

PANHANDLE REGIONAL WATER PLANNING AREA TECHNICAL MEMORANDUM

Prepared for:

Texas Water Development Board
On behalf of the Panhandle Water Planning Group

September 10, 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 the Panhandle Regional Planning Area (PWPA or Region A) for the fifth cycle of regional water plan development. Included in this report are the required Texas Water Development Board (TWDB) DB22 reports (eight) 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 August 15, 2018 to discuss the contents of this memorandum. Notice of the meeting was posted on July 19, 2018. Public comments were solicited at the public meeting and for two weeks following the meeting, closing on August 29, 2018.

1.0 TWDB DB22 REPORTS

All DB22 reports are located in Appendix A of this document. The eight 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 Panhandle Water Planning Group (PWPG) recommended adjustments to the projections which were reviewed by TWDB staff prior to approval by the PWPG. At the December 5, 2017 PWPG Meeting, the PWPG 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).

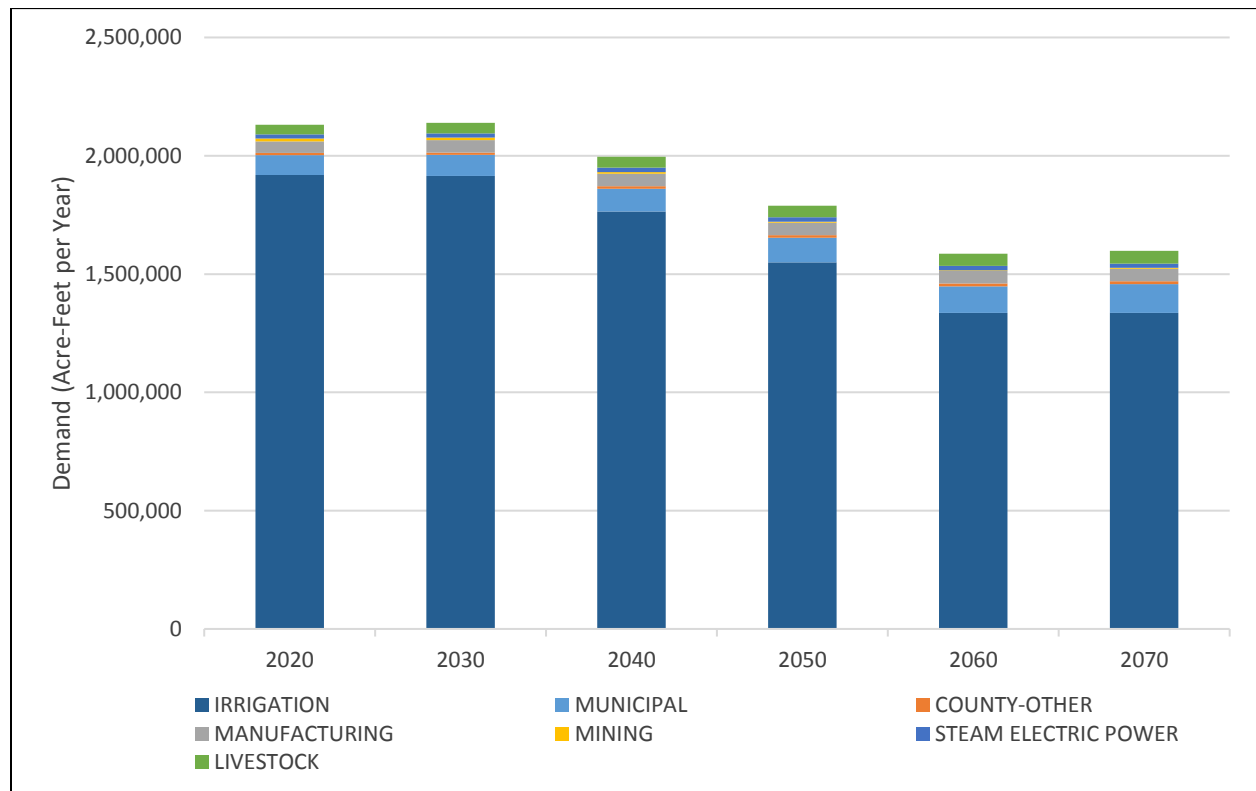
In addition to these summary tables, **Table 1-1** shows the population projections by county. The population for the PWPA is expected to increase from 418,345 to 637,412 over the planning horizon. Most of the increase in population and municipal demands occur in the greater Amarillo area. **Figure 1-1** is a graph of demands by use type and decade for the PWPA. Agricultural water use (irrigation) accounts for

the vast majority of the demand in the PWPA. Total water demands in the PWPA are expected to decrease over time as irrigation water use declines due to limited supply.

Table 1-1: Adopted Population Projections for PWPA by County

| County | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| ARMSTRONG | 1,911 | 1,911 | 1,911 | 1,911 | 1,911 | 1,911 |
| CARSON | 6,354 | 6,520 | 6,632 | 6,632 | 6,632 | 6,632 |
| CHILDRESS | 7,269 | 7,546 | 7,776 | 8,001 | 8,225 | 8,443 |
| COLLINGSWORTH | 3,236 | 3,408 | 3,522 | 3,653 | 3,755 | 3,844 |
| DALLAM | 7,718 | 8,668 | 9,667 | 10,650 | 11,594 | 12,503 |
| DONLEY | 3,788 | 3,788 | 3,788 | 3,788 | 3,788 | 3,788 |
| GRAY | 24,439 | 27,046 | 30,168 | 34,186 | 37,388 | 40,730 |
| HALL | 3,393 | 3,487 | 3,487 | 3,487 | 3,487 | 3,487 |
| HANSFORD | 5,959 | 6,368 | 6,710 | 7,017 | 7,330 | 7,634 |
| HARTLEY | 6,281 | 6,631 | 6,817 | 6,950 | 7,069 | 7,164 |
| HEMPHILL | 4,209 | 4,609 | 4,948 | 5,297 | 5,609 | 5,895 |
| HUTCHINSON | 22,957 | 23,779 | 23,990 | 23,990 | 23,990 | 23,990 |
| LIPSCOMB | 3,599 | 3,858 | 4,011 | 4,211 | 4,350 | 4,465 |
| MOORE | 25,513 | 28,864 | 32,429 | 36,050 | 39,824 | 43,690 |
| OCHILTREE | 11,305 | 12,158 | 13,075 | 14,061 | 15,122 | 16,264 |
| OLDHAM | 2,230 | 2,376 | 2,376 | 2,376 | 2,376 | 2,376 |
| POTTER | 134,031 | 148,960 | 164,757 | 180,486 | 197,638 | 215,701 |
| RANDALL | 134,269 | 150,044 | 165,835 | 182,010 | 199,219 | 217,095 |
| ROBERTS | 1,003 | 1,047 | 1,047 | 1,047 | 1,047 | 1,047 |
| SHERMAN | 3,294 | 3,571 | 3,720 | 3,853 | 3,949 | 4,020 |
| WHEELER | 5,587 | 5,809 | 6,019 | 6,239 | 6,478 | 6,733 |
| PWPA Total | 418,345 | 460,448 | 502,685 | 545,895 | 590,781 | 637,412 |

Figure 1-1: Total Water Demand Projections for PWPA 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. Several providers in the PWPA have 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 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 the PWPA. MAG values were not developed for “other aquifer”.

The PWPA has a total of nearly 4 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 the PWPA. 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 Panhandle Regional Water Planning Area (Acre-Feet per Year)

| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| RESERVOIRS | 31,698 | 31,451 | 31,205 | 30,959 | 30,712 | 30,465 |
| RUN-OF-RIVER | 2,538 | 2,538 | 2,538 | 2,538 | 2,538 | 2,538 |
| LOCAL SUPPLY | 16,783 | 16,783 | 16,783 | 16,783 | 16,783 | 16,783 |
| GROUNDWATER | 3,910,148 | 3,593,084 | 3,274,928 | 2,940,589 | 2,613,268 | 2,612,269 |
| REUSE | 28,423 | 30,536 | 32,543 | 34,699 | 37,167 | 39,775 |
| PWPA TOTAL | 3,989,590 | 3,674,392 | 3,357,997 | 3,025,568 | 2,700,468 | 2,701,830 |

1.2.1 Surface Water

Surface water in the Panhandle is supplied by three reservoirs, run-of-river supplies associated with water rights, and local livestock supplies. Surface water availabilities from Lake Meredith and Greenbelt Reservoir were calculated using a mass-balance reservoir model as opposed to the TCEQ-approved Water Availability Models (WAMs) because the WAMs do not include the recent drought. Run-of-river supplies were based on results from the TCEQ-approved WAMs. The surface water supplies from reservoirs available to the PWPA are shown in **Table 1-3**. Supplies from run-of-river rights and local supplies were summarized previously in **Table 1-2**.

Table 1-3: Reservoir Surface Water Supplies Available to the PWPA in Acre-Feet per Year

| Reservoir | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| GREENBELT LAKE | 3,112 | 2,941 | 2,770 | 2,599 | 2,428 | 2,256 |
| MEREDITH LAKE | 24,669 | 24,635 | 24,602 | 24,568 | 24,534 | 24,501 |
| PALO DURO LAKE | 3,917 | 3,875 | 3,833 | 3,792 | 3,750 | 3,708 |
| RESERVOIR TOTAL | 31,698 | 31,451 | 31,205 | 30,959 | 30,712 | 30,465 |

1.2.2 Groundwater

Groundwater supplies in the PWPA are obtained from the following formations:

- Blaine Aquifer
- Dockum Aquifer

- Ogallala Aquifer
- Ogallala-Rita Blanca Aquifer
- Seymour Aquifer
- Locally undifferentiated formations, referred to as “Other Aquifer”

As required by regional planning rules, MAG estimates provided by the TWDB were used to determine groundwater availability. For the PWPA, TWDB provided estimates for the five named formations listed above. A comparison of MAG totals from the previous and current planning cycles indicate an increase of groundwater availability in all aquifers except for the Blaine Aquifer. The PWPA includes parts of Groundwater Management Area 1 (GMA-1) and GMA-6. The groundwater supplies available to the PWPA are summarized in **Table 1-4**.

Table 1-4: Groundwater Supplies Available to the PWPA in Acre-Feet per Year

| Formation | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| BLAINE AQUIFER | 33,241 | 33,154 | 33,241 | 33,154 | 33,241 | 33,154 |
| DOCKUM AQUIFER | 261,079 | 265,547 | 256,307 | 244,788 | 232,128 | 232,128 |
| OGALLALA AQUIFER | 2,748,739 | 2,663,774 | 2,478,566 | 2,274,090 | 2,072,286 | 2,072,286 |
| OGALLALA-RITA BLANCA AQUIFER | 804,584 | 576,367 | 452,421 | 332,470 | 221,287 | 221,287 |
| SEYMOUR AQUIFER | 59,752 | 51,489 | 51,640 | 53,334 | 51,573 | 50,661 |
| OTHER AQUIFER | 2,753 | 2,753 | 2,753 | 2,753 | 2,753 | 2,753 |
| GROUNDWATER TOTAL | 3,910,148 | 3,593,084 | 3,274,928 | 2,940,589 | 2,613,268 | 2,612,269 |

1.3 EXISTING WATER SUPPLIES

Existing Water Supplies (sometimes referred to as “currently available supplies” or “connected supplies”) are supplies that are limited by water rights, contracts, and facilities that are currently in place. The Existing Water Supplies are less than the overall supplies available to the region (Source Water Availability from Section 1.2) because the facilities needed to use some of the source water have not yet been developed. Common constraints limiting supplies include the hydrogeologic properties of the source aquifers, capacity of transmission systems, treatment plants, and wells.

Table 5-1 shows the Existing Water Supplies in the PWPA by different source types.

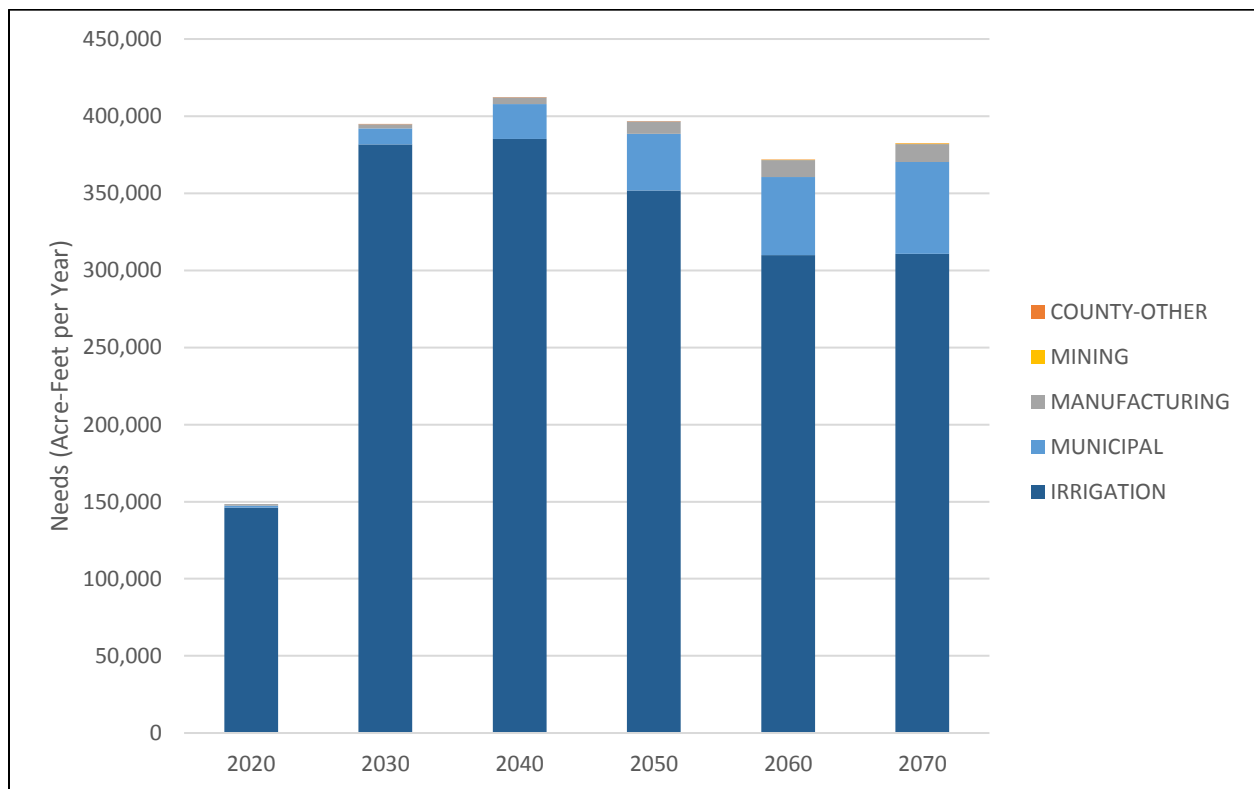
Table 1-5: Existing Water Supplies Available to the PWPA by Source in Acre-Feet per Year

| Source | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| RESERVOIRS | 15,006 | 15,010 | 14,515 | 14,186 | 14,139 | 14,006 |
| RUN-OF-RIVER | 2,538 | 2,538 | 2,538 | 2,538 | 2,538 | 2,538 |
| LOCAL SUPPLY | 16,783 | 16,783 | 16,783 | 16,783 | 16,783 | 16,783 |
| GROUNDWATER | 1,942,128 | 1,697,594 | 1,536,407 | 1,344,979 | 1,166,048 | 1,168,067 |
| REUSE | 24,985 | 25,046 | 25,105 | 25,169 | 25,244 | 25,321 |
| PWPA TOTAL | 2,001,440 | 1,756,971 | 1,595,348 | 1,403,655 | 1,224,752 | 1,226,715 |

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 water supply needs 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 total use/allocation from each individual source of supply in the PWPA and the remaining balance of supply after all allocations to WUGs have been made. As shown on (**Table 1-6**), the only sources available for new development in the PWPA are groundwater. Supplies from other sources could be sold or transferred from current users.

Table 1-6: Source Water Balance in the PWPA by Source in Acre-Feet per Year

| Source | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| RESERVOIRS | 0 | 0 | 0 | 0 | 0 | 0 |
| RUN-OF-RIVER | 0 | 0 | 0 | 0 | 0 | 0 |
| LOCAL SUPPLY | 0 | 0 | 0 | 0 | 0 | 0 |
| GROUNDWATER | 1,934,595 | 1,863,353 | 1,709,127 | 1,567,978 | 1,422,495 | 1,419,463 |
| REUSE | 0 | 0 | 0 | 0 | 0 | 0 |
| PWPA TOTAL | 1,934,595 | 1,863,353 | 1,709,127 | 1,567,978 | 1,422,495 | 1,419,463 |

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**. While there are differences in demands and supplies for most water user groups, the biggest differences are associated with changes in source availability. For surface water, Lake Meredith is now shown with a reliable supply in all decades. For the 2016 plan, it was assumed that Lake Meredith had little to no reliable supply. For groundwater, new GAMs were developed and used in the PWPA. This resulted in changes in groundwater availability in some counties. Specifically, the total groundwater available in Collinworth and Wheeler Counties decreased significantly. Whereas, the groundwater availabilities increased in Oldham and Potter Counties throughout the planning period. Groundwater availabilities for other counties shifted up or down over the planning period, with larger groundwater availabilities in Hansford and Ochiltree Counties by 2070 and smaller availability for Dallam County by 2070.

2.0 DETERMINING SOURCE AVAILABILITY

2.1 SURFACE WATER

2.1.1 Hydrologic Models

Surface water supplies in the Panhandle Water Planning Area (Region A) are obtained from the upper Red River Basin and the Canadian River Basin. There are four primary sources of surface water supply in the PWPA: 1) Lake Meredith in the Canadian River Basin, 2) Greenbelt Reservoir in the Red River Basin, 3) Palo Duro Reservoir in the Canadian, and 4) run-of-river rights in both basins. In accordance with regional planning rules and guidelines, surface water supplies must be determined using the latest version of the TCEQ Water Availability Models (WAMs) with full authorization unless a hydrologic variance is granted by the TWDB. Both the Canadian River WAM and the Red River WAM cover a period-of-record from 1948 to 1998 and do not include the recent drought, which is the new drought of record for much of the region. The PWPG requested hydrologic variances to more accurately reflect the current conditions and operations in the region. These requested variances are detailed in the PWPG's request letter to TWDB dated December 15, 2017. This letter is included in **Appendix B**. TWDB approved the PWPG's variance request in a letter dated February 28, 2018, also included in **Appendix B**.

Existing water supplies provided by run-of-river water rights in the Red and Canadian River Basins were determined using Run 3 of the Red River and Canadian River Basin WAMs, respectively. These runs were completed during the 2016 Round of planning and were used again this round because the WAM models have not changed.

2.1.2 Versions and Dates of Hydrologic Models

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

The required details for each hydrologic model used is included in **Table 2-1**.

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

| Hydrologic Model | Date Used | Run Used | Model Inputs/ Outputs Files Used | Comments |
|---------------------------------|-----------|---|---|--|
| Canadian WAM | Oct 2014 | Run 3, extended hydrology through 2004 | CRUN3.dat CRUN3.OUT | Used to determine run-of-river supplies and yields for Palo Duro Reservoir |
| Lake Meredith Operations Model | Feb 2018 | Spreadsheet Model with Extended Hydrology | 2021Meredith_firmyield_2020.xlsb 2021Meredith_firmyield_2070.xlsb 2021Meredith_safeyield_2020.xlsb 2021Meredith_safeyield_2070.xlsb | Current and 2070 Firm and Safe Yield |
| Red WAM | Oct 2014 | Run 3 | red3.dat red3.OUT | Used to determine run-of-river supplies |
| Lake Greenbelt Operations Model | Jan 2018 | Spreadsheet Model with Extended Hydrology | 2021Greenbelt_firmyield_2020.xlsb 2021 Greenbelt_firmyield_2070.xlsb 2021 Greenbelt_safeyield_2020.xlsb 2021 Greenbelt_safeyield_2070.xlsb | Current and 2070 Firm and Safe Yield |

Modifications to the surface water availability analysis are described in **Appendix B**, which contains the PWPG’s letter of request for hydrologic variances including modifications to the WAM. TWDB’s response letter approving the requested modifications is also included in **Appendix B**. The analyses of surface water availability were carried out by Freese and Nichols, Inc.

Table 2-2 presents the yields for major reservoirs in the PWPA. In the 2016 Regional Plan, the reliable supply from Lake Meredith was set to zero to be conservative because the Plan was written in the middle of the on-going critical drought. Large inflows in 2015 and 2017 allowed the reservoir to partially recover. In the 2021 Regional Plan, the hydrology for Lake Meredith covers a period from 1940 to 2017. The firm yield increases slightly over time (**Table 2-2**) due to the area-capacity-elevation relationships and the ability of the 500,000 acre-feet usable capacity to adjust in elevation over time per the Canadian River Compact. This adjustment in elevation has a slight effect on the evaporative losses, which contributes to the small increase in yield. The hydrology of Greenbelt Reservoir was extended to 2016 to include the new drought of record. The yield from Palo Duro Reservoir was assessed using a version of the WAM prepared for the 2006 Regional Plan. This version of the WAM considered a period of record from January 1940 to September 2004.

Table 2-2 shows the firm yield from Palo Duro Reservoir that was calculated during the previous round of planning. In practical terms, the available supply from Palo Duro is zero due to a lack of infrastructure.

Table 2-2: Estimated Firm and Safe Yields for Major Reservoirs in the PWPA

| Scenario | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|----------------------------|--------|--------|--------|--------|--------|--------|
| Lake Meredith | | | | | | |
| Firm Yield (ac-ft/yr) | 28,221 | 28,242 | 28,263 | 28,284 | 28,305 | 28,326 |
| Safe Yield (ac-ft/yr) | 24,669 | 24,635 | 24,602 | 24,568 | 24,534 | 24,501 |
| Greenbelt Reservoir | | | | | | |
| Firm Yield (ac-ft/yr) | 3,964 | 3,826 | 3,689 | 3,551 | 3,413 | 3,276 |
| Safe Yield (ac-ft/yr) | 3,112 | 2,941 | 2,769 | 2,598 | 2,427 | 2,256 |
| Palo Duro Reservoir | | | | | | |
| Firm Yield (ac-ft/yr) | 3,917 | 3,875 | 3,833 | 3,792 | 3,750 | 3708 |

2.2 GROUNDWATER

2.2.1 Written Summary of Modeled Available Groundwater (MAGs)

The MAGs for this planning cycle came from two GAM run summary documents as follows: 1) GAM RUN 16-029 (GR 16-029), which summarizes the MAG volumes for all aquifers within GMA-1, and 2) GAM RUN 16-031, which summarizes the MAG volumes for all aquifers in GMA-6 (**Table 2-3**).

GR 16-029 summarizes MAGS for the Ogallala, Rita Blanca, and Dockum Aquifers using the High Plains Aquifer System (HPAS) GAM. The Ogallala MAG volume for GMA-1 ranges from 3,553,273 acre-feet per year in 2020 to 2,293,523 acre-feet per year in 2060, which includes the volume from the Ogallala/Rita Blanca Aquifer in Dallam County. For the Dockum Aquifer, the volumes range from 261,079 acre-feet per year in 2020 to 232,128 acre-feet per year in 2060. The Blaine Aquifer in Wheeler County was designated to be non-relevant in the last cycle of Joint Groundwater Planning.

GR 16-031 summarizes the MAG volumes for the Seymour, Blaine, Ogallala and Dockum Aquifers in GMA-6. The Ogallala Aquifer in Collingsworth County was designated as non-relevant by GMA-6. The only other counties in GMA-6 with Ogallala MAG volumes (Dickens and Motley) are not located within the PWPA. Therefore, there are no Ogallala MAG volumes in GR 16-031 for the PWPA. This is also true for the Dockum Aquifer.

The Seymour and Blaine Aquifers are only relevant within Childress, Collingsworth and Hall Counties. In these three counties, Seymour Aquifer MAG volumes range from 59,752 acre-feet per year in 2020 to 50,573 acre-feet per year in 2060, and the Blaine Aquifer MAG volumes range from 31,492 to 31,404 acre-feet per year for the same years.

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

| GAM Version | Date Results Published | Model Inputs/ Outputs Files Used | Comments |
|-------------|------------------------|--|---|
| GR 16-029 | April 19, 2017 | HPAS GAM (2015) and files submitted with the explanatory report | GMA-1 |
| GR 16-031 | June 30, 2017 | -Seymour Aquifer refined model (2014) Pod 7 only. -Seymour and Blaine Aquifers GAM (2004) except for Pod 7. | GMA-6 Ogallala and Dockum MAG volumes are non-applicable to Region A. |

2.2.2 Documented Methodologies Utilized for Non-MAGs Availabilities

Non-MAG availabilities are applicable to both those portions of aquifers designated as non-relevant and those portions of aquifers that are either undifferentiated or designated as “other.” For this planning cycle, these non-MAG availabilities are listed in **Table 2-4**. The methodology used to determine the availability for the Whitehorse/Quartermaster formation is included in **Appendix C**. For the non-relevant aquifers in Collingsworth and Wheeler Counties, historical use was used. There is little reported historical use from the Ogallala in Collingsworth County, but the aquifer does extend into this county. A small amount of supply was assumed for this non-relevant portion of the Ogallala.

Table 2-4: Summary of Non-MAG Availability Volumes, in acre-feet per year

| County | Aquifer | Availability (ac-ft/yr) | Method |
|---------------|------------------------------|-------------------------|----------------------------------|
| Armstrong | Whitehorse/ Quartermaster | 370 | See Appendix C |
| Childress | | 233 | |
| Collingsworth | | 309 | |
| Donley | | 479 | |
| Hall | | 1,086 | |
| Wheeler | | 276 | |
| Collingsworth | Ogallala ¹ | 50 | No active wells, very small area |
| Wheeler | Blaine ² | 1,750 | Historical pumping 2007-2016 |

1) Ogallala Aquifer in Collingsworth County designated as non-relevant for this planning cycle.

2) Blaine Aquifer in Wheeler County designated as non-relevant for this planning cycle.

2.2.3 Declaration that No GAM Models were Used

No GAM models were used to determine availability volumes for either the non-relevant or other aquifers in the PWPA.

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 23, 2018 PWPG meeting in Amarillo. There were no public comments and the PWPG 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
- Direct non-potable reuse (mining needs)
- 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 PWPG 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 August 15, 2018 when this Technical Memorandum was presented and considered for approval by the PWPG. Public comments were also accepted at this meeting. No public comments were received.

