0%	1,855	1,855	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	62	39	-37.1%	62	39	-37.1%
IRION COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	3,384	3,452	2.0%	3,384	3,452	2.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	288	278	-3.5%	288	278	-3.5%
KIMBLE COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	1,797	2,172	20.9%	1,797	2,172	20.9%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,237	1,251	1.1%	1,237	1,251	1.1%
LOVING COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	5,167	3,635	-29.6%	5,167	3,635	-29.6%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	10	1	-90.0%	10	1	-90.0%
MARTIN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	15,570	63,713	309.2%	14,277	35,675	149.9%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	67	47	-29.9%	67	47	-29.9%

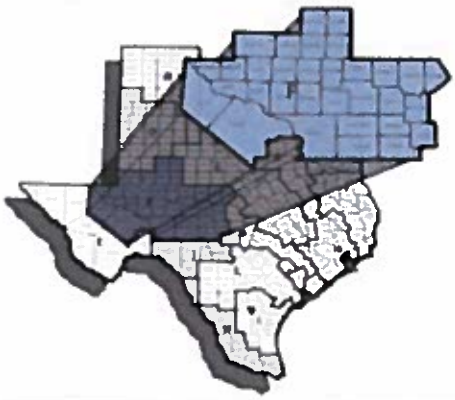
Region F Source Data Comparison to 2016 Regional Water Plan (RWP)

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
MASON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	18,213	17,440	-4.2%	18,213	17,440	-4.2%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	984	227	-76.9%	984	227	-76.9%
MCCULLOCH COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	12,823	29,145	127.3%	12,823	29,145	127.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	233	304	30.5%	233	304	30.5%
MENARD COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	4,430	5,628	27.0%	4,430	5,628	27.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	2,329	2,138	-8.2%	2,329	2,138	-8.2%
MIDLAND COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	61,639	62,021	0.6%	54,576	54,958	0.7%
REUSE AVAILABILITY TOTAL (acre-feet per year)	5,987	11,211	87.3%	5,987	11,211	87.3%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	117	3	-97.4%	117	3	-97.4%
MITCHELL COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	14,020	14,807	5.6%	14,020	14,807	5.6%
REUSE AVAILABILITY TOTAL (acre-feet per year)	552	552	0.0%	552	552	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	395	322	-18.5%	395	322	-18.5%
PECOS COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	275,720	291,663	5.8%	275,720	291,663	5.8%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	4,496	18,709	316.1%	4,496	18,709	316.1%
REAGAN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	70,342	68,535	-2.6%	70,342	68,535	-2.6%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	44	60	36.4%	44	60	36.4%
REEVES COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	198,094	195,977	-1.1%	198,094	195,977	-1.1%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	68	573	742.6%	68	573	742.6%
RESERVOIR COUNTY						
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	115,994	103,860	-10.5%	110,194	97,660	-11.4%
RUNNELS COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	2,701	5,046	86.8%	2,701	5,046	86.8%
REUSE AVAILABILITY TOTAL (acre-feet per year)	218	22	-89.9%	218	22	-89.9%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	1,410	737	-47.7%	1,410	737	-47.7%
SCHLEICHER COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	8,050	8,034	-0.2%	8,050	8,034	-0.2%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	112	23	-79.5%	112	23	-79.5%
SCURRY COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	1,615	1,608	-0.4%	1,615	1,608	-0.4%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	534	440	-17.6%	534	440	-17.6%
STERLING COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	3,565	3,355	-5.9%	3,565	3,355	-5.9%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	104	55	-47.1%	104	55	-47.1%
SUTTON COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	6,438	6,410	-0.4%	6,438	6,410	-0.4%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	105	388	269.5%	105	388	269.5%
TOM GREEN COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	62,036	46,565	-24.9%	62,036	46,565	-24.9%
REUSE AVAILABILITY TOTAL (acre-feet per year)	8,300	8,300	0.0%	8,300	8,300	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	3,613	2,286	-36.7%	3,613	2,286	-36.7%
UPTON COUNTY						

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

	2020 PLANNING DECADE			2070 PLANNING DECADE		
	2016 RWP	2021 RWP	DIFFERENCE (%)	2016 RWP	2021 RWP	DIFFERENCE (%)
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	22,600	23,369	3.4%	22,600	23,369	3.4%
WARD COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	58,616	52,229	-10.9%	58,616	52,229	-10.9%
REUSE AVAILABILITY TOTAL (acre-feet per year)	670	670	0.0%	670	670	0.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	5	886	17620.0%	5	886	17620.0%
WINKLER COUNTY						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	51,045	56,763	11.2%	51,045	56,763	11.2%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	7	2	-71.4%	7	2	-71.4%
REGION F						
GROUNDWATER AVAILABILITY TOTAL (acre-feet per year)	1,058,380	1,135,369	7.3%	1,034,182	1,082,668	4.7%
REUSE AVAILABILITY TOTAL (acre-feet per year)	24,935	32,773	31.4%	25,215	32,773	30.0%
SURFACE WATER AVAILABILITY TOTAL (acre-feet per year)	135,953	135,589	-0.3%	130,153	129,389	-0.6%

APPENDIX B
Hydrologic Variance Request and Approval for Surface Water



Texas Water Development Board
Regional Water Planning

Region F Regional Water
Planning Group

December 1, 2017

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, the following modifications to WAM Run 3 are requested.

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.

Colorado WAM

Per the TCEQ website, as of November 2017, the TCEQ is still updating the WAM files for the Colorado basin and the files are unavailable. As part of the 2016 planning cycle, Region F obtained an advanced copy of the Colorado WAM with hydrology extended to 2013 from the TCEQ. This is still the most up to date and accurate version of the WAM available. There were no hydrologic variances beyond reservoir storage capacities and safe yield applied to this model. Therefore, Region F proposes to retain the surface water supplies from the 2016 Plan for the 2021 Plan. Region F does not request any hydrologic variances for the Colorado WAM besides the use of safe yield as mentioned above.

Rio Grande WAM

The Rio Grande WAM is used to evaluate surface water supplies in the Pecos sub-basin that extends into Region F. The yield for Lake Balmorhea is assumed to be the minimum annual supply from the springs that feed the reservoir. The Rio Grande WAM does not include these springs in its naturalized flows. Since there will not be any changes to the WAMs from the 2016 Region F Water Plan, currently available supplies adopted for the 2016 plan are proposed to be retained for the 2021 plan.

Brazos WAM

The Brazos basin is largely located in Region G however, some areas extend 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.

Please call me if you have any questions regarding our request.

Sincerely,

John Grant
Region F Chairman

Hydrologic Variance Request for the Rio Grande WAM and Lake Balmorhea
Region F
January 19, 2018

In our review of the Rio Grande WAM for Region F, we identified two issues with the modeling of water rights associated with San Solomon Springs, Griffin Springs and Lake Balmorhea:

- *Water rights located at the springs did not have access to spring flows.* In the Rio Grande WAM, San Solomon and Griffin Springs are aggregated together, with the flows from the springs entered as "flow adjustments". Several water rights associated with these springs are located at the control point where the spring flow is added to the naturalized flows. Because of the way these were modeled in the WAM, the flow adjustments were not being added at the control point where the spring flows entered the system – they were only being added to downstream flows. As a result, the water rights at the springs, which according to their water rights can make use of flows from these springs, never had access to these flows.
- *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 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.

For the 2021 Region F Water Plan, it is requested to make the following changes to the Rio Grande WAM to address the above concerns:

- Modify the option used to apply flows from the flow adjustment file so that water rights located at the springs have access to the flows. This is a correction to an error in the WAM.
- 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.

Region F proposes to determine the firm and safe yields of Lake Balmorhea and Red Bluff Reservoir and the reliable supply for run-of-river rights using the modified Rio Grande WAM.

Texas Water Development Board

P.O. Box 13231, 1700 N. Congress Ave.
Austin, TX 78711-3231, www.twdb.texas.gov
Phone (512) 463-7847, Fax (512) 475-2053

February 9, 2018

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

RE: Region F Regional Water Planning Group (RWPG) request for approval to modify existing surface water availability hydrologic assumptions for development of the 2021 Region F Regional Water Plan (RWP)

Dear Mr. Grant:

The Texas Water Development Board (TWDB) has reviewed your request dated December 1, 2017 for approval of alternative water supply assumptions to be used in determining existing surface water availability. This letter confirms that the TWDB approves:

1. Use of one-year safe yield for all reservoirs within the region.
2. Use of the updated Water Availability Model (WAM) for the Colorado Basin with extended hydrology through 2013 that was approved for Region F to use in the 2016 Region F RWP, revised as necessary to incorporate hydrologic updates in the Texas Commission on Environmental Quality (TCEQ) WAM for the Colorado Basin, released on February 1, 2018.
3. Use of minimum annual supply from spring flow to estimate water availability for Lake Balmorhea (Rio Grande Basin).
4. Use of water availability estimates from the Brazos WAM developed by Region G, for the portion of the Brazos Basin within Region F, as approved by the TWDB.

The RWPG also requests to retain surface water supplies from the 2016 RWP for the 2021 RWP for yields from the Colorado and Rio Grande WAMs. This approach is acceptable if the supplies meet evaluation criteria for the fifth cycle of regional water planning as outlined in the contract Exhibit C, *General Guidelines for Fifth Cycle of Regional Water Plan Development*, including consideration of existing water rights, contract agreements, and infrastructure constraints.

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 TWDB in the online planning database and plan documents.

For the purpose of evaluating potentially feasible water management strategies, the TCEQ WAM Run 3 is to be used.

While the TWDB authorizes these modifications to evaluate existing water supplies for development of the 2021 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 Fifth Cycle of Regional Water Plan Development.*

If you have any questions, please do not hesitate to contact Tom Barnett, project manager for Region F, at 512-463-4209 or via email at thomas.barnett@twdb.texas.gov.

