

RESERVOIR STORAGE

January 2013

At the end of the month, total storage in 109 of the state's major water supply reservoirs was at 20.6 million acre-feet*, or 67% of their total conservation storage capacity. This is 0.62 million acre-feet more than a month ago but 34,500 acre-feet less than storage at this time last year.

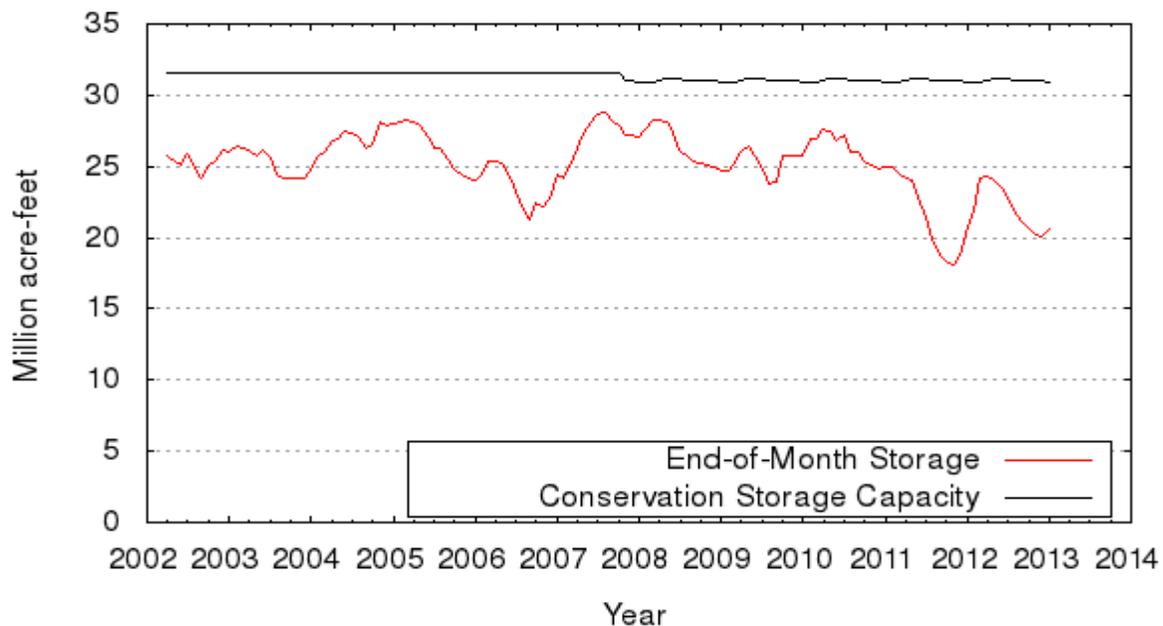
Six reservoirs held 100% of conservation storage capacity. Twelve (12) reservoirs were at or below 10% full: O. C. Fisher, Electra and Meredith were effectively empty, J. B. Thomas was at 1%, Palo Duro and Twin Buttes were at 3%, North Fork Buffalo Creek, E.V. Spence, White River were at 5%, Mackenzie was at 7%, Champion Creek Reservoir was at 8%, and Medina was at 9% full.

Total combined storage was greater than 70% in the North Central (76%), East (90%), and Upper Coast (95%) regions. The regions with the lowest percentage storage were the High Plains (1%) and Trans-Pecos regions (18%). Storage over the last month declined in 3 regions and increased in 6 regions.

Elephant Butte reservoir held 182,512 acre-feet, or 9% of storage capacity. This is 22,260 acft more than a month ago.