APPENDIX A
TWDB DB22 Reports

Region A Water User Group (WUG) Population

| | WUG POPULATION | | | | | |
|-----------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| CLAUDE MUNICIPAL WATER SYSTEM | 1,209 | 1,209 | 1,209 | 1,209 | 1,209 | 1,209 |
| COUNTY-OTHER | 702 | 702 | 702 | 702 | 702 | 702 |
| RED BASIN TOTAL | 1,911 | 1,911 | 1,911 | 1,911 | 1,911 | 1,911 |
| ARMSTRONG COUNTY TOTAL | 1,911 | 1,911 | 1,911 | 1,911 | 1,911 | 1,911 |
| WHITE DEER | 520 | 539 | 549 | 549 | 549 | 549 |
| COUNTY-OTHER | 1,198 | 1,215 | 1,238 | 1,238 | 1,238 | 1,238 |
| CANADIAN BASIN TOTAL | 1,718 | 1,754 | 1,787 | 1,787 | 1,787 | 1,787 |
| GROOM MUNICIPAL WATER SYSTEM | 568 | 568 | 568 | 568 | 568 | 568 |
| PANHANDLE MUNICIPAL WATER SYSTEM | 2,509 | 2,601 | 2,650 | 2,650 | 2,650 | 2,650 |
| WHITE DEER | 681 | 707 | 720 | 720 | 720 | 720 |
| COUNTY-OTHER | 878 | 890 | 907 | 907 | 907 | 907 |
| RED BASIN TOTAL | 4,636 | 4,766 | 4,845 | 4,845 | 4,845 | 4,845 |
| CARSON COUNTY TOTAL | 6,354 | 6,520 | 6,632 | 6,632 | 6,632 | 6,632 |
| CHILDRESS | 6,303 | 6,543 | 6,743 | 6,938 | 7,132 | 7,321 |
| RED RIVER AUTHORITY OF TEXAS | 942 | 978 | 1,007 | 1,036 | 1,066 | 1,094 |
| COUNTY-OTHER | 24 | 25 | 26 | 27 | 27 | 28 |
| RED BASIN TOTAL | 7,269 | 7,546 | 7,776 | 8,001 | 8,225 | 8,443 |
| CHILDRESS COUNTY TOTAL | 7,269 | 7,546 | 7,776 | 8,001 | 8,225 | 8,443 |
| RED RIVER AUTHORITY OF TEXAS | 576 | 642 | 701 | 759 | 815 | 860 |
| WELLINGTON MUNICIPAL WATER SYSTEM | 2,318 | 2,441 | 2,522 | 2,616 | 2,689 | 2,753 |
| COUNTY-OTHER | 342 | 325 | 299 | 278 | 251 | 231 |
| RED BASIN TOTAL | 3,236 | 3,408 | 3,522 | 3,653 | 3,755 | 3,844 |
| COLLINGSWORTH COUNTY TOTAL | 3,236 | 3,408 | 3,522 | 3,653 | 3,755 | 3,844 |
| DALHART | 5,986 | 6,741 | 7,534 | 8,317 | 9,069 | 9,794 |
| TEXLINE | 566 | 615 | 666 | 714 | 759 | 801 |
| COUNTY-OTHER | 1,166 | 1,312 | 1,467 | 1,619 | 1,766 | 1,908 |
| CANADIAN BASIN TOTAL | 7,718 | 8,668 | 9,667 | 10,650 | 11,594 | 12,503 |
| DALLAM COUNTY TOTAL | 7,718 | 8,668 | 9,667 | 10,650 | 11,594 | 12,503 |
| CLARENDON | 2,053 | 2,053 | 2,053 | 2,053 | 2,053 | 2,053 |
| RED RIVER AUTHORITY OF TEXAS | 950 | 1,059 | 1,156 | 1,252 | 1,345 | 1,432 |
| COUNTY-OTHER | 785 | 676 | 579 | 483 | 390 | 303 |
| RED BASIN TOTAL | 3,788 | 3,788 | 3,788 | 3,788 | 3,788 | 3,788 |
| DONLEY COUNTY TOTAL | 3,788 | 3,788 | 3,788 | 3,788 | 3,788 | 3,788 |
| PAMPA MUNICIPAL WATER SYSTEM | 19,384 | 21,451 | 23,928 | 27,115 | 29,654 | 32,305 |
| COUNTY-OTHER | 2,781 | 3,079 | 3,433 | 3,890 | 4,256 | 4,635 |
| CANADIAN BASIN TOTAL | 22,165 | 24,530 | 27,361 | 31,005 | 33,910 | 36,940 |
| MCLEAN MUNICIPAL WATER SUPPLY | 868 | 960 | 1,071 | 1,214 | 1,327 | 1,447 |
| COUNTY-OTHER | 1,406 | 1,556 | 1,736 | 1,967 | 2,151 | 2,343 |
| RED BASIN TOTAL | 2,274 | 2,516 | 2,807 | 3,181 | 3,478 | 3,790 |
| GRAY COUNTY TOTAL | 24,439 | 27,046 | 30,168 | 34,186 | 37,388 | 40,730 |

Region A Water User Group (WUG) Population

| | WUG POPULATION | | | | | |
|---------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| MEMPHIS | 2,338 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 |
| RED RIVER AUTHORITY OF TEXAS | 364 | 406 | 442 | 479 | 442 | 470 |
| TURKEY MUNICIPAL WATER SYSTEM | 408 | 418 | 418 | 418 | 418 | 418 |
| COUNTY-OTHER | 283 | 261 | 225 | 188 | 225 | 197 |
| RED BASIN TOTAL | 3,393 | 3,487 | 3,487 | 3,487 | 3,487 | 3,487 |
| HALL COUNTY TOTAL | 3,393 | 3,487 | 3,487 | 3,487 | 3,487 | 3,487 |
| GRUVER | 1,480 | 1,640 | 1,779 | 1,896 | 2,014 | 2,122 |
| SPEARMAN MUNICIPAL WATER SYSTEM | 3,501 | 3,644 | 3,755 | 3,869 | 3,987 | 4,109 |
| COUNTY-OTHER | 978 | 1,084 | 1,176 | 1,252 | 1,329 | 1,403 |
| CANADIAN BASIN TOTAL | 5,959 | 6,368 | 6,710 | 7,017 | 7,330 | 7,634 |
| HANSFORD COUNTY TOTAL | 5,959 | 6,368 | 6,710 | 7,017 | 7,330 | 7,634 |
| DALHART | 2,816 | 2,923 | 2,980 | 3,021 | 3,058 | 3,087 |
| HARTLEY WSC | 652 | 697 | 722 | 739 | 754 | 767 |
| COUNTY-OTHER | 2,813 | 3,011 | 3,115 | 3,190 | 3,257 | 3,310 |
| CANADIAN BASIN TOTAL | 6,281 | 6,631 | 6,817 | 6,950 | 7,069 | 7,164 |
| HARTLEY COUNTY TOTAL | 6,281 | 6,631 | 6,817 | 6,950 | 7,069 | 7,164 |
| CANADIAN | 3,160 | 3,542 | 3,867 | 4,201 | 4,500 | 4,773 |
| COUNTY-OTHER | 729 | 742 | 751 | 762 | 771 | 780 |
| CANADIAN BASIN TOTAL | 3,889 | 4,284 | 4,618 | 4,963 | 5,271 | 5,553 |
| COUNTY-OTHER | 320 | 325 | 330 | 334 | 338 | 342 |
| RED BASIN TOTAL | 320 | 325 | 330 | 334 | 338 | 342 |
| HEMPHILL COUNTY TOTAL | 4,209 | 4,609 | 4,948 | 5,297 | 5,609 | 5,895 |
| BORGER | 13,514 | 13,998 | 14,122 | 14,122 | 14,122 | 14,122 |
| FRITCH | 2,968 | 3,075 | 3,102 | 3,102 | 3,102 | 3,102 |
| STINNETT | 1,987 | 2,058 | 2,077 | 2,077 | 2,077 | 2,077 |
| TCW SUPPLY | 2,027 | 2,098 | 2,118 | 2,118 | 2,118 | 2,118 |
| COUNTY-OTHER | 2,461 | 2,550 | 2,571 | 2,571 | 2,571 | 2,571 |
| CANADIAN BASIN TOTAL | 22,957 | 23,779 | 23,990 | 23,990 | 23,990 | 23,990 |
| HUTCHINSON COUNTY TOTAL | 22,957 | 23,779 | 23,990 | 23,990 | 23,990 | 23,990 |
| BOOKER | 1,740 | 1,948 | 2,071 | 2,232 | 2,344 | 2,436 |
| DARROUZETT | 428 | 459 | 477 | 500 | 517 | 531 |
| FOLLETT | 425 | 456 | 474 | 497 | 514 | 527 |
| HIGGINS MUNICIPAL WATER SYSTEM | 433 | 464 | 482 | 506 | 523 | 537 |
| COUNTY-OTHER | 573 | 531 | 507 | 476 | 452 | 434 |
| CANADIAN BASIN TOTAL | 3,599 | 3,858 | 4,011 | 4,211 | 4,350 | 4,465 |
| LIPSCOMB COUNTY TOTAL | 3,599 | 3,858 | 4,011 | 4,211 | 4,350 | 4,465 |
| CACTUS MUNICIPAL WATER SYSTEM | 4,232 | 4,824 | 5,455 | 6,095 | 6,763 | 7,444 |
| DUMAS | 17,119 | 19,513 | 22,063 | 24,650 | 27,349 | 30,115 |
| FRITCH | 14 | 15 | 16 | 19 | 20 | 23 |
| SUNRAY | 1,983 | 2,042 | 2,103 | 2,166 | 2,230 | 2,296 |

Region A Water User Group (WUG) Population

| | WUG POPULATION | | | | | |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| COUNTY-OTHER | 2,165 | 2,470 | 2,792 | 3,120 | 3,462 | 3,812 |
| CANADIAN BASIN TOTAL | 25,513 | 28,864 | 32,429 | 36,050 | 39,824 | 43,690 |
| MOORE COUNTY TOTAL | 25,513 | 28,864 | 32,429 | 36,050 | 39,824 | 43,690 |
| BOOKER | 22 | 33 | 45 | 58 | 74 | 92 |
| PERRYTON MUNICIPAL WATER SYSTEM | 9,263 | 9,954 | 10,697 | 11,496 | 12,353 | 13,276 |
| COUNTY-OTHER | 2,020 | 2,171 | 2,333 | 2,507 | 2,695 | 2,896 |
| CANADIAN BASIN TOTAL | 11,305 | 12,158 | 13,075 | 14,061 | 15,122 | 16,264 |
| OCHILTREE COUNTY TOTAL | 11,305 | 12,158 | 13,075 | 14,061 | 15,122 | 16,264 |
| VEGA | 1,036 | 1,036 | 1,036 | 1,036 | 1,036 | 1,036 |
| COUNTY-OTHER | 947 | 1,063 | 1,063 | 1,063 | 1,063 | 1,063 |
| CANADIAN BASIN TOTAL | 1,983 | 2,099 | 2,099 | 2,099 | 2,099 | 2,099 |
| COUNTY-OTHER | 247 | 277 | 277 | 277 | 277 | 277 |
| RED BASIN TOTAL | 247 | 277 | 277 | 277 | 277 | 277 |
| OLDHAM COUNTY TOTAL | 2,230 | 2,376 | 2,376 | 2,376 | 2,376 | 2,376 |
| AMARILLO | 72,959 | 81,086 | 89,685 | 98,247 | 107,584 | 117,417 |
| COUNTY-OTHER | 8,490 | 9,435 | 10,436 | 11,432 | 12,518 | 13,662 |
| CANADIAN BASIN TOTAL | 81,449 | 90,521 | 100,121 | 109,679 | 120,102 | 131,079 |
| AMARILLO | 48,035 | 53,386 | 59,047 | 64,685 | 70,831 | 77,305 |
| COUNTY-OTHER | 4,547 | 5,053 | 5,589 | 6,122 | 6,705 | 7,317 |
| RED BASIN TOTAL | 52,582 | 58,439 | 64,636 | 70,807 | 77,536 | 84,622 |
| POTTER COUNTY TOTAL | 134,031 | 148,960 | 164,757 | 180,486 | 197,638 | 215,701 |
| AMARILLO | 98,242 | 109,855 | 121,479 | 133,386 | 146,055 | 159,215 |
| CANYON | 14,802 | 16,552 | 18,304 | 20,097 | 22,006 | 23,989 |
| HAPPY | 68 | 76 | 84 | 93 | 101 | 111 |
| LAKE TANGLEWOOD | 1,129 | 1,129 | 1,129 | 1,129 | 1,129 | 1,129 |
| COUNTY-OTHER | 20,028 | 22,432 | 24,839 | 27,305 | 29,928 | 32,651 |
| RED BASIN TOTAL | 134,269 | 150,044 | 165,835 | 182,010 | 199,219 | 217,095 |
| RANDALL COUNTY TOTAL | 134,269 | 150,044 | 165,835 | 182,010 | 199,219 | 217,095 |
| MIAMI | 617 | 627 | 628 | 628 | 628 | 628 |
| COUNTY-OTHER | 383 | 417 | 416 | 416 | 416 | 416 |
| CANADIAN BASIN TOTAL | 1,000 | 1,044 | 1,044 | 1,044 | 1,044 | 1,044 |
| COUNTY-OTHER | 3 | 3 | 3 | 3 | 3 | 3 |
| RED BASIN TOTAL | 3 | 3 | 3 | 3 | 3 | 3 |
| ROBERTS COUNTY TOTAL | 1,003 | 1,047 | 1,047 | 1,047 | 1,047 | 1,047 |
| STRATFORD | 2,317 | 2,511 | 2,617 | 2,710 | 2,778 | 2,828 |
| TEXHOMA | 347 | 376 | 392 | 406 | 416 | 424 |
| COUNTY-OTHER | 630 | 684 | 711 | 737 | 755 | 768 |
| CANADIAN BASIN TOTAL | 3,294 | 3,571 | 3,720 | 3,853 | 3,949 | 4,020 |
| SHERMAN COUNTY TOTAL | 3,294 | 3,571 | 3,720 | 3,853 | 3,949 | 4,020 |

Region A Water User Group (WUG) Population

| | WUG POPULATION | | | | | |
|----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| SHAMROCK MUNICIPAL WATER SYSTEM | 1,973 | 2,051 | 2,126 | 2,203 | 2,288 | 2,378 |
| WHEELER | 1,599 | 1,662 | 1,722 | 1,784 | 1,853 | 1,926 |
| COUNTY-OTHER | 2,015 | 2,096 | 2,171 | 2,252 | 2,337 | 2,429 |
| RED BASIN TOTAL | 5,587 | 5,809 | 6,019 | 6,239 | 6,478 | 6,733 |
| WHEELER COUNTY TOTAL | 5,587 | 5,809 | 6,019 | 6,239 | 6,478 | 6,733 |
| REGION A TOTAL POPULATION | 418,345 | 460,448 | 502,685 | 545,895 | 590,781 | 637,412 |

Region A Water User Group (WUG) Demand

| | WUG DEMAND (ACRE-FEET PER YEAR) | | | | | |
|-----------------------------------|---------------------------------|----------------|----------------|----------------|----------------|----------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| CLAUDE MUNICIPAL WATER SYSTEM | 360 | 354 | 349 | 347 | 347 | 347 |
| COUNTY-OTHER | 88 | 84 | 82 | 82 | 82 | 82 |
| LIVESTOCK | 332 | 449 | 467 | 485 | 504 | 524 |
| IRRIGATION | 6,244 | 6,244 | 6,244 | 6,244 | 6,244 | 6,244 |
| RED BASIN TOTAL | 7,024 | 7,131 | 7,142 | 7,158 | 7,177 | 7,197 |
| ARMSTRONG COUNTY TOTAL | 7,024 | 7,131 | 7,142 | 7,158 | 7,177 | 7,197 |
| WHITE DEER | 113 | 114 | 114 | 114 | 114 | 114 |
| COUNTY-OTHER | 157 | 155 | 155 | 153 | 152 | 152 |
| MANUFACTURING | 17 | 18 | 18 | 18 | 18 | 18 |
| MINING | 14 | 14 | 14 | 14 | 14 | 14 |
| LIVESTOCK | 236 | 322 | 334 | 346 | 358 | 372 |
| IRRIGATION | 22,518 | 22,518 | 22,518 | 22,518 | 22,518 | 22,518 |
| CANADIAN BASIN TOTAL | 23,055 | 23,141 | 23,153 | 23,163 | 23,174 | 23,188 |
| GROOM MUNICIPAL WATER SYSTEM | 177 | 174 | 172 | 171 | 171 | 171 |
| PANHANDLE MUNICIPAL WATER SYSTEM | 576 | 585 | 586 | 581 | 580 | 580 |
| WHITE DEER | 147 | 150 | 150 | 149 | 149 | 149 |
| COUNTY-OTHER | 115 | 113 | 113 | 112 | 112 | 112 |
| MANUFACTURING | 1,038 | 1,118 | 1,118 | 1,118 | 1,118 | 1,118 |
| LIVESTOCK | 79 | 108 | 112 | 116 | 120 | 124 |
| IRRIGATION | 64,771 | 64,771 | 64,771 | 64,771 | 64,771 | 64,771 |
| RED BASIN TOTAL | 66,903 | 67,019 | 67,022 | 67,018 | 67,021 | 67,025 |
| CARSON COUNTY TOTAL | 89,958 | 90,160 | 90,175 | 90,181 | 90,195 | 90,213 |
| CHILDRESS | 1,624 | 1,657 | 1,685 | 1,722 | 1,767 | 1,814 |
| RED RIVER AUTHORITY OF TEXAS | 232 | 236 | 239 | 245 | 252 | 258 |
| COUNTY-OTHER | 5 | 5 | 5 | 5 | 5 | 6 |
| LIVESTOCK | 342 | 460 | 478 | 497 | 517 | 538 |
| IRRIGATION | 14,142 | 14,142 | 14,142 | 14,142 | 14,142 | 14,142 |
| RED BASIN TOTAL | 16,345 | 16,500 | 16,549 | 16,611 | 16,683 | 16,758 |
| CHILDRESS COUNTY TOTAL | 16,345 | 16,500 | 16,549 | 16,611 | 16,683 | 16,758 |
| RED RIVER AUTHORITY OF TEXAS | 142 | 155 | 167 | 179 | 192 | 203 |
| WELLINGTON MUNICIPAL WATER SYSTEM | 524 | 540 | 548 | 566 | 581 | 595 |
| COUNTY-OTHER | 71 | 66 | 60 | 55 | 50 | 46 |
| LIVESTOCK | 459 | 583 | 607 | 633 | 660 | 688 |
| IRRIGATION | 47,471 | 42,542 | 39,713 | 38,215 | 33,451 | 33,451 |
| RED BASIN TOTAL | 48,667 | 43,886 | 41,095 | 39,648 | 34,934 | 34,983 |
| COLLINGSWORTH COUNTY TOTAL | 48,667 | 43,886 | 41,095 | 39,648 | 34,934 | 34,983 |
| DALHART | 1,814 | 2,014 | 2,228 | 2,447 | 2,665 | 2,877 |
| TEXLINE | 219 | 235 | 252 | 269 | 286 | 302 |
| COUNTY-OTHER | 140 | 150 | 165 | 181 | 197 | 213 |
| MANUFACTURING | 6 | 6 | 6 | 6 | 6 | 6 |
| LIVESTOCK | 4,521 | 4,860 | 5,115 | 5,390 | 5,686 | 6,006 |
| IRRIGATION | 343,830 | 343,830 | 286,928 | 228,243 | 174,217 | 174,217 |
| CANADIAN BASIN TOTAL | 350,530 | 351,095 | 294,694 | 236,536 | 183,057 | 183,621 |
| DALLAM COUNTY TOTAL | 350,530 | 351,095 | 294,694 | 236,536 | 183,057 | 183,621 |
| CLARENDON | 371 | 362 | 354 | 350 | 349 | 349 |
| RED RIVER AUTHORITY OF TEXAS | 234 | 255 | 275 | 296 | 318 | 338 |

Region A Water User Group (WUG) Demand

| | WUG DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|---------------------------------|----------------|----------------|----------------|----------------|----------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| COUNTY-OTHER | 113 | 94 | 78 | 65 | 52 | 40 |
| LIVESTOCK | 971 | 994 | 1,019 | 1,046 | 1,073 | 1,102 |
| IRRIGATION | 30,910 | 30,910 | 30,910 | 30,910 | 30,910 | 30,910 |
| RED BASIN TOTAL | 32,599 | 32,615 | 32,636 | 32,667 | 32,702 | 32,739 |
| DONLEY COUNTY TOTAL | 32,599 | 32,615 | 32,636 | 32,667 | 32,702 | 32,739 |
| PAMPA MUNICIPAL WATER SYSTEM | 3,685 | 3,964 | 4,331 | 4,892 | 5,341 | 5,815 |
| COUNTY-OTHER | 472 | 512 | 563 | 634 | 692 | 753 |
| MANUFACTURING | 459 | 502 | 502 | 502 | 502 | 502 |
| MINING | 7 | 7 | 6 | 6 | 5 | 4 |
| LIVESTOCK | 189 | 214 | 224 | 235 | 247 | 259 |
| IRRIGATION | 8,395 | 8,395 | 8,395 | 8,395 | 8,395 | 8,395 |
| CANADIAN BASIN TOTAL | 13,207 | 13,594 | 14,021 | 14,664 | 15,182 | 15,728 |
| MCLEAN MUNICIPAL WATER SUPPLY | 210 | 227 | 250 | 281 | 307 | 334 |
| COUNTY-OTHER | 239 | 259 | 285 | 320 | 350 | 381 |
| MINING | 68 | 67 | 61 | 54 | 48 | 43 |
| LIVESTOCK | 1,706 | 1,934 | 2,022 | 2,117 | 2,222 | 2,337 |
| IRRIGATION | 23,894 | 23,894 | 23,894 | 23,894 | 23,894 | 23,894 |
| RED BASIN TOTAL | 26,117 | 26,381 | 26,512 | 26,666 | 26,821 | 26,989 |
| GRAY COUNTY TOTAL | 39,324 | 39,975 | 40,533 | 41,330 | 42,003 | 42,717 |
| MEMPHIS | 386 | 385 | 375 | 372 | 372 | 372 |
| RED RIVER AUTHORITY OF TEXAS | 89 | 98 | 105 | 113 | 104 | 111 |
| TURKEY MUNICIPAL WATER SYSTEM | 120 | 121 | 119 | 119 | 119 | 119 |
| COUNTY-OTHER | 84 | 76 | 65 | 54 | 65 | 57 |
| LIVESTOCK | 340 | 357 | 375 | 394 | 414 | 435 |
| IRRIGATION | 31,792 | 31,792 | 31,792 | 31,792 | 31,792 | 31,792 |
| RED BASIN TOTAL | 32,811 | 32,829 | 32,831 | 32,844 | 32,866 | 32,886 |
| HALL COUNTY TOTAL | 32,811 | 32,829 | 32,831 | 32,844 | 32,866 | 32,886 |
| GRUVER | 350 | 380 | 407 | 431 | 457 | 481 |
| SPEARMAN MUNICIPAL WATER SYSTEM | 670 | 681 | 689 | 703 | 723 | 745 |
| COUNTY-OTHER | 117 | 123 | 133 | 141 | 150 | 158 |
| MANUFACTURING | 285 | 321 | 321 | 321 | 321 | 321 |
| MINING | 577 | 904 | 602 | 309 | 16 | 1 |
| LIVESTOCK | 4,030 | 4,204 | 4,388 | 4,580 | 4,783 | 4,995 |
| IRRIGATION | 171,900 | 171,900 | 171,900 | 171,900 | 171,900 | 171,900 |
| CANADIAN BASIN TOTAL | 177,929 | 178,513 | 178,440 | 178,385 | 178,350 | 178,601 |
| HANSFORD COUNTY TOTAL | 177,929 | 178,513 | 178,440 | 178,385 | 178,350 | 178,601 |
| DALHART | 853 | 873 | 881 | 889 | 899 | 907 |
| HARTLEY WSC | 227 | 239 | 246 | 251 | 255 | 260 |
| COUNTY-OTHER | 531 | 557 | 568 | 577 | 588 | 598 |
| MINING | 7 | 7 | 6 | 5 | 4 | 3 |
| LIVESTOCK | 6,589 | 7,375 | 7,924 | 8,519 | 9,165 | 9,866 |
| IRRIGATION | 406,990 | 406,990 | 345,197 | 283,865 | 226,681 | 226,681 |
| CANADIAN BASIN TOTAL | 415,197 | 416,041 | 354,822 | 294,106 | 237,592 | 238,315 |
| HARTLEY COUNTY TOTAL | 415,197 | 416,041 | 354,822 | 294,106 | 237,592 | 238,315 |
| CANADIAN | 823 | 906 | 978 | 1,057 | 1,130 | 1,199 |
| COUNTY-OTHER | 97 | 95 | 92 | 94 | 95 | 95 |