Sincerely,

Jeff Walker
Executive Administrator

c w/o enc: Mr. Kevin Krueger, Colorado River Municipal Water District
Ms. Simone Kiel, Freese & Nichols, Inc.
Mr. David Dunn, HDR, Inc.
Mr. Tom Barnett, Water Use, Projections, & Planning

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

MEMO

TO: Simone Kiel, P.E., Freese and Nichols, and the Region F Water Planning Group

FROM: Kristie Laughlin, P.G. and James Beach, P.G., WSP USA

SUBJECT: **Region F Groundwater Availability Volumes**

DATE: **October 24, 2018**

Introduction

This memo summarizes 2021 MAG volumes, non-relevant aquifer groundwater availability volumes, and other (undifferentiated) aquifer availability volumes. The methodology used to derive the non-relevant and other aquifer volumes are noted or described either within this memo or the associated tables.

This memo was distributed to key members of the regional and joint planning groups prior to finalization of the Region F Technical Memorandum. This memo was distributed on October 11, 2018 to: 1) inform stakeholders, planners and water users of the 2021 groundwater availability volumes and methodologies used to derive these volumes for Region F, 2) solicit feedback from stakeholders, planners, and water users regarding any specific availability volumes for which they may like to contribute input and/ or local knowledge that might revise the groundwater availability volumes, and 3) incorporate any revisions to volume changes into the Technical Memorandum prior to finalization.

Subsequently, both Irion and Sterling County Other Aquifer availability volumes were removed from Table 5. Irion County has no aquifers besides the Lipan, Edwards-Trinity (Plateau), and Dockum. Sterling County Other has been assigned to the Lipan Aquifer, and now pumping for Sterling City public supply is captured under Sterling County non-relevant (Lipan Aquifer).

Region F MAGs

Region F includes portions of Groundwater Management Areas (GMAs) 2, 3, 7 and 8. The MAG estimates that were developed during the latest round of joint planning are summarized in Table 1. This table compares the total of all MAG estimates for each county in Region F for the current and previous joint planning cycles. All units are acre-feet per year (afy). The difference in volumes between joint planning cycles 1 and 2 is color-coded to indicate an increase in the MAG volume (with black numbers) or a decrease in the MAG (shown with red numbers and parentheses). For decade 2020, the previous MAGs totaled 1,003,925 acre-feet per year (afy) for entire region. The current MAGs total 984,915 afy for 2020. Overall, there has been a decrease ranging from 19,010 afy for decade 2020 to a maximum decrease of 39,626 afy for decade 2040. Some of the anticipated decreases in MAG volumes were discussed by Bill Hutchison at a previous meeting of the RWPG.

Nomenclature Changes

The three major aquifer MAGs have been lumped since the last planning cycle. The Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers (ETPPVT) have been combined into one MAG volume where applicable in GMA7. Also, with the introduction of regions to the North Trinity Woodbine GAM, the Trinity Aquifer formation / member nomenclature in GMA8 has expanded since the last planning cycle to include the Antlers, the Travis Peak and the Twin Mountains formations. This only affects Brown County in Region F.

MAG change to Non-MAG

The three seemingly largest MAG decreases for individual counties appear to be in Tom Green (decrease of 39,787 afy in 2020), Midland (decrease of 31,343 afy in 2020), and Mitchell (decrease of 14,018 afy in 2020) Counties. However, these are not real decreases in availability but are a result of the aquifers being declared as non-relevant. For aquifers that were designated to be non-relevant in this joint planning cycle, the previous MAG volume estimates were transferred over to the non-relevant availability volume without revision. There are comments in Table 1 indicating if the aquifer was determined to be non-relevant. These are discussed in greater detail in the Non-MAG portion of this memo.

Maps of the relevant and non-relevant portions of major and minor aquifers are included as Figures 1 through 4. Figure 5 is a map of the GCDs within Region F.

MAG Availability Volume Changes

The Ogallala is relevant only in Glasscock County, however, this is the largest real decrease in MAG volume estimates summarized in Table 1. The total MAG decrease in Glasscock County ranges from 13,424 to 8,092 afy. To help determine which aquifer this decrease can be attributed to, the current MAG volumes by aquifer are detailed in Table 2, and the 2016 MAG volumes are detailed in Table 3. A comparison of the MAGs listed for Glasscock County in Tables 2 and 3, indicates that the MAG volume for the Edwards-Trinity (Plateau) and Pecos Valley and Trinity Aquifers remains relatively unchanged at 65,186 afy (give or take). However, the previous Ogallala Aquifer MAG has decreased from 21,322 afy to 7,925 afy for the year 2020, which accounts for the largest availability decrease in any one county in Region F during this planning cycle.

The next largest decrease in total MAG volumes occurs in Ward County (6,387 afy). These decreases can be attributed to the Dockum, Capitan, and Rustler Aquifers, which have decreased available volume 4,850 afy, 948 afy, and 555 afy, respectively. The third largest decrease in available volume occurs in Reeves County, which can be attributed to the Dockum (2,431 afy), Capitan (1,007 afy), and the ETPPVT (667 afy). This is slightly offset by an increase for the Rustler Aquifer of 411 afy. All other total MAG volume decreases per county range from 1,913 afy (Crane County) to 1 afy (Coke County).

Martin, Howard, and McCulloch Counties had the largest increases in MAG volumes, which can be attributed solely to the Ogallala Aquifer for Martin and Howard Counties and primarily to the Hickory Aquifer in McCulloch County.

Partial MAGs

Note that there are two districts located within the Edwards-Trinity (Plateau) Aquifer that have declared this aquifer to be non-relevant for planning purposes, Therefore, both the Lipan-Kickapoo WCD and the Hickory UWCD1 counties may have both a partial MAG (for the portions of counties outside of the district) and a non-MAG (for portions of applicable counties located within the districts).

Region F Non-MAGs

Non-MAGs encompass both the aquifers designated as non-relevant and other aquifers. The total non-relevant availability volume for this planning cycle is 121,324 afy and the total availability from other aquifers is 29,130 afy. This totals 150,454 afy. In the previous plan, total non-relevant aquifer volume was 31,684 afy, and total other aquifer volume was 29,881 afy. Combined, these sources totaled 61,565 afy. The addition of over 87,000 afy to non-relevant and other aquifers can primarily be attributed to the Lipan, Ogallala, and Dockum Aquifers being reclassified as non-relevant in most counties within GMA7, and the addition of the San Andres Formation (10,000 afy) to Pecos County - Other Aquifer.

Non-Relevant Aquifers

Table 4 summarize the non-relevant aquifer availability volume estimates for this planning cycle and contains notes regarding the methodology or source of the availability volume estimates. Aquifers declared non-relevant for this planning cycle are as follows:

GMA2 (Gam Run 16-028 MAG):

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

GMA3 (Gam Run 16-027 MAG Final):

- Capitan Reef in Crane, Loving, and Reeves Counties
- Rustler in Crane County

GMA7 (Gam Run 16-026 MAG Version 2):

- Blaine, Igneous, Lipan, Marble Falls, and Seymour Aquifers
- Edwards-Trinity (Plateau) Aquifer in Hickory UWCD1, Lipan-Kickapoo WCD, Lone Wolf GCD, and Wes-Tex GCD
- Ellenburger-San Saba Aquifer in Llano County
- Dockum Aquifer outside of Santa Rita GCD and Middle Pecos GCD
- Ogallala Aquifer outside of Glasscock County

GMA8 (Gam Run 17-029 MAG):

- No aquifers that are within Region F

Other Aquifers

Table 5 details the Other (undifferentiated) Aquifer volume estimates. The total availability from other aquifers is 29,130 afy. The methodology for these volume estimates is derived from the maximum four-year historical annual pumping that occurred in years 2012 through 2015. Historical pumping data are based upon TWDB water use surveys. An exception to this methodology is Borden County, which kept the 2,598 acre-feet maximum historical use (year 2009) that was used in the previous planning cycle. Another exception is the Pecos County volume of 10,000 afy for water from the San Andres Formation.

The Cross Timbers Aquifer was designated as a minor aquifer in 2017. This aquifer encompasses all of Coleman County and portions of Brown, Concho, McCulloch and Runnels Counties in Region F. The aquifer is comprised of Paleozoic-age formations in the Wichita Group (Permian System) and the Cisco, Canyon and Strawn Groups (Pennsylvanian System). The Cross Timbers Aquifer was designated as a minor aquifer in 2017. This aquifer encompasses all of Coleman County and portions of Brown, Concho, McCulloch and Runnels Counties in Region F.

San Andres Formation Estimated Groundwater Availability

In 1957, there were at least 27 groundwater wells completed in the San Andres Formation in northern Pecos County near Imperial, Texas. The wells were flowing at the surface when they were drilled but due to continuous discharge and decreasing formation pressure, only about eight of these wells currently flow. In 1957, the withdrawals were estimated to have been 10,000 acre-feet. An additional quantity of over 3,000 acre-feet was estimated to be available from this source. Uses included irrigation, secondary recovery via waterflooding, and livestock. Water quality was characterized by total dissolved solid concentrations that exceed 5,000 milligrams per liter, hydrogen sulfide gas presence in the groundwater, and sulphur that precipitates out upon oxidation at the surface (Armstrong and McMillion, 1961).

The Capitan Reef Complex is located about four miles to the west of the flowing San Andres Formation wells. The underlying San Andres Formation is structurally high in the area west of Imperial, functions as the base of the backreef sequence, and has good hydrogeological communication with the Capitan Reef Complex (Standen and others, 2009). However, the source of water to the flowing wells is the San Andres Formation (Standen, 2018).

Measurement of discharge from two flowing wells (C-83 and C-88) using weirs was performed in 2015.

- Measured flow from C-83 was 215 gallons per minute (gpm) in November, 2015. Historically, measured flow from this well varied from 1,330 to 900 gpm between April and August, 1957.
- Measured flow from C-88 was 900 to 1,200 gpm in 2015. In 1957 the flow from this well was measured at 900 gpm.