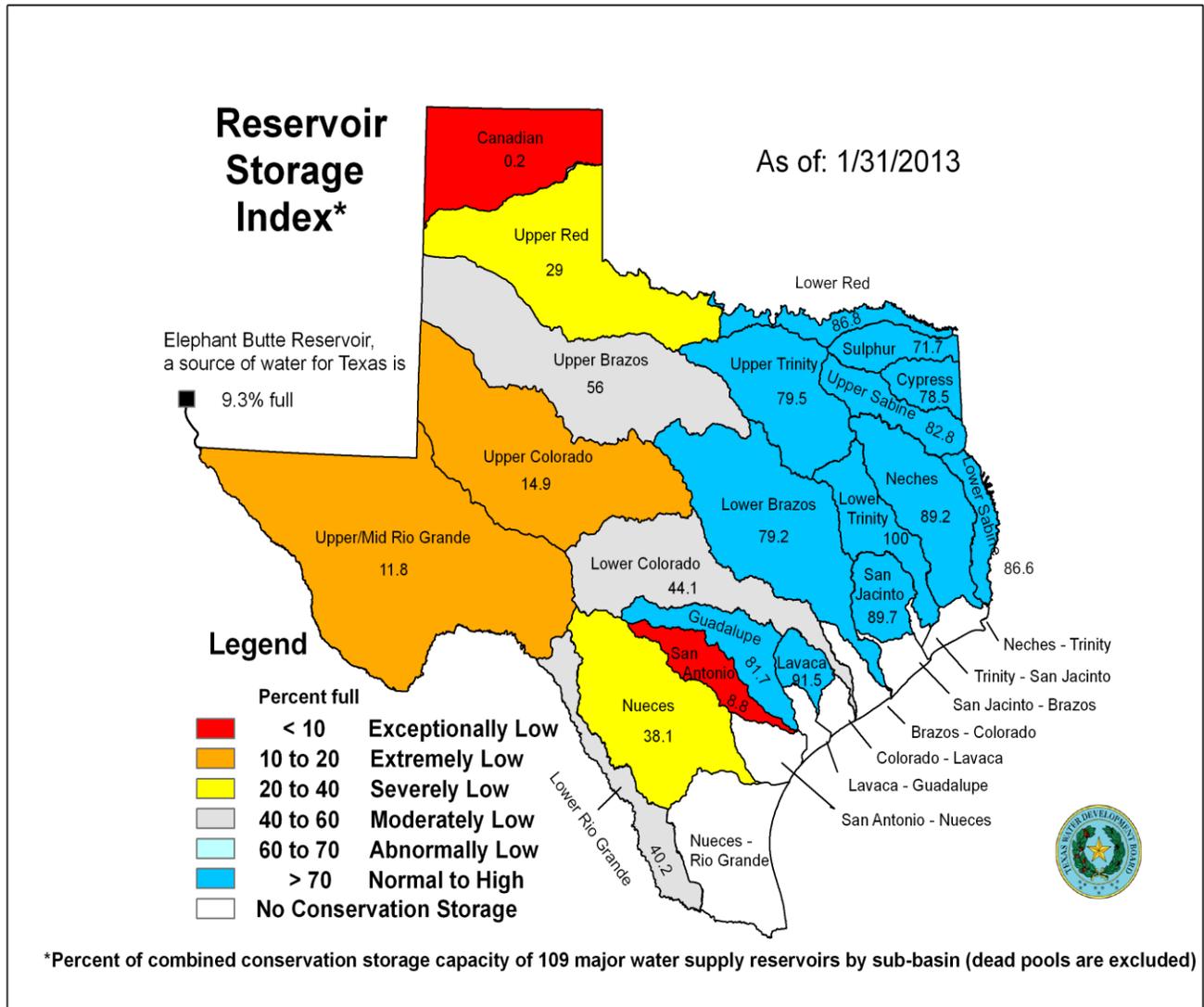
* Only the Texas share of storage in border reservoirs is counted.

CONSERVATION STORAGE DATA FOR



Figures are based on the end of the month data at 109 major reservoirs that represent 95 percent of the total conservation storage capacity of the 188 major water supply reservoirs in Texas. Major reservoirs are defined as having a conservation storage capacity of 5,000 acre-feet or greater.