Region A Water User Group (WUG) Demand

| | WUG DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|---------------------------------|----------------|----------------|----------------|----------------|----------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| MANUFACTURING | 4 | 4 | 4 | 4 | 4 | 4 |
| MINING | 926 | 706 | 498 | 293 | 89 | 27 |
| LIVESTOCK | 663 | 680 | 699 | 718 | 739 | 760 |
| IRRIGATION | 3,919 | 3,919 | 3,919 | 3,919 | 3,919 | 3,919 |
| CANADIAN BASIN TOTAL | 6,432 | 6,310 | 6,190 | 6,085 | 5,976 | 6,004 |
| COUNTY-OTHER | 42 | 41 | 41 | 41 | 41 | 42 |
| MANUFACTURING | 1 | 2 | 2 | 2 | 2 | 2 |
| MINING | 1,388 | 1,057 | 746 | 439 | 134 | 41 |
| LIVESTOCK | 454 | 466 | 478 | 492 | 505 | 520 |
| IRRIGATION | 1,760 | 1,760 | 1,760 | 1,760 | 1,760 | 1,760 |
| RED BASIN TOTAL | 3,645 | 3,326 | 3,027 | 2,734 | 2,442 | 2,365 |
| HEMPHILL COUNTY TOTAL | 10,077 | 9,636 | 9,217 | 8,819 | 8,418 | 8,369 |
| BORGER | 3,163 | 3,201 | 3,182 | 3,177 | 3,172 | 3,172 |
| FRITCH | 592 | 598 | 591 | 589 | 588 | 588 |
| STINNETT | 454 | 460 | 456 | 455 | 454 | 454 |
| TCW SUPPLY | 690 | 705 | 705 | 701 | 700 | 700 |
| COUNTY-OTHER | 263 | 269 | 270 | 269 | 269 | 269 |
| MANUFACTURING | 29,366 | 31,335 | 31,335 | 31,335 | 31,335 | 31,335 |
| MINING | 184 | 231 | 170 | 113 | 56 | 34 |
| LIVESTOCK | 600 | 636 | 666 | 699 | 734 | 771 |
| IRRIGATION | 59,910 | 59,910 | 59,910 | 59,910 | 59,910 | 59,910 |
| CANADIAN BASIN TOTAL | 95,222 | 97,345 | 97,285 | 97,248 | 97,218 | 97,233 |
| HUTCHINSON COUNTY TOTAL | 95,222 | 97,345 | 97,285 | 97,248 | 97,218 | 97,233 |
| BOOKER | 496 | 547 | 576 | 618 | 648 | 673 |
| DARROUZETT | 124 | 131 | 135 | 141 | 145 | 149 |
| FOLLETT | 129 | 137 | 141 | 147 | 152 | 156 |
| HIGGINS MUNICIPAL WATER SYSTEM | 127 | 134 | 138 | 144 | 149 | 153 |
| COUNTY-OTHER | 137 | 124 | 117 | 109 | 103 | 99 |
| MANUFACTURING | 362 | 400 | 400 | 400 | 400 | 400 |
| MINING | 1,098 | 758 | 446 | 142 | 21 | 3 |
| LIVESTOCK | 605 | 631 | 658 | 688 | 718 | 750 |
| IRRIGATION | 40,870 | 40,870 | 40,870 | 40,870 | 40,870 | 40,870 |
| CANADIAN BASIN TOTAL | 43,948 | 43,732 | 43,481 | 43,259 | 43,206 | 43,253 |
| LIPSCOMB COUNTY TOTAL | 43,948 | 43,732 | 43,481 | 43,259 | 43,206 | 43,253 |
| CACTUS MUNICIPAL WATER SYSTEM | 985 | 1,107 | 1,242 | 1,382 | 1,532 | 1,685 |
| DUMAS | 3,584 | 3,993 | 4,446 | 4,930 | 5,461 | 6,011 |
| FRITCH | 3 | 3 | 3 | 4 | 4 | 4 |
| SUNRAY | 450 | 454 | 461 | 471 | 484 | 499 |
| COUNTY-OTHER | 293 | 323 | 356 | 393 | 435 | 479 |
| MANUFACTURING | 9,277 | 9,629 | 9,629 | 9,629 | 9,629 | 9,629 |
| MINING | 16 | 16 | 16 | 15 | 15 | 15 |
| LIVESTOCK | 5,414 | 6,192 | 6,698 | 7,251 | 7,855 | 8,515 |
| IRRIGATION | 200,550 | 200,550 | 171,892 | 136,086 | 102,919 | 102,919 |
| CANADIAN BASIN TOTAL | 220,572 | 222,267 | 194,743 | 160,161 | 128,334 | 129,756 |
| MOORE COUNTY TOTAL | 220,572 | 222,267 | 194,743 | 160,161 | 128,334 | 129,756 |
| BOOKER | 6 | 9 | 13 | 16 | 20 | 25 |
| PERRYTON MUNICIPAL WATER SYSTEM | 2,693 | 2,851 | 3,030 | 3,238 | 3,475 | 3,734 |

Region A Water User Group (WUG) Demand

| | WUG DEMAND (ACRE-FEET PER YEAR) | | | | | |
|-------------------------------|---------------------------------|---------------|---------------|---------------|---------------|---------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| COUNTY-OTHER | 310 | 322 | 337 | 360 | 386 | 415 |
| MANUFACTURING | 36 | 41 | 41 | 41 | 41 | 41 |
| MINING | 824 | 853 | 503 | 161 | 23 | 3 |
| LIVESTOCK | 2,801 | 2,962 | 3,120 | 3,286 | 3,462 | 3,647 |
| IRRIGATION | 84,460 | 84,460 | 84,460 | 84,460 | 84,460 | 84,460 |
| CANADIAN BASIN TOTAL | 91,130 | 91,498 | 91,504 | 91,562 | 91,867 | 92,325 |
| OCHILTREE COUNTY TOTAL | 91,130 | 91,498 | 91,504 | 91,562 | 91,867 | 92,325 |
| VEGA | 292 | 287 | 284 | 282 | 282 | 282 |
| COUNTY-OTHER | 279 | 309 | 305 | 305 | 304 | 304 |
| MINING | 456 | 540 | 613 | 644 | 708 | 776 |
| LIVESTOCK | 821 | 916 | 938 | 961 | 985 | 1,010 |
| IRRIGATION | 3,588 | 3,588 | 3,588 | 3,588 | 3,588 | 3,588 |
| CANADIAN BASIN TOTAL | 5,436 | 5,640 | 5,728 | 5,780 | 5,867 | 5,960 |
| COUNTY-OTHER | 73 | 80 | 79 | 79 | 79 | 79 |
| MINING | 19 | 23 | 26 | 27 | 29 | 32 |
| LIVESTOCK | 289 | 323 | 330 | 338 | 347 | 356 |
| IRRIGATION | 1,133 | 1,133 | 1,133 | 1,133 | 1,133 | 1,133 |
| RED BASIN TOTAL | 1,514 | 1,559 | 1,568 | 1,577 | 1,588 | 1,600 |
| OLDHAM COUNTY TOTAL | 6,950 | 7,199 | 7,296 | 7,357 | 7,455 | 7,560 |
| AMARILLO | 16,458 | 17,919 | 19,536 | 21,251 | 23,234 | 25,346 |
| COUNTY-OTHER | 1,517 | 1,651 | 1,801 | 1,960 | 2,141 | 2,336 |
| MANUFACTURING | 682 | 755 | 755 | 755 | 755 | 755 |
| MINING | 640 | 781 | 912 | 988 | 1,109 | 1,245 |
| STEAM ELECTRIC POWER | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 |
| LIVESTOCK | 423 | 440 | 458 | 477 | 498 | 518 |
| IRRIGATION | 1,029 | 1,029 | 1,029 | 1,029 | 1,029 | 1,029 |
| CANADIAN BASIN TOTAL | 39,303 | 41,129 | 43,045 | 45,014 | 47,320 | 49,783 |
| AMARILLO | 10,835 | 11,797 | 12,863 | 13,991 | 15,297 | 16,687 |
| COUNTY-OTHER | 812 | 884 | 965 | 1,049 | 1,147 | 1,251 |
| MANUFACTURING | 7,214 | 7,985 | 7,985 | 7,985 | 7,985 | 7,985 |
| MINING | 301 | 368 | 429 | 465 | 522 | 586 |
| LIVESTOCK | 87 | 90 | 94 | 98 | 102 | 107 |
| IRRIGATION | 2,147 | 2,147 | 2,147 | 2,147 | 2,147 | 2,147 |
| RED BASIN TOTAL | 21,396 | 23,271 | 24,483 | 25,735 | 27,200 | 28,763 |
| POTTER COUNTY TOTAL | 60,699 | 64,400 | 67,528 | 70,749 | 74,520 | 78,546 |
| AMARILLO | 22,161 | 24,276 | 26,462 | 28,851 | 31,543 | 34,369 |
| CANYON | 3,632 | 3,981 | 4,342 | 4,735 | 5,178 | 5,642 |
| HAPPY | 10 | 11 | 12 | 13 | 14 | 16 |
| LAKE TANGLEWOOD | 438 | 433 | 429 | 427 | 427 | 427 |
| COUNTY-OTHER | 3,088 | 3,379 | 3,684 | 4,018 | 4,394 | 4,790 |
| MANUFACTURING | 621 | 716 | 716 | 716 | 716 | 716 |
| LIVESTOCK | 2,663 | 2,705 | 2,741 | 2,778 | 2,819 | 2,862 |
| IRRIGATION | 17,720 | 17,720 | 17,720 | 17,720 | 17,720 | 17,720 |
| RED BASIN TOTAL | 50,333 | 53,221 | 56,106 | 59,258 | 62,811 | 66,542 |
| RANDALL COUNTY TOTAL | 50,333 | 53,221 | 56,106 | 59,258 | 62,811 | 66,542 |
| MIAMI | 225 | 226 | 224 | 223 | 223 | 223 |

Region A Water User Group (WUG) Demand

| | WUG DEMAND (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| COUNTY-OTHER | 47 | 49 | 47 | 47 | 47 | 47 |
| MINING | 1,457 | 1,010 | 593 | 183 | 19 | 2 |
| LIVESTOCK | 373 | 391 | 411 | 432 | 453 | 477 |
| IRRIGATION | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 | 8,116 |
| CANADIAN BASIN TOTAL | 10,218 | 9,792 | 9,391 | 9,001 | 8,858 | 8,865 |
| COUNTY-OTHER | 1 | 1 | 1 | 1 | 1 | 1 |
| MINING | 45 | 31 | 18 | 6 | 1 | 0 |
| LIVESTOCK | 10 | 11 | 11 | 12 | 13 | 13 |
| IRRIGATION | 427 | 427 | 427 | 427 | 427 | 427 |
| RED BASIN TOTAL | 483 | 470 | 457 | 446 | 442 | 441 |
| ROBERTS COUNTY TOTAL | 10,701 | 10,262 | 9,848 | 9,447 | 9,300 | 9,306 |
| STRATFORD | 496 | 526 | 539 | 554 | 567 | 577 |
| TEXHOMA | 122 | 131 | 135 | 139 | 143 | 145 |
| COUNTY-OTHER | 105 | 110 | 112 | 116 | 118 | 121 |
| MANUFACTURING | 2 | 2 | 2 | 2 | 2 | 2 |
| MINING | 35 | 207 | 151 | 98 | 44 | 20 |
| LIVESTOCK | 3,576 | 3,813 | 4,006 | 4,212 | 4,432 | 4,669 |
| IRRIGATION | 304,360 | 304,360 | 304,360 | 246,760 | 182,536 | 182,536 |
| CANADIAN BASIN TOTAL | 308,696 | 309,149 | 309,305 | 251,881 | 187,842 | 188,070 |
| SHERMAN COUNTY TOTAL | 308,696 | 309,149 | 309,305 | 251,881 | 187,842 | 188,070 |
| SHAMROCK MUNICIPAL WATER SYSTEM | 350 | 353 | 357 | 369 | 382 | 397 |
| WHEELER | 493 | 505 | 517 | 533 | 553 | 574 |
| COUNTY-OTHER | 296 | 297 | 299 | 309 | 320 | 332 |
| MINING | 3,268 | 2,329 | 1,413 | 503 | 139 | 119 |
| LIVESTOCK | 1,186 | 1,321 | 1,358 | 1,396 | 1,436 | 1,479 |
| IRRIGATION | 16,224 | 16,224 | 16,224 | 16,224 | 16,224 | 16,224 |
| RED BASIN TOTAL | 21,817 | 21,029 | 20,168 | 19,334 | 19,054 | 19,125 |
| WHEELER COUNTY TOTAL | 21,817 | 21,029 | 20,168 | 19,334 | 19,054 | 19,125 |
| REGION A TOTAL DEMAND | 2,130,529 | 2,138,483 | 1,995,398 | 1,788,541 | 1,585,584 | 1,598,115 |

Region A Water User Group (WUG) Category Summary*

| MUNICIPAL | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| POPULATION | 359,431 | 396,063 | 432,993 | 470,777 | 509,991 | 550,786 |
| DEMAND (acre-feet per year) | 82,954 | 89,480 | 96,319 | 103,925 | 112,305 | 121,128 |
| EXISTING SUPPLIES (acre-feet per year) | 89,537 | 81,790 | 75,760 | 68,877 | 63,005 | 62,916 |
| NEEDS (acre-feet per year) | 1,387 | 10,509 | 22,620 | 36,745 | 50,649 | 59,537 |

| COUNTY-OTHER | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| POPULATION | 58,914 | 64,385 | 69,692 | 75,118 | 80,790 | 86,626 |
| DEMAND (acre-feet per year) | 9,492 | 10,128 | 10,778 | 11,529 | 12,375 | 13,258 |
| EXISTING SUPPLIES (acre-feet per year) | 12,196 | 12,751 | 13,367 | 14,086 | 14,869 | 15,683 |
| NEEDS (acre-feet per year) | 0 | 12 | 23 | 33 | 41 | 41 |

| MANUFACTURING | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| DEMAND (acre-feet per year) | 49,370 | 52,834 | 52,834 | 52,834 | 52,834 | 52,834 |
| EXISTING SUPPLIES (acre-feet per year) | 49,266 | 50,519 | 48,477 | 44,806 | 41,868 | 41,229 |
| NEEDS (acre-feet per year) | 1,008 | 2,553 | 4,390 | 8,061 | 10,999 | 11,638 |

| MINING | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| DEMAND (acre-feet per year) | 11,330 | 9,909 | 7,223 | 4,465 | 2,996 | 2,968 |
| EXISTING SUPPLIES (acre-feet per year) | 11,330 | 9,909 | 7,223 | 4,465 | 2,787 | 2,623 |
| NEEDS (acre-feet per year) | 0 | 0 | 0 | 0 | 209 | 345 |

| STEAM ELECTRIC POWER | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| DEMAND (acre-feet per year) | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 |
| EXISTING SUPPLIES (acre-feet per year) | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 |
| NEEDS (acre-feet per year) | 0 | 0 | 0 | 0 | 0 | 0 |

| LIVESTOCK | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| DEMAND (acre-feet per year) | 39,759 | 43,437 | 45,731 | 48,196 | 50,847 | 53,700 |
| EXISTING SUPPLIES (acre-feet per year) | 41,663 | 44,755 | 46,958 | 49,282 | 51,857 | 54,659 |
| NEEDS (acre-feet per year) | 0 | 0 | 0 | 0 | 0 | 0 |

| IRRIGATION | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| DEMAND (acre-feet per year) | 1,919,070 | 1,914,141 | 1,763,959 | 1,549,038 | 1,335,673 | 1,335,673 |
| EXISTING SUPPLIES (acre-feet per year) | 1,778,899 | 1,538,698 | 1,385,015 | 1,203,599 | 1,031,834 | 1,031,082 |
| NEEDS (acre-feet per year) | 146,113 | 381,615 | 385,110 | 351,748 | 309,855 | 310,682 |

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

Region A Source Availability

| GROUNDWATER SOURCE TYPE | | | | SOURCE AVAILABILITY (ACRE-FEET PER YEAR) | | | | | |
|------------------------------|---------------|----------|--------------------|--|---------|---------|---------|---------|---------|
| SOURCE NAME | COUNTY | BASIN | SALINITY * | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| BLAINE AQUIFER | CHILDRESS | RED | FRESH | 23,575 | 23,510 | 23,575 | 23,510 | 23,575 | 23,510 |
| BLAINE AQUIFER | COLLINGSWORTH | RED | FRESH | 2,060 | 2,054 | 2,060 | 2,054 | 2,060 | 2,054 |
| BLAINE AQUIFER | HALL | RED | FRESH | 5,856 | 5,840 | 5,856 | 5,840 | 5,856 | 5,840 |
| BLAINE AQUIFER | WHEELER | RED | FRESH | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 |
| DOCKUM AQUIFER | ARMSTRONG | RED | FRESH | 7,227 | 9,024 | 9,588 | 9,704 | 9,535 | 9,535 |
| DOCKUM AQUIFER | CARSON | CANADIAN | FRESH | 4 | 10 | 15 | 19 | 23 | 23 |
| DOCKUM AQUIFER | CARSON | RED | FRESH | 64 | 98 | 125 | 150 | 175 | 175 |
| DOCKUM AQUIFER | DALLAM | CANADIAN | FRESH | 14,192 | 14,188 | 14,186 | 14,184 | 14,184 | 14,184 |
| DOCKUM AQUIFER | HARTLEY | CANADIAN | FRESH | 55,249 | 55,035 | 54,928 | 54,864 | 54,837 | 54,837 |
| DOCKUM AQUIFER | MOORE | CANADIAN | FRESH | 5,219 | 5,107 | 5,020 | 4,926 | 4,789 | 4,789 |
| DOCKUM AQUIFER | OLDHAM | CANADIAN | FRESH | 128,938 | 128,771 | 120,466 | 111,146 | 101,365 | 101,365 |
| DOCKUM AQUIFER | OLDHAM | RED | FRESH | 63 | 58 | 52 | 50 | 48 | 48 |
| DOCKUM AQUIFER | POTTER | CANADIAN | FRESH | 38,641 | 38,983 | 36,832 | 34,409 | 31,900 | 31,900 |
| DOCKUM AQUIFER | POTTER | RED | FRESH | 183 | 130 | 105 | 96 | 108 | 108 |
| DOCKUM AQUIFER | RANDALL | RED | FRESH | 11,172 | 14,016 | 14,863 | 15,113 | 15,069 | 15,069 |
| DOCKUM AQUIFER | SHERMAN | CANADIAN | FRESH | 127 | 127 | 127 | 127 | 95 | 95 |
| OGALLALA AQUIFER | ARMSTRONG | RED | FRESH | 59,270 | 54,462 | 49,036 | 44,185 | 39,470 | 39,470 |
| OGALLALA AQUIFER | CARSON | CANADIAN | FRESH | 77,157 | 74,542 | 69,042 | 62,520 | 55,902 | 55,902 |
| OGALLALA AQUIFER | CARSON | RED | FRESH | 114,978 | 109,721 | 100,889 | 91,247 | 81,313 | 81,313 |
| OGALLALA AQUIFER | COLLINGSWORTH | RED | FRESH | 50 | 50 | 50 | 50 | 50 | 50 |
| OGALLALA AQUIFER | DONLEY | RED | FRESH | 74,808 | 76,289 | 72,962 | 67,873 | 62,058 | 62,058 |
| OGALLALA AQUIFER | GRAY | CANADIAN | FRESH | 44,778 | 42,146 | 37,337 | 32,130 | 27,432 | 27,432 |
| OGALLALA AQUIFER | GRAY | RED | FRESH | 136,327 | 133,121 | 125,316 | 116,583 | 106,999 | 106,999 |
| OGALLALA AQUIFER | HANSFORD | CANADIAN | FRESH | 275,016 | 272,656 | 271,226 | 270,281 | 269,589 | 269,589 |
| OGALLALA AQUIFER | HEMPHILL | CANADIAN | FRESH | 27,789 | 30,260 | 31,999 | 33,363 | 34,058 | 34,058 |
| OGALLALA AQUIFER | HEMPHILL | RED | FRESH | 24,407 | 21,958 | 20,268 | 18,942 | 18,278 | 18,278 |
| OGALLALA AQUIFER | HUTCHINSON | CANADIAN | FRESH | 94,985 | 95,694 | 94,161 | 92,372 | 90,858 | 90,858 |
| OGALLALA AQUIFER | LIPSCOMB | CANADIAN | FRESH | 266,809 | 266,710 | 266,640 | 266,591 | 266,559 | 266,559 |
| OGALLALA AQUIFER | MOORE | CANADIAN | FRESH | 223,785 | 181,219 | 146,914 | 111,202 | 78,172 | 78,172 |
| OGALLALA AQUIFER | OCHILTREE | CANADIAN | FRESH | 243,778 | 243,932 | 244,002 | 244,051 | 244,082 | 244,082 |
| OGALLALA AQUIFER | OLDHAM | CANADIAN | FRESH | 37,367 | 34,376 | 29,078 | 23,039 | 17,800 | 17,800 |
| OGALLALA AQUIFER | OLDHAM | RED | FRESH | 7,232 | 5,827 | 4,345 | 3,168 | 1,790 | 1,790 |
| OGALLALA AQUIFER | POTTER | CANADIAN | FRESH | 9,552 | 9,196 | 8,519 | 7,898 | 7,214 | 7,214 |
| OGALLALA AQUIFER | POTTER | RED | FRESH | 7,642 | 6,849 | 6,148 | 5,487 | 4,843 | 4,843 |
| OGALLALA AQUIFER | RANDALL | RED | FRESH | 63,910 | 61,932 | 54,341 | 47,805 | 42,030 | 42,030 |
| OGALLALA AQUIFER | ROBERTS | CANADIAN | FRESH | 408,968 | 430,269 | 401,642 | 365,119 | 326,457 | 326,457 |
| OGALLALA AQUIFER | ROBERTS | RED | FRESH | 21,650 | 24,860 | 25,576 | 25,128 | 24,002 | 24,002 |
| OGALLALA AQUIFER | SHERMAN | CANADIAN | FRESH | 398,056 | 348,895 | 281,690 | 212,744 | 148,552 | 148,552 |
| OGALLALA AQUIFER | WHEELER | RED | FRESH | 130,425 | 138,810 | 137,385 | 132,312 | 124,778 | 124,778 |
| OGALLALA-RITA BLANCA AQUIFER | DALLAM | CANADIAN | FRESH | 387,471 | 287,205 | 225,573 | 166,890 | 112,864 | 112,864 |
| OGALLALA-RITA BLANCA AQUIFER | HARTLEY | CANADIAN | FRESH | 417,113 | 289,162 | 226,848 | 165,580 | 108,423 | 108,423 |
| OTHER AQUIFER | ARMSTRONG | RED | FRESH/ BRACKISH | 370 | 370 | 370 | 370 | 370 | 370 |
| OTHER AQUIFER | CHILDRESS | RED | FRESH/ BRACKISH | 233 | 233 | 233 | 233 | 233 | 233 |

*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 A Source Availability

| GROUNDWATER SOURCE TYPE | | | | SOURCE AVAILABILITY (ACRE-FEET PER YEAR) | | | | | |
|--|---------------|-------|--------------------|--|------------------|------------------|------------------|------------------|------------------|
| SOURCE NAME | COUNTY | BASIN | SALINITY * | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| OTHER AQUIFER | COLLINGSWORTH | RED | FRESH/ BRACKISH | 309 | 309 | 309 | 309 | 309 | 309 |
| OTHER AQUIFER | DONLEY | RED | FRESH/ BRACKISH | 479 | 479 | 479 | 479 | 479 | 479 |
| OTHER AQUIFER | HALL | RED | FRESH/ BRACKISH | 1,086 | 1,086 | 1,086 | 1,086 | 1,086 | 1,086 |
| OTHER AQUIFER | WHEELER | RED | FRESH/ BRACKISH | 276 | 276 | 276 | 276 | 276 | 276 |
| SEYMOUR AQUIFER | CHILDRESS | RED | FRESH | 2,961 | 3,246 | 3,317 | 3,308 | 3,317 | 3,297 |
| SEYMOUR AQUIFER | COLLINGSWORTH | RED | FRESH | 41,345 | 31,492 | 28,657 | 27,165 | 22,395 | 22,769 |
| SEYMOUR AQUIFER | HALL | RED | FRESH | 15,446 | 16,751 | 19,666 | 22,861 | 25,861 | 24,595 |
| GROUNDWATER TOTAL SOURCE AVAILABILITY | | | | 3,910,148 | 3,593,084 | 3,274,928 | 2,940,589 | 2,613,268 | 2,612,269 |

| REUSE SOURCE TYPE | | | | SOURCE AVAILABILITY (ACRE-FEET PER YEAR) | | | | | |
|--|---------------|----------|------------|--|---------------|---------------|---------------|---------------|---------------|
| SOURCE NAME | COUNTY | BASIN | SALINITY * | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| DIRECT REUSE | CARSON | RED | FRESH | 58 | 59 | 59 | 58 | 58 | 58 |
| DIRECT REUSE | CHILDRESS | RED | FRESH | 162 | 166 | 169 | 172 | 177 | 181 |
| DIRECT REUSE | COLLINGSWORTH | RED | FRESH | 52 | 54 | 55 | 57 | 58 | 60 |
| DIRECT REUSE | GRAY | CANADIAN | FRESH | 220 | 220 | 220 | 220 | 220 | 220 |
| DIRECT REUSE | HALL | RED | FRESH | 100 | 100 | 100 | 100 | 100 | 100 |
| DIRECT REUSE | HUTCHINSON | CANADIAN | FRESH | 1,045 | 1,045 | 1,045 | 1,045 | 1,045 | 1,045 |
| DIRECT REUSE | POTTER | CANADIAN | FRESH | 22,692 | 24,744 | 26,692 | 28,784 | 31,177 | 33,708 |
| DIRECT REUSE | POTTER | RED | FRESH | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 | 3,500 |
| DIRECT REUSE | RANDALL | RED | FRESH | 545 | 597 | 651 | 710 | 777 | 846 |
| DIRECT REUSE | WHEELER | RED | FRESH | 49 | 51 | 52 | 53 | 55 | 57 |
| REUSE TOTAL SOURCE AVAILABILITY | | | | 28,423 | 30,536 | 32,543 | 34,699 | 37,167 | 39,775 |

| SURFACE WATER SOURCE TYPE | | | | SOURCE AVAILABILITY (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|------------|----------|------------|--|-------|-------|-------|-------|-------|
| SOURCE NAME | COUNTY | BASIN | SALINITY * | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | CARSON | CANADIAN | FRESH | 59 | 59 | 59 | 59 | 59 | 59 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | DALLAM | CANADIAN | FRESH | 2,488 | 2,488 | 2,488 | 2,488 | 2,488 | 2,488 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | GRAY | CANADIAN | FRESH | 199 | 199 | 199 | 199 | 199 | 199 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HANSFORD | CANADIAN | FRESH | 2,617 | 2,617 | 2,617 | 2,617 | 2,617 | 2,617 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HARTLEY | CANADIAN | FRESH | 3,193 | 3,193 | 3,193 | 3,193 | 3,193 | 3,193 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HEMPHILL | CANADIAN | FRESH | 248 | 248 | 248 | 248 | 248 | 248 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HUTCHINSON | CANADIAN | FRESH | 281 | 281 | 281 | 281 | 281 | 281 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | LIPSCOMB | CANADIAN | FRESH | 110 | 110 | 110 | 110 | 110 | 110 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | MOORE | CANADIAN | FRESH | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | OCHILTREE | CANADIAN | FRESH | 421 | 421 | 421 | 421 | 421 | 421 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | OLDHAM | CANADIAN | FRESH | 626 | 626 | 626 | 626 | 626 | 626 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | POTTER | CANADIAN | FRESH | 500 | 500 | 500 | 500 | 500 | 500 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | ROBERTS | CANADIAN | FRESH | 124 | 124 | 124 | 124 | 124 | 124 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | SHERMAN | CANADIAN | FRESH | 1,052 | 1,052 | 1,052 | 1,052 | 1,052 | 1,052 |
| CANADIAN RUN-OF-RIVER | GRAY | CANADIAN | FRESH | 1 | 1 | 1 | 1 | 1 | 1 |
| CANADIAN RUN-OF-RIVER | HANSFORD | CANADIAN | FRESH | 22 | 22 | 22 | 22 | 22 | 22 |
| CANADIAN RUN-OF-RIVER | HUTCHINSON | CANADIAN | FRESH | 98 | 98 | 98 | 98 | 98 | 98 |