In 2015, total flow from the two wells was over 2 million gallons per day (mgd), which is equivalent to 2,280 acre-feet per year (afy) (LBG-Guyton, 2015). If this average is applied to the eight flowing wells, it

gives an estimate of nearly 9,000 afy. The Middle Pecos district recently indicated that several of the eight flowing wells produce between one to 2.5 mgd. Assuming this applies to four wells, this indicates groundwater availability estimates ranging between 4,480 afy and 11,200 afy for the more productive wells.

For the purposes of regional water planning, WSP believes that an availability estimate of 10,000 afy is reasonable for this planning cycle. This estimate only includes discharge from flowing wells and does not consider impacts from groundwater pumping, subsidence, or water quality. The various environmental issues associated with San Andres Formation water will be discussed in further detail in the regional water plan.

REFERENCES

Armstrong, C.A., and McMillion, L.G., 1961. Geology and Groundwater Resources of Pecos County, Texas, Bulletin 6106 prepared by the U.S. Geological Survey and the Texas Board of Water Engineers in cooperation with Pecos County, 2 volumes.

LBG-Guyton Associates, 2015. Preliminary Compilation of Hydrogeologic Information Collected on the MRK Wells, Pecos County, Texas, 38 p.

Standen, 2018. Personal communication.

Standen and others, 2009. Capitan Reef Complex Structure and Stratigraphy, prepared for Texas Water Development Board Contract No. 0804830794, 63 p.