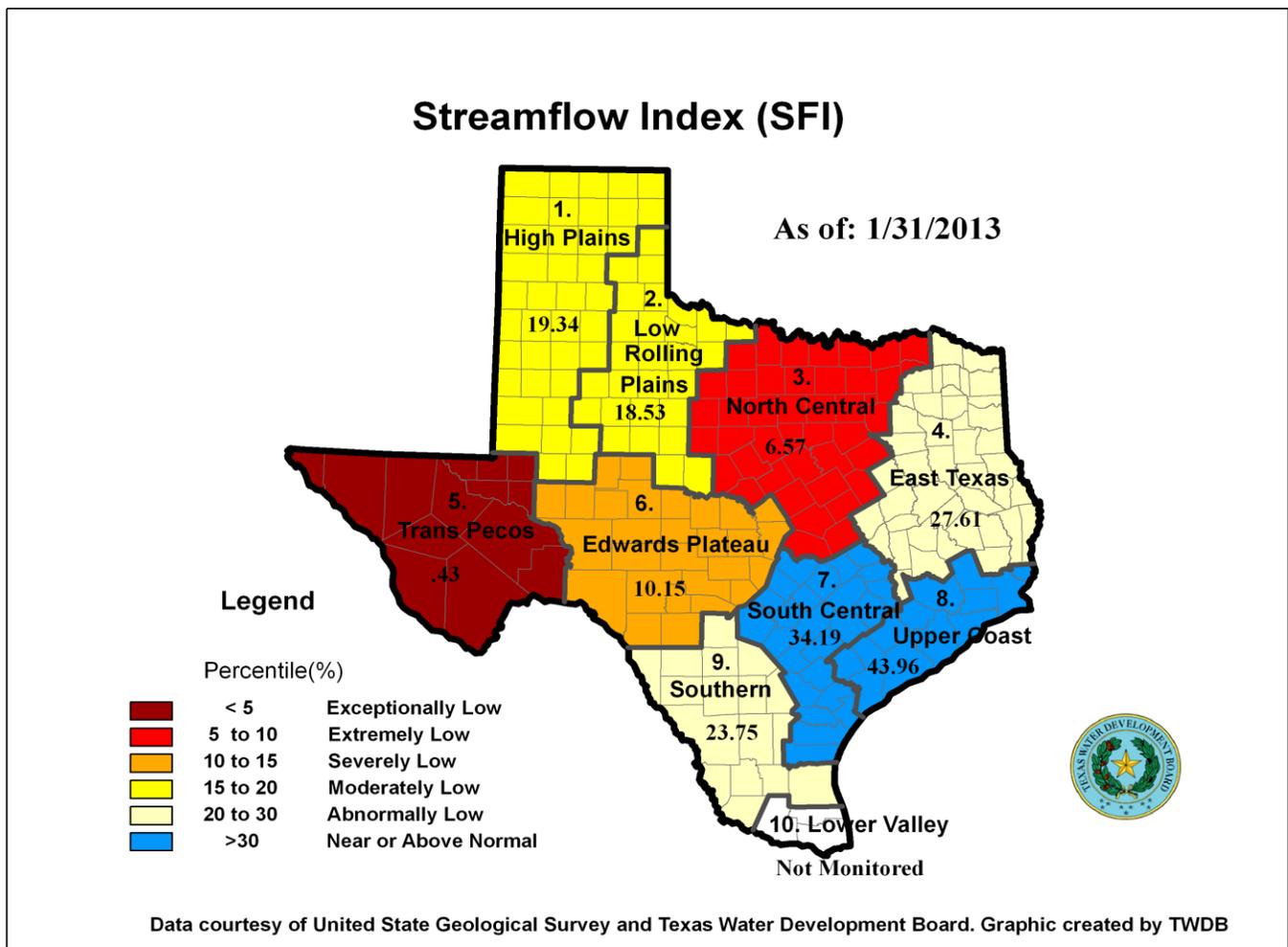
JANUARY RESERVOIR CONDITIONS



JANUARY STREAMFLOW CONDITIONS

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 11 stations, extremely low (5-10%) at 1 station, severely low (10-15%) at 2 stations, moderately low (15-20%) at 2 stations, abnormally low (20% - 30%) at 3 stations, and near normal (30% - 70%) at the remaining 10 stations. Compared to last month, flows have increased at 22 index stations and decreased at 3 stations.

On a regional basis, flows in this month were exceptionally low in Trans-Pecos, extremely low in North Central region, severely low in Edwards Plateau region, moderately low in High Plains and Low Rolling Plain regions, abnormally low in East Texas and Southern regions, and near normal in South Central and Upper Coast regions. Streamflow in the Lower Valley region is not monitored.



