

Projected Exempt Groundwater Use Estimates

Groundwater Management Area 4

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

Brewster County GCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Capitan Reef Complex	287	293	295	296	296	297	297
Edwards-Trinity (Plateau)	62	62	63	63	63	63	63
Igneous	117	119	120	120	120	120	120
Marathon	186	187	187	187	187	187	187
Other	289	292	294	294	294	294	294
Total	941	953	959	960	960	961	961

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Capitan Reef Complex	276	282	285	286	285	286	286
Edwards-Trinity (Plateau)	39	39	40	40	40	40	40
Igneous	94	96	97	97	97	97	97
Marathon	47	48	48	49	48	49	49
Other	155	158	159	160	160	160	160

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Capitan Reef Complex	11	11	11	11	11	11	11
Edwards-Trinity (Plateau)	23	23	23	23	23	23	23
Igneous	23	23	23	23	23	23	23
Marathon	139	139	139	139	139	139	139
Other	134	134	134	134	134	134	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

Culberson County GCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Bone Spring-Victorio Peak	6	7	7	7	7	7	7
Capitan Reef Complex	30	30	30	30	30	30	30
Edwards-Trinity (Plateau)	24	24	24	24	24	24	24
Igneous	59	59	59	59	59	59	59
Other	168	169	169	170	170	171	171
West Texas Bolsons	6	7	7	7	7	7	7
Total	287	289	289	290	290	291	291

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Capitan Reef Complex	3	4	4	4	4	4	4
Edwards-Trinity (Plateau)	2	2	2	2	2	2	2
Igneous	2	2	2	2	2	2	2
Other	3	3	3	3	3	3	3
West Texas Bolsons	20	21	21	22	22	23	23

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Bone Spring-Victorio Peak	3	3	3	3	3	3	3
Capitan Reef Complex	28	28	28	28	28	28	28
Igneous	22	22	22	22	22	22	22
Other	56	56	56	56	56	56	56
West Texas Bolsons	148	148	148	148	148	148	148

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

Hudspeth County UWCD No. 1

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Bone Spring-Victorio Peak	410	419	420	422	423	423	423
Other	78	78	78	78	78	78	78
Total	488	497	498	500	501	501	501

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Bone Spring-Victorio Peak	117	126	127	129	129	130	130

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Bone Spring-Victorio Peak	293	293	293	293	293	293	293
Other	78	78	78	78	78	78	78

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

Jeff Davis County UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Capitan Reef Complex	3	3	3	3	3	3	3
Edwards-Trinity (Plateau)	5	5	5	5	5	5	5
Igneous	383	378	378	377	377	376	376
Other	15	14	14	14	14	14	14
West Texas Bolsons	72	72	72	71	71	71	71
Total	478	472	472	470	470	469	469

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Capitan Reef Complex	3	3	3	3	3	3	3
Edwards-Trinity (Plateau)	5	5	5	5	5	5	5
Igneous	102	97	96	96	95	95	95
Other	15	14	14	14	14	14	14
West Texas Bolsons	13	12	12	12	12	12	12

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Igneous	281	281	281	281	281	281	281
West Texas Bolsons	59	59	59	59	59	59	59

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

Presidio County UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Igneous	184	184	184	184	185	185	185
Other	33	33	33	33	33	34	34
West Texas Bolsons	91	92	92	92	93	93	93
Total	306	307	308	309	310	310	310

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Igneous	4	4	4	4	5	5	5
Other	3	3	3	3	3	4	4
West Texas Bolsons	5	6	6	6	7	7	7

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Igneous	180	180	180	180	180	180	180
Other	30	30	30	30	30	30	30
West Texas Bolsons	86	86	86	86	86	86	86

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.