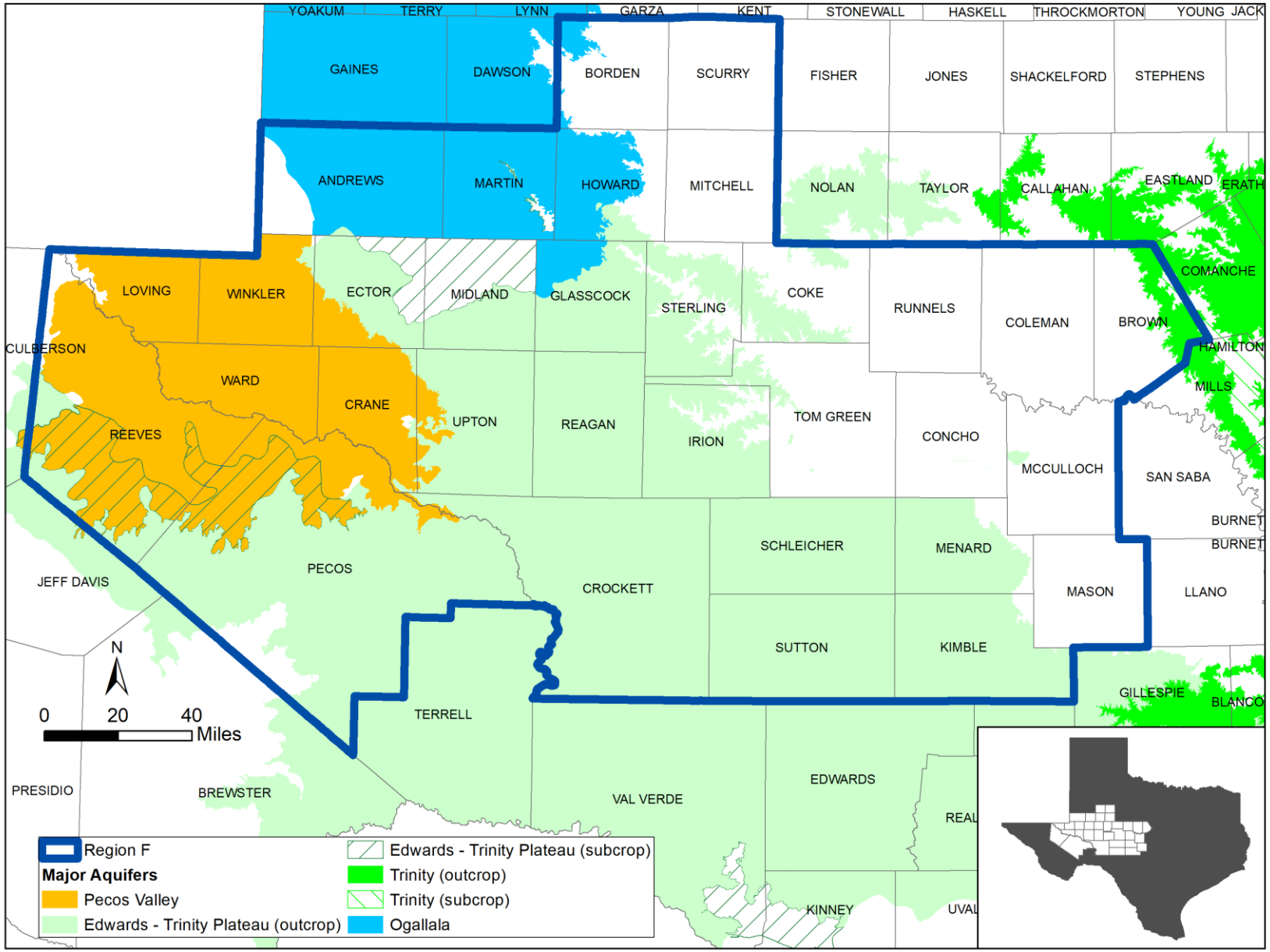


Figure 1. Relevant Major Aquifers

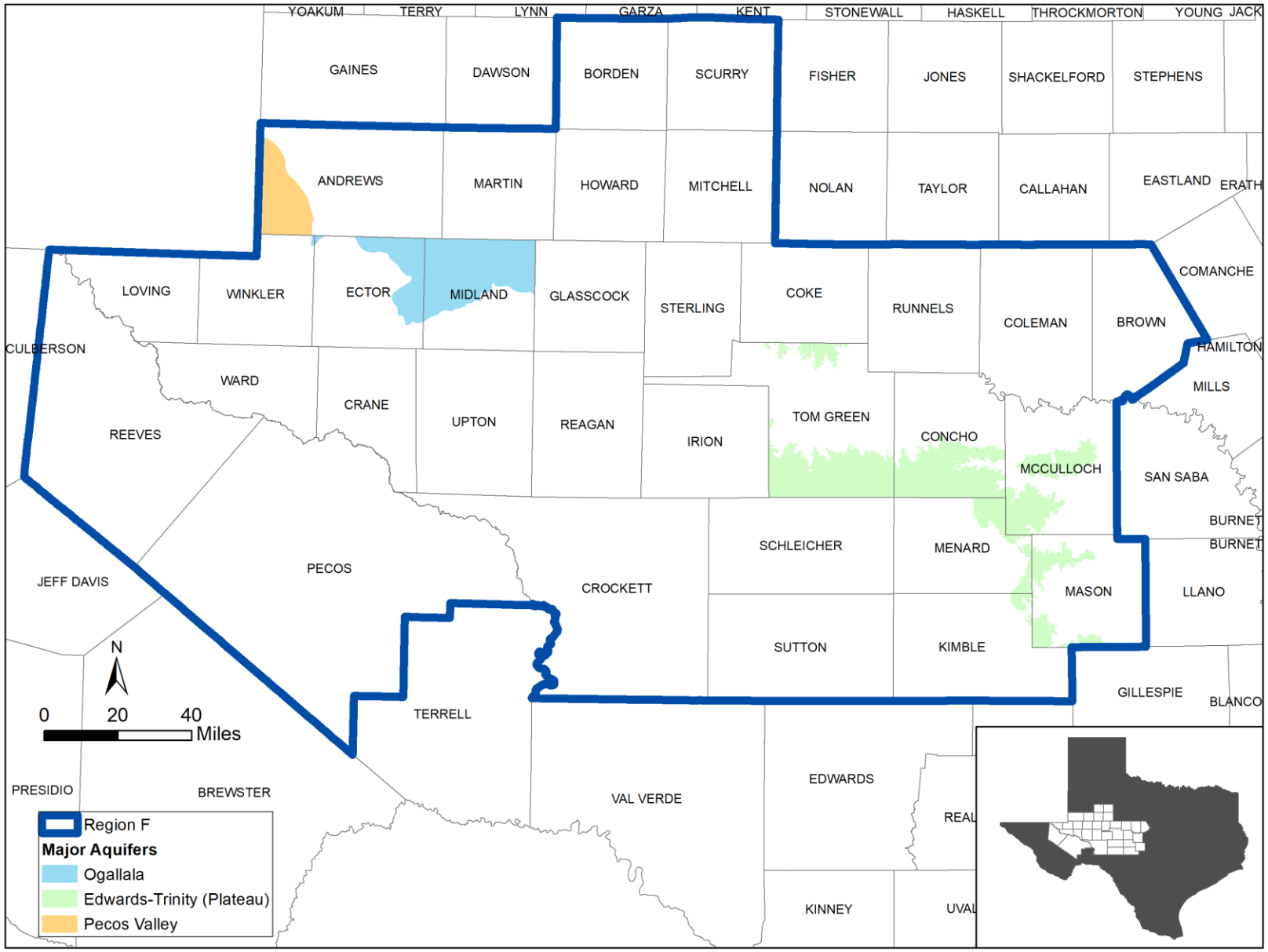


Figure 2. Non-relevant Major Aquifers

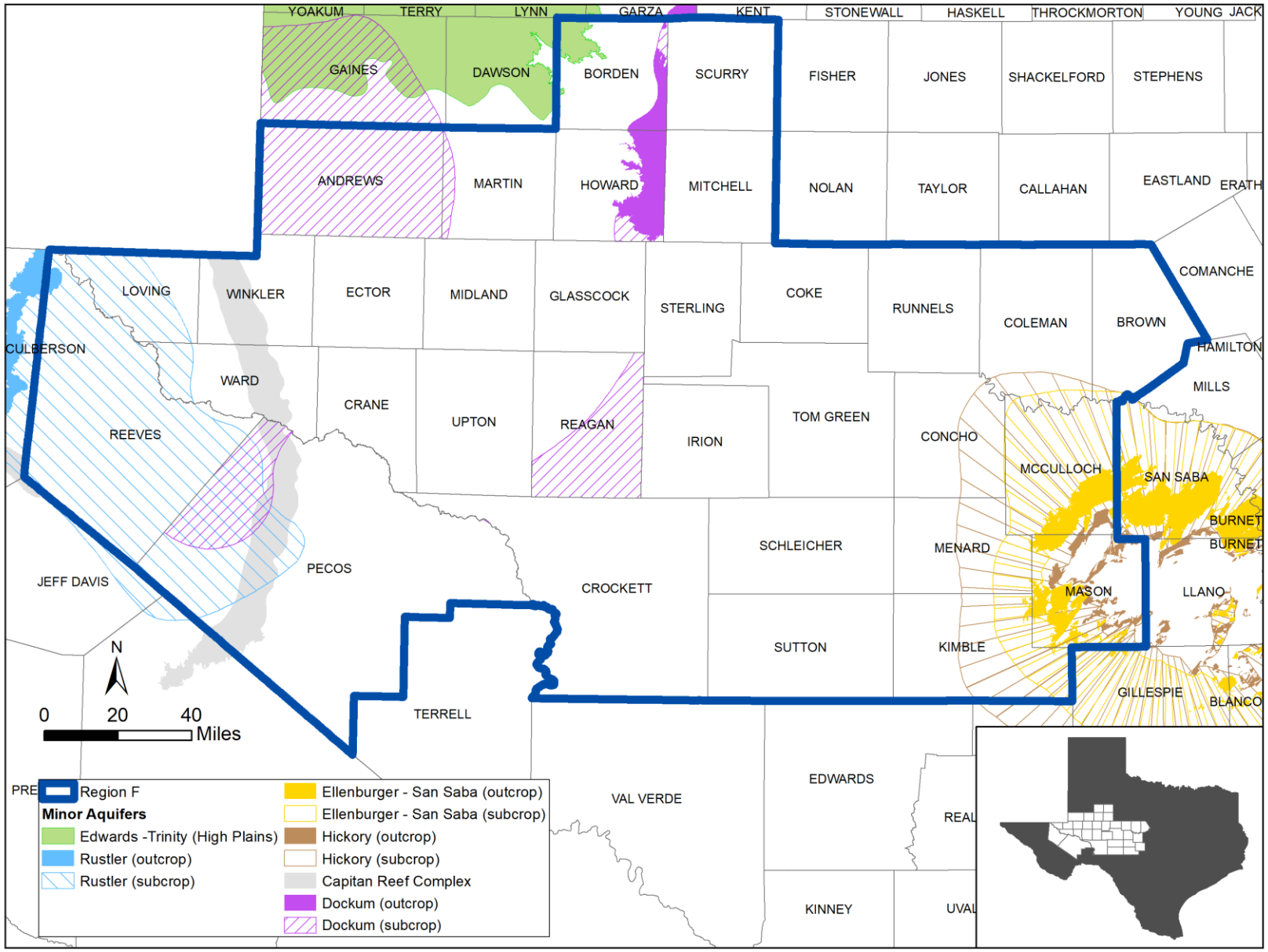


Figure 3. Relevant Minor Aquifers

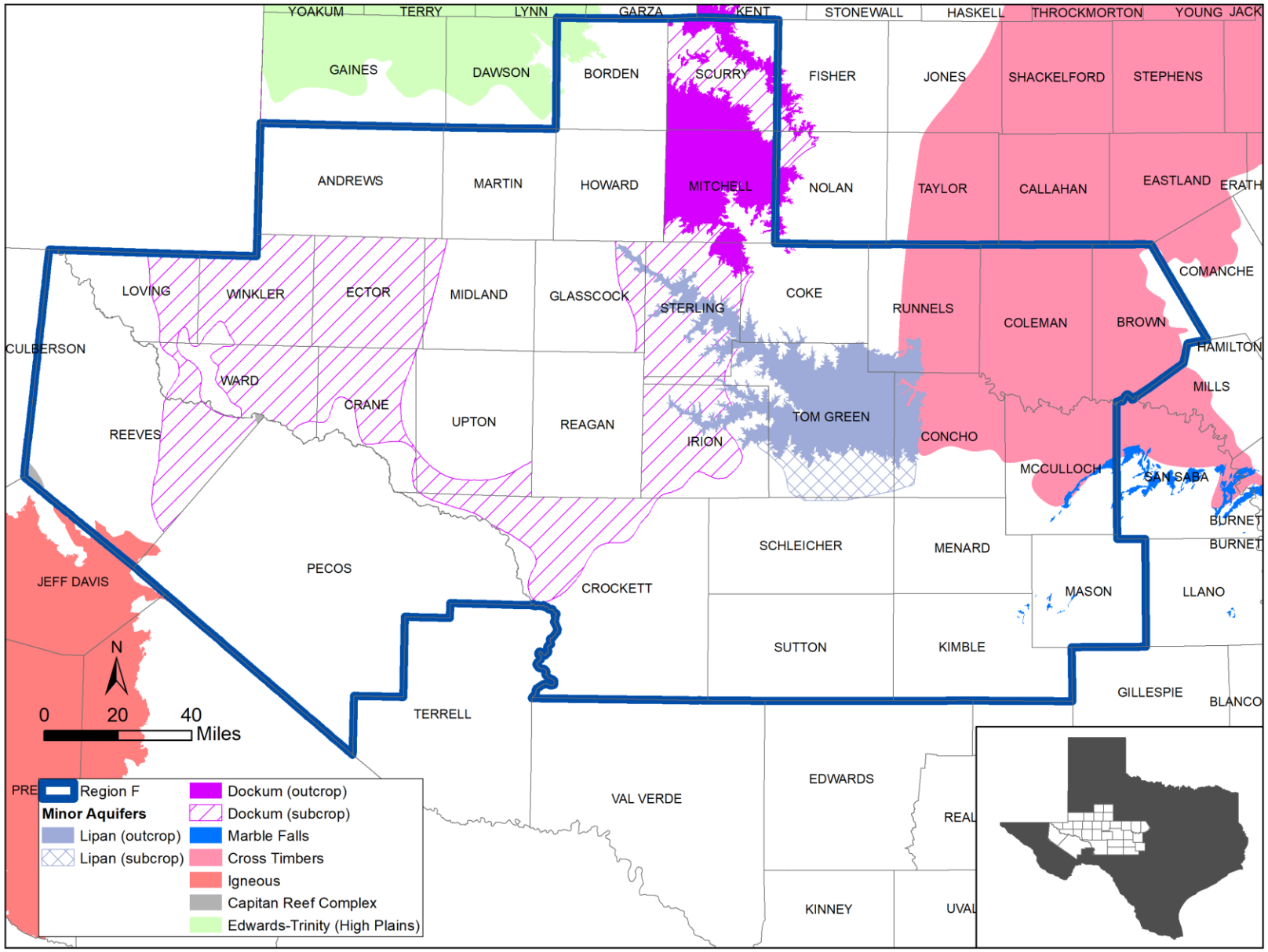


Figure 4. Non-relevant Minor and Other Aquifers

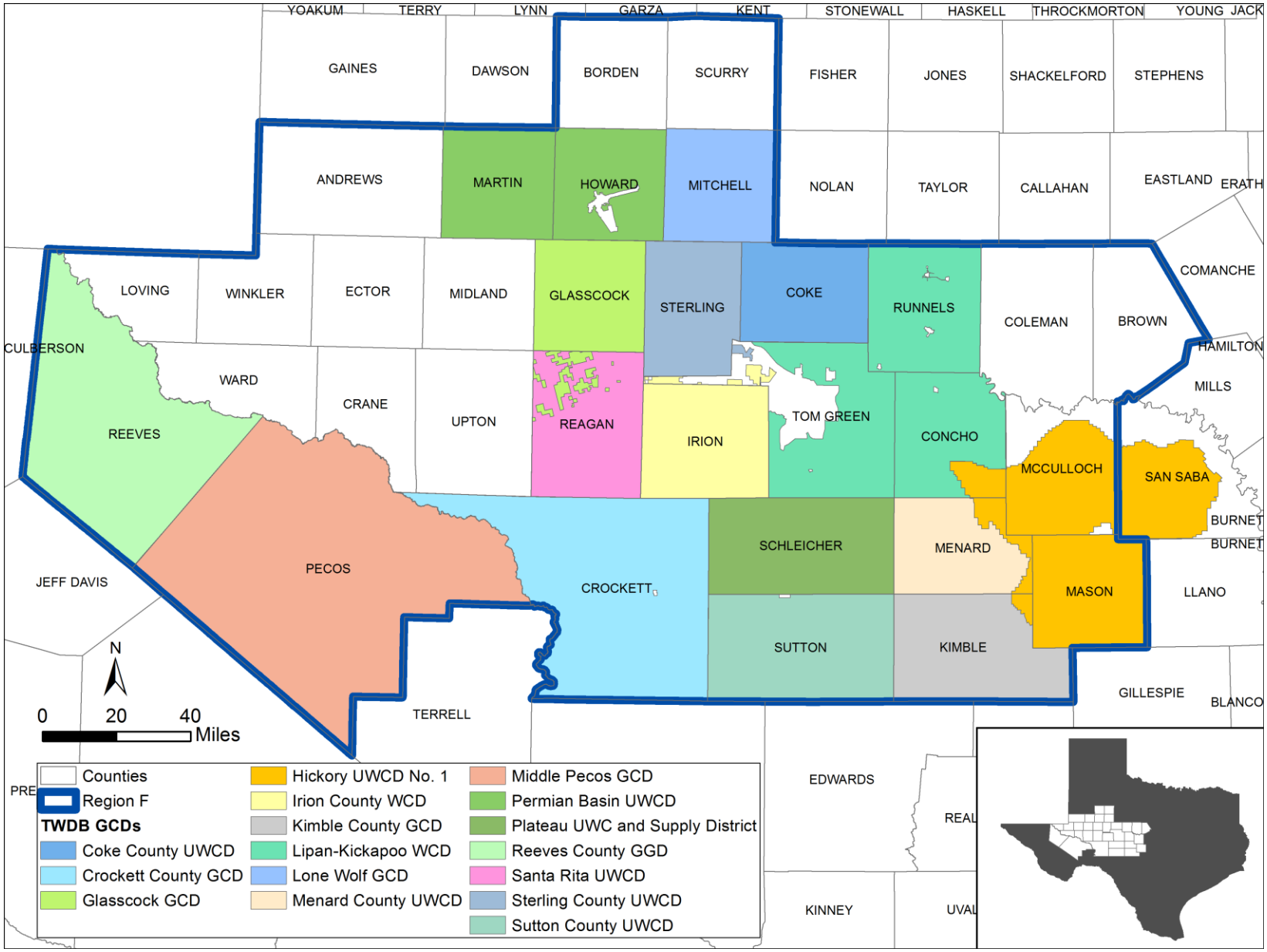


Figure 5. GCDs within Region F

Table 1

Region F Comparison of MAG Volumes

Previous and Current Joint Planning Cycles

(all values are in acre-feet per year)

