

Projected Exempt Groundwater Use Estimates

Groundwater Management Area 13

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

Evergreen UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	3,300	3,657	3,890	4,105	4,306	4,492	4,653
Queen City	1,390	1,563	1,664	1,758	1,846	1,925	2,017
Sparta	892	1,009	1,075	1,135	1,192	1,244	1,333
Yegua-Jackson	1,088	1,108	1,117	1,125	1,135	1,141	1,155
Total	6,670	7,337	7,746	8,123	8,479	8,802	9,158

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1,146	1,503	1,736	1,951	2,152	2,338	2,499
Queen City	429	602	703	797	885	964	1,056
Sparta	259	376	442	502	559	611	700
Yegua-Jackson	88	108	117	125	135	141	155

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1,654	1,654	1,654	1,654	1,654	1,654	1,654
Queen City	461	461	461	461	461	461	461
Sparta	333	333	333	333	333	333	333
Yegua-Jackson	500	500	500	500	500	500	500

Estimated Mining and Rig Supply Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	500	500	500	500	500	500	500
Queen City	500	500	500	500	500	500	500
Sparta	300	300	300	300	300	300	300
Yegua-Jackson	500	500	500	500	500	500	500

Estimates derived from Evergreen UWCD.

Values are rounded to the nearest acre-foot.

Projected Exempt Groundwater Use Estimates
Acre-feet per year

Gonzales County UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	3,914	3,922	3,929	3,939	3,950	3,960	3,962
Gulf Coast	1	1	1	1	1	2	2
Other	630	631	633	635	638	641	641
Queen City	216	222	219	205	176	158	157
Sparta	296	303	291	258	194	153	150
Yegua-Jackson	547	562	539	473	343	263	257
Total	5,604	5,641	5,612	5,511	5,302	5,177	5,169

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	76	84	91	101	112	122	124
Gulf Coast	1	1	1	1	1	2	2
Other	22	23	25	27	30	33	33
Queen City	39	42	46	49	53	56	56
Sparta	19	20	21	23	24	25	25
Yegua-Jackson	38	41	44	47	49	52	52

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	3,838	3,838	3,838	3,838	3,838	3,838	3,838
Other	608	608	608	608	608	608	608
Queen City	67	67	67	67	67	67	67
Sparta	58	58	58	58	58	58	58
Yegua-Jackson	71	71	71	71	71	71	71

Estimated Mining and Rig Supply Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Queen City	110	113	106	89	56	35	34
Sparta	219	225	212	177	112	70	67
Yegua-Jackson	438	450	424	355	223	140	134

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

Guadalupe County GCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1,387	1,582	1,724	1,869	2,027	2,186	2,203
Other	81	87	91	96	101	106	106
Total	1,468	1,669	1,815	1,965	2,128	2,292	2,309

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	788	983	1,125	1,270	1,428	1,587	1,604
Other	24	30	34	39	44	49	49

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	599	599	599	599	599	599	599
Other	57	57	57	57	57	57	57

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

McMullen GCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	22	22	21	21	21	21	21
Other	10	10	10	10	10	10	10
Queen City	9	9	9	9	9	9	9
Yegua-Jackson	47	47	47	47	47	47	47
Total	88	88	87	87	87	87	87

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	15	15	14	14	14	14	14
Other	3	3	3	3	3	3	3
Queen City	2	2	2	2	2	2	2

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	7	7	7	7	7	7	7
Other	7	7	7	7	7	7	7
Queen City	7	7	7	7	7	7	7
Yegua-Jackson	47	47	47	47	47	47	47

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

Medina County GCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	1,309	1,342	1,368	1,401	1,431	1,459	1,461
Other	161	166	170	174	179	182	183
Total	1,470	1,508	1,538	1,575	1,610	1,641	1,644

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	386	419	445	478	508	536	538
Other	54	59	63	67	72	75	76

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	923	923	923	923	923	923	923
Other	107	107	107	107	107	107	107

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

Plum Creek CD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	217	243	270	301	331	361	365
Other	16	17	18	19	20	21	22
Queen City	8	8	9	10	10	11	11
Total	241	268	297	330	361	393	398

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	152	178	205	236	266	296	300
Other	6	7	8	9	10	11	12
Queen City	3	3	4	5	5	6	6

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	65	65	65	65	65	65	65
Other	10	10	10	10	10	10	10
Queen City	5	5	5	5	5	5	5

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

Uvalde County UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	100	102	105	110	116	123	123
Other	133	137	140	146	155	163	164
Total	233	239	245	256	271	286	287

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	100	102	105	110	116	123	123
Other	133	137	140	146	155	163	164

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

Wintergarden GCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	7,187	7,131	6,377	4,607	2,692	1,719	1,652
Other	106	109	110	113	115	117	118
Queen City	6	6	6	6	7	7	7
Sparta	99	100	102	104	106	107	107
Yegua-Jackson	22	22	22	22	23	23	23
Total	7,420	7,368	6,617	4,852	2,943	1,973	1,907

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	93	99	104	111	117	123	123
Other	29	32	33	36	38	40	41
Queen City	1	1	1	1	2	2	2
Sparta	22	23	25	27	29	30	30
Yegua-Jackson	1	1	1	1	2	2	2

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	532	532	532	532	532	532	532
Other	77	77	77	77	77	77	77
Queen City	5	5	5	5	5	5	5
Sparta	77	77	77	77	77	77	77
Yegua-Jackson	21	21	21	21	21	21	21

Estimated Mining and Rig Supply Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Carrizo-Wilcox	6,562	6,500	5,741	3,964	2,043	1,064	997

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.