

# Projected Exempt Groundwater Use Estimates

Groundwater Management Area 11

TWDB Estimates

May 2020

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Texas Water Development (TWDB) staff has developed draft projected estimates of rural domestic, livestock, mining, and rig supply exempt uses. These estimates are based on a comprehensive survey of groundwater wells in the TWDB Groundwater Database (GWDB), the TWDB Water Use Survey, the 2017 State Water Plan (SWP), the newest projected demand estimates for the upcoming 2021 SWP, and population data from the Texas Demographic Center.

Note: Some categories of these estimates may not represent actual use from exempt wells since the GWDB does not include all wells in existence.

## Projected Exempt Groundwater Use Estimates Acre-feet per year

### Neches & Trinity Valleys GCD

#### Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1,692	1,716	1,761	1,831	2,010	2,233	2,257
Nacatoch	5	5	6	6	8	10	10
Other	545	552	565	585	635	699	706
Queen City	1,452	1,463	1,480	1,511	1,581	1,667	1,676
Sparta	306	307	309	313	319	326	327
<b>Total</b>	<b>4,000</b>	<b>4,043</b>	<b>4,121</b>	<b>4,246</b>	<b>4,553</b>	<b>4,935</b>	<b>4,976</b>

#### Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1,474	1,498	1,543	1,613	1,792	2,015	2,039
Nacatoch	5	5	6	6	8	10	10
Other	427	434	447	467	517	581	588
Queen City	1,183	1,194	1,211	1,242	1,312	1,398	1,407
Sparta	290	291	293	297	303	310	311

#### Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	217	217	217	217	217	217	217
Other	118	118	118	118	118	118	118
Queen City	265	265	265	265	265	265	265
Sparta	16	16	16	16	16	16	16

#### Estimated Agricultural Exempt Use (by aquifer) \*

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1	1	1	1	1	1	1
Queen City	4	4	4	4	4	4	4

\* Neches & Trinity Valleys GCD rules include exemptions for wells used for agricultural use that are incapable of producing more than 36,000 gallons per day. According to the TWDB groundwater database, there are two irrigation wells that qualify for this exemption (state well #3805703 and #3827705).

Estimates derived using Texas State Demographic Center Data, TWDB Water Use Survey data, TWDB water demand projections, and the TWDB Groundwater Database.

Values are rounded to the nearest acre-foot.

**Projected Exempt Groundwater Use Estimates**  
**Acre-feet per year**

**Panola County GCD**

**Total Estimated Exempt Use (by aquifer)**

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	1,900	1,919	1,922	1,934	1,952	1,968	1,970

Estimated Domestic Exempt Use (by aquifer)

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	1,061	1,080	1,083	1,095	1,113	1,129	1,131

Estimated Livestock Exempt Use (by aquifer)

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	265	265	265	265	265	265	265

Estimated Agricultural Exempt Use (by aquifer) \*

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	574	574	574	574	574	574	574

\* Panola County GCD Rules include exemptions for wells used for agricultural use that are incapable of producing more than 25,000 gallons per day and are on tracts of land less than 5 acres. There is not enough available information in the TWDB Groundwater Database to determine the number of wells that qualify for agricultural exempt use. The number reported here reflects all wells in the TWDB Groundwater Database classified as irrigation wells.

Estimates derived using Texas State Demographic Center Data, TWDB Water Use Survey data, TWDB water demand projections, and the TWDB Groundwater Database.

Values are rounded to the nearest acre-foot.

## Projected Exempt Groundwater Use Estimates Acre-feet per year

### Pineywoods GCD \*

#### Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	857	903	952	1,010	1,078	1,168	1,178
Other	88	92	98	104	110	120	120
Queen City	312	329	346	367	391	425	428
Sparta	61	64	68	72	77	82	83
Yegua-Jackson	104	106	109	111	113	115	115
<b>Total</b>	<b>1,422</b>	<b>1,494</b>	<b>1,573</b>	<b>1,664</b>	<b>1,769</b>	<b>1,910</b>	<b>1,924</b>

#### Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	194	211	227	247	271	296	299
Other	23	25	27	29	31	34	34
Queen City	54	59	63	69	75	83	83
Sparta	44	47	51	55	60	65	66
Yegua-Jackson	35	37	40	42	44	46	46

#### Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	663	692	725	763	807	872	879
Other	65	67	71	75	79	86	86
Queen City	258	270	283	298	316	342	345
Sparta	17	17	17	17	17	17	17
Yegua-Jackson	69	69	69	69	69	69	69

#### Estimated Agricultural Exempt Use (by aquifer) \*

Aquifer	2020	2030	2040	2050	2060	2070	2080
TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

\* Pineywoods GCD Rules include exemptions for wells used for agricultural use that are incapable of producing more than 25,000 gallons per day. There is not enough available information in the TWDB Groundwater Database to determine the number of wells that qualify for agricultural exempt use.

Estimates derived using Texas State Demographic Center Data, TWDB Water Use Survey data, TWDB water demand projections, and the TWDB Groundwater Database.

Values are rounded to the nearest acre-foot.

**Projected Exempt Groundwater Use Estimates**  
**Acre-feet per year**

**Rusk County GCD**

**Total Estimated Exempt Use (by aquifer)**

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	3,552	4,413	4,388	4,373	4,386	4,487	4,497
Other	23	24	26	28	31	34	34
<b>Total</b>	<b>3,575</b>	<b>4,437</b>	<b>4,414</b>	<b>4,401</b>	<b>4,417</b>	<b>4,521</b>	<b>4,531</b>

Estimated Domestic Exempt Use (by aquifer)

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	905	973	1,048	1,140	1,242	1,350	1,361
Other	23	24	26	28	31	34	34

Estimated Livestock Exempt Use (by aquifer)

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	332	337	343	349	355	355	355

Estimated Mining and Rig Supply Exempt Use (by aquifer)

<b>Aquifer</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>	<b>2080</b>
Carrizo-Wilcox	2,315	3,103	2,997	2,884	2,789	2,782	2,781

Estimates derived using Texas State Demographic Center Data, TWDB Water Use Survey data, TWDB water demand projections, and the TWDB Groundwater Database.

Values are rounded to the nearest acre-foot.