	JP1						JP2						Difference (Red value in parentheses is a decrease, black is an increase.)					Comments
County	**2020**	**2030**	**2040**	**2050**	**2060**	**GMA**	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**	**2020**	**2030**	**2040**	**2050**	**2060**	
ANDREWS	15,985	14,569	12,905	10,907	8,268	**2**	26,256	22,694	21,114	20,093	19,359	18,793	10,271	8,125	8,209	9,186	11,091	
BORDEN	1,020	1,020	1,020	1,020	1,020	**2**	6,823	5,540	4,970	4,638	4,322	4,113	5,803	4,520	3,950	3,618	3,302	
BROWN	2,188	2,188	2,188	2,188	2,188	**8**	1,618	1,614	1,618	1,614	1,618	1,614	(570)	(574)	(570)	(574)	(570)	Trinity
COKE	998	998	998	998	998	**7**	997	997	997	997	997	997	(1)	(1)	(1)	(1)	(1)	
COLEMAN	500	500	500	500	500	**7**	-	-	-	-	-	-	(500)	(500)	(500)	(500)	(500)	Hickory
CONCHO	1,835	1,835	1,835	1,835	1,835	**7**	27	27	27	27	27	27	(1,808)	(1,808)	(1,808)	(1,808)	(1,808)	Lipan Non-relevant
CRANE	6,998	6,998	6,998	6,998	6,998	**3**	5,085	5,085	5,085	5,085	5,085	5,085	(1,913)	(1,913)	(1,913)	(1,913)	(1,913)	Dockum
CROCKETT	5,457	5,457	5,457	5,457	5,457	**7**	5,447	5,447	5,447	5,447	5,447	5,447	(10)	(10)	(10)	(10)	(10)	
ECTOR	14,089	13,793	13,234	13,198	12,790	**7**	5,542	5,542	5,542	5,542	5,542	5,542	(8,547)	(8,251)	(7,692)	(7,656)	(7,248)	Ogallala Non-relevant
GLASSCOCK	86,535	86,088	84,904	82,502	80,081	**7**	73,111	72,859	72,558	72,244	71,989	71,756	(13,424)	(13,229)	(12,346)	(10,258)	(8,092)	Ogallala relevant but much smaller MAG
HOWARD	3,075	2,731	2,731	2,731	2,703	**2**	21,424	18,980	17,853	17,227	16,870	16,655	18,349	16,249	15,122	14,496	14,167	
IRION	2,293	2,293	2,293	2,293	2,293	**7**	3,289	3,289	3,289	3,289	3,289	3,289	996	996	996	996	996	
KIMBLE	1,593	1,593	1,593	1,593	1,593	**7**	1,968	1,968	1,968	1,968	1,968	1,968	375	375	375	375	375	
LOVING	5,167	5,167	5,167	5,167	5,167	**3**	3,635	3,635	3,635	3,635	3,635	3,635	(1,532)	(1,532)	(1,532)	(1,532)	(1,532)	Rustler, Dockum
MCCULLOCH	12,525	12,525	12,525	12,525	12,525	**7**	28,741	28,741	28,741	28,741	28,741	28,741	16,216	16,216	16,216	16,216	16,216	
MARTIN	13,570	13,570	13,140	12,299	12,277	**2**	63,471	51,134	43,869	39,801	37,218	35,433	49,901	37,564	30,729	27,502	24,941	
MASON	18,095	18,095	18,095	18,095	18,095	**7**	16,449	16,449	16,449	16,449	16,449	16,449	(1,646)	(1,646)	(1,646)	(1,646)	(1,646)	Ellenburger-San Saba smaller MAG
MENARD	4,001	4,001	4,001	4,001	4,001	**7**	5,251	5,251	5,251	5,251	5,251	5,251	1,250	1,250	1,250	1,250	1,250	
MIDLAND	61,639	60,075	57,874	55,944	54,576	**7**	23,233	23,233	23,233	23,233	23,233	23,233	(38,406)	(36,842)	(34,641)	(32,711)	(31,343)	Ogallala Non-relevant
MITCHELL	14,018	14,018	14,018	14,018	14,018	**7**	-	-	-	-	-	-	(14,018)	(14,018)	(14,018)	(14,018)	(14,018)	Dockum Non-relevant
PECOS	275,715	275,715	275,715	275,715	275,715	**3&7**	281,583	281,583	281,583	281,583	281,583	281,583	5,868	5,868	5,868	5,868	5,868	
REAGAN	68,278	68,278	68,278	68,278	68,278	**7**	68,535	68,535	68,535	68,535	68,535	68,233	257	257	257	257	257	
REEVES	198,094	198,094	198,094	198,094	198,094	**3**	194,670	194,670	194,670	194,670	194,670	194,670	(3,424)	(3,424)	(3,424)	(3,424)	(3,424)	Dockum, Capitan
RUNNELS	15	15	15	15	15	**7**	-	-	-	-	-	-	(15)	(15)	(15)	(15)	(15)	Lipan Non-relevant
SCHLEICHER	8,050	8,050	8,050	8,050	8,050	**7**	8,034	8,034	8,034	8,034	8,034	8,034	(16)	(16)	(16)	(16)	(16)	
SCURRY	1,209	1,209	1,209	1,209	1,209	**7**	-	-	-	-	-	-	(1,209)	(1,209)	(1,209)	(1,209)	(1,209)	Dockum Non-relevant
STERLING	2,497	2,497	2,497	2,497	2,497	**7**	2,495	2,495	2,495	2,495	2,495	2,495	(2)	(2)	(2)	(2)	(2)	
SUTTON	6,438	6,438	6,438	6,438	6,438	**7**	6,410	6,410	6,410	6,410	6,410	6,410	(28)	(28)	(28)	(28)	(28)	
TOM GREEN	39,787	39,787	39,787	39,787	39,787	**7**	-	-	-	-	-	-	(39,787)	(39,787)	(39,787)	(39,787)	(39,787)	Lipan Non-relevant
UPTON	22,600	22,600	22,600	22,600	22,600	**7**	22,369	22,369	22,369	22,369	22,369	22,369	(231)	(231)	(231)	(231)	(231)	Dockum Non-relevant
WARD	58,616	58,616	58,616	58,616	58,616	**3**	52,229	52,229	52,229	52,229	52,229	52,229	(6,387)	(6,387)	(6,387)	(6,387)	(6,387)	Dockum, Capitan, Rustler
WINKLER	51,045	51,045	51,045	51,045	51,045	**3**	56,223	56,223	56,223	56,223	56,223	56,223	5,178	5,178	5,178	5,178	5,178	
	1,003,925	**999,858**	**993,820**	**986,613**	**979,727**		**984,915**	**965,033**	**954,194**	**947,829**	**943,588**	**940,274**	**(19,010)**	**(34,825)**	**(39,626)**	**(38,784)**	**(36,139)**	

2021 Plan - Table 2. Modeled Available Groundwater in Region F
(Values in Acre-Feet per Year)

Largest amount of water that can be withdrawn from a given source without violating the most restrictive physical, regulatory, or policy conditions limiting withdrawals, under drought-of-record conditions.

County	Aquifer	Basin	2020	2030	2040	2050	2060	2070
Andrews	Dockum	Colorado	1,319	1,319	1,319	1,319	1,319	1,319
		Rio Grande	0	0	0	0	0	0
	Ogallala and Edwards-Trinity (High Plains)	Colorado	24,937	21,375	19,795	18,774	18,040	17,474
		Rio Grande	0	0	0	0	0	0
Borden	Dockum	Brazos	284	284	284	284	284	284
		Colorado	617	617	617	617	617	617
	Ogallala and Edwards-Trinity (High Plains)	Brazos	842	699	635	597	572	555
		Colorado	5,080	3,940	3,433	3,140	2,849	2,657
Brown	Ellenburger-San Saba	Colorado	131	131	131	131	131	131
	Hickory	Colorado	12	12	12	12	12	12
	Marble Falls	Colorado	25	25	25	25	25	25
	Trinity	Brazos	51	51	51	51	51	51
		Colorado	1,399	1,399	1,399	1,399	1,399	1,399
Coke	Edwards-Trinity (Plateau)	Colorado	997	997	997	997	997	997
Coleman	---	Colorado	---	---	---	---	---	---
Concho	Hickory	Colorado	27	27	27	27	27	27
Crane	Dockum	Rio Grande	94	94	94	94	94	94
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Rio Grande	4,991	4,991	4,991	4,991	4,991	4,991
Crockett	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	20	20	20	20	20	20
		Rio Grande	5,427	5,427	5,427	5,427	5,427	5,427
Ector	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	4,925	4,925	4,925	4,925	4,925	4,925
		Rio Grande	617	617	617	617	617	617
Glasscock	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	65,186	65,186	65,186	65,186	65,186	65,186
	Ogallala	Colorado	7,925	7,673	7,372	7,058	6,803	6,570
Howard	Ogallala and Edwards-Trinity (High Plains)	Colorado	19,835	17,391	16,264	15,638	15,281	15,066
	Dockum	Colorado	1,589	1,589	1,589	1,589	1,589	1,589
Irion	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	3,289	3,289	3,289	3,289	3,289	3,289
Kimble	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	1,282	1,282	1,282	1,282	1,282	1,282
	Ellenburger-San Saba	Colorado	521	521	521	521	521	521
	Hickory	Colorado	165	165	165	165	165	165

2021 Plan - Table 2. Modeled Available Groundwater in Region F
(Values in Acre-Feet per Year)

Largest amount of water that can be withdrawn from a given source without violating the most restrictive physical, regulatory, or policy conditions limiting withdrawals, under drought-of-record conditions.