*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 A Source Availability

| SURFACE WATER SOURCE TYPE | | | | SOURCE AVAILABILITY (ACRE-FEET PER YEAR) | | | | | |
|--|---------------|----------|------------|--|------------------|------------------|------------------|------------------|------------------|
| SOURCE NAME | COUNTY | BASIN | SALINITY * | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| CANADIAN RUN-OF-RIVER | LIPSCOMB | CANADIAN | FRESH | 66 | 66 | 66 | 66 | 66 | 66 |
| CANADIAN RUN-OF-RIVER | MOORE | CANADIAN | FRESH | 7 | 7 | 7 | 7 | 7 | 7 |
| CANADIAN RUN-OF-RIVER | ROBERTS | CANADIAN | FRESH | 72 | 72 | 72 | 72 | 72 | 72 |
| CANADIAN RUN-OF-RIVER | SHERMAN | CANADIAN | FRESH | 32 | 32 | 32 | 32 | 32 | 32 |
| GREENBELT LAKE/RESERVOIR | RESERVOIR | RED | FRESH | 3,112 | 2,941 | 2,770 | 2,599 | 2,428 | 2,256 |
| MEREDITH LAKE/RESERVOIR | RESERVOIR | CANADIAN | FRESH | 24,669 | 24,635 | 24,602 | 24,568 | 24,534 | 24,501 |
| PALO DURO LAKE/RESERVOIR | RESERVOIR | CANADIAN | FRESH | 3,917 | 3,875 | 3,833 | 3,792 | 3,750 | 3,708 |
| RED LIVESTOCK LOCAL SUPPLY | ARMSTRONG | RED | FRESH | 122 | 122 | 122 | 122 | 122 | 122 |
| RED LIVESTOCK LOCAL SUPPLY | CARSON | RED | FRESH | 75 | 75 | 75 | 75 | 75 | 75 |
| RED LIVESTOCK LOCAL SUPPLY | CHILDRESS | RED | FRESH | 49 | 49 | 49 | 49 | 49 | 49 |
| RED LIVESTOCK LOCAL SUPPLY | COLLINGSWORTH | RED | FRESH | 29 | 29 | 29 | 29 | 29 | 29 |
| RED LIVESTOCK LOCAL SUPPLY | DONLEY | RED | FRESH | 283 | 283 | 283 | 283 | 283 | 283 |
| RED LIVESTOCK LOCAL SUPPLY | GRAY | RED | FRESH | 600 | 600 | 600 | 600 | 600 | 600 |
| RED LIVESTOCK LOCAL SUPPLY | HALL | RED | FRESH | 91 | 91 | 91 | 91 | 91 | 91 |
| RED LIVESTOCK LOCAL SUPPLY | HEMPHILL | RED | FRESH | 173 | 173 | 173 | 173 | 173 | 173 |
| RED LIVESTOCK LOCAL SUPPLY | OLDHAM | RED | FRESH | 209 | 209 | 209 | 209 | 209 | 209 |
| RED LIVESTOCK LOCAL SUPPLY | POTTER | RED | FRESH | 62 | 62 | 62 | 62 | 62 | 62 |
| RED LIVESTOCK LOCAL SUPPLY | RANDALL | RED | FRESH | 1,312 | 1,312 | 1,312 | 1,312 | 1,312 | 1,312 |
| RED LIVESTOCK LOCAL SUPPLY | ROBERTS | RED | FRESH | 15 | 15 | 15 | 15 | 15 | 15 |
| RED LIVESTOCK LOCAL SUPPLY | WHEELER | RED | FRESH | 845 | 845 | 845 | 845 | 845 | 845 |
| RED RUN-OF-RIVER | CARSON | RED | FRESH | 277 | 277 | 277 | 277 | 277 | 277 |
| RED RUN-OF-RIVER | CHILDRESS | RED | FRESH | 19 | 19 | 19 | 19 | 19 | 19 |
| RED RUN-OF-RIVER | COLLINGSWORTH | RED | FRESH | 851 | 851 | 851 | 851 | 851 | 851 |
| RED RUN-OF-RIVER | DONLEY | RED | FRESH | 166 | 166 | 166 | 166 | 166 | 166 |
| RED RUN-OF-RIVER | GRAY | RED | FRESH | 55 | 55 | 55 | 55 | 55 | 55 |
| RED RUN-OF-RIVER | HALL | RED | FRESH | 52 | 52 | 52 | 52 | 52 | 52 |
| RED RUN-OF-RIVER | RANDALL | RED | FRESH | 217 | 217 | 217 | 217 | 217 | 217 |
| RED RUN-OF-RIVER | WHEELER | RED | FRESH | 603 | 603 | 603 | 603 | 603 | 603 |
| SURFACE WATER TOTAL SOURCE AVAILABILITY | | | | 51,019 | 50,772 | 50,526 | 50,280 | 50,033 | 49,786 |
| REGION A TOTAL SOURCE AVAILABILITY | | | | 3,989,590 | 3,674,392 | 3,357,997 | 3,025,568 | 2,700,468 | 2,701,830 |

*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.

Region A 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 |
| CLAUDE MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER ARMSTRONG COUNTY | 584 | 537 | 464 | 402 | 354 | 354 |
| COUNTY-OTHER | A | DOCKUM AQUIFER ARMSTRONG COUNTY | 16 | 16 | 16 | 16 | 16 | 16 |
| COUNTY-OTHER | A | OGALLALA AQUIFER ARMSTRONG COUNTY | 84 | 84 | 84 | 84 | 84 | 84 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 122 | 122 | 122 | 122 | 122 | 122 |
| LIVESTOCK | A | OGALLALA AQUIFER ARMSTRONG COUNTY | 180 | 297 | 315 | 333 | 352 | 372 |
| LIVESTOCK | A | OTHER AQUIFER ARMSTRONG COUNTY | 30 | 30 | 30 | 30 | 30 | 30 |
| IRRIGATION | A | DOCKUM AQUIFER ARMSTRONG COUNTY | 54 | 78 | 99 | 119 | 136 | 136 |
| IRRIGATION | A | OGALLALA AQUIFER ARMSTRONG COUNTY | 6,244 | 6,244 | 6,244 | 6,244 | 6,244 | 6,244 |
| RED BASIN TOTAL | | | 7,314 | 7,408 | 7,374 | 7,350 | 7,338 | 7,358 |
| ARMSTRONG COUNTY TOTAL | | | 7,314 | 7,408 | 7,374 | 7,350 | 7,338 | 7,358 |
| WHITE DEER | A | OGALLALA AQUIFER CARSON COUNTY | 136 | 137 | 137 | 137 | 137 | 137 |
| COUNTY-OTHER | A | OGALLALA AQUIFER CARSON COUNTY | 249 | 237 | 228 | 225 | 208 | 185 |
| MANUFACTURING | A | OGALLALA AQUIFER CARSON COUNTY | 17 | 18 | 18 | 18 | 18 | 18 |
| MINING | A | OGALLALA AQUIFER CARSON COUNTY | 14 | 14 | 14 | 14 | 14 | 14 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 59 | 59 | 59 | 59 | 59 | 59 |
| LIVESTOCK | A | OGALLALA AQUIFER CARSON COUNTY | 177 | 263 | 275 | 287 | 299 | 313 |
| IRRIGATION | A | OGALLALA AQUIFER CARSON COUNTY | 22,518 | 22,518 | 22,518 | 22,518 | 22,518 | 22,518 |
| CANADIAN BASIN TOTAL | | | 23,170 | 23,246 | 23,249 | 23,258 | 23,253 | 23,244 |
| GROOM MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER CARSON COUNTY | 420 | 468 | 486 | 484 | 471 | 471 |
| PANHANDLE MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER CARSON COUNTY | 738 | 124 | 0 | 0 | 0 | 0 |
| WHITE DEER | A | OGALLALA AQUIFER CARSON COUNTY | 176 | 180 | 180 | 179 | 179 | 179 |
| COUNTY-OTHER | A | OGALLALA AQUIFER CARSON COUNTY | 215 | 205 | 197 | 194 | 180 | 160 |
| MANUFACTURING | A | OGALLALA AQUIFER CARSON COUNTY | 1,038 | 1,118 | 1,118 | 1,118 | 1,118 | 1,118 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 75 | 75 | 75 | 75 | 75 | 75 |
| LIVESTOCK | A | OGALLALA AQUIFER CARSON COUNTY | 4 | 33 | 37 | 41 | 45 | 49 |
| IRRIGATION | A | DIRECT REUSE | 58 | 59 | 59 | 58 | 58 | 58 |
| IRRIGATION | A | OGALLALA AQUIFER CARSON COUNTY | 64,771 | 64,771 | 64,771 | 64,771 | 64,771 | 64,771 |
| IRRIGATION | A | RED RUN-OF-RIVER | 277 | 277 | 277 | 277 | 277 | 277 |
| RED BASIN TOTAL | | | 67,772 | 67,310 | 67,200 | 67,197 | 67,174 | 67,158 |
| CARSON COUNTY TOTAL | | | 90,942 | 90,556 | 90,449 | 90,455 | 90,427 | 90,402 |
| CHILDRESS | A | GREENBELT LAKE/RESERVOIR | 1,008 | 1,070 | 1,127 | 1,188 | 1,139 | 1,071 |
| CHILDRESS | A | OGALLALA AQUIFER DONLEY COUNTY | 616 | 587 | 558 | 534 | 465 | 399 |
| RED RIVER AUTHORITY OF TEXAS | A | GREENBELT LAKE/RESERVOIR | 144 | 152 | 160 | 169 | 163 | 152 |
| RED RIVER AUTHORITY OF TEXAS | A | OGALLALA AQUIFER DONLEY COUNTY | 88 | 84 | 79 | 76 | 66 | 57 |
| COUNTY-OTHER | A | OTHER AQUIFER CHILDRESS COUNTY | 20 | 20 | 20 | 20 | 20 | 20 |
| COUNTY-OTHER | A | SEYMOUR AQUIFER CHILDRESS COUNTY | 20 | 20 | 20 | 20 | 20 | 20 |
| LIVESTOCK | A | BLAINE AQUIFER CHILDRESS COUNTY | 216 | 216 | 216 | 216 | 238 | 262 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 49 | 49 | 49 | 49 | 49 | 49 |
| LIVESTOCK | A | SEYMOUR AQUIFER CHILDRESS COUNTY | 240 | 240 | 240 | 240 | 240 | 240 |
| IRRIGATION | A | BLAINE AQUIFER CHILDRESS COUNTY | 13,829 | 13,829 | 13,829 | 13,829 | 13,829 | 13,829 |
| IRRIGATION | A | DIRECT REUSE | 162 | 166 | 169 | 172 | 177 | 181 |
| IRRIGATION | A | OTHER AQUIFER CHILDRESS COUNTY | 213 | 213 | 213 | 213 | 213 | 213 |
| IRRIGATION | A | RED RUN-OF-RIVER | 19 | 19 | 19 | 19 | 19 | 19 |
| IRRIGATION | A | SEYMOUR AQUIFER CHILDRESS COUNTY | 100 | 100 | 100 | 100 | 100 | 100 |

Region A 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 |
| RED BASIN TOTAL | | | 16,724 | 16,765 | 16,799 | 16,845 | 16,738 | 16,612 |
| CHILDRESS COUNTY TOTAL | | | 16,724 | 16,765 | 16,799 | 16,845 | 16,738 | 16,612 |
| RED RIVER AUTHORITY OF TEXAS | A | GREENBELT LAKE/RESERVOIR | 10 | 10 | 11 | 11 | 10 | 9 |
| RED RIVER AUTHORITY OF TEXAS | A | OGALLALA AQUIFER DONLEY COUNTY | 6 | 6 | 5 | 5 | 4 | 4 |
| RED RIVER AUTHORITY OF TEXAS | A | SEYMOUR AQUIFER COLLINGSWORTH COUNTY | 126 | 139 | 151 | 163 | 178 | 190 |
| WELLINGTON MUNICIPAL WATER SYSTEM | A | SEYMOUR AQUIFER COLLINGSWORTH COUNTY | 0 | 0 | 0 | 0 | 0 | 0 |
| COUNTY-OTHER | A | BLAINE AQUIFER COLLINGSWORTH COUNTY | 71 | 66 | 60 | 55 | 50 | 46 |
| COUNTY-OTHER | A | SEYMOUR AQUIFER COLLINGSWORTH COUNTY | 100 | 100 | 100 | 100 | 100 | 100 |
| LIVESTOCK | A | BLAINE AQUIFER COLLINGSWORTH COUNTY | 200 | 246 | 258 | 271 | 280 | 290 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 29 | 29 | 29 | 29 | 29 | 29 |
| LIVESTOCK | A | OTHER AQUIFER COLLINGSWORTH COUNTY | 276 | 276 | 276 | 276 | 276 | 276 |
| LIVESTOCK | A | SEYMOUR AQUIFER COLLINGSWORTH COUNTY | 30 | 38 | 48 | 60 | 75 | 94 |
| IRRIGATION | A | BLAINE AQUIFER COLLINGSWORTH COUNTY | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 |
| IRRIGATION | A | DIRECT REUSE | 52 | 54 | 55 | 57 | 58 | 60 |
| IRRIGATION | A | OTHER AQUIFER COLLINGSWORTH COUNTY | 33 | 33 | 33 | 33 | 33 | 33 |
| IRRIGATION | A | RED RUN-OF-RIVER | 851 | 851 | 851 | 851 | 851 | 851 |
| IRRIGATION | A | SEYMOUR AQUIFER COLLINGSWORTH COUNTY | 37,977 | 29,779 | 27,799 | 25,986 | 21,074 | 21,743 |
| RED BASIN TOTAL | | | 41,461 | 33,327 | 31,376 | 29,597 | 24,718 | 25,425 |
| COLLINGSWORTH COUNTY TOTAL | | | 41,461 | 33,327 | 31,376 | 29,597 | 24,718 | 25,425 |
| DALHART | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 1,435 | 1,134 | 928 | 706 | 484 | 492 |
| TEXLINE | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 219 | 235 | 252 | 242 | 218 | 196 |
| COUNTY-OTHER | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 140 | 150 | 165 | 181 | 197 | 213 |
| MANUFACTURING | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 6 | 6 | 6 | 6 | 6 | 6 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 2,488 | 2,488 | 2,488 | 2,488 | 2,488 | 2,488 |
| LIVESTOCK | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 2,033 | 2,372 | 2,627 | 2,902 | 3,198 | 3,518 |
| IRRIGATION | A | DOCKUM AQUIFER DALLAM COUNTY | 11,823 | 11,899 | 11,858 | 11,783 | 11,668 | 11,668 |
| IRRIGATION | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 302,421 | 215,573 | 167,114 | 124,816 | 88,298 | 88,298 |
| CANADIAN BASIN TOTAL | | | 320,565 | 233,857 | 185,438 | 143,124 | 106,557 | 106,879 |
| DALLAM COUNTY TOTAL | | | 320,565 | 233,857 | 185,438 | 143,124 | 106,557 | 106,879 |
| CLARENDON | A | GREENBELT LAKE/RESERVOIR | 230 | 234 | 237 | 242 | 225 | 206 |
| CLARENDON | A | OGALLALA AQUIFER DONLEY COUNTY | 141 | 128 | 117 | 108 | 92 | 77 |
| RED RIVER AUTHORITY OF TEXAS | A | GREENBELT LAKE/RESERVOIR | 19 | 19 | 20 | 21 | 19 | 18 |
| RED RIVER AUTHORITY OF TEXAS | A | OGALLALA AQUIFER DONLEY COUNTY | 215 | 236 | 235 | 234 | 233 | 232 |
| COUNTY-OTHER | A | GREENBELT LAKE/RESERVOIR | 35 | 36 | 37 | 39 | 36 | 33 |
| COUNTY-OTHER | A | OGALLALA AQUIFER DONLEY COUNTY | 134 | 114 | 97 | 82 | 67 | 52 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 283 | 283 | 283 | 283 | 283 | 283 |
| LIVESTOCK | A | OGALLALA AQUIFER DONLEY COUNTY | 305 | 328 | 353 | 380 | 407 | 436 |
| LIVESTOCK | A | OTHER AQUIFER DONLEY COUNTY | 383 | 383 | 383 | 383 | 383 | 383 |
| IRRIGATION | A | OGALLALA AQUIFER DONLEY COUNTY | 30,910 | 30,910 | 30,910 | 30,910 | 30,910 | 30,910 |
| IRRIGATION | A | RED RUN-OF-RIVER | 166 | 166 | 166 | 166 | 166 | 166 |
| RED BASIN TOTAL | | | 32,821 | 32,837 | 32,838 | 32,848 | 32,821 | 32,796 |
| DONLEY COUNTY TOTAL | | | 32,821 | 32,837 | 32,838 | 32,848 | 32,821 | 32,796 |
| PAMPA MUNICIPAL WATER SYSTEM | A | MEREDITH LAKE/RESERVOIR | 481 | 570 | 681 | 812 | 935 | 943 |

Region A Water User Group (WUG) Existing Water Supply

| WUG NAME | SOURCE | SOURCE DESCRIPTION | EXISTING SUPPLY (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|--------|------------------------------------|--------------------------------------|---------------|---------------|---------------|---------------|---------------|
| | REGION | | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| PAMPA MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER GRAY COUNTY | 1,724 | 1,431 | 1,135 | 903 | 713 | 713 |
| PAMPA MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER ROBERTS COUNTY | 1,666 | 1,803 | 1,679 | 1,833 | 1,899 | 1,918 |
| COUNTY-OTHER | A | OGALLALA AQUIFER GRAY COUNTY | 472 | 512 | 563 | 634 | 692 | 753 |
| MANUFACTURING | A | OGALLALA AQUIFER GRAY COUNTY | 480 | 535 | 535 | 535 | 535 | 535 |
| MINING | A | OGALLALA AQUIFER GRAY COUNTY | 7 | 7 | 6 | 6 | 5 | 4 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 199 | 199 | 199 | 199 | 199 | 199 |
| LIVESTOCK | A | OGALLALA AQUIFER GRAY COUNTY | 141 | 141 | 141 | 141 | 141 | 141 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 1 | 1 | 1 | 1 | 1 | 1 |
| IRRIGATION | A | DIRECT REUSE | 220 | 220 | 220 | 220 | 220 | 220 |
| IRRIGATION | A | OGALLALA AQUIFER GRAY COUNTY | 8,395 | 8,395 | 8,395 | 8,395 | 5,487 | 5,487 |
| CANADIAN BASIN TOTAL | | | 13,786 | 13,814 | 13,555 | 13,679 | 10,827 | 10,914 |
| MCLEAN MUNICIPAL WATER SUPPLY | A | OGALLALA AQUIFER GRAY COUNTY | 315 | 293 | 266 | 241 | 219 | 219 |
| COUNTY-OTHER | A | OGALLALA AQUIFER GRAY COUNTY | 239 | 259 | 285 | 320 | 350 | 381 |
| MINING | A | OGALLALA AQUIFER GRAY COUNTY | 68 | 67 | 61 | 54 | 48 | 43 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 600 | 600 | 600 | 600 | 600 | 600 |
| LIVESTOCK | A | OGALLALA AQUIFER GRAY COUNTY | 1,174 | 1,334 | 1,469 | 1,562 | 1,718 | 1,890 |
| IRRIGATION | A | OGALLALA AQUIFER GRAY COUNTY | 23,894 | 23,894 | 23,894 | 23,894 | 23,894 | 23,894 |
| IRRIGATION | A | RED RUN-OF-RIVER | 55 | 55 | 55 | 55 | 55 | 55 |
| RED BASIN TOTAL | | | 26,345 | 26,502 | 26,630 | 26,726 | 26,884 | 27,082 |
| GRAY COUNTY TOTAL | | | 40,131 | 40,316 | 40,185 | 40,405 | 37,711 | 37,996 |
| MEMPHIS | A | GREENBELT LAKE/RESERVOIR | 23 | 24 | 25 | 25 | 24 | 22 |
| MEMPHIS | A | OGALLALA AQUIFER DONLEY COUNTY | 373 | 333 | 288 | 245 | 206 | 204 |
| RED RIVER AUTHORITY OF TEXAS | A | GREENBELT LAKE/RESERVOIR | 62 | 65 | 67 | 69 | 64 | 59 |
| RED RIVER AUTHORITY OF TEXAS | A | OGALLALA AQUIFER DONLEY COUNTY | 38 | 35 | 33 | 31 | 26 | 22 |
| RED RIVER AUTHORITY OF TEXAS | A | SEYMOUR AQUIFER HALL COUNTY | 10 | 10 | 10 | 13 | 14 | 30 |
| TURKEY MUNICIPAL WATER SYSTEM | A | SEYMOUR AQUIFER HALL COUNTY | 120 | 121 | 119 | 119 | 119 | 119 |
| COUNTY-OTHER | A | SEYMOUR AQUIFER HALL COUNTY | 84 | 76 | 65 | 54 | 65 | 57 |
| LIVESTOCK | A | BLAINE AQUIFER HALL COUNTY | 10 | 10 | 10 | 10 | 10 | 30 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 91 | 91 | 91 | 91 | 91 | 91 |
| LIVESTOCK | A | OTHER AQUIFER HALL COUNTY | 300 | 300 | 300 | 300 | 300 | 300 |
| LIVESTOCK | A | SEYMOUR AQUIFER HALL COUNTY | 15 | 15 | 15 | 15 | 15 | 15 |
| IRRIGATION | A | DIRECT REUSE | 100 | 100 | 100 | 100 | 100 | 100 |
| IRRIGATION | A | OTHER AQUIFER HALL COUNTY | 786 | 786 | 786 | 786 | 786 | 786 |
| IRRIGATION | A | RED RUN-OF-RIVER | 52 | 52 | 52 | 52 | 52 | 52 |
| IRRIGATION | A | SEYMOUR AQUIFER HALL COUNTY | 15,159 | 16,463 | 19,380 | 22,572 | 25,571 | 24,289 |
| RED BASIN TOTAL | | | 17,223 | 18,481 | 21,341 | 24,482 | 27,443 | 26,176 |
| HALL COUNTY TOTAL | | | 17,223 | 18,481 | 21,341 | 24,482 | 27,443 | 26,176 |
| GRUVER | A | OGALLALA AQUIFER HANSFORD COUNTY | 410 | 360 | 309 | 251 | 201 | 201 |
| SPEARMAN MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER HANSFORD COUNTY | 804 | 817 | 702 | 474 | 228 | 228 |
| COUNTY-OTHER | A | OGALLALA AQUIFER HANSFORD COUNTY | 200 | 200 | 200 | 200 | 200 | 200 |
| MANUFACTURING | A | OGALLALA AQUIFER HANSFORD COUNTY | 285 | 321 | 321 | 321 | 321 | 321 |
| MINING | A | OGALLALA AQUIFER HANSFORD COUNTY | 577 | 904 | 602 | 309 | 16 | 1 |

Region A 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 | A | LOCAL SURFACE WATER SUPPLY | 2,617 | 2,617 | 2,617 | 2,617 | 2,617 | 2,617 |
| LIVESTOCK | A | OGALLALA AQUIFER HANSFORD COUNTY | 1,413 | 1,587 | 1,771 | 1,963 | 2,166 | 2,378 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 22 | 22 | 22 | 22 | 22 | 22 |
| IRRIGATION | A | OGALLALA AQUIFER HANSFORD COUNTY | 171,900 | 171,900 | 171,900 | 171,900 | 171,900 | 171,900 |
| CANADIAN BASIN TOTAL | | | 178,228 | 178,728 | 178,444 | 178,057 | 177,671 | 177,868 |
| HANSFORD COUNTY TOTAL | | | 178,228 | 178,728 | 178,444 | 178,057 | 177,671 | 177,868 |
| DALHART | A | OGALLALA-RITA BLANCA AQUIFER DALLAM COUNTY | 675 | 492 | 367 | 256 | 163 | 155 |
| HARTLEY WSC | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 250 | 260 | 270 | 280 | 280 | 290 |
| COUNTY-OTHER | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 531 | 557 | 568 | 577 | 588 | 598 |
| MINING | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 7 | 7 | 6 | 5 | 4 | 3 |
| LIVESTOCK | A | DOCKUM AQUIFER HARTLEY COUNTY | 1,161 | 1,161 | 1,161 | 1,161 | 1,161 | 1,161 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 3,193 | 3,193 | 3,193 | 3,193 | 3,193 | 3,193 |
| LIVESTOCK | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 2,235 | 3,021 | 3,570 | 4,165 | 4,811 | 5,512 |
| IRRIGATION | A | DOCKUM AQUIFER HARTLEY COUNTY | 8,349 | 7,585 | 7,381 | 7,411 | 7,615 | 7,615 |
| IRRIGATION | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 313,875 | 206,640 | 160,229 | 116,912 | 77,655 | 77,655 |
| CANADIAN BASIN TOTAL | | | 330,276 | 222,916 | 176,745 | 133,960 | 95,470 | 96,182 |
| HARTLEY COUNTY TOTAL | | | 330,276 | 222,916 | 176,745 | 133,960 | 95,470 | 96,182 |
| CANADIAN | A | OGALLALA AQUIFER HEMPHILL COUNTY | 823 | 906 | 978 | 1,057 | 1,130 | 1,199 |
| COUNTY-OTHER | A | OGALLALA AQUIFER HEMPHILL COUNTY | 97 | 95 | 92 | 94 | 95 | 95 |
| MANUFACTURING | A | OGALLALA AQUIFER HEMPHILL COUNTY | 4 | 4 | 4 | 4 | 4 | 4 |
| MINING | A | OGALLALA AQUIFER HEMPHILL COUNTY | 926 | 706 | 498 | 293 | 89 | 27 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 248 | 248 | 248 | 248 | 248 | 248 |
| LIVESTOCK | A | OGALLALA AQUIFER HEMPHILL COUNTY | 415 | 432 | 451 | 470 | 491 | 512 |
| IRRIGATION | A | OGALLALA AQUIFER HEMPHILL COUNTY | 3,919 | 3,919 | 3,919 | 3,919 | 3,919 | 3,919 |
| CANADIAN BASIN TOTAL | | | 6,432 | 6,310 | 6,190 | 6,085 | 5,976 | 6,004 |
| COUNTY-OTHER | A | OGALLALA AQUIFER HEMPHILL COUNTY | 42 | 41 | 41 | 41 | 41 | 42 |
| MANUFACTURING | A | OGALLALA AQUIFER HEMPHILL COUNTY | 2 | 2 | 2 | 2 | 2 | 2 |
| MINING | A | OGALLALA AQUIFER HEMPHILL COUNTY | 1,388 | 1,057 | 746 | 439 | 134 | 41 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 173 | 173 | 173 | 173 | 173 | 173 |
| LIVESTOCK | A | OGALLALA AQUIFER HEMPHILL COUNTY | 281 | 293 | 305 | 319 | 332 | 347 |
| IRRIGATION | A | OGALLALA AQUIFER HEMPHILL COUNTY | 1,760 | 1,760 | 1,760 | 1,760 | 1,760 | 1,760 |
| RED BASIN TOTAL | | | 3,646 | 3,326 | 3,027 | 2,734 | 2,442 | 2,365 |
| HEMPHILL COUNTY TOTAL | | | 10,078 | 9,636 | 9,217 | 8,819 | 8,418 | 8,369 |
| BORGER | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 1,583 | 512 | 518 | 605 | 652 | 465 |
| BORGER | A | OGALLALA AQUIFER ROBERTS COUNTY | 2,329 | 2,129 | 1,914 | 1,548 | 1,298 | 1,395 |
| FRITCH | A | OGALLALA AQUIFER CARSON COUNTY | 592 | 598 | 591 | 589 | 588 | 588 |
| STINNETT | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 581 | 538 | 495 | 457 | 423 | 423 |
| TCW SUPPLY | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 691 | 573 | 472 | 386 | 317 | 317 |
| COUNTY-OTHER | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 416 | 415 | 414 | 413 | 411 | 411 |
| MANUFACTURING | A | CANADIAN RUN-OF-RIVER | 2 | 2 | 2 | 2 | 2 | 2 |
| MANUFACTURING | A | DIRECT REUSE | 1,045 | 1,045 | 1,045 | 1,045 | 1,045 | 1,045 |
| MANUFACTURING | A | MEREDITH LAKE/RESERVOIR | 1,729 | 1,594 | 1,506 | 1,438 | 1,427 | 1,423 |
| MANUFACTURING | A | OGALLALA AQUIFER CARSON COUNTY | 561 | 457 | 391 | 337 | 293 | 248 |
| MANUFACTURING | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 25,093 | 26,742 | 26,158 | 25,605 | 25,174 | 24,991 |
| MANUFACTURING | A | OGALLALA AQUIFER ROBERTS COUNTY | 1,500 | 1,700 | 1,800 | 1,700 | 1,600 | 1,500 |
| MINING | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 184 | 231 | 170 | 113 | 56 | 34 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 281 | 281 | 281 | 281 | 281 | 281 |

