

Projected Exempt Groundwater Use Estimates

Groundwater Management Area 2

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

Garza County UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	44	46	47	49	51	52	53
Edwards-Trinity (High Plains)	2	2	2	2	2	2	2
Ogallala	46	46	48	49	52	54	54
Other	4	4	4	4	4	4	4
Pecos Valley	10	10	11	11	12	12	12
Total	106	107	112	115	121	124	125

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	30	31	32	33	34	35	36
Ogallala	42	42	43	45	47	49	49
Other	4	4	4	4	4	4	4
Pecos Valley	10	10	11	11	12	12	12

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	14	15	15	16	17	17	17
Edwards-Trinity (High Plains)	2	2	2	2	2	2	2
Ogallala	4	4	4	5	5	5	5
Pecos Valley	10	10	11	11	12	12	12

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

High Plains UWCD No.1

Total Estimated Exempt Use by aquifer

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	462	462	462	68	462	462	462
Ogallala	14,913	14,913	14,913	44,177	14,913	14,913	14,913
Total	15,375	15,375	15,375	44,789	15,375	15,375	15,375

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	379	379	379	379	379	379	379
Ogallala	12,266	12,266	12,266	12,266	12,266	12,266	12,266

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	73	73	73	73	73	73	73
Ogallala	2,368	2,368	2,368	2,368	2,368	2,368	2,368

Estimated Mining and Rig Supply Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	9	9	9	9	9	9	9
Ogallala	280	280	280	280	280	280	280

Estimates derived from High Plains UWCD No. 1.

Values are rounded to the nearest acre-foot.

Projected Exempt Groundwater Use Estimates
Acre-feet per year

Llano Estacado UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	16	18	22	26	29	33	33
Edwards-Trinity (High Plains)	130	150	176	203	228	253	256
Ogallala	1,009	1,180	1,389	1,618	1,823	2,038	2,061
Total	1,155	1,348	1,587	1,847	2,080	2,324	2,350

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	16	18	22	26	29	33	33
Edwards-Trinity (High Plains)	109	129	154	180	205	230	233
Ogallala	919	1,088	1,295	1,521	1,724	1,938	1,961

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	21	21	22	23	23	23	23
Ogallala	90	92	94	97	99	100	100

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**

Mesa UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	4	4	4	4	4	4	4
Edwards-Trinity (High Plains)	5	5	6	6	6	6	6
Ogallala	386	395	409	416	432	444	445
Total	395	404	419	426	442	454	455

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	2	2	2	2	2	2	2
Edwards-Trinity (High Plains)	2	2	2	2	2	2	2
Ogallala	344	350	363	367	381	392	393

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	2	2	2	2	2	2	2
Edwards-Trinity (High Plains)	3	3	3	3	4	4	4
Ogallala	42	44	46	49	51	52	52

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

Permian Basin UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	48	48	47	47	46	46	46
Edwards Trinity (Plateau)	120	123	125	128	131	132	132
Ogallala	1,375	1,414	1,436	1,451	1,473	1,492	1,494
Other	15	15	15	15	15	15	15
Total	1,558	1,600	1,623	1,641	1,665	1,685	1,687

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Dockum	48	48	47	47	46	46	46
Edwards Trinity (Plateau)	65	65	65	65	65	65	65
Ogallala	1,340	1,378	1,398	1,412	1,432	1,450	1,452
Other	15	15	15	15	15	15	15

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards Trinity (Plateau)	55	58	60	63	66	67	67
Ogallala	35	36	38	39	41	42	42

Estimates derived using Texas State Demographic Center Data, TWDB Water Use Survey data, TWDB water demand projections, TWDB Groundwater Database, and input from Permian Basin UWCD.

Values are rounded to the nearest acre-foot.

Projected Exempt Groundwater Use Estimates
Acre-feet per year

Sandy Land UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	14	15	16	18	19	20	20
Ogallala	696	761	815	877	947	1,005	1,012
Total	710	776	831	895	966	1,025	1,032

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Ogallala	332	362	388	421	460	498	501

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	14	15	16	18	19	20	20
Ogallala	364	400	426	456	487	508	510

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

South Plains UWCD

Total Estimated Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	37	41	43	46	48	50	50
Ogallala	511	550	583	619	657	684	687
Total	548	591	626	664	705	735	738

Estimated Domestic Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	12	13	13	14	14	15	15
Ogallala	158	163	170	177	185	192	193

Estimated Livestock Exempt Use (by aquifer)

Aquifer	2020	2030	2040	2050	2060	2070	2080
Edwards-Trinity (High Plains)	25	28	30	32	34	35	35
Ogallala	353	387	413	442	472	492	494

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.