County	Aquifer	Basin	2020	2030	2040	2050	2060	2070
Loving	Dockum	Rio Grande	453	453	453	453	453	453
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Rio Grande	2,982	2,982	2,982	2,982	2,982	2,982
	Rustler	Rio Grande	200	200	200	200	200	200
McCulloch	Ellenburger-San Saba	Colorado	4,364	4,364	4,364	4,364	4,364	4,364
	Hickory	Colorado	24,377	24,377	24,377	24,377	24,377	24,377
Martin	Ogallala	Colorado	63,463	51,126	43,861	39,793	37,210	35,425
	Dockum	Colorado	8	8	8	8	8	8
Mason	Ellenburger-San Saba	Colorado	3,237	3,237	3,237	3,237	3,237	3,237
	Hickory	Colorado	13,212	13,212	13,212	13,212	13,212	13,212
Menard	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	2,217	2,217	2,217	2,217	2,217	2,217
	Ellenburger-San Saba	Colorado	309	309	309	309	309	309
	Hickory	Colorado	2,725	2,725	2,725	2,725	2,725	2,725
Midland	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	23,233	23,233	23,233	23,233	23,233	23,233
Pecos	Capitan Reef	Rio Grande	26,168	26,168	26,168	26,168	26,168	26,168
	Dockum	Rio Grande	8,164	8,164	8,164	8,164	8,164	8,164
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Rio Grande	240,208	240,208	240,208	240,208	240,208	240,208
	Rustler	Rio Grande	7,043	7,043	7,043	7,043	7,043	7,043
Reagan	Dockum	Colorado	302	302	302	302	302	302
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	68,205	68,205	68,205	68,205	68,205	68,205
		Rio Grande	28	28	28	28	28	28
Reeves	Dockum	Rio Grande	2,539	2,539	2,539	2,539	2,539	2,539
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Rio Grande	189,744	189,744	189,744	189,744	189,744	189,744
	Rustler	Rio Grande	2,387	2,387	2,387	2,387	2,387	2,387
Schleicher	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	6,403	6,403	6,403	6,403	6,403	6,403
		Rio Grande	1,631	1,631	1,631	1,631	1,631	1,631
Sterling	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	2,495	2,495	2,495	2,495	2,495	2,495
Sutton	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	388	388	388	388	388	388
		Rio Grande	6,022	6,022	6,022	6,022	6,022	6,022

2021 Plan - Table 2. Modeled Available Groundwater in Region F
(Values in Acre-Feet per Year)

Largest amount of water that can be withdrawn from a given source without violating the most restrictive physical, regulatory, or policy conditions limiting withdrawals, under drought-of-record conditions.

County	Aquifer	Basin	2020	2030	2040	2050	2060	2070
Upton	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Colorado	21,243	21,243	21,243	21,243	21,243	21,243
		Rio Grande	1,126	1,126	1,126	1,126	1,126	1,126
Ward	Capitan Reef	Rio Grande	103	103	103	103	103	103
	Dockum	Rio Grande	2,150	2,150	2,150	2,150	2,150	2,150
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Rio Grande	49,976	49,976	49,976	49,976	49,976	49,976
	Rustler	Rio Grande	0	0	0	0	0	0
Winkler	Capitan Reef	Rio Grande	274	274	274	274	274	274
	Dockum	Colorado	13	13	13	13	13	13
		Rio Grande	5,987	5,987	5,987	5,987	5,987	5,987
	Edwards-Trinity (Plateau) and Pecos Valley and Trinity	Rio Grande	49,949	49,949	49,949	49,949	49,949	49,949

Table 3. 2016 Modeled Available Groundwater in Region F
(Values in Acre-Feet per Year)

County	Aquifer	Basin	2020	2030	2040	2050	2060	2070
Andrews	Dockum	Colorado	715	715	715	715	715	715
		Rio Grande	135	135	135	135	135	135
	Ogallala	Colorado	15,085	13,678	12,014	10,016	7,377	7,377
		Rio Grande	50	41	41	41	41	41
Borden	Dockum	Brazos	33	33	33	33	33	33
		Colorado	482	482	482	482	482	482
	Edwards-Trinity (High Plains)	Brazos	65	65	65	65	65	65
		Colorado	41	41	41	41	41	41
	Ogallala	Brazos	292	292	292	292	292	292
		Colorado	107	107	107	107	107	107
Brown	Ellenburger-San Saba	Colorado	131	131	131	131	131	131
	Hickory	Colorado	12	12	12	12	12	12
	Trinity	Brazos	28	28	28	28	28	28
		Colorado	2,017	2,017	2,017	2,017	2,017	2,017
Coke	Edwards-Trinity (Plateau)	Colorado	998	998	998	998	998	998
Coleman	Hickory	Colorado	500	500	500	500	500	500
Concho	Hickory	Colorado	1	1	1	1	1	1
	Lipan	Colorado	1,834	1,834	1,834	1,834	1,834	1,834
Crane	Dockum	Rio Grande	2,000	2,000	2,000	2,000	2,000	2,000
	Edwards-Trinity (Plateau)	Rio Grande	26	26	26	26	26	26
	Pecos Valley	Rio Grande	4,972	4,972	4,972	4,972	4,972	4,972
Crockett	Edwards-Trinity (Plateau)	Colorado	19	19	19	19	19	19
		Rio Grande	5407	5407	5407	5407	5407	5407
	Pecos Valley	Rio Grande	31	31	31	31	31	31
Ector	Dockum	Colorado	13	13	13	13	13	13
		Rio Grande	515	515	515	515	515	515
	Edwards-Trinity (Plateau)	Colorado	4,918	4,918	4,918	4,918	4,918	4,918
		Rio Grande	504	504	504	504	504	504
	Pecos Valley	Rio Grande	113	113	113	113	113	113
	Ogallala	Colorado	8,026	7,730	7,171	7,135	6,727	6,727
Glasscock	Edwards-Trinity (Plateau)	Colorado	65,213	65,213	65,213	65,213	65,213	65,213
	Ogallala	Colorado	21,322	20,875	19,691	17,289	14,868	14,868
Howard	Ogallala	Colorado	3,075	2,731	2,731	2,731	2,703	2,703
Irion	Edwards-Trinity (Plateau)	Colorado	2,293	2,293	2,293	2,293	2,293	2,293
Kimble	Edwards-Trinity (Plateau)	Colorado	1,283	1,283	1,283	1,283	1,283	1,283
	Ellenburger-San Saba	Colorado	304	304	304	304	304	304
	Hickory	Colorado	6	6	6	6	6	6
Loving	Dockum	Rio Grande	1,000	1,000	1,000	1,000	1,000	1,000
	Edwards-Trinity (Plateau)	Rio Grande	0	0	0	0	0	0
	Pecos Valley	Rio Grande	2,984	2,984	2,984	2,984	2,984	2,984
	Rustler	Rio Grande	1,183	1,183	1,183	1,183	1,183	1,183
Martin	Ogallala	Colorado	13,570	13,570	13,140	12,299	12,277	12,277
Mason	Ellenburger-San Saba	Colorado	5,801	5,801	5,801	5,801	5,801	5,801
	Hickory	Colorado	12,294	12,294	12,294	12,294	12,294	12,294
McCulloch	Edwards-Trinity (Plateau)	Colorado	4	4	4	4	4	4
	Ellenburger-San Saba	Colorado	5,369	5,369	5,369	5,369	5,369	5,369
	Hickory	Colorado	7,152	7,152	7,152	7,152	7,152	7,152

Table 3. 2016 Modeled Available Groundwater in Region F
(Values in Acre-Feet per Year)