Region A Water User Group (WUG) Existing Water Supply

| WUG NAME | SOURCE | SOURCE DESCRIPTION | EXISTING SUPPLY (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|--------|--|--------------------------------------|----------------|----------------|----------------|---------------|---------------|
| | REGION | | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| LIVESTOCK | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 319 | 355 | 385 | 418 | 453 | 490 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 96 | 96 | 96 | 96 | 96 | 96 |
| IRRIGATION | A | OGALLALA AQUIFER HUTCHINSON COUNTY | 59,910 | 59,910 | 59,910 | 59,910 | 59,910 | 59,910 |
| CANADIAN BASIN TOTAL | | | 96,912 | 97,178 | 96,148 | 94,943 | 94,026 | 93,619 |
| HUTCHINSON COUNTY TOTAL | | | 96,912 | 97,178 | 96,148 | 94,943 | 94,026 | 93,619 |
| BOOKER | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 727 | 577 | 519 | 472 | 435 | 440 |
| DARROUZETT | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 150 | 150 | 150 | 160 | 160 | 160 |
| FOLLETT | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 140 | 150 | 160 | 160 | 170 | 170 |
| HIGGINS MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 140 | 150 | 150 | 160 | 160 | 170 |
| COUNTY-OTHER | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 137 | 124 | 117 | 109 | 103 | 99 |
| MANUFACTURING | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 362 | 400 | 360 | 305 | 269 | 261 |
| MINING | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 1,098 | 758 | 446 | 142 | 21 | 3 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 110 | 110 | 110 | 110 | 110 | 110 |
| LIVESTOCK | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 495 | 521 | 548 | 578 | 608 | 640 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 66 | 66 | 66 | 66 | 66 | 66 |
| IRRIGATION | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 40,870 | 40,870 | 40,870 | 40,870 | 40,870 | 40,870 |
| CANADIAN BASIN TOTAL | | | 44,295 | 43,876 | 43,496 | 43,132 | 42,972 | 42,989 |
| LIPSCOMB COUNTY TOTAL | | | 44,295 | 43,876 | 43,496 | 43,132 | 42,972 | 42,989 |
| CACTUS MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER MOORE COUNTY | 679 | 525 | 423 | 311 | 240 | 256 |
| DUMAS | A | OGALLALA AQUIFER MOORE COUNTY | 1,907 | 1,235 | 855 | 429 | 185 | 185 |
| DUMAS | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 2,274 | 1,827 | 1,583 | 1,234 | 844 | 844 |
| FRITCH | A | OGALLALA AQUIFER CARSON COUNTY | 5 | 5 | 5 | 5 | 5 | 5 |
| SUNRAY | A | OGALLALA AQUIFER MOORE COUNTY | 605 | 344 | 125 | 56 | 14 | 14 |
| COUNTY-OTHER | A | OGALLALA AQUIFER MOORE COUNTY | 243 | 273 | 306 | 343 | 385 | 429 |
| COUNTY-OTHER | A | OGALLALA-RITA BLANCA AQUIFER HARTLEY COUNTY | 50 | 38 | 27 | 17 | 9 | 9 |
| MANUFACTURING | A | OGALLALA AQUIFER MOORE COUNTY | 8,269 | 7,856 | 7,408 | 5,498 | 3,860 | 3,844 |
| MINING | A | OGALLALA AQUIFER MOORE COUNTY | 16 | 16 | 16 | 15 | 15 | 15 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| LIVESTOCK | A | OGALLALA AQUIFER MOORE COUNTY | 4,414 | 5,192 | 5,698 | 6,251 | 6,855 | 7,515 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 7 | 7 | 7 | 7 | 7 | 7 |
| IRRIGATION | A | DOCKUM AQUIFER MOORE COUNTY | 870 | 722 | 650 | 654 | 739 | 739 |
| IRRIGATION | A | OGALLALA AQUIFER MOORE COUNTY | 190,465 | 151,845 | 121,984 | 91,564 | 63,892 | 63,892 |
| CANADIAN BASIN TOTAL | | | 210,804 | 170,885 | 140,087 | 107,384 | 78,050 | 78,754 |
| MOORE COUNTY TOTAL | | | 210,804 | 170,885 | 140,087 | 107,384 | 78,050 | 78,754 |
| BOOKER | A | OGALLALA AQUIFER LIPSCOMB COUNTY | 9 | 9 | 12 | 12 | 13 | 16 |
| PERRYTON MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER OCHILTREE COUNTY | 3,488 | 3,309 | 3,136 | 3,045 | 2,919 | 2,919 |
| COUNTY-OTHER | A | OGALLALA AQUIFER OCHILTREE COUNTY | 341 | 354 | 371 | 396 | 425 | 457 |
| MANUFACTURING | A | OGALLALA AQUIFER OCHILTREE COUNTY | 36 | 41 | 41 | 41 | 41 | 41 |
| MINING | A | OGALLALA AQUIFER OCHILTREE COUNTY | 824 | 853 | 503 | 161 | 23 | 3 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 421 | 421 | 421 | 421 | 421 | 421 |
| LIVESTOCK | A | OGALLALA AQUIFER OCHILTREE COUNTY | 2,380 | 2,541 | 2,699 | 2,865 | 3,041 | 3,226 |
| IRRIGATION | A | OGALLALA AQUIFER OCHILTREE COUNTY | 84,460 | 84,460 | 84,460 | 84,460 | 84,460 | 84,460 |
| CANADIAN BASIN TOTAL | | | 91,959 | 91,988 | 91,643 | 91,401 | 91,343 | 91,543 |
| OCHILTREE COUNTY TOTAL | | | 91,959 | 91,988 | 91,643 | 91,401 | 91,343 | 91,543 |
| VEGA | O | OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER DEAF SMITH COUNTY | 200 | 200 | 200 | 200 | 200 | 200 |

Region A Water User Group (WUG) Existing Water Supply

| WUG NAME | SOURCE | SOURCE DESCRIPTION | EXISTING SUPPLY (ACRE-FEET PER YEAR) | | | | | |
|-----------------------------|--------|-----------------------------------|--------------------------------------|---------------|---------------|---------------|---------------|---------------|
| | REGION | | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| VEGA | A | OGALLALA AQUIFER OLDHAM COUNTY | 95 | 95 | 95 | 95 | 95 | 95 |
| COUNTY-OTHER | A | DOCKUM AQUIFER OLDHAM COUNTY | 387 | 387 | 387 | 387 | 387 | 387 |
| COUNTY-OTHER | A | OGALLALA AQUIFER OLDHAM COUNTY | 214 | 207 | 208 | 208 | 208 | 208 |
| MINING | A | DOCKUM AQUIFER OLDHAM COUNTY | 283 | 283 | 283 | 283 | 283 | 283 |
| MINING | A | OGALLALA AQUIFER OLDHAM COUNTY | 173 | 257 | 330 | 361 | 425 | 493 |
| LIVESTOCK | A | DOCKUM AQUIFER OLDHAM COUNTY | 430 | 430 | 430 | 430 | 430 | 430 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 626 | 626 | 626 | 626 | 626 | 626 |
| LIVESTOCK | A | OGALLALA AQUIFER OLDHAM COUNTY | 356 | 356 | 356 | 356 | 356 | 356 |
| IRRIGATION | A | DOCKUM AQUIFER OLDHAM COUNTY | 372 | 372 | 372 | 372 | 372 | 372 |
| IRRIGATION | A | OGALLALA AQUIFER OLDHAM COUNTY | 3,216 | 3,216 | 3,216 | 3,216 | 3,216 | 3,216 |
| CANADIAN BASIN TOTAL | | | 6,352 | 6,429 | 6,503 | 6,534 | 6,598 | 6,666 |
| COUNTY-OTHER | A | OGALLALA AQUIFER OLDHAM COUNTY | 73 | 80 | 79 | 79 | 79 | 79 |
| MINING | A | OGALLALA AQUIFER OLDHAM COUNTY | 19 | 23 | 26 | 27 | 29 | 32 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 209 | 209 | 209 | 209 | 209 | 209 |
| LIVESTOCK | A | OGALLALA AQUIFER OLDHAM COUNTY | 119 | 119 | 121 | 129 | 138 | 147 |
| IRRIGATION | A | OGALLALA AQUIFER OLDHAM COUNTY | 1,133 | 1,133 | 1,133 | 1,133 | 1,133 | 1,133 |
| RED BASIN TOTAL | | | 1,553 | 1,564 | 1,568 | 1,577 | 1,588 | 1,600 |
| OLDHAM COUNTY TOTAL | | | 7,905 | 7,993 | 8,071 | 8,111 | 8,186 | 8,266 |
| AMARILLO | A | MEREDITH LAKE/RESERVOIR | 3,278 | 3,264 | 3,125 | 3,010 | 3,056 | 3,072 |
| AMARILLO | A | OGALLALA AQUIFER CARSON COUNTY | 4,093 | 3,738 | 3,260 | 2,815 | 2,448 | 2,449 |
| AMARILLO | A | OGALLALA AQUIFER POTTER COUNTY | 2,321 | 1,559 | 1,422 | 1,305 | 1,190 | 1,174 |
| AMARILLO | A | OGALLALA AQUIFER ROBERTS COUNTY | 7,428 | 7,477 | 7,162 | 6,357 | 5,888 | 5,956 |
| COUNTY-OTHER | A | DOCKUM AQUIFER POTTER COUNTY | 900 | 900 | 900 | 900 | 900 | 900 |
| COUNTY-OTHER | A | OGALLALA AQUIFER POTTER COUNTY | 1,517 | 1,651 | 1,801 | 1,960 | 2,141 | 2,336 |
| MANUFACTURING | A | DOCKUM AQUIFER POTTER COUNTY | 682 | 636 | 581 | 530 | 477 | 477 |
| MINING | A | OGALLALA AQUIFER POTTER COUNTY | 640 | 781 | 912 | 988 | 900 | 900 |
| STEAM ELECTRIC POWER | A | DIRECT REUSE | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 | 18,554 |
| LIVESTOCK | A | DOCKUM AQUIFER POTTER COUNTY | 13 | 13 | 13 | 13 | 13 | 13 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 500 | 500 | 500 | 500 | 500 | 500 |
| LIVESTOCK | A | OGALLALA AQUIFER POTTER COUNTY | 50 | 50 | 50 | 50 | 50 | 50 |
| IRRIGATION | A | DIRECT REUSE | 700 | 700 | 700 | 700 | 700 | 700 |
| IRRIGATION | A | DOCKUM AQUIFER POTTER COUNTY | 631 | 664 | 667 | 659 | 645 | 645 |
| IRRIGATION | A | OGALLALA AQUIFER POTTER COUNTY | 1,029 | 1,029 | 1,029 | 1,029 | 1,029 | 1,029 |
| CANADIAN BASIN TOTAL | | | 42,336 | 41,516 | 40,676 | 39,370 | 38,491 | 38,755 |
| AMARILLO | A | MEREDITH LAKE/RESERVOIR | 2,158 | 2,149 | 2,057 | 1,983 | 2,012 | 2,022 |
| AMARILLO | A | OGALLALA AQUIFER CARSON COUNTY | 2,695 | 2,460 | 2,148 | 1,853 | 1,612 | 1,613 |
| AMARILLO | A | OGALLALA AQUIFER POTTER COUNTY | 1,529 | 1,027 | 937 | 859 | 783 | 772 |
| AMARILLO | A | OGALLALA AQUIFER ROBERTS COUNTY | 4,890 | 4,922 | 4,716 | 4,185 | 3,877 | 3,921 |
| COUNTY-OTHER | A | OGALLALA AQUIFER POTTER COUNTY | 812 | 884 | 965 | 1,049 | 1,147 | 1,251 |
| MANUFACTURING | A | DIRECT REUSE | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| MANUFACTURING | A | MEREDITH LAKE/RESERVOIR | 1,101 | 1,114 | 978 | 867 | 804 | 741 |
| MANUFACTURING | A | OGALLALA AQUIFER ROBERTS COUNTY | 4,426 | 4,361 | 3,710 | 3,016 | 2,508 | 2,313 |
| MINING | A | OGALLALA AQUIFER POTTER COUNTY | 301 | 368 | 429 | 465 | 522 | 586 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 62 | 62 | 62 | 62 | 62 | 62 |
| LIVESTOCK | A | OGALLALA AQUIFER POTTER COUNTY | 50 | 50 | 50 | 50 | 50 | 50 |
| IRRIGATION | A | DIRECT REUSE | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| IRRIGATION | A | OGALLALA AQUIFER POTTER COUNTY | 2,147 | 2,147 | 2,147 | 2,147 | 1,928 | 1,928 |

Region A 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 |
| RED BASIN TOTAL | | | 23,671 | 23,044 | 21,699 | 20,036 | 18,805 | 18,759 |
| POTTER COUNTY TOTAL | | | 66,007 | 64,560 | 62,375 | 59,406 | 57,296 | 57,514 |
| AMARILLO | A | MEREDITH LAKE/RESERVOIR | 4,414 | 4,422 | 4,232 | 4,088 | 4,149 | 4,165 |
| AMARILLO | O | OGALLALA AQUIFER & EDWARDS-TRINITY-HIGH PLAINS AQUIFER DEAF SMITH COUNTY | 100 | 100 | 100 | 100 | 50 | 0 |
| AMARILLO | A | OGALLALA AQUIFER CARSON COUNTY | 5,512 | 5,062 | 4,418 | 3,822 | 3,324 | 3,322 |
| AMARILLO | A | OGALLALA AQUIFER POTTER COUNTY | 1,338 | 709 | 842 | 907 | 922 | 949 |
| AMARILLO | A | OGALLALA AQUIFER RANDALL COUNTY | 1,689 | 1,304 | 985 | 763 | 641 | 641 |
| AMARILLO | A | OGALLALA AQUIFER ROBERTS COUNTY | 10,002 | 10,129 | 9,701 | 8,631 | 7,994 | 8,076 |
| CANYON | A | DOCKUM AQUIFER RANDALL COUNTY | 1,780 | 1,691 | 1,606 | 1,526 | 1,450 | 1,378 |
| CANYON | A | MEREDITH LAKE/RESERVOIR | 199 | 182 | 160 | 142 | 0 | 0 |
| CANYON | A | OGALLALA AQUIFER RANDALL COUNTY | 1,412 | 1,341 | 1,274 | 1,210 | 1,150 | 1,093 |
| CANYON | A | OGALLALA AQUIFER ROBERTS COUNTY | 801 | 713 | 606 | 493 | 0 | 0 |
| HAPPY | O | DOCKUM AQUIFER SWISHER COUNTY | 10 | 11 | 12 | 13 | 14 | 16 |
| LAKE TANGLEWOOD | A | DOCKUM AQUIFER RANDALL COUNTY | 500 | 500 | 500 | 500 | 500 | 500 |
| LAKE TANGLEWOOD | A | OGALLALA AQUIFER RANDALL COUNTY | 110 | 87 | 63 | 44 | 32 | 32 |
| COUNTY-OTHER | A | DOCKUM AQUIFER RANDALL COUNTY | 689 | 689 | 689 | 689 | 689 | 689 |
| COUNTY-OTHER | A | MEREDITH LAKE/RESERVOIR | 5 | 5 | 4 | 4 | 3 | 3 |
| COUNTY-OTHER | A | OGALLALA AQUIFER RANDALL COUNTY | 3,088 | 3,379 | 3,684 | 4,018 | 4,394 | 4,790 |
| COUNTY-OTHER | A | OGALLALA AQUIFER ROBERTS COUNTY | 20 | 17 | 15 | 12 | 11 | 9 |
| MANUFACTURING | A | MEREDITH LAKE/RESERVOIR | 115 | 105 | 92 | 82 | 76 | 70 |
| MANUFACTURING | A | OGALLALA AQUIFER RANDALL COUNTY | 50 | 50 | 50 | 50 | 50 | 50 |
| MANUFACTURING | A | OGALLALA AQUIFER ROBERTS COUNTY | 461 | 410 | 349 | 284 | 236 | 217 |
| LIVESTOCK | A | DOCKUM AQUIFER RANDALL COUNTY | 230 | 230 | 230 | 230 | 230 | 230 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 1,312 | 1,312 | 1,312 | 1,312 | 1,312 | 1,312 |
| LIVESTOCK | A | OGALLALA AQUIFER RANDALL COUNTY | 1,121 | 1,163 | 1,199 | 1,236 | 1,277 | 1,320 |
| IRRIGATION | A | DIRECT REUSE | 545 | 597 | 651 | 710 | 777 | 846 |
| IRRIGATION | A | DOCKUM AQUIFER RANDALL COUNTY | 101 | 215 | 286 | 355 | 425 | 425 |
| IRRIGATION | A | OGALLALA AQUIFER RANDALL COUNTY | 17,720 | 17,720 | 17,720 | 17,720 | 17,720 | 17,720 |
| IRRIGATION | A | RED RUN-OF-RIVER | 217 | 217 | 217 | 217 | 217 | 217 |
| RED BASIN TOTAL | | | 53,541 | 52,360 | 50,997 | 49,158 | 47,643 | 48,070 |
| RANDALL COUNTY TOTAL | | | 53,541 | 52,360 | 50,997 | 49,158 | 47,643 | 48,070 |
| MIAMI | A | OGALLALA AQUIFER ROBERTS COUNTY | 298 | 298 | 298 | 298 | 298 | 298 |
| COUNTY-OTHER | A | OGALLALA AQUIFER ROBERTS COUNTY | 60 | 60 | 60 | 60 | 60 | 60 |
| MINING | A | OGALLALA AQUIFER ROBERTS COUNTY | 1,457 | 1,010 | 593 | 183 | 19 | 2 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 124 | 124 | 124 | 124 | 124 | 124 |
| LIVESTOCK | A | OGALLALA AQUIFER ROBERTS COUNTY | 300 | 315 | 331 | 348 | 365 | 383 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 72 | 72 | 72 | 72 | 72 | 72 |
| IRRIGATION | A | OGALLALA AQUIFER ROBERTS COUNTY | 8,044 | 8,044 | 8,044 | 8,044 | 8,044 | 8,044 |
| CANADIAN BASIN TOTAL | | | 10,355 | 9,923 | 9,522 | 9,129 | 8,982 | 8,983 |
| COUNTY-OTHER | A | OGALLALA AQUIFER ROBERTS COUNTY | 5 | 5 | 5 | 5 | 5 | 5 |
| MINING | A | OGALLALA AQUIFER ROBERTS COUNTY | 45 | 31 | 18 | 6 | 1 | 0 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 15 | 15 | 15 | 15 | 15 | 15 |
| LIVESTOCK | A | OGALLALA AQUIFER ROBERTS COUNTY | 10 | 10 | 10 | 10 | 10 | 10 |
| IRRIGATION | A | OGALLALA AQUIFER ROBERTS COUNTY | 427 | 427 | 427 | 427 | 427 | 427 |
| RED BASIN TOTAL | | | 502 | 488 | 475 | 463 | 458 | 457 |
| ROBERTS COUNTY TOTAL | | | 10,857 | 10,411 | 9,997 | 9,592 | 9,440 | 9,440 |
| STRATFORD | A | OGALLALA AQUIFER SHERMAN COUNTY | 821 | 821 | 821 | 821 | 633 | 633 |

Region A Water User Group (WUG) Existing Water Supply

| WUG NAME | SOURCE | SOURCE DESCRIPTION | EXISTING SUPPLY (ACRE-FEET PER YEAR) | | | | | |
|---|--------|-----------------------------------|--------------------------------------|------------------|------------------|------------------|------------------|------------------|
| | REGION | | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| TEXHOMA | A | OGALLALA AQUIFER SHERMAN COUNTY | 130 | 140 | 150 | 150 | 160 | 160 |
| COUNTY-OTHER | A | OGALLALA AQUIFER SHERMAN COUNTY | 105 | 110 | 112 | 116 | 118 | 121 |
| MANUFACTURING | A | OGALLALA AQUIFER SHERMAN COUNTY | 2 | 2 | 2 | 2 | 2 | 2 |
| MINING | A | OGALLALA AQUIFER SHERMAN COUNTY | 35 | 207 | 151 | 98 | 44 | 20 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 1,052 | 1,052 | 1,052 | 1,052 | 1,052 | 1,052 |
| LIVESTOCK | A | OGALLALA AQUIFER SHERMAN COUNTY | 2,524 | 2,761 | 2,954 | 3,160 | 3,380 | 3,617 |
| IRRIGATION | A | CANADIAN RUN-OF-RIVER | 32 | 32 | 32 | 32 | 32 | 32 |
| IRRIGATION | A | DOCKUM AQUIFER SHERMAN COUNTY | 127 | 127 | 127 | 127 | 95 | 95 |
| IRRIGATION | A | OGALLALA AQUIFER SHERMAN COUNTY | 304,360 | 304,360 | 274,634 | 207,770 | 144,202 | 143,986 |
| CANADIAN BASIN TOTAL | | | 309,188 | 309,612 | 280,035 | 213,328 | 149,718 | 149,718 |
| SHERMAN COUNTY TOTAL | | | 309,188 | 309,612 | 280,035 | 213,328 | 149,718 | 149,718 |
| SHAMROCK MUNICIPAL WATER SYSTEM | A | OGALLALA AQUIFER WHEELER COUNTY | 1,045 | 1,103 | 1,112 | 1,082 | 1,025 | 1,025 |
| WHEELER | A | OGALLALA AQUIFER WHEELER COUNTY | 704 | 655 | 574 | 486 | 421 | 421 |
| COUNTY-OTHER | A | BLAINE AQUIFER WHEELER COUNTY | 15 | 15 | 15 | 15 | 15 | 15 |
| COUNTY-OTHER | A | OGALLALA AQUIFER WHEELER COUNTY | 348 | 348 | 348 | 348 | 348 | 348 |
| COUNTY-OTHER | A | OTHER AQUIFER WHEELER COUNTY | 22 | 22 | 22 | 22 | 22 | 22 |
| MINING | A | OGALLALA AQUIFER WHEELER COUNTY | 3,268 | 2,329 | 1,413 | 503 | 139 | 119 |
| LIVESTOCK | A | BLAINE AQUIFER WHEELER COUNTY | 19 | 19 | 19 | 19 | 19 | 19 |
| LIVESTOCK | A | LOCAL SURFACE WATER SUPPLY | 845 | 845 | 845 | 845 | 845 | 845 |
| LIVESTOCK | A | OGALLALA AQUIFER WHEELER COUNTY | 803 | 803 | 803 | 803 | 803 | 803 |
| LIVESTOCK | A | OTHER AQUIFER WHEELER COUNTY | 28 | 28 | 28 | 28 | 28 | 28 |
| IRRIGATION | A | BLAINE AQUIFER WHEELER COUNTY | 15 | 15 | 15 | 15 | 15 | 15 |
| IRRIGATION | A | DIRECT REUSE | 49 | 51 | 52 | 53 | 55 | 57 |
| IRRIGATION | A | OGALLALA AQUIFER WHEELER COUNTY | 16,224 | 16,224 | 16,224 | 16,224 | 16,224 | 16,224 |
| IRRIGATION | A | OTHER AQUIFER WHEELER COUNTY | 226 | 226 | 226 | 226 | 226 | 226 |
| IRRIGATION | A | RED RUN-OF-RIVER | 603 | 603 | 603 | 603 | 603 | 603 |
| RED BASIN TOTAL | | | 24,214 | 23,286 | 22,299 | 21,272 | 20,788 | 20,770 |
| WHEELER COUNTY TOTAL | | | 24,214 | 23,286 | 22,299 | 21,272 | 20,788 | 20,770 |
| REGION A TOTAL EXISTING WATER SUPPLY | | | 2,001,445 | 1,756,976 | 1,595,354 | 1,403,669 | 1,224,774 | 1,226,746 |

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

| | (NEEDS)/SURPLUS (ACRE-FEET PER YEAR) | | | | | |
|---|--------------------------------------|-----------|-----------|----------|----------|----------|
| | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| ARMSTRONG COUNTY - RED BASIN | | | | | | |
| CLAUDE MUNICIPAL WATER SYSTEM | 224 | 183 | 115 | 55 | 7 | 7 |
| COUNTY-OTHER | 12 | 16 | 18 | 18 | 18 | 18 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 54 | 78 | 99 | 119 | 136 | 136 |
| CARSON COUNTY - CANADIAN BASIN | | | | | | |
| WHITE DEER | 23 | 23 | 23 | 23 | 23 | 23 |
| COUNTY-OTHER | 92 | 82 | 73 | 72 | 56 | 33 |
| 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 |
| CARSON COUNTY - RED BASIN | | | | | | |
| GROOM MUNICIPAL WATER SYSTEM | 243 | 294 | 314 | 313 | 300 | 300 |
| PANHANDLE MUNICIPAL WATER SYSTEM | 162 | (461) | (586) | (581) | (580) | (580) |
| WHITE DEER | 29 | 30 | 30 | 30 | 30 | 30 |
| COUNTY-OTHER | 100 | 92 | 84 | 82 | 68 | 48 |
| MANUFACTURING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 335 | 336 | 336 | 335 | 335 | 335 |
| CHILDRESS COUNTY - RED BASIN | | | | | | |
| CHILDRESS | 0 | 0 | 0 | 0 | (163) | (344) |
| RED RIVER AUTHORITY OF TEXAS | 0 | 0 | 0 | 0 | (23) | (49) |
| COUNTY-OTHER | 35 | 35 | 35 | 35 | 35 | 34 |
| LIVESTOCK | 163 | 45 | 27 | 8 | 10 | 13 |
| IRRIGATION | 181 | 185 | 188 | 191 | 196 | 200 |
| COLLINGSWORTH COUNTY - RED BASIN | | | | | | |
| RED RIVER AUTHORITY OF TEXAS | 0 | 0 | 0 | 0 | 0 | 0 |
| WELLINGTON MUNICIPAL WATER SYSTEM | (524) | (540) | (548) | (566) | (581) | (595) |
| COUNTY-OTHER | 100 | 100 | 100 | 100 | 100 | 100 |
| LIVESTOCK | 76 | 6 | 4 | 3 | 0 | 1 |
| IRRIGATION | (6,858) | (10,125) | (9,275) | (9,588) | (9,735) | (9,064) |
| DALLAM COUNTY - CANADIAN BASIN | | | | | | |
| DALHART | (379) | (880) | (1,300) | (1,741) | (2,181) | (2,385) |
| TEXLINE | 0 | 0 | 0 | (27) | (68) | (106) |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MANUFACTURING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | (29,586) | (116,358) | (107,956) | (91,644) | (74,251) | (74,251) |
| DONLEY COUNTY - RED BASIN | | | | | | |
| CLARENDON | 0 | 0 | 0 | 0 | (32) | (66) |
| RED RIVER AUTHORITY OF TEXAS | 0 | 0 | (20) | (41) | (66) | (88) |
| COUNTY-OTHER | 56 | 56 | 56 | 56 | 51 | 45 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 166 | 166 | 166 | 166 | 166 | 166 |

*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 A Water User Group (WUG) Needs/Surplus*

| GRAY COUNTY - CANADIAN BASIN | | | | | | |
|---|----------|-----------|-----------|-----------|-----------|-----------|
| PAMPA MUNICIPAL WATER SYSTEM | 186 | (160) | (836) | (1,344) | (1,794) | (2,241) |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MANUFACTURING | 21 | 33 | 33 | 33 | 33 | 33 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 151 | 126 | 116 | 105 | 93 | 81 |
| IRRIGATION | 221 | 221 | 221 | 221 | (2,687) | (2,687) |
| GRAY COUNTY - RED BASIN | | | | | | |
| MCLEAN MUNICIPAL WATER SUPPLY | 105 | 66 | 16 | (40) | (88) | (115) |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 68 | 0 | 47 | 45 | 96 | 153 |
| IRRIGATION | 55 | 55 | 55 | 55 | 55 | 55 |
| HALL COUNTY - RED BASIN | | | | | | |
| MEMPHIS | 10 | (28) | (62) | (102) | (142) | (146) |
| RED RIVER AUTHORITY OF TEXAS | 21 | 12 | 5 | 0 | 0 | 0 |
| TURKEY MUNICIPAL WATER SYSTEM | 0 | 0 | 0 | 0 | 0 | 0 |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 76 | 59 | 41 | 22 | 2 | 1 |
| IRRIGATION | (15,695) | (14,391) | (11,474) | (8,282) | (5,283) | (6,565) |
| HANSFORD COUNTY - CANADIAN BASIN | | | | | | |
| GRUVER | 60 | (20) | (98) | (180) | (256) | (280) |
| SPEARMAN MUNICIPAL WATER SYSTEM | 134 | 136 | 13 | (229) | (495) | (517) |
| COUNTY-OTHER | 83 | 77 | 67 | 59 | 50 | 42 |
| MANUFACTURING | 0 | 0 | 0 | 0 | 0 | 0 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 22 | 22 | 22 | 22 | 22 | 22 |
| HARTLEY COUNTY - CANADIAN BASIN | | | | | | |
| DALHART | (178) | (381) | (514) | (633) | (736) | (752) |
| HARTLEY WSC | 23 | 21 | 24 | 29 | 25 | 30 |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | (84,766) | (192,765) | (177,587) | (159,542) | (141,411) | (141,411) |
| HEMPHILL COUNTY - CANADIAN BASIN | | | | | | |
| CANADIAN | 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 |
| HEMPHILL COUNTY - RED BASIN | | | | | | |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MANUFACTURING | 1 | 0 | 0 | 0 | 0 | 0 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |

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

| | | | | | | |
|---|---------|----------|----------|----------|----------|----------|
| IRRIGATION | 0 | 0 | 0 | 0 | 0 | 0 |
| HUTCHINSON COUNTY - CANADIAN BASIN | | | | | | |
| BORGER | 749 | (560) | (750) | (1,024) | (1,222) | (1,312) |
| FRITCH | 0 | 0 | 0 | 0 | 0 | 0 |
| STINNETT | 127 | 78 | 39 | 2 | (31) | (31) |
| TCW SUPPLY | 1 | (132) | (233) | (315) | (383) | (383) |
| COUNTY-OTHER | 153 | 146 | 144 | 144 | 142 | 142 |
| MANUFACTURING | 564 | 205 | (433) | (1,208) | (1,794) | (2,126) |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 96 | 96 | 96 | 96 | 96 | 96 |
| LIPSCOMB COUNTY - CANADIAN BASIN | | | | | | |
| BOOKER | 231 | 30 | (57) | (146) | (213) | (233) |
| DARROUZETT | 26 | 19 | 15 | 19 | 15 | 11 |
| FOLLETT | 11 | 13 | 19 | 13 | 18 | 14 |
| HIGGINS MUNICIPAL WATER SYSTEM | 13 | 16 | 12 | 16 | 11 | 17 |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MANUFACTURING | 0 | 0 | (40) | (95) | (131) | (139) |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 66 | 66 | 66 | 66 | 66 | 66 |
| MOORE COUNTY - CANADIAN BASIN | | | | | | |
| CACTUS MUNICIPAL WATER SYSTEM | (306) | (582) | (819) | (1,071) | (1,292) | (1,429) |
| DUMAS | 597 | (931) | (2,008) | (3,267) | (4,432) | (4,982) |
| FRITCH | 2 | 2 | 2 | 1 | 1 | 1 |
| SUNRAY | 155 | (110) | (336) | (415) | (470) | (485) |
| COUNTY-OTHER | 0 | (12) | (23) | (33) | (41) | (41) |
| MANUFACTURING | (1,008) | (1,773) | (2,221) | (4,131) | (5,769) | (5,785) |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | (9,208) | (47,976) | (49,251) | (43,861) | (38,281) | (38,281) |
| OCHILTREE COUNTY - CANADIAN BASIN | | | | | | |
| BOOKER | 3 | 0 | (1) | (4) | (7) | (9) |
| PERRYTON MUNICIPAL WATER SYSTEM | 795 | 458 | 106 | (193) | (556) | (815) |
| COUNTY-OTHER | 31 | 32 | 34 | 36 | 39 | 42 |
| 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 |
| OLDHAM COUNTY - CANADIAN BASIN | | | | | | |
| VEGA | 3 | 8 | 11 | 13 | 13 | 13 |
| COUNTY-OTHER | 322 | 285 | 290 | 290 | 291 | 291 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 591 | 496 | 474 | 451 | 427 | 402 |
| IRRIGATION | 0 | 0 | 0 | 0 | 0 | 0 |
| OLDHAM COUNTY - RED BASIN | | | | | | |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |

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

| | | | | | | |
|--|-------|---------|----------|----------|----------|----------|
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 39 | 5 | 0 | 0 | 0 | 0 |
| IRRIGATION | 0 | 0 | 0 | 0 | 0 | 0 |
| POTTER COUNTY - CANADIAN BASIN | | | | | | |
| AMARILLO | 662 | (1,881) | (4,567) | (7,764) | (10,652) | (12,695) |
| COUNTY-OTHER | 900 | 900 | 900 | 900 | 900 | 900 |
| MANUFACTURING | 0 | (119) | (174) | (225) | (278) | (278) |
| MINING | 0 | 0 | 0 | 0 | (209) | (345) |
| STEAM ELECTRIC POWER | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 140 | 123 | 105 | 86 | 65 | 45 |
| IRRIGATION | 1,331 | 1,364 | 1,367 | 1,359 | 1,345 | 1,345 |
| POTTER COUNTY - RED BASIN | | | | | | |
| AMARILLO | 437 | (1,239) | (3,005) | (5,111) | (7,013) | (8,359) |
| COUNTY-OTHER | 0 | 0 | 0 | 0 | 0 | 0 |
| MANUFACTURING | 313 | (510) | (1,297) | (2,102) | (2,673) | (2,931) |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 25 | 22 | 18 | 14 | 10 | 5 |
| IRRIGATION | 1,500 | 1,500 | 1,500 | 1,500 | 1,281 | 1,281 |
| RANDALL COUNTY - RED BASIN | | | | | | |
| AMARILLO | 894 | (2,550) | (6,184) | (10,540) | (14,463) | (17,216) |
| CANYON | 560 | (54) | (696) | (1,364) | (2,578) | (3,171) |
| HAPPY | 0 | 0 | 0 | 0 | 0 | 0 |
| LAKE TANGLEWOOD | 172 | 154 | 134 | 117 | 105 | 105 |
| COUNTY-OTHER | 714 | 711 | 708 | 705 | 703 | 701 |
| MANUFACTURING | 5 | (151) | (225) | (300) | (354) | (379) |
| LIVESTOCK | 0 | 0 | 0 | 0 | 0 | 0 |
| IRRIGATION | 863 | 1,029 | 1,154 | 1,282 | 1,419 | 1,488 |
| ROBERTS COUNTY - CANADIAN BASIN | | | | | | |
| MIAMI | 73 | 72 | 74 | 75 | 75 | 75 |
| COUNTY-OTHER | 13 | 11 | 13 | 13 | 13 | 13 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 51 | 48 | 44 | 40 | 36 | 30 |
| IRRIGATION | 0 | 0 | 0 | 0 | 0 | 0 |
| ROBERTS COUNTY - RED BASIN | | | | | | |
| COUNTY-OTHER | 4 | 4 | 4 | 4 | 4 | 4 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 15 | 14 | 14 | 13 | 12 | 12 |
| IRRIGATION | 0 | 0 | 0 | 0 | 0 | 0 |
| SHERMAN COUNTY - CANADIAN BASIN | | | | | | |
| STRATFORD | 325 | 295 | 282 | 267 | 66 | 56 |
| TEXHOMA | 8 | 9 | 15 | 11 | 17 | 15 |
| 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 | 159 | 159 | (29,567) | (38,831) | (38,207) | (38,423) |

*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 A Water User Group (WUG) Needs/Surplus*

| WHEELER COUNTY - RED BASIN | | | | | | |
|-----------------------------------|-----|-----|-----|------|-------|-------|
| SHAMROCK MUNICIPAL WATER SYSTEM | 695 | 750 | 755 | 713 | 643 | 628 |
| WHEELER | 211 | 150 | 57 | (47) | (132) | (153) |
| COUNTY-OTHER | 89 | 88 | 86 | 76 | 65 | 53 |
| MINING | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVESTOCK | 509 | 374 | 337 | 299 | 259 | 216 |
| IRRIGATION | 893 | 895 | 896 | 897 | 899 | 901 |

*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 A Source Water Balance (Availability - WUG Supply)

| GROUNDWATER SOURCE TYPE | | | | SOURCE WATER BALANCE (ACRE-FEET PER YEAR) | | | | | |
|------------------------------|---------------|----------|--------------------|---|---------|---------|---------|---------|---------|
| SOURCE NAME | COUNTY | BASIN | SALINITY* | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| BLAINE AQUIFER | CHILDRESS | RED | FRESH | 9,530 | 9,465 | 9,530 | 9,465 | 9,508 | 9,419 |
| BLAINE AQUIFER | COLLINGSWORTH | RED | FRESH | 89 | 42 | 42 | 28 | 30 | 18 |
| BLAINE AQUIFER | HALL | RED | FRESH | 5,846 | 5,830 | 5,846 | 5,830 | 5,846 | 5,810 |
| BLAINE AQUIFER | WHEELER | RED | FRESH | 1,701 | 1,701 | 1,701 | 1,701 | 1,701 | 1,701 |
| DOCKUM AQUIFER | ARMSTRONG | RED | FRESH | 7,157 | 8,930 | 9,473 | 9,569 | 9,383 | 9,383 |
| DOCKUM AQUIFER | CARSON | CANADIAN | FRESH | 4 | 10 | 15 | 19 | 23 | 23 |
| DOCKUM AQUIFER | CARSON | RED | FRESH | 64 | 98 | 125 | 150 | 175 | 175 |
| DOCKUM AQUIFER | DALLAM | CANADIAN | FRESH | 2,369 | 2,289 | 2,328 | 2,401 | 2,516 | 2,516 |
| DOCKUM AQUIFER | HARTLEY | CANADIAN | FRESH | 45,739 | 46,289 | 46,386 | 46,292 | 46,061 | 46,061 |
| DOCKUM AQUIFER | MOORE | CANADIAN | FRESH | 4,349 | 4,385 | 4,370 | 4,272 | 4,050 | 4,050 |
| DOCKUM AQUIFER | OLDHAM | CANADIAN | FRESH | 127,466 | 127,299 | 118,994 | 109,674 | 99,893 | 99,893 |
| DOCKUM AQUIFER | OLDHAM | RED | FRESH | 63 | 58 | 52 | 50 | 48 | 48 |
| DOCKUM AQUIFER | POTTER | CANADIAN | FRESH | 36,415 | 36,770 | 34,671 | 32,307 | 29,865 | 29,865 |
| DOCKUM AQUIFER | POTTER | RED | FRESH | 183 | 130 | 105 | 96 | 108 | 108 |
| DOCKUM AQUIFER | RANDALL | RED | FRESH | 7,872 | 10,691 | 11,552 | 11,813 | 11,775 | 11,847 |
| DOCKUM AQUIFER | SHERMAN | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| OGALLALA AQUIFER | ARMSTRONG | RED | FRESH | 52,178 | 47,300 | 41,929 | 37,122 | 32,436 | 32,416 |
| OGALLALA AQUIFER | CARSON | CANADIAN | FRESH | 47,976 | 45,884 | 41,224 | 35,424 | 29,310 | 29,364 |
| OGALLALA AQUIFER | CARSON | RED | FRESH | 40,228 | 35,973 | 27,915 | 18,936 | 9,677 | 9,693 |
| OGALLALA AQUIFER | COLLINGSWORTH | RED | FRESH | 50 | 50 | 50 | 50 | 50 | 50 |
| OGALLALA AQUIFER | DONLEY | RED | FRESH | 41,017 | 42,797 | 39,747 | 34,892 | 29,276 | 29,408 |
| OGALLALA AQUIFER | GRAY | CANADIAN | FRESH | 33,559 | 31,125 | 26,562 | 21,516 | 19,859 | 19,799 |
| OGALLALA AQUIFER | GRAY | RED | FRESH | 110,637 | 107,274 | 99,341 | 90,512 | 80,770 | 80,572 |
| OGALLALA AQUIFER | HANSFORD | CANADIAN | FRESH | 98,355 | 96,331 | 95,421 | 94,863 | 94,557 | 94,360 |
| OGALLALA AQUIFER | HEMPHILL | CANADIAN | FRESH | 21,605 | 24,198 | 26,057 | 27,526 | 28,330 | 28,302 |
| OGALLALA AQUIFER | HEMPHILL | RED | FRESH | 20,934 | 18,805 | 17,414 | 16,381 | 16,009 | 16,086 |
| OGALLALA AQUIFER | HUTCHINSON | CANADIAN | FRESH | 6,208 | 6,418 | 5,639 | 4,465 | 3,462 | 3,817 |
| OGALLALA AQUIFER | LIPSCOMB | CANADIAN | FRESH | 222,681 | 223,001 | 223,308 | 223,623 | 223,750 | 223,730 |
| OGALLALA AQUIFER | MOORE | CANADIAN | FRESH | 17,108 | 13,933 | 10,099 | 6,735 | 2,726 | 2,022 |
| OGALLALA AQUIFER | OCHILTREE | CANADIAN | FRESH | 152,249 | 152,374 | 152,792 | 153,083 | 153,173 | 152,976 |
| OGALLALA AQUIFER | OLDHAM | CANADIAN | FRESH | 33,313 | 30,245 | 24,873 | 18,803 | 13,500 | 13,432 |
| OGALLALA AQUIFER | OLDHAM | RED | FRESH | 5,888 | 4,472 | 2,986 | 1,800 | 411 | 399 |
| OGALLALA AQUIFER | POTTER | CANADIAN | FRESH | 1,128 | 2,390 | 1,526 | 800 | 199 | 4 |
| OGALLALA AQUIFER | POTTER | RED | FRESH | 4,332 | 3,400 | 2,557 | 1,776 | 1,196 | 1,028 |
| OGALLALA AQUIFER | RANDALL | RED | FRESH | 38,720 | 36,888 | 29,366 | 22,764 | 16,766 | 16,384 |
| OGALLALA AQUIFER | ROBERTS | CANADIAN | FRESH | 333,809 | 355,542 | 331,642 | 300,710 | 267,838 | 267,837 |
| OGALLALA AQUIFER | ROBERTS | RED | FRESH | 21,163 | 24,387 | 25,116 | 24,680 | 23,559 | 23,560 |
| OGALLALA AQUIFER | SHERMAN | CANADIAN | FRESH | 90,079 | 40,494 | 2,866 | 627 | 13 | 13 |
| OGALLALA AQUIFER | WHEELER | RED | FRESH | 108,033 | 117,348 | 116,911 | 112,866 | 105,818 | 105,838 |
| OGALLALA-RITA BLANCA AQUIFER | DALLAM | CANADIAN | FRESH | 80,542 | 67,243 | 54,114 | 37,781 | 20,300 | 19,986 |
| OGALLALA-RITA BLANCA AQUIFER | HARTLEY | CANADIAN | FRESH | 97,891 | 76,812 | 60,595 | 42,390 | 24,232 | 23,512 |
| OTHER AQUIFER | ARMSTRONG | RED | FRESH/ BRACKISH | 340 | 340 | 340 | 340 | 340 | 340 |
| OTHER AQUIFER | CHILDRESS | RED | FRESH/ BRACKISH | 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 A 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 | COLLINGSWORTH | RED | FRESH/ BRACKISH | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER AQUIFER | DONLEY | RED | FRESH/ BRACKISH | 96 | 96 | 96 | 96 | 96 | 96 |
| OTHER AQUIFER | HALL | RED | FRESH/ BRACKISH | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER AQUIFER | WHEELER | RED | FRESH/ BRACKISH | 0 | 0 | 0 | 0 | 0 | 0 |
| SEYMOUR AQUIFER | CHILDRESS | RED | FRESH | 2,601 | 2,886 | 2,957 | 2,948 | 2,957 | 2,937 |
| SEYMOUR AQUIFER | COLLINGSWORTH | RED | FRESH | 3,112 | 1,436 | 559 | 856 | 968 | 642 |
| SEYMOUR AQUIFER | HALL | RED | FRESH | 58 | 66 | 77 | 88 | 77 | 85 |
| GROUNDWATER TOTAL SOURCE WATER BALANCE | | | | 1,934,737 | 1,863,495 | 1,709,269 | 1,568,120 | 1,422,637 | 1,419,605 |

| REUSE SOURCE TYPE | | | | SOURCE WATER BALANCE (ACRE-FEET PER YEAR) | | | | | |
|---|---------------|----------|-----------|---|----------|----------|----------|----------|----------|
| SOURCE NAME | COUNTY | BASIN | SALINITY* | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| DIRECT REUSE | CARSON | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | CHILDRESS | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | COLLINGSWORTH | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | GRAY | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | HALL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | HUTCHINSON | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | POTTER | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | POTTER | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | RANDALL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| DIRECT REUSE | WHEELER | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| REUSE TOTAL SOURCE WATER BALANCE | | | | 0 | 0 | 0 | 0 | 0 | 0 |

| SURFACE WATER SOURCE TYPE | | | | SOURCE WATER BALANCE (ACRE-FEET PER YEAR) | | | | | |
|---------------------------------|------------|----------|-----------|---|------|------|------|------|------|
| SOURCE NAME | COUNTY | BASIN | SALINITY* | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | CARSON | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | DALLAM | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | GRAY | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HANSFORD | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HARTLEY | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HEMPHILL | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | HUTCHINSON | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | LIPSCOMB | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | MOORE | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | OCHILTREE | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | OLDHAM | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | POTTER | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | ROBERTS | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN LIVESTOCK LOCAL SUPPLY | SHERMAN | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN RUN-OF-RIVER | GRAY | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN RUN-OF-RIVER | HANSFORD | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN RUN-OF-RIVER | HUTCHINSON | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN RUN-OF-RIVER | LIPSCOMB | CANADIAN | 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 A 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 |
| CANADIAN RUN-OF-RIVER | MOORE | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN RUN-OF-RIVER | ROBERTS | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| CANADIAN RUN-OF-RIVER | SHERMAN | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| GREENBELT LAKE/RESERVOIR | RESERVOIR | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| MEREDITH LAKE/RESERVOIR | RESERVOIR | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| PALO DURO LAKE/RESERVOIR | RESERVOIR | CANADIAN | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | ARMSTRONG | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | CARSON | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | CHILDRESS | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | COLLINGSWORTH | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | DONLEY | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | GRAY | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | HALL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | HEMPHILL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | OLDHAM | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | POTTER | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | RANDALL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | ROBERTS | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED LIVESTOCK LOCAL SUPPLY | WHEELER | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | CARSON | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | CHILDRESS | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | COLLINGSWORTH | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | DONLEY | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | GRAY | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | HALL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | RANDALL | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| RED RUN-OF-RIVER | WHEELER | RED | FRESH | 0 | 0 | 0 | 0 | 0 | 0 |
| SURFACE WATER TOTAL SOURCE WATER BALANCE | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| REGION A TOTAL SOURCE WATER BALANCE | | | | 1,934,737 | 1,863,495 | 1,709,269 | 1,568,120 | 1,422,637 | 1,419,605 |

*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 A 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 (%) |
| ARMSTRONG COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 100 | 100 | 0.0% | 100 | 100 | 0.0% |
| PROJECTED DEMAND TOTAL | 89 | 88 | -1.1% | 83 | 82 | -1.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| ARMSTRONG COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,194 | 6,298 | 50.2% | 2,472 | 6,380 | 158.1% |
| PROJECTED DEMAND TOTAL | 4,194 | 6,244 | 48.9% | 2,472 | 6,244 | 152.6% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| ARMSTRONG COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 645 | 332 | -48.5% | 663 | 524 | -21.0% |
| PROJECTED DEMAND TOTAL | 645 | 332 | -48.5% | 663 | 524 | -21.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| ARMSTRONG COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 463 | 584 | 26.1% | 235 | 354 | 50.6% |
| PROJECTED DEMAND TOTAL | 358 | 360 | 0.6% | 345 | 347 | 0.6% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 110 | 0 | -100.0% |
| CARSON COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 464 | 464 | 0.0% | 345 | 345 | 0.0% |
| PROJECTED DEMAND TOTAL | 284 | 272 | -4.2% | 276 | 264 | -4.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CARSON COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 55,702 | 87,624 | 57.3% | 32,517 | 87,624 | 169.5% |
| PROJECTED DEMAND TOTAL | 55,702 | 87,289 | 56.7% | 32,517 | 87,289 | 168.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CARSON COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 692 | 315 | -54.5% | 713 | 496 | -30.4% |
| PROJECTED DEMAND TOTAL | 692 | 315 | -54.5% | 713 | 496 | -30.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CARSON COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,127 | 1,055 | -6.4% | 814 | 1,136 | 39.6% |
| PROJECTED DEMAND TOTAL | 419 | 1,055 | 151.8% | 624 | 1,136 | 82.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CARSON COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 14 | 14 | 0.0% | 14 | 14 | 0.0% |
| PROJECTED DEMAND TOTAL | 14 | 14 | 0.0% | 14 | 14 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CARSON COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,053 | 1,470 | 39.6% | 561 | 787 | 40.3% |
| PROJECTED DEMAND TOTAL | 995 | 1,013 | 1.8% | 996 | 1,014 | 1.8% |
| WATER SUPPLY NEEDS TOTAL | 89 | 0 | -100.0% | 576 | 580 | 0.7% |
| CHILDRESS COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 218 | 40 | -81.7% | 244 | 40 | -83.6% |
| PROJECTED DEMAND TOTAL | 198 | 5 | -97.5% | 227 | 6 | -97.4% |