County	Aquifer	Basin	2020	2030	2040	2050	2060	2070
Menard	Edwards-Trinity (Plateau)	Colorado	2,194	2,194	2,194	2,194	2,194	2,194
	Ellenburger-San Saba	Colorado	791	791	791	791	791	791
	Hickory	Colorado	1,016	1,016	1,016	1,016	1,016	1,016
Midland	Dockum	Colorado	0	0	0	0	0	0
	Edwards-Trinity (Plateau)	Colorado	23,251	23,251	23,251	23,251	23,251	23,251
	Ogallala	Colorado	38,388	36,824	34,623	32,693	31,325	31,325
Mitchell	Dockum	Colorado	14,018	14,018	14,018	14,018	14,018	14,018
Pecos	Capitan Reef	Rio Grande	11,122	11,122	11,122	11,122	11,122	11,122
	Dockum	Rio Grande	13,965	13,965	13,965	13,965	13,965	13,965
	Edwards-Trinity (Plateau)	Rio Grande	115,938	115,938	115,938	115,938	115,938	115,938
	Pecos Valley	Rio Grande	124,182	124,182	124,182	124,182	124,182	124,182
	Rustler	Rio Grande	10,508	10,508	10,508	10,508	10,508	10,508
Reagan	Edwards-Trinity (Plateau)	Colorado	68,250	68,250	68,250	68,250	68,250	68,250
		Rio Grande	28	28	28	28	28	28
Reeves	Capitan Reef	Rio Grande	1,007	1,007	1,007	1,007	1,007	1,007
	Dockum	Rio Grande	5,000	5,000	5,000	5,000	5,000	5,000
	Edwards-Trinity (Plateau)	Rio Grande	3,389	3,389	3,389	3,389	3,389	3,389
	Pecos Valley	Rio Grande	186,722	186,722	186,722	186,722	186,722	186,722
	Rustler	Rio Grande	1,976	1,976	1,976	1,976	1,976	1,976
Runnels	Lipan	Colorado	15	15	15	15	15	15
Schleicher	Edwards-Trinity (Plateau)	Colorado	6,410	6,410	6,410	6,410	6,410	6,410
		Rio Grande	1,640	1,640	1,640	1,640	1,640	1,640
Scurry	Dockum	Brazos	306	306	306	306	306	306
		Colorado	903	903	903	903	903	903
Sterling	Edwards-Trinity (Plateau)	Colorado	2,497	2,497	2,497	2,497	2,497	2,497
Sutton	Edwards-Trinity (Plateau)	Colorado	386	386	386	386	386	386
		Rio Grande	6,052	6,052	6,052	6,052	6,052	6,052
Tom Green	Edwards-Trinity (Plateau)	Colorado	426	426	426	426	426	426
	Lipan	Colorado	39,361	39,361	39,361	39,361	39,361	39,361
Upton	Dockum	Colorado	0	0	0	0	0	0
		Rio Grande	219	219	219	219	219	219
	Edwards-Trinity (Plateau)	Colorado	21,257	21,257	21,257	21,257	21,257	21,257
		Rio Grande	1,122	1,122	1,122	1,122	1,122	1,122
	Pecos Valley	Rio Grande	2	2	2	2	2	2
Ward	Capitan Reef	Rio Grande	1,051	1,051	1,051	1,051	1,051	1,051
	Dockum	Rio Grande	7,000	7,000	7,000	7,000	7,000	7,000
	Edwards-Trinity (Plateau)	Rio Grande	0	0	0	0	0	0
	Pecos Valley	Rio Grande	50,010	50,010	50,010	50,010	50,010	50,010
	Rustler	Rio Grande	555	555	555	555	555	555
Winkler	Capitan Reef	Rio Grande	1,061	1,061	1,061	1,061	1,061	1,061
	Dockum	Colorado	33	33	33	33	33	33
		Rio Grande	9,967	9,967	9,967	9,967	9,967	9,967
	Pecos Valley	Rio Grande	39,984	39,984	39,984	39,984	39,984	39,984

Table 4
Region F
Non-relevant Aquifer Availability Volumes

Still non-relevant?	County	Aquifer	Basin	2011 Plan Availibility	2016 Plan Availability	DFC Compatible Availability	DFC Compatible Availibility Source/Method	Comments
Y	Andrews	Edwards-Trinity (Plateau)	Colorado	4,640	3,000	1,198	Current: 2016 TWDB DFC Compatible Availability Value; 2016 plan estimate based on GMA7 GTA 08-05 GAM run, Ector Co area 7 numbers and assumption that approximate areas are equivalent; area 7 is most similar and closest to Andrews	2011 pumpage (livestock) = 3 2016 pumpage for livestock ~2.4 af (no other reported user)
Y		Pecos Valley Alluvium	Rio Grande	1,189	1,000	150	Current estimate based on existing well reports compiled (2000-2018) plus historical pumping; 2016 plan estimate based on Ector Co DFC compatible availability, both areas on outer edge of basin	2011 pumpage (livestock) = 34 2016 municipal and livestock pumping = 138 af
Y	Coke	Dockum	Colorado	12	0	100	Current estimate: Lots of rig supply wells; previous estimate was TWDB value	
Y		Lipan	Colorado	0	0	160	Current estimate: sum of yield for existing wells; previous estimate was TWDB value	
Y	Coleman	Hickory	Colorado	0	500	500	estimate equivalent to Concho Co	no TWDB wells; no known historical use
Y	Concho	Edwards-Trinity (Plateau)	Colorado	12,278	487	459	TWDB DFC Compatible Availability Value	2011 pumpage (livestock) = 184
Y, adding area inside LKGCD		Lipan	Colorado	6,513	59	1,893	Current: 2016 MAG plus NR volume from 2016 plan	outside Lipan-Kickapoo GAM area = 59; relevant portion (in GCD) MAG=1834 - summed partials (all NR)
Y, Brackish	Crane	Rustler	Rio Grande	0	1,000	1,000	Current: Rustler brackish study indicates slightly to moderately saline water in Crane County) 2016 plan estimate based on GMA3 AA-10-37 MAG numbers	1 well TDS=111,000; 1 well TDS=2,595 (unused) (brackish - outside of fw aquifer boundary)
Y	Crockett	Dockum	Colorado	0	80	2	Current estimate revised to account for basin is very small portion of county; 2016 plan estimate based on 25% total inflow for Crockett Co - GAM run 10-001; assume relevant area 25% area of entire county	2011 pumpage (livestock) = 1 2016 pumping ~1.8 af
Y		Dockum	Rio Grande	0	2	2	TWDB DFC Compatible Availability Value	
NEW	Ector	Dockum	Colorado			13	2016 MAG	
NEW	Ector	Dockum	Rio Grande			515	2016 MAG	
NEW	Ector	Ogallala	Colorado			8,026	2016 MAG	
Y	Glasscock	Dockum	Colorado	140	900	900	Estimate based on GMA7 GAM run 10-001 Glasscock Co total inflow and assumes that the non-rel portion area ~ 10% of entire county, TWDB MAG = 0 ??	brackish - outside of fw aquifer boundary; 2018 - lots of rig supply wells, but not Dockum
Y		Lipan	Colorado	0	10	10		
Y	Howard	Edwards-Trinity (Plateau)	Colorado	1,700	1,650	672	2016 TWDB DFC Compatible Availability Value	2011 pumpage (irr, stk, mun) = 3853 2016 pumping = 1485 af
Y	Irion	Dockum	Colorado	0	150	150	estimate based on GMA7 GAM run 17-013 Irion Co total Lipan inflow	2011 pumpage (livestock) = 1; O&G activity high 2016 pumping ~1.1 af
Y		Lipan	Colorado	0	13	13	TWDB DFC Compatible Availability Value	
Y	Kimble	Edwards-Trinity (Plateau)	Colorado	23,965	104	104	2.55% of Kimble CO ETP recharge	
Y		Marble Falls	Colorado	0	100	100		no wells on WIID
Y	McCulloch	Edwards-Trinity (Plateau)	Colorado	8,249	144	148	TWDB DFC Compatible Availability Value	144 for area within Hickory UWCD; relevant portion MAG=4
Y		Marble Falls	Colorado	15	50	50		a few exempt wells; avg. historical use 2007-2011=36
Y	Martin	Edwards-Trinity (Plateau)	Colorado	3,398	1,500	242	Current = 2016 TWDB DFC Compatible Availability Value; previous estimate based on GMA7 GTA 08-05 (p. 7) Midland Co area 9 numbers and assumes non-rel area ~ 33% of Midland Co area 9	
Y	Mason	Edwards-Trinity (Plateau)	Colorado	3,828	18	18	TWDB DFC Compatible Availability Value	2011 pumpage (livestock) = 12
Y		Marble Falls	Colorado	134	100	100		no wells on WIID
Y	Menard	Edwards-Trinity (Plateau)	Colorado	19,000	377	377	TWDB DFC Compatible Availability Value	377 for area within Hickory UWCD; relevant portion MAG=2194
NEW	Midland	Dockum	Colorado			400	well reports for fracking 7 wells - assume Santa Rosa 35 gpm	BRACKISH TDS ~8000 from 1 well
NEW	Midland	Ogallala	Colorado			38,388	2016 MAG	
NEW	Mitchell	Dockum	Colorado			14,018	2016 MAG	
NEW	Mitchell	PV, ETP, T	Colorado			0	2016 MAG	
NEW	Pecos	Igneous	Rio Grande			80	assume 4-5 stock wells @5-10 gpm	assume 4-5 stock wells @5-10 gpm

Table 4
Region F
Non-relevant Aquifer Availability Volumes

Still non-relevant?	County	Aquifer	Basin	2011 Plan Availibility	2016 Plan Availability	DFC Compatible Availability	DFC Compatible Availibility Source/Method	Comments
NEW	Reeves	Igneous	Rio Grande			300	TWDB 2016 groundwater pumpage = 372 afy (non-surveyed estimates) x 0.8	
NEW	Reeves	Capitan Reef Complex	Rio Grande			1,007	2016 MAG	NO WELLS; NO DATA
Y, adding area inside LKGCD	Runnels	Lipan	Colorado	4,536	30	45	2016 MAG	outside Lipan-Kickapoo GAM area=30; relevant portion (in GCD) MAG=15 summed partials (all NR)
Y	Schleicher	Lipan	Colorado	0	0	0	TWDB DFC Compatible Availability Value	furthest downdip portion, zero is fine
NEW	Scurry	Dockum	Brazos			306	2016 MAG	
NEW	Scurry	Dockum	Colorado			903	2016 MAG	
NEW	Scurry	Seymour	Brazos			10	no wells no data no recharge numbers (no district)	
Y	Sterling	Dockum	Colorado	0	10	10	TWDB DFC Compatible Availability Value	2011 pumpage (livestock) = 6
Y		Lipan	Colorado	0	50	850	Sterling City system capacity = 2,580 afy pumping 24/7, assume 6 hours pumping/day = 645 afy; average daily consumption = 200 afy	2013 historical pumping for municipal livestock irrigation and mining = 872 afy
Y	Tom Green	Dockum	Colorado	54	0	200	2 rig supply wells have been drilled, very small area	2 rig supply wells have been drilled, very small area
Y		PV, ETP, T	Colorado	15,037	2,372	2,797	2016 MAG	outside Lipan-Kickapoo GAM area=2372; relevant portion (in GCD) MAG=426 this is a sum of partial MAGs from 2016
Y, adding area inside LKGCD		Lipan	Colorado	37,486	4,207	43,568	2016 MAG	outside Lipan-Kickapoo GAM area=4207; relevant portion (in GCD) MAG=39361 - summed partials (all NR)
NEW	Upton	Dockum				1,000	well reports for fracking 17 wells - assume Santa Rosa 35 gpm	
Y, Brackish	Winkler	Rustler	Rio Grande	0	500	500	based on GMA3 AA-10-37 MAG numbers(four Rustler county MAGs total 7180, Ward Co MAG is 555 and is closest in proximity) 2018: revised downward	2 Shell wells: one plugged/destroyed, one TDS=44,000; very brackish for mining or desal only
NEW	Winkler	Ogallala	Rio Grande			40	The nearest well drilled in 2011 (4 miles to northeast) pumps about 25 gpm. About 25 feet of saturated thickness. 40 afy assumes 2 similar wells could be sustained in Winkler.	
					Total:	**121,324**		