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Region A 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% |
| CHILDRESS COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 7,489 | 14,323 | 91.3% | 4,601 | 14,342 | 211.7% |
| PROJECTED DEMAND TOTAL | 7,308 | 14,142 | 93.5% | 4,401 | 14,142 | 221.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CHILDRESS COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 505 | 505 | 0.0% | 505 | 551 | 9.1% |
| PROJECTED DEMAND TOTAL | 490 | 342 | -30.2% | 503 | 538 | 7.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| CHILDRESS COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,624 | 1,856 | 14.3% | 1,814 | 1,679 | -7.4% |
| PROJECTED DEMAND TOTAL | 1,624 | 1,856 | 14.3% | 1,814 | 2,072 | 14.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 393 | 100.0% |
| COLLINGSWORTH COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 237 | 171 | -27.8% | 237 | 146 | -38.4% |
| PROJECTED DEMAND TOTAL | 191 | 71 | -62.8% | 217 | 46 | -78.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| COLLINGSWORTH COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 18,856 | 40,613 | 115.4% | 11,757 | 24,387 | 107.4% |
| PROJECTED DEMAND TOTAL | 17,943 | 47,471 | 164.6% | 10,837 | 33,451 | 208.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 6,858 | 100.0% | 0 | 9,064 | 100.0% |
| COLLINGSWORTH COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 606 | 535 | -11.7% | 614 | 689 | 12.2% |
| PROJECTED DEMAND TOTAL | 600 | 459 | -23.5% | 614 | 688 | 12.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| COLLINGSWORTH COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 0 | 142 | 100.0% | 0 | 203 | 100.0% |
| PROJECTED DEMAND TOTAL | 525 | 666 | 26.9% | 595 | 798 | 34.1% |
| WATER SUPPLY NEEDS TOTAL | 525 | 524 | -0.2% | 595 | 595 | 0.0% |
| DALLAM COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 141 | 140 | -0.7% | 214 | 213 | -0.5% |
| PROJECTED DEMAND TOTAL | 141 | 140 | -0.7% | 214 | 213 | -0.5% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| DALLAM COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 290,465 | 314,244 | 8.2% | 144,312 | 99,966 | -30.7% |
| PROJECTED DEMAND TOTAL | 369,864 | 343,830 | -7.0% | 212,530 | 174,217 | -18.0% |
| WATER SUPPLY NEEDS TOTAL | 79,399 | 29,586 | -62.7% | 68,218 | 74,251 | 8.8% |
| DALLAM COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,437 | 4,521 | 1.9% | 5,803 | 6,006 | 3.5% |
| PROJECTED DEMAND TOTAL | 4,437 | 4,521 | 1.9% | 5,803 | 6,006 | 3.5% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| DALLAM COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 9 | 6 | -33.3% | 11 | 6 | -45.5% |
| PROJECTED DEMAND TOTAL | 9 | 6 | -33.3% | 11 | 6 | -45.5% |

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Region A 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% |
| DALLAM COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,533 | 1,654 | 7.9% | 945 | 688 | -27.2% |
| PROJECTED DEMAND TOTAL | 2,042 | 2,033 | -0.4% | 3,240 | 3,179 | -1.9% |
| WATER SUPPLY NEEDS TOTAL | 509 | 379 | -25.5% | 2,295 | 2,491 | 8.5% |
| DONLEY COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 265 | 169 | -36.2% | 265 | 85 | -67.9% |
| PROJECTED DEMAND TOTAL | 245 | 113 | -53.9% | 227 | 40 | -82.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| DONLEY COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 24,246 | 31,076 | 28.2% | 14,730 | 31,076 | 111.0% |
| PROJECTED DEMAND TOTAL | 24,080 | 30,910 | 28.4% | 14,564 | 30,910 | 112.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| DONLEY COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,330 | 971 | -27.0% | 1,339 | 1,102 | -17.7% |
| PROJECTED DEMAND TOTAL | 1,330 | 971 | -27.0% | 1,339 | 1,102 | -17.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| DONLEY COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 378 | 605 | 60.1% | 356 | 533 | 49.7% |
| PROJECTED DEMAND TOTAL | 378 | 605 | 60.1% | 356 | 687 | 93.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 154 | 100.0% |
| GRAY COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 693 | 711 | 2.6% | 1,105 | 1,134 | 2.6% |
| PROJECTED DEMAND TOTAL | 693 | 711 | 2.6% | 1,105 | 1,134 | 2.6% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| GRAY COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 21,291 | 32,565 | 53.0% | 12,359 | 29,657 | 140.0% |
| PROJECTED DEMAND TOTAL | 21,291 | 32,289 | 51.7% | 12,359 | 32,289 | 161.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 2,687 | 100.0% |
| GRAY COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 2,114 | 2,114 | 0.0% | 2,114 | 2,830 | 33.9% |
| PROJECTED DEMAND TOTAL | 1,352 | 1,895 | 40.2% | 1,511 | 2,596 | 71.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| GRAY COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,600 | 480 | -89.6% | 4,300 | 535 | -87.6% |
| PROJECTED DEMAND TOTAL | 4,350 | 459 | -89.4% | 4,129 | 502 | -87.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| GRAY COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 75 | 75 | 0.0% | 47 | 47 | 0.0% |
| PROJECTED DEMAND TOTAL | 75 | 75 | 0.0% | 47 | 47 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| GRAY COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,260 | 4,186 | -1.7% | 2,193 | 3,793 | 73.0% |
| PROJECTED DEMAND TOTAL | 3,916 | 3,895 | -0.5% | 6,181 | 6,149 | -0.5% |

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Region A 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% | 3,988 | 2,356 | -40.9% |
| GRAY COUNTY STEAM ELECTRIC POWER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,409 | 0 | -100.0% | 3,320 | 0 | -100.0% |
| PROJECTED DEMAND TOTAL | 1,409 | 0 | -100.0% | 3,320 | 0 | -100.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HALL COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 319 | 84 | -73.7% | 319 | 57 | -82.1% |
| PROJECTED DEMAND TOTAL | 319 | 84 | -73.7% | 319 | 57 | -82.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HALL COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 10,134 | 16,097 | 58.8% | 6,182 | 25,227 | 308.1% |
| PROJECTED DEMAND TOTAL | 10,134 | 31,792 | 213.7% | 6,182 | 31,792 | 414.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 15,695 | 100.0% | 0 | 6,565 | 100.0% |
| HALL COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 406 | 416 | 2.5% | 406 | 436 | 7.4% |
| PROJECTED DEMAND TOTAL | 336 | 340 | 1.2% | 343 | 435 | 26.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HALL COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 428 | 626 | 46.3% | 236 | 456 | 93.2% |
| PROJECTED DEMAND TOTAL | 383 | 595 | 55.4% | 369 | 602 | 63.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 133 | 146 | 9.8% |
| HANSFORD COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 200 | 200 | 0.0% | 200 | 200 | 0.0% |
| PROJECTED DEMAND TOTAL | 138 | 117 | -15.2% | 186 | 158 | -15.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HANSFORD COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 134,924 | 171,922 | 27.4% | 77,195 | 171,922 | 122.7% |
| PROJECTED DEMAND TOTAL | 134,902 | 171,900 | 27.4% | 77,173 | 171,900 | 122.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HANSFORD COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,432 | 4,030 | 17.4% | 4,219 | 4,995 | 18.4% |
| PROJECTED DEMAND TOTAL | 3,432 | 4,030 | 17.4% | 4,219 | 4,995 | 18.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HANSFORD COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 90 | 285 | 216.7% | 120 | 321 | 167.5% |
| PROJECTED DEMAND TOTAL | 58 | 285 | 391.4% | 74 | 321 | 333.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HANSFORD COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 577 | 577 | 0.0% | 1 | 1 | 0.0% |
| PROJECTED DEMAND TOTAL | 577 | 577 | 0.0% | 1 | 1 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HANSFORD COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,043 | 1,214 | 16.4% | 193 | 429 | 122.3% |
| PROJECTED DEMAND TOTAL | 982 | 1,020 | 3.9% | 1,171 | 1,226 | 4.7% |

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Region A 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% | 978 | 797 | -18.5% |
| HARTLEY COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 655 | 531 | -18.9% | 737 | 598 | -18.9% |
| PROJECTED DEMAND TOTAL | 655 | 531 | -18.9% | 737 | 598 | -18.9% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HARTLEY COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 268,060 | 322,224 | 20.2% | 126,063 | 85,270 | -32.4% |
| PROJECTED DEMAND TOTAL | 345,365 | 406,990 | 17.8% | 200,193 | 226,681 | 13.2% |
| WATER SUPPLY NEEDS TOTAL | 77,305 | 84,766 | 9.7% | 74,130 | 141,411 | 90.8% |
| HARTLEY COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 6,498 | 6,589 | 1.4% | 9,359 | 9,866 | 5.4% |
| PROJECTED DEMAND TOTAL | 6,498 | 6,589 | 1.4% | 9,359 | 9,866 | 5.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HARTLEY COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 5 | 0 | -100.0% | 5 | 0 | -100.0% |
| PROJECTED DEMAND TOTAL | 5 | 0 | -100.0% | 5 | 0 | -100.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HARTLEY COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 7 | 7 | 0.0% | 3 | 3 | 0.0% |
| PROJECTED DEMAND TOTAL | 7 | 7 | 0.0% | 3 | 3 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HARTLEY COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 614 | 925 | 50.7% | 234 | 445 | 90.2% |
| PROJECTED DEMAND TOTAL | 854 | 1,080 | 26.5% | 907 | 1,167 | 28.7% |
| WATER SUPPLY NEEDS TOTAL | 240 | 178 | -25.8% | 673 | 752 | 11.7% |
| HEMPHILL COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 222 | 139 | -37.4% | 222 | 137 | -38.3% |
| PROJECTED DEMAND TOTAL | 158 | 139 | -12.0% | 164 | 137 | -16.5% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HEMPHILL COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,907 | 5,679 | 197.8% | 1,124 | 5,679 | 405.2% |
| PROJECTED DEMAND TOTAL | 1,907 | 5,679 | 197.8% | 1,124 | 5,679 | 405.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HEMPHILL COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,275 | 1,117 | -12.4% | 1,302 | 1,280 | -1.7% |
| PROJECTED DEMAND TOTAL | 1,275 | 1,117 | -12.4% | 1,302 | 1,280 | -1.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HEMPHILL COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 6 | 6 | 0.0% | 6 | 6 | 0.0% |
| PROJECTED DEMAND TOTAL | 6 | 5 | -16.7% | 6 | 6 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HEMPHILL COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 2,314 | 2,314 | 0.0% | 68 | 68 | 0.0% |
| PROJECTED DEMAND TOTAL | 2,314 | 2,314 | 0.0% | 68 | 68 | 0.0% |

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Region A 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% |
| HEMPHILL COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 786 | 823 | 4.7% | 1,145 | 1,199 | 4.7% |
| PROJECTED DEMAND TOTAL | 786 | 823 | 4.7% | 1,145 | 1,199 | 4.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HUTCHINSON COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 455 | 416 | -8.6% | 421 | 411 | -2.4% |
| PROJECTED DEMAND TOTAL | 312 | 263 | -15.7% | 319 | 269 | -15.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HUTCHINSON COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 40,104 | 60,006 | 49.6% | 23,186 | 60,006 | 158.8% |
| PROJECTED DEMAND TOTAL | 40,008 | 59,910 | 49.7% | 23,090 | 59,910 | 159.5% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HUTCHINSON COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 847 | 600 | -29.2% | 1,010 | 771 | -23.7% |
| PROJECTED DEMAND TOTAL | 847 | 600 | -29.2% | 1,010 | 771 | -23.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HUTCHINSON COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 25,357 | 29,930 | 18.0% | 29,325 | 29,209 | -0.4% |
| PROJECTED DEMAND TOTAL | 25,347 | 29,366 | 15.9% | 33,741 | 31,335 | -7.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 4,416 | 2,126 | -51.9% |
| HUTCHINSON COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 184 | 184 | 0.0% | 34 | 34 | 0.0% |
| PROJECTED DEMAND TOTAL | 184 | 184 | 0.0% | 34 | 34 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| HUTCHINSON COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,724 | 5,776 | 22.3% | 2,140 | 3,188 | 49.0% |
| PROJECTED DEMAND TOTAL | 4,836 | 4,899 | 1.3% | 4,852 | 4,914 | 1.3% |
| WATER SUPPLY NEEDS TOTAL | 167 | 0 | -100.0% | 2,712 | 1,726 | -36.4% |
| LIPSCOMB COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 473 | 137 | -71.0% | 473 | 99 | -79.1% |
| PROJECTED DEMAND TOTAL | 445 | 137 | -69.2% | 464 | 99 | -78.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| LIPSCOMB COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 20,075 | 40,936 | 103.9% | 11,833 | 40,936 | 245.9% |
| PROJECTED DEMAND TOTAL | 20,009 | 40,870 | 104.3% | 11,767 | 40,870 | 247.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| LIPSCOMB COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 947 | 605 | -36.1% | 1,083 | 750 | -30.7% |
| PROJECTED DEMAND TOTAL | 947 | 605 | -36.1% | 1,083 | 750 | -30.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| LIPSCOMB COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 147 | 362 | 146.3% | 69 | 261 | 278.3% |
| PROJECTED DEMAND TOTAL | 147 | 362 | 146.3% | 193 | 400 | 107.3% |

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Region A 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% | 124 | 139 | 12.1% |
| LIPSCOMB COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,098 | 1,098 | 0.0% | 3 | 3 | 0.0% |
| PROJECTED DEMAND TOTAL | 1,098 | 1,098 | 0.0% | 3 | 3 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| LIPSCOMB COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 496 | 1,157 | 133.3% | 240 | 940 | 291.7% |
| PROJECTED DEMAND TOTAL | 496 | 876 | 76.6% | 674 | 1,131 | 67.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 434 | 233 | -46.3% |
| MOORE COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 362 | 293 | -19.1% | 504 | 438 | -13.1% |
| PROJECTED DEMAND TOTAL | 327 | 293 | -10.4% | 534 | 479 | -10.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 30 | 41 | 36.7% |
| MOORE COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 143,035 | 191,342 | 33.8% | 76,022 | 64,638 | -15.0% |
| PROJECTED DEMAND TOTAL | 143,028 | 200,550 | 40.2% | 82,193 | 102,919 | 25.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 9,208 | 100.0% | 6,171 | 38,281 | 520.3% |
| MOORE COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,676 | 5,414 | 47.3% | 5,032 | 8,515 | 69.2% |
| PROJECTED DEMAND TOTAL | 3,676 | 5,414 | 47.3% | 5,032 | 8,515 | 69.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| MOORE COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 7,175 | 8,269 | 15.2% | 4,191 | 3,844 | -8.3% |
| PROJECTED DEMAND TOTAL | 9,052 | 9,277 | 2.5% | 11,937 | 9,629 | -19.3% |
| WATER SUPPLY NEEDS TOTAL | 1,877 | 1,008 | -46.3% | 7,746 | 5,785 | -25.3% |
| MOORE COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 16 | 16 | 0.0% | 15 | 15 | 0.0% |
| PROJECTED DEMAND TOTAL | 16 | 16 | 0.0% | 15 | 15 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| MOORE COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,264 | 5,470 | 28.3% | 1,657 | 1,304 | -21.3% |
| PROJECTED DEMAND TOTAL | 5,029 | 5,022 | -0.1% | 8,470 | 8,199 | -3.2% |
| WATER SUPPLY NEEDS TOTAL | 873 | 306 | -64.9% | 6,814 | 6,896 | 1.2% |
| MOORE COUNTY STEAM ELECTRIC POWER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 200 | 0 | -100.0% | 0 | 0 | 0.0% |
| PROJECTED DEMAND TOTAL | 200 | 0 | -100.0% | 0 | 0 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OCHILTREE COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 263 | 341 | 29.7% | 352 | 457 | 29.8% |
| PROJECTED DEMAND TOTAL | 239 | 310 | 29.7% | 320 | 415 | 29.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OCHILTREE COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 57,243 | 84,460 | 47.5% | 32,942 | 84,460 | 156.4% |
| PROJECTED DEMAND TOTAL | 57,243 | 84,460 | 47.5% | 32,942 | 84,460 | 156.4% |

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Region A 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% |
| OCHILTREE COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 4,216 | 2,801 | -33.6% | 4,058 | 3,647 | -10.1% |
| PROJECTED DEMAND TOTAL | 4,216 | 2,801 | -33.6% | 4,058 | 3,647 | -10.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OCHILTREE COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 0 | 36 | 100.0% | 0 | 41 | 100.0% |
| PROJECTED DEMAND TOTAL | 0 | 36 | 100.0% | 0 | 41 | 100.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OCHILTREE COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 824 | 824 | 0.0% | 3 | 3 | 0.0% |
| PROJECTED DEMAND TOTAL | 824 | 824 | 0.0% | 3 | 3 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OCHILTREE COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 2,358 | 3,497 | 48.3% | 1,145 | 2,935 | 156.3% |
| PROJECTED DEMAND TOTAL | 2,836 | 2,699 | -4.8% | 3,948 | 3,759 | -4.8% |
| WATER SUPPLY NEEDS TOTAL | 478 | 0 | -100.0% | 2,803 | 824 | -70.6% |
| OLDHAM COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 674 | 674 | 0.0% | 674 | 674 | 0.0% |
| PROJECTED DEMAND TOTAL | 375 | 352 | -6.1% | 387 | 383 | -1.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OLDHAM COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,937 | 4,721 | 19.9% | 2,350 | 4,721 | 100.9% |
| PROJECTED DEMAND TOTAL | 3,937 | 4,721 | 19.9% | 2,350 | 4,721 | 100.9% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OLDHAM COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,740 | 1,740 | 0.0% | 1,740 | 1,768 | 1.6% |
| PROJECTED DEMAND TOTAL | 1,229 | 1,110 | -9.7% | 1,243 | 1,366 | 9.9% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OLDHAM COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 475 | 475 | 0.0% | 808 | 808 | 0.0% |
| PROJECTED DEMAND TOTAL | 475 | 475 | 0.0% | 808 | 808 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| OLDHAM COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 290 | 295 | 1.7% | 290 | 295 | 1.7% |
| PROJECTED DEMAND TOTAL | 272 | 292 | 7.4% | 279 | 282 | 1.1% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| POTTER COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 2,400 | 3,229 | 34.5% | 2,200 | 4,487 | 104.0% |
| PROJECTED DEMAND TOTAL | 3,083 | 2,329 | -24.5% | 4,748 | 3,587 | -24.5% |
| WATER SUPPLY NEEDS TOTAL | 683 | 0 | -100.0% | 2,548 | 0 | -100.0% |
| POTTER COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,608 | 6,007 | 66.5% | 2,587 | 5,802 | 124.3% |
| PROJECTED DEMAND TOTAL | 3,427 | 3,176 | -7.3% | 2,061 | 3,176 | 54.1% |

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Region A 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% |
| POTTER COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 675 | 675 | 0.0% | 675 | 675 | 0.0% |
| PROJECTED DEMAND TOTAL | 481 | 510 | 6.0% | 491 | 625 | 27.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| POTTER COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 7,614 | 8,209 | 7.8% | 3,989 | 5,531 | 38.7% |
| PROJECTED DEMAND TOTAL | 9,713 | 7,896 | -18.7% | 13,622 | 8,740 | -35.8% |
| WATER SUPPLY NEEDS TOTAL | 2,099 | 0 | -100.0% | 9,633 | 3,209 | -66.7% |
| POTTER COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 941 | 941 | 0.0% | 1,831 | 1,486 | -18.8% |
| PROJECTED DEMAND TOTAL | 941 | 941 | 0.0% | 1,831 | 1,831 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 345 | 100.0% |
| POTTER COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 23,854 | 28,392 | 19.0% | 13,511 | 20,979 | 55.3% |
| PROJECTED DEMAND TOTAL | 26,342 | 27,293 | 3.6% | 40,568 | 42,033 | 3.6% |
| WATER SUPPLY NEEDS TOTAL | 2,488 | 0 | -100.0% | 27,057 | 21,054 | -22.2% |
| POTTER COUNTY STEAM ELECTRIC POWER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 25,387 | 18,554 | -26.9% | 37,669 | 18,554 | -50.7% |
| PROJECTED DEMAND TOTAL | 25,387 | 18,554 | -26.9% | 37,669 | 18,554 | -50.7% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| RANDALL COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,028 | 3,802 | 25.6% | 3,013 | 5,491 | 82.2% |
| PROJECTED DEMAND TOTAL | 3,665 | 3,088 | -15.7% | 5,651 | 4,790 | -15.2% |
| WATER SUPPLY NEEDS TOTAL | 637 | 0 | -100.0% | 2,638 | 0 | -100.0% |
| RANDALL COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 18,762 | 18,583 | -1.0% | 11,713 | 19,208 | 64.0% |
| PROJECTED DEMAND TOTAL | 18,000 | 17,720 | -1.6% | 10,650 | 17,720 | 66.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| RANDALL COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 2,654 | 2,663 | 0.3% | 2,719 | 2,862 | 5.3% |
| PROJECTED DEMAND TOTAL | 2,654 | 2,663 | 0.3% | 2,719 | 2,862 | 5.3% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| RANDALL COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 548 | 626 | 14.2% | 233 | 337 | 44.6% |
| PROJECTED DEMAND TOTAL | 589 | 621 | 5.4% | 852 | 716 | -16.0% |
| WATER SUPPLY NEEDS TOTAL | 41 | 0 | -100.0% | 619 | 379 | -38.8% |
| RANDALL COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 22,155 | 27,867 | 25.8% | 12,419 | 20,172 | 62.4% |
| PROJECTED DEMAND TOTAL | 25,352 | 26,241 | 3.5% | 39,140 | 40,454 | 3.4% |
| WATER SUPPLY NEEDS TOTAL | 3,201 | 0 | -100.0% | 26,722 | 20,387 | -23.7% |
| ROBERTS COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 65 | 65 | 0.0% | 65 | 65 | 0.0% |
| PROJECTED DEMAND TOTAL | 49 | 48 | -2.0% | 49 | 48 | -2.0% |

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Region A 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% |
| ROBERTS COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 5,958 | 8,543 | 43.4% | 3,437 | 8,543 | 148.6% |
| PROJECTED DEMAND TOTAL | 5,958 | 8,543 | 43.4% | 3,437 | 8,543 | 148.6% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| ROBERTS COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 487 | 449 | -7.8% | 487 | 532 | 9.2% |
| PROJECTED DEMAND TOTAL | 369 | 383 | 3.8% | 373 | 490 | 31.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| ROBERTS COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,502 | 1,502 | 0.0% | 2 | 2 | 0.0% |
| PROJECTED DEMAND TOTAL | 1,502 | 1,502 | 0.0% | 2 | 2 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| ROBERTS COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 541 | 298 | -44.9% | 326 | 298 | -8.6% |
| PROJECTED DEMAND TOTAL | 224 | 225 | 0.4% | 222 | 223 | 0.5% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| SHERMAN COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 184 | 105 | -42.9% | 212 | 121 | -42.9% |
| PROJECTED DEMAND TOTAL | 184 | 105 | -42.9% | 212 | 121 | -42.9% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| SHERMAN COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 220,998 | 304,519 | 37.8% | 127,157 | 144,113 | 13.3% |
| PROJECTED DEMAND TOTAL | 220,966 | 304,360 | 37.7% | 127,125 | 182,536 | 43.6% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 38,423 | 100.0% |
| SHERMAN COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,449 | 3,576 | 3.7% | 4,497 | 4,669 | 3.8% |
| PROJECTED DEMAND TOTAL | 3,449 | 3,576 | 3.7% | 4,497 | 4,669 | 3.8% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| SHERMAN COUNTY MANUFACTURING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 0 | 2 | 100.0% | 0 | 2 | 100.0% |
| PROJECTED DEMAND TOTAL | 0 | 2 | 100.0% | 0 | 2 | 100.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| SHERMAN COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 35 | 35 | 0.0% | 20 | 20 | 0.0% |
| PROJECTED DEMAND TOTAL | 35 | 35 | 0.0% | 20 | 20 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| SHERMAN COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,251 | 951 | -24.0% | 733 | 793 | 8.2% |
| PROJECTED DEMAND TOTAL | 470 | 618 | 31.5% | 546 | 722 | 32.2% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| WHEELER COUNTY COUNTY-OTHER WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 385 | 385 | 0.0% | 385 | 385 | 0.0% |
| PROJECTED DEMAND TOTAL | 290 | 296 | 2.1% | 325 | 332 | 2.2% |

*WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2016 RWP report are calculated by first deducting the WUG split’s projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

Region A 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% |
| WHEELER COUNTY IRRIGATION WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 9,098 | 17,117 | 88.1% | 5,858 | 17,125 | 192.3% |
| PROJECTED DEMAND TOTAL | 8,203 | 16,224 | 97.8% | 4,955 | 16,224 | 227.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| WHEELER COUNTY LIVESTOCK WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,695 | 1,695 | 0.0% | 1,695 | 1,695 | 0.0% |
| PROJECTED DEMAND TOTAL | 1,577 | 1,186 | -24.8% | 1,689 | 1,479 | -12.4% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| WHEELER COUNTY MINING WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 3,268 | 3,268 | 0.0% | 119 | 119 | 0.0% |
| PROJECTED DEMAND TOTAL | 3,268 | 3,268 | 0.0% | 119 | 119 | 0.0% |
| WATER SUPPLY NEEDS TOTAL | 0 | 0 | 0.0% | 0 | 0 | 0.0% |
| WHEELER COUNTY MUNICIPAL WUG TYPE | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,280 | 1,749 | 36.6% | 849 | 1,446 | 70.3% |
| PROJECTED DEMAND TOTAL | 857 | 843 | -1.6% | 990 | 971 | -1.9% |
| WATER SUPPLY NEEDS TOTAL | 184 | 0 | -100.0% | 453 | 153 | -66.2% |
| REGION A | | | | | | |
| EXISTING WUG SUPPLY TOTAL | 1,572,614 | 2,001,445 | 27.3% | 920,959 | 1,226,746 | 33.2% |
| PROJECTED DEMAND TOTAL | 1,733,659 | 2,130,529 | 22.9% | 1,166,209 | 1,598,115 | 37.0% |
| WATER SUPPLY NEEDS TOTAL | 170,795 | 148,508 | -13.0% | 252,616 | 382,243 | 51.3% |

*WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The needs shown in the WUG Data Comparison to 2016 RWP report are calculated by first deducting the WUG split’s projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG county and category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