Color key

	WSP estimate
	TWDB 'DFC-compatible' spreadsheet MAG from previous cycle
	MAG from previous cycle

Table 5
Groundwater Supplies from Other Undifferentiated Aquifers
(Acre-Feet per Year)

County	Aquifer Name	Basin	2021 Availability
Borden	Other Aquifer	Colorado	2,598
Brown	Other Aquifer | Cross Timbers	Colorado	993
Coke	Other Aquifer	Colorado	2,100
Coleman	Other Aquifer	Colorado	109
	Other Aquifer | Cross Timbers	Colorado	108
Concho	Other Aquifer	Colorado	5,964
Mason	Other Aquifer	Colorado	873
McCulloch	Other Aquifer	Colorado	103
	Other Aquifer | Cross Timbers	Colorado	103
Mitchell	Other Aquifer	Colorado	789
Pecos	Other Aquifer |San Andres	Rio Grande	10,000
Runnels	Other Aquifer	Colorado	5,001
Scurry	Other Aquifer	Brazos	74
		Colorado	315

Total: 29,130 afy

APPENDIX D
Methodology for Identifying Potentially Feasible WMSs

MEMORANDUM

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4055 International Plaza, Suite 200 • Fort Worth, Texas 76109 • 817-735-7300 • fax 817-735-7491 www.freese.com

TO: Region F Water Planning Group

CC: File

FROM: Simone Kiel

SUBJECT: Methodology to Identify Potentially Feasible Water Management Strategies

DATE: March 6, 2018

PROJECT: CMD17216

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, not each strategy type is 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?

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[1] First Amended General Guidelines for Fifth Cycle of Regional Water Plan Development, April 2017. Exhibit C to Contract between TWDB and CRMWD, executed June 22, 2017.

- Can new water be developed? If yes, identify the potential sources.
- Does the water quality meet the end use requirements? If not, can it be treated?
- Are there any technical considerations that would preclude the feasibility of the strategy type? For example, are there suitable geologic formations for aquifer storage and recovery?

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
- 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
- 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. The one strategy in the 2016 RWP is no longer being considered by its sponsor.
- Enhancements of yields. The sources of water for yield enhancement are limited in Region F.

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 E
List of Potentially Feasible Water Management Strategies

List of Potentially Feasible Strategies for Region F

Sponsor	County	WMS	Project Type
Andrews	Andrews	Renew Contract with University Lands	Voluntary Re-distribution
Andrews	Andrews	Additional Groundwater	New/expansion of groundwater
Ballinger	Runnels	Purchase Water Rights from Clyde (Fort Phantom Hill Reservoir)	Regional Project
Ballinger	Runnels	Purchase from Provider	Voluntary Re-distribution
Ballinger	Runnels	Subordination	Subordination
Balmorhea	Reeves	Additional Groundwater	New/expansion of groundwater
Bangs	Brown	Reuse	Reuse
Big Spring	Howard	Water Treatment Plant Expansion	Infrastructure Improvements
Big Spring	Howard	Purchase from Provider/Subordination	Subordination
Brady	McCulloch	Advanced Treatment System	Infrastructure Improvements
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
Bronte	Coke	Reuse	Reuse
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
Coleman County SUD	Brown, Coleman	Subordination	Subordination
Colorado City	Mitchell	Reuse	Reuse
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	ASR of Existing Surface Water Supplies	Aquifer Storage and Recovery
Colorado River MWD	Multiple	Additional Groundwater from Western Region F Counties	New/expansion of groundwater
Colorado River MWD	Multiple	Transmission of Additional Groundwater Supplies from Western Region F Counties	Infrastructure Improvements
Colorado River MWD	Multiple	ASR of Brackish Groundwater Supplies	Aquifer Storage and Recovery
Colorado River MWD	Multiple	Subordination	Subordination
Colorado River MWD	Multiple	Desalination of Brackish Groundwater Supplies	Desalination
Colorado River MWD	Multiple	Desalination of Brackish Surface Water (CRMWD Diverted Water System)	Desalination
Colorado River MWD	Multiple	Conjunctive use of multiple sources	Conjunctive Use
Concho Rural WSC	Tom Green	Reuse	Reuse
Concho Rural WSC	Tom Green	Additional Groundwater	New/expansion of groundwater
County-Other, Andrews	Andrews	Additional Groundwater	New/expansion of groundwater
County-Other, Brown	Brown	Additional Groundwater	New/expansion of groundwater
County-Other, Coleman	Coleman	Subordination	Subordination
County-Other, McCulloch	McCulloch	Purchase from Provider	Voluntary Re-distribution
County-Other, Runnels	Runnels	Purchase from Provider	Voluntary Re-distribution
County-Other, Runnels	Runnels	Subordination	Subordination

List of Potentially Feasible Strategies for Region F

Sponsor	County	WMS	Project Type
County-Other, Scurry	Scurry	Purchase from Provider	Voluntary Re-distribution
County-Other, Tom Green	Tom Green	Purchase from Provider	Voluntary Re-distribution
Ector County Utility District	Ector	Purchase from Provider	Voluntary Re-distribution
Ector County Utility District	Ector	RO from Pecos County	New/expansion of groundwater
Eden	Concho	Reuse	Reuse
Fort Stockton	Pecos	Additonal Groundwater	New/expansion of groundwater
Great Plains	Andrews, Gaines	Additional Groundwater	New/expansion of groundwater
Greater Gardendale WSC	Ector	Purchase from Provider	Voluntary Re-distribution
Greater Gardendale WSC	Ector	Additional Groundwater	New/expansion of groundwater
Irrigation WUGs	Multiple	Conservation	Conservation
Irrigation, Coleman	Coleman	Subordination	Subordination
Irrigation, Crockett	Crockett	Weather Modification	Weather modification
Irrigation, Irion	Irion	Weather Modification	Weather modification
Irrigation, Mitchell	Mitchell	Weather Modification	Weather modification
Irrigation, Pecos	Pecos	Weather Modification	Weather modification
Irrigation, Reeves	Reeves	Weather Modification	Weather modification
Irrigation, Schleicher	Schleicher	Weather Modification	Weather modification
Irrigation, Sterling	Sterling	Weather Modification	Weather modification
Irrigation, Sutton	Sutton	Weather Modification	Weather modification
Irrigation, Tom Green	Tom Green	Weather Modification	Weather modification
Irrigation, Ward	Ward	Weather Modification	Weather modification
Junction	Kimble	Dredge Intake	Infrastructure Improvements
Junction	Kimble	Additional Groundwater	New/expansion of groundwater
Junction	Kimble	Subordination	Subordination
Livestock, Andrews	Andrews	Additional Groundwater	New/expansion of groundwater
Manufacturing, Andrews	Andrews	Additional Groundwater	New/expansion of groundwater
Manufacturing, Andrews	Andrews	Purchase from Provider	Voluntary Re-distribution
Manufacturing, Coleman	Coleman	Subordination	Subordination
Manufacturing, Howard	Howard	Purchase from Provider	Voluntary Re-distribution
Manufacturing, Kimble	Kimble	Additional Groundwater	New/expansion of groundwater
Manufacturing, Kimble	Kimble	Purchase from Provider	Voluntary Re-distribution
Manufacturing, Pecos	Pecos	Purchase from Provider	Voluntary Re-distribution
Manufacturing, Scurry	Scurry	Additional Groundwater	New/expansion of groundwater
Manufacturing, Tom Green	Tom Green	Purchase from Provider	Voluntary Re-distribution
Manufacturing, Tom Green	Tom Green	Subordination	Subordination
Mason	Mason	Additional Water Treatment	Infrastructure Improvements
Menard	Menard	Develop New Groundwater	New/expansion of groundwater
Menard	Menard	Reuse	Reuse
Midland	Midland	Additional Groundwater	New/expansion of groundwater
Midland	Midland	Purchase from Provider	Voluntary Re-distribution
Midland	Midland	West Texas Water Partnership	Regional Project
Miles	Runnels	Subordination/Purchase from Provider	Subordination
Millersview-Doole WSC	Concho, McCulloch	Purchase from Provider	Voluntary Re-distribution
Mining WUG	Multiple	Mining Conservation	Conservation
Mining, Brown	Brown	Additional Groundwater	New/expansion of groundwater
Mining, Pecos	Pecos	Purchase from Provider	Voluntary Re-distribution
Mining, Scurry	Scurry	Additional Groundwater	New/expansion of groundwater
Municipal WUGs	Multiple	Conservation	Conservation

List of Potentially Feasible Strategies for Region F

Sponsor	County	WMS	Project Type
North Runnels WSC	Runnels	Subordination/Purchase from Provider	Subordination
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
Pecos County WCID #1	Pecos	Additional Groundwater	New/expansion of groundwater
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	Indirect Reuse	Reuse
San Angelo	Tom Green	Red Arroyo Off Channel Storage	New Surface Water
San Angelo	Tom Green	West Texas Water Partnership	Regional Project
San Angelo	Tom Green	Additional Groundwater	New/expansion of groundwater
San Angelo	Tom Green	Subordination	Subordination
Snyder	Scurry	Subordination	Subordination
Sonora	Sutton	Reuse	Reuse
Sonora	Sutton	Additional Groundwater	New/expansion of groundwater
Stanton	Martin	Purchase from Provider	Voluntary Re-distribution
Steam Electric Power, All	Multiple	CCGT and ACC Generation	Infrastructure Improvements
Steam Electric Power, Ector	Ector	Sales from City of Odessa	Voluntary Re-distribution
Steam Electric Power, Howard	Howard	Purchase from Provider	Voluntary Re-distribution
Steam Electric Power, Howard	Howard	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