Region A 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 (%) |
| ARMSTRONG COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 46,319 | 66,867 | 44.4% | 29,682 | 49,375 | 66.3% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 122 | 122 | 0.0% | 122 | 122 | 0.0% |
| CARSON COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 171,425 | 192,203 | 12.1% | 97,616 | 137,413 | 40.8% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 57 | 58 | 1.8% | 58 | 58 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 411 | 411 | 0.0% | 411 | 411 | 0.0% |
| CHILDRESS COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 16,171 | 26,769 | 65.5% | 16,151 | 27,040 | 67.4% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 162 | 162 | 0.0% | 181 | 181 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 68 | 68 | 0.0% | 68 | 68 | 0.0% |
| COLLINGSWORTH COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 201,695 | 43,764 | -78.3% | 194,942 | 25,182 | -87.1% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 53 | 52 | -1.9% | 60 | 60 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 880 | 880 | 0.0% | 880 | 880 | 0.0% |
| DALLAM COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 356,508 | 401,663 | 12.7% | 180,381 | 127,048 | -29.6% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 2,488 | 2,488 | 0.0% | 2,488 | 2,488 | 0.0% |
| DONLEY COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 75,019 | 75,287 | 0.4% | 49,301 | 62,537 | 26.8% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 449 | 449 | 0.0% | 449 | 449 | 0.0% |
| GRAY COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 160,673 | 181,105 | 12.7% | 97,177 | 134,431 | 38.3% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 220 | 220 | 0.0% | 220 | 220 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 855 | 855 | 0.0% | 855 | 855 | 0.0% |
| HALL COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 24,615 | 22,388 | -9.0% | 23,855 | 31,521 | 32.1% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 100 | 100 | 0.0% | 100 | 100 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 143 | 143 | 0.0% | 143 | 143 | 0.0% |
| HANSFORD COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 262,271 | 275,016 | 4.9% | 159,627 | 269,589 | 68.9% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 2,639 | 2,639 | 0.0% | 2,639 | 2,639 | 0.0% |
| HARTLEY COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 393,115 | 472,362 | 20.2% | 189,641 | 163,260 | -13.9% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 3,193 | 3,193 | 0.0% | 3,193 | 3,193 | 0.0% |
| HEMPHILL COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 41,759 | 52,196 | 25.0% | 43,331 | 52,336 | 20.8% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 421 | 421 | 0.0% | 421 | 421 | 0.0% |
| HUTCHINSON COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 136,433 | 94,985 | -30.4% | 81,323 | 90,858 | 11.7% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 1,045 | 1,045 | 0.0% | 1,045 | 1,045 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 379 | 379 | 0.0% | 379 | 379 | 0.0% |
| LIPSCOMB COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 283,794 | 266,809 | -6.0% | 201,900 | 266,559 | 32.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 176 | 176 | 0.0% | 176 | 176 | 0.0% |
| MOORE COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 204,749 | 229,004 | 11.8% | 91,436 | 82,961 | -9.3% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 1,007 | 1,007 | 0.0% | 1,007 | 1,007 | 0.0% |

Region A 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 (%) |
| OCHILTREE COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 246,475 | 243,778 | -1.1% | 147,265 | 244,082 | 65.7% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 421 | 421 | 0.0% | 421 | 421 | 0.0% |
| OLDHAM COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 25,454 | 173,600 | 582.0% | 19,284 | 121,003 | 527.5% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 835 | 835 | 0.0% | 835 | 835 | 0.0% |
| POTTER COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 28,552 | 56,018 | 96.2% | 16,702 | 44,065 | 163.8% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 27,587 | 26,192 | -5.1% | 39,869 | 37,208 | -6.7% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 562 | 562 | 0.0% | 562 | 562 | 0.0% |
| RANDALL COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 87,733 | 75,082 | -14.4% | 51,606 | 57,099 | 10.6% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 545 | 545 | 0.0% | 846 | 846 | 0.0% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 1,529 | 1,529 | 0.0% | 1,529 | 1,529 | 0.0% |
| RESERVOIR COUNTY | | | | | | |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 7,767 | 31,698 | 308.1% | 7,148 | 30,465 | 326.2% |
| ROBERTS COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 390,901 | 430,618 | 10.2% | 249,609 | 350,459 | 40.4% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 211 | 211 | 0.0% | 211 | 211 | 0.0% |
| SHERMAN COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 301,499 | 398,183 | 32.1% | 145,513 | 148,647 | 2.2% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 1,084 | 1,084 | 0.0% | 1,084 | 1,084 | 0.0% |
| WHEELER COUNTY | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 218,829 | 132,451 | -39.5% | 183,144 | 126,804 | -30.8% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 51 | 49 | -3.9% | 59 | 57 | -3.4% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 1,448 | 1,448 | 0.0% | 1,448 | 1,448 | 0.0% |
| REGION A | | | | | | |
| GROUNDWATER AVAILABILITY TOTAL (acre-feet per year) | 3,673,989 | 3,910,148 | 6.4% | 2,269,486 | 2,612,269 | 15.1% |
| REUSE AVAILABILITY TOTAL (acre-feet per year) | 29,820 | 28,423 | -4.7% | 42,438 | 39,775 | -6.3% |
| SURFACE WATER AVAILABILITY TOTAL (acre-feet per year) | 27,088 | 51,019 | 88.3% | 26,469 | 49,786 | 88.1% |

APPENDIX B
Hydrologic Variance Request and Approval for Surface Water

February 28, 2018

C.E. Williams
Chairman
Panhandle Water Planning Group
c/o Panhandle GCD
P.O. Box 637
White Deer, TX 79097

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

Dear Chairman Williams: *C.E.*

The Texas Water Development Board (TWDB) has reviewed your request dated December 15, 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 reservoir operation model(s) with extended hydrology through 2017 for Lake Meredith and extended hydrology through 2016 for Greenbelt Reservoir.
2. Use of the Texas Commission on Environmental Quality's (TCEQ) Water Availability Model (WAM) with extended hydrology through 2004 for Palo Duro Reservoir and run-of-river water rights in the Canadian River basin.
3. Use of a one-year safe yield.

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 also be reported to TWDB in the online planning database and plan documents.

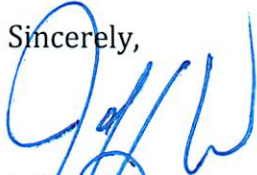
For the purpose of evaluating potentially feasible water management strategies, the TCEQ WAM RUN3 is to be used.

While the TWDB authorizes these modifications to evaluate existing water supplies for development of the 2021 Region A 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*.

C.E. Williams
February 28, 2018
Page 2

If you have any questions, please do not hesitate to contact William Alfaro, project manager for Region A, at 512-463-4741 or via email at william.alfaro@twdb.texas.gov.

Sincerely,



Jeff Walker
Executive Administrator

c: Mr. Dustin Meyer, Panhandle Regional Planning Commission
Ms. Simone Kiel, Freese & Nichols, Inc.
Mr. William Alfaro, Water Use, Projections, & Planning

PANHANDLE WATER PLANNING GROUP

P.O. Box 9257
Phone: 806-372-3381

Amarillo, Texas 79105
Fax: 806-373-3268

C.E. Williams
*Chairman
Water Districts*

Judge Vernon Cook
*Vice-Chairman
Counties*

David Landis.
*Secretary
Municipalities*

Dr. Nolan Clark, P.E.,
*Executive Committee
Environmental*

John Williams, P.E.
*Executive Committee
Water Districts*

Janet Guthrie
Public

Steve Walthour
Water Districts

Charles Cooke
Water Utilities

Jim Derington
River Districts

Johnny Schmucker
Agriculture

Rusty Gilmore
Small Business

Bill Hallerberg
Industries

Gale Henslee
Elec. Generating Utility

Grady Skaggs
Environmental

Tom Bailiff
Water Districts

Emmett Autrey
Municipalities

Bill Hallerberg
Industries

Jenny Pluhar
Environmental

Ben Weinheimer
Agriculture

Janet Tregellas
Agriculture

Joe Baumgardner
Agriculture

Dr. John Sweeten
Higher Education

December 15, 2017

Jeff Walker
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 the Panhandle Region (Region A)

Dear Mr. Walker,

Surface water supplies in the Panhandle Water Planning Area (Region A) are obtained from the upper Red River Basin and the Canadian River Basin. The major surface water supplies in Region A are Lake Meredith and Palo Duro Reservoir in the Canadian River Basin and Greenbelt Reservoir in the Red River Basin.

In accordance with regional planning rules and guidelines, surface water supplies must be determined using the latest version of the TCEQ Water Availability Models (WAMs) with full authorization unless a hydrologic variance is granted by the TWDB. Regional planning rules also require the use and reporting of the firm yield for all surface water reservoirs.

The TCEQ-approved WAMs for the Canadian and Red River Basins, with modifications, have been used for determining the available surface water supplies for the region for previously developed water plans. The period of record for the hydrology for both the TCEQ-approved Red and Canadian WAMs is 1948 to 1998. Previous modifications have included updated storage capacities of regional reservoirs and the extension of hydrology for the Canadian River Basin from 1998 to 2004. However, these modifications alone do not capture the on-going drought conditions and the record low inflows experienced over the last decade throughout the region.

Considering the limited hydrologic record for the Canadian and Red River WAMs, the Panhandle Region Planning Group (PWPG) respectfully requests the following hydrologic variance requests. As intended by Senate Bill 1, the assessment of surface water availability in Region A will be conducted to accurately reflect water supplies that are available for use.

Safe Yield

Region A requests the use of safe yield or other defined reliable supply (risk assessment) for the allocation and distribution of surface water supplies from 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.

PANHANDLE WATER PLANNING GROUP

P.O. Box 9257
Phone: 806-372-3381

Amarillo, Texas 79105
Fax: 806-373-3268

Canadian River Basin

During the 2016 round of planning, a yield analysis was conducted for Lake Meredith using a reservoir operation model with hydrology from the Canadian WAM through 2004 and calculated inflows to the lake from October 2004 to March 2012. Record low inflows to Lake Meredith continued through 2016. To capture the impact of the continued low inflow, it is proposed to extend the hydrology for Lake Meredith through 2017. This data is collected by the Canadian River Municipal Water Authority. This analysis will be used to assess the firm and safe yields of the reservoir.

Water supplies from the Palo Duro Reservoir and run-of-river water rights will be assessed using the Canadian WAM with the extended hydrology through 2004.

Red River Basin

As previously discussed, the hydrologic record for the TCEQ-approved Red River WAM extends from 1948 to 1998. It does not include the on-going drought (2010 to present). Analyses of the firm yield of Lake Greenbelt using the TCEQ-approved Red River WAM would overestimate its yield. To provide a more accurate yield estimate, it is proposed to use a reservoir operation model with hydrology from the Red WAM through 1998 and calculated inflows to the lake from 1999 to 2016. This analysis will be used to assess the firm and safe yields of the reservoir. A risk assessment (conditional reliability) may also be employed to determine the reliable supply from Lake Greenbelt, if the data indicate such analysis is necessary.

Run of the river water rights will be evaluated using the TCEQ-approved Red River WAM.

Please contact Simone Kiel of Freese and Nichols at 817-735-7446 if you have any questions regarding our request.

Sincerely,



C.E. Williams
Chairman, Panhandle Area Planning Area

APPENDIX C
Methodology for Whitehorse Aquifer

Methodology for Other Aquifer Groundwater Availability: Region A

The estimate of recoverable volume for the Whitehorse and Quartermaster formations (“other aquifers”) for Region A was calculated using TWDB Driller’s Log averages for each county/formation and GIS coverage areas from the Geological Atlas of Texas outcrops for each of the counties/areas. Specifically, average well depth from recent driller’s logs (2003-2013) was subtracted from the average water level that was measured at time of drilling to get an estimated saturated thickness for each county and zone (Figure 1). The cleaved surface area was then multiplied by the estimated saturated thickness and a Specific Yield of 0.0025 (0.25%) to get the estimated recoverable volume of water in storage (Table 1). Table 2 shows the total volume of water available per year over a period of 100 years. 100 years was the time period chosen to provide the estimate of yearly availability due to the fact that these are shallow outcrop aquifers, which in our estimation, fully recharge every 100 years.

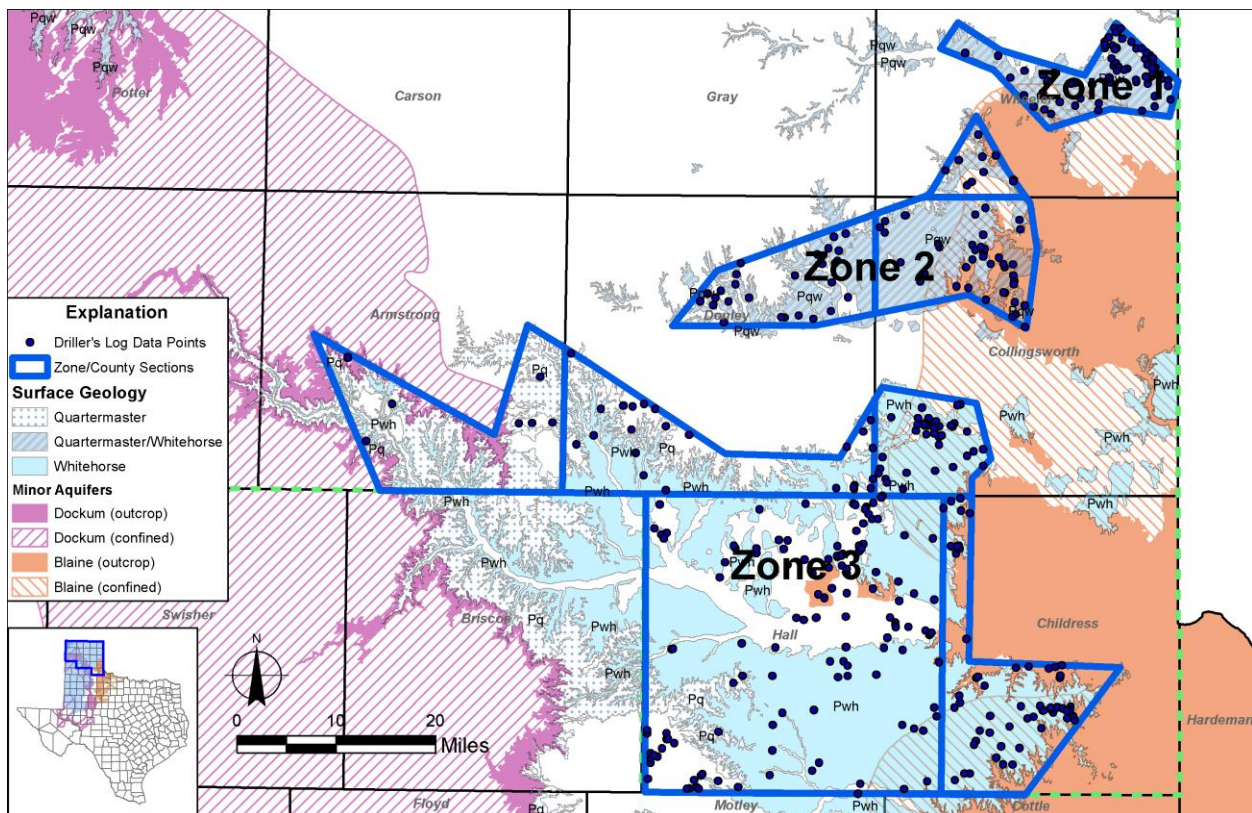


Figure 1. Outcrops of Whitehorse and Quartermaster formations and zone delineations for recoverable volume calculations for “Other” aquifers, Region A.

Table 1. Calculations by County and Zone

| County | Zone | Average Depth (ft) | Average Water Level (ft) | Area (acres) | Estimated Saturated Thickness (ft) | Estimated Recoverable Volume (acft) |
|---------------|------|--------------------|--------------------------|--------------|------------------------------------|-------------------------------------|
| Armstrong | 3 | 186 | 88 | 151,691 | 97 | 36,958 |
| Childress | 3 | 123 | 57 | 140,954 | 66 | 23,335 |
| Collingsworth | 2 | 155 | 81 | 109,997 | 74 | 20,345 |
| Collingsworth | 3 | 102 | 41 | 69,496 | 61 | 10,604 |
| Donley | 2 | 156 | 75 | 90,776 | 81 | 18,398 |
| Donley | 3 | 166 | 83 | 142,307 | 83 | 29,519 |
| Hall | 3 | 126 | 50 | 573,300 | 76 | 108,555 |
| Wheeler | 1 | 163 | 35 | 72,773 | 128 | 23,253 |
| Wheeler | 2 | 119 | 49 | 25,214 | 70 | 4,386 |

Table 2. Total calculated volume available per year over 100 years.

| County | Availability (acft/yr) over 100 years |
|---------------|---------------------------------------|
| Armstrong | 370 |
| Childress | 233 |
| Collingsworth | 309 |
| Donley | 479 |
| Hall | 1,086 |
| Wheeler | 276 |

APPENDIX D
Methodology for Identifying Potentially Feasible WMSs

TO: Panhandle Water Planning Group

CC: File

FROM: Simone Kiel

SUBJECT: Methodology to Identify Potentially Feasible Water Management Strategies

DATE: March 16, 2018

PROJECT: PPC16440

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 the Panhandle Water Planning Group (PWPG).

For the Panhandle Water Planning Area (PWPA), 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 the PWPA
6. Contact entity for input
7. Contact PWPG 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 PWPA 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.

¹ First Amended General Guidelines for Fifth Cycle of Regional Water Plan Development, April 2017. Exhibit C to Contract between TWDB and PRPC, executed June 14, 2017.

Methodology to Identify Potentially Feasible Water Management Strategies

PWPA (Region A)

March 16, 2018

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

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

- Water conservation
 - Review for applicability and consider for all WUGs with a need
 - Consider water conservation for all municipal WUGs
 - Consider water conservation for all irrigation WUGs
- 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
- Enhancements of yields.
 - This may be considered with other strategies, such as Brush Control and Precipitation Enhancement
- 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 an existing precipitation enhancement program
- Aquifer storage and recovery

There are several strategy types that likely are not appropriate for PWPA 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 the PWPA.

Methodology to Identify Potentially Feasible Water Management Strategies

PWPA (Region A)

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- Reallocation of reservoir storage to new uses. There are limited opportunities for reservoir storage reallocation in the PWPA.

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

- Developing large-scale desalination facilities for marine seawater that serve local or regional entities. The PWPA does not have access to seawater.
- Cancellation of water rights. The run-of-river water rights in the Canadian River Basin and upper Red River Basin have little supply. Cancellation of water rights in the PWPA would not provide additional water.
- Rainwater harvesting. The average rainfall over the PWPA from west to east ranges from 14 to 24 inches per year. During drought there is very little rainfall. This is not a reliable strategy for the PWPA.

APPENDIX E

List of Potentially Feasible Water Management Strategies

2021 Panhandle Water Plan DRAFT List of Potentially Feasible Water Management

| Entity Name | Potentially Feasible WMSs |
|--|---|
| AMARILLO | MUNICIPAL CONSERVATION |
| AMARILLO | POTTER COUNTY WELL FIELD - PHASE 2 |
| AMARILLO | ROBERTS/OCHILTREE COUNTIES WELL FIELD - PHASED WITH CRMWA2 PIPELINE |
| AMARILLO | AQUIFER STORAGE AND RECOVERY |
| AMARILLO | DIRECT POTABLE REUSE |
| BOOKER | DRILL ADDITIONAL GROUNDWATER WELL |
| BOOKER | MUNICIPAL CONSERVATION |
| BORGER | DRILL ADDITIONAL GROUNDWATER WELL |
| BORGER | MUNICIPAL CONSERVATION |
| CACTUS | DRILL ADDITIONAL GROUNDWATER WELL |
| CACTUS | MUNICIPAL CONSERVATION |
| CACTUS | PALO DURO RESERVOIR |
| CANADIAN | MUNICIPAL CONSERVATION |
| CANADIAN | DRILL ADDITIONAL GROUNDWATER WELL |
| CANADIAN RIVER MUNICIPAL WATER AUTHORITY | EXPANSION OF ROBERTS COUNTY WELL FIELD |
| CANADIAN RIVER MUNICIPAL WATER AUTHORITY | CONJUNCTIVE USE |
| CANADIAN RIVER MUNICIPAL WATER AUTHORITY | AQUIFER STORAGE AND RECOVERY |
| CANADIAN RIVER MUNICIPAL WATER AUTHORITY | BRUSH CONTROL |
| CANYON | DRILL ADDITIONAL GROUNDWATER WELL |
| CANYON | MUNICIPAL CONSERVATION |
| CANYON | PURCHASE FROM AMARILLO |
| CHILDRESS | VOLUNTARY TRANSFER FROM OTHER USERS (GREENBELT)* |
| CHILDRESS | MUNICIPAL CONSERVATION |
| CLARENDON | VOLUNTARY TRANSFER FROM OTHER USERS (GREENBELT)* |
| CLARENDON | MUNICIPAL CONSERVATION |

* Supplies will be met through fulfillment of contract amount by provider.

2021 Panhandle Water Plan DRAFT List of Potentially Feasible Water Management

| Entity Name | Potentially Feasible WMSs |
|--|--|
| CLAUDE | MUNICIPAL CONSERVATION |
| CLAUDE | DRILL ADDITIONAL GROUNDWATER WELL |
| DALHART | DRILL ADDITIONAL GROUNDWATER WELL |
| DALHART | MUNICIPAL CONSERVATION |
| DARROUZETT | DRILL ADDITIONAL GROUNDWATER WELL |
| DUMAS | DRILL ADDITIONAL GROUNDWATER WELL |
| DUMAS | MUNICIPAL CONSERVATION |
| DUMAS | PALO DURO RESERVOIR |
| FOLLETT | DRILL ADDITIONAL GROUNDWATER WELL |
| FRITCH | MUNICIPAL CONSERVATION |
| FRITCH | DRILL ADDITIONAL GROUNDWATER WELL |
| GREENBELT MUNICIPAL & INDUSTRIAL WATER AUTHORITY | DEVELOP NEW GROUNDWATER WELLFIELD |
| GRUVER | DRILL ADDITIONAL GROUNDWATER WELL |
| GRUVER | MUNICIPAL CONSERVATION |
| GRUVER | PALO DURO RESERVOIR |
| HAPPY | DRILL ADDITIONAL GROUNDWATER WELL |
| HARTLEY WSC | DRILL ADDITIONAL GROUNDWATER WELL |
| HIGGINS | DRILL ADDITIONAL GROUNDWATER WELL |
| IRRIGATION (ALL COUNTIES) | IRRIGATION CONSERVATION |
| LAKE TANGLEWOOD | MUNICIPAL CONSERVATION |
| MANUFACTURING (HUTCHINSON) | VOLUNTARY TRANSFER FROM OTHER USERS (BORGER)* |
| MANUFACTURING (LIPSCOMB) | VOLUNTARY TRANSFER FROM OTHER USERS (BOOKER)* |
| MANUFACTURING (MOORE) | VOLUNTARY TRANSFER FROM OTHER USERS (CACTUS) |
| MANUFACTURING (MOORE) | CONSERVATION |
| MANUFACTURING (MOORE) | DRILL ADDITIONAL GROUNDWATER WELL |
| MANUFACTURING (POTTER) | VOLUNTARY TRANSFER FROM OTHER USERS (AMARILLO) |
| MANUFACTURING (POTTER) | DIRECT REUSE |
| MANUFACTURING (POTTER) | DRILL ADDITIONAL GROUNDWATER WELL |

* Supplies will be met through fulfillment of contract amount by provider.

2021 Panhandle Water Plan DRAFT List of Potentially Feasible Water Management

| Entity Name | Potentially Feasible WMSs |
|---------------------------------|--|
| MANUFACTURING (RANDALL) | DIRECT REUSE |
| MANUFACTURING (RANDALL) | DRILL ADDITIONAL GROUNDWATER WELL |
| MANUFACTURING (RANDALL) | VOLUNTARY TRANSFER FROM OTHER USERS (AMARILLO) |
| MCLEAN | DRILL ADDITIONAL GROUNDWATER WELL |
| MCLEAN | MUNICIPAL CONSERVATION |
| MEMPHIS | DRILL ADDITIONAL GROUNDWATER WELL |
| MEMPHIS | MUNICIPAL CONSERVATION |
| MIAMI | MUNICIPAL CONSERVATION |
| MINING (POTTER) | DRILL ADDITIONAL GROUNDWATER WELL |
| MINING (POTTER) | REUSE |
| PALO DURO RIVER AUTHORITY | PALO DURO RESERVOIR DISTRIBUTION |
| PAMPA | DRILL ADDITIONAL GROUNDWATER WELL |
| PAMPA | MUNICIPAL CONSERVATION |
| PAMPA | VOLUNTARY TRANSFER FROM OTHER USERS (CRMWA) |
| PANHANDLE | DRILL ADDITIONAL GROUNDWATER WELL |
| PANHANDLE | MUNICIPAL CONSERVATION |
| PERRYTON | DRILL ADDITIONAL GROUNDWATER WELL |
| PERRYTON | MUNICIPAL CONSERVATION |
| RED RIVER AUTHORITY (CHILDRESS) | VOLUNTARY TRANSFER FROM OTHER USERS (GREENBELT)* |
| RED RIVER AUTHORITY (DONLEY) | VOLUNTARY TRANSFER FROM OTHER USERS (GREENBELT)* |
| SHAMROCK | MUNICIPAL CONSERVATION |
| SPEARMAN | DRILL ADDITIONAL GROUNDWATER WELL |
| SPEARMAN | MUNICIPAL CONSERVATION |
| SPEARMAN | PALO DURO RESERVOIR |
| STEAM ELECTRIC POWER (POTTER) | DRILL ADDITIONAL GROUNDWATER WELL |
| STINNETT | DRILL ADDITIONAL GROUNDWATER WELL |
| STINNETT | MUNICIPAL CONSERVATION |
| STRATFORD | MUNICIPAL CONSERVATION |
| STRATFORD | DRILL ADDITIONAL GROUNDWATER WELL |

* Supplies will be met through fulfillment of contract amount by provider.

2021 Panhandle Water Plan DRAFT List of Potentially Feasible Water Management

| Entity Name | Potentially Feasible WMSs |
|----------------|-----------------------------------|
| SUNRAY | DRILL ADDITIONAL GROUNDWATER WELL |
| SUNRAY | MUNICIPAL CONSERVATION |
| SUNRAY | PALO DURO RESERVOIR |
| TCW SUPPLY INC | DRILL ADDITIONAL GROUNDWATER WELL |
| TCW SUPPLY INC | MUNICIPAL CONSERVATION |
| TEXHOMA | DRILL ADDITIONAL GROUNDWATER WELL |
| TEXLINE | DRILL ADDITIONAL GROUNDWATER WELL |
| TEXLINE | MUNICIPAL CONSERVATION |
| TURKEY | DRILL ADDITIONAL GROUNDWATER WELL |
| VEGA | MUNICIPAL CONSERVATION |
| VEGA | DRILL ADDITIONAL GROUNDWATER WELL |
| WELLINGTON | WATER TREATMENT FOR NITRATES |
| WELLINGTON | MUNICIPAL CONSERVATION |
| WHEELER | DRILL ADDITIONAL GROUNDWATER WELL |
| WHEELER | MUNICIPAL CONSERVATION |
| WHITE DEER | MUNICIPAL CONSERVATION |
| WHITE DEER | DRILL ADDITIONAL GROUNDWATER WELL |

* Supplies will be met through fulfillment of contract amount by provider.