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late Dec.		Change since Late Jan.		
			Late Jan. (acre-feet)	2013 (%)	2012 (acre-feet)	(%)	2012 (acre-feet)	(%)	
HIGH PLAINS									
Palo Duro Reservoir	1	61,066	1,558	3	-88	-0	-2,217	-4	
Meredith, Lake (Texas)	2	500,000	0	0	0	0	0	0	
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	-20,198	-3	-23,021	-3	
MacKenzie Reservoir	3	46,450	3,022	7	-25	-0	-1,074	-2	
White River Lake	4	29,880	1,356	5	-88	-0	-2,907	-10	
TOTAL		637,396	5,936	1	-201	-0	-6,198	-1	
LOW ROLLING PLAINS									
Greenbelt Lake	5	59,968	7,427	12	-9	-0	-3,134	-5	
*Electra, Lake	6	5,626	0	0	0	0	-52	-1	
N. Fork Buffalo Crk Reservoir	7	15,400	801	5	-31	-0	-1,474	-10	
Kemp, Lake	8	245,307	60,880	25	-8,876	-4	-25,060	-10	
Millers Creek Reservoir	9	26,768	7,098	27	-131	-0	-3,128	-12	
Alan Henry Reservoir	10	94,808	69,770	74	109	0	-4,554	-5	
Stamford, Lake	11	51,570	13,709	27	-212	-0	-13,284	-26	
J B Thomas, Lake	12	199,931	1,059	1	-56	-0	-954	-0	
Fort Phantom Hill, Lake	13	70,030	34,887	50	73	0	-3,298	-5	
Sweetwater, Lake	14	12,267	3,668	30	-3	-0	-1,457	-12	
Colorado City, Lake	15	30,758	10,946	36	-112	-0	909	3	
Champion Creek Reservoir	16	41,580	3,510	8	-33	-0	-1,371	-3	
Abilene, Lake	17	7,900	1,409	18	-83	-1	-1,647	-21	
Coleman, Lake	18	38,075	17,719	47	-68	-0	2,454	6	
Hords Creek Lake	19	8,443	2,931	35	8	0	417	5	
TOTAL		908,431	235,814	26	-9,424	-1	-55,633	-6	
NORTH CENTRAL									
Nocona, Lake (Farmers Crk)	20	21,444	10,684	50	-37	-0	-2,471	-12	
Hubert H Moss Lake	21	24,058	21,079	88	30	0	-1,658	-7	
Texoma, Lake (Texas)	22	1,268,161	1,075,452	85	-6,846	-1	-134,224	-11	
Texoma, Lake (Texas & Oklahoma)	(22)	2,525,281	2,150,910	85	-13,692	-1	-268,448	-11	
*Pat Mayse Lake	23	113,683	92,343	81	0	0	-21,340	-19	
Kickapoo, Lake	24	85,825	34,877	41	-166	-0	-10,802	-13	
Arrowhead, Lake	25	235,997	94,325	40	-1,859	-1	-43,409	-18	
Bonham, Lake	26	11,027	7,945	72	473	4	-3,082	-28	
Crook, Lake	27	9,195	6,801	74	212	2	-2,394	-26	
Amon G Carter, Lake	28	19,266	12,099	63	-68	-0	-1,353	-7	
Ray Roberts, Lake	29	788,167	683,937	87	3,396	0	-46,590	-6	
Jim Chapman Lake (Cooper)	30	260,332	149,881	58	815	0	7,628	3	
Graham, Lake	31	45,288	31,120	69	-258	-1	-11,704	-26	
*Lost Creek Reservoir	32	11,950	10,236	86	-44	-0	-1,714	-14	
Bridgeport, Lake	33	366,236	212,038	58	978	0	-57,075	-16	
Lewisville Lake	34	563,228	422,161	75	15,901	3	-97,405	-17	
Lavon Lake	35	406,388	249,775	61	11,814	3	-50,227	-12	
Hubbard Creek Reservoir	36	322,280	94,772	29	-2,109	-1	-53,923	-17	
Possum Kingdom Lake	37	540,340	392,955	73	-1,396	-0	-43,680	-8	
*Mineral Wells, Lake	38	6,760	5,084	75	57	1	-1,676	-25	
Weatherford, Lake	39	17,812	10,742	60	-89	-0	-3,975	-22	
Eagle Mountain Lake	40	179,880	133,876	74	2,713	2	-38,262	-21	
Worth, Lake	41	33,495	24,139	72	151	0	-9,288	-28	
Grapevine Lake	42	164,703	127,054	77	7,524	5	-37,649	-23	
Ray Hubbard, Lake	43	452,040	387,829	86	18,742	4	-19,006	-4	
New Terrell City Lake	44	8,583	7,010	82	204	2	-95	-1	
Daniel, Lake	45	9,515	2,828	30	-52	-1	-2,686	-28	
Palo Pinto, Lake	46	27,398	16,637	61	109	0	-10,543	-38	
Benbrook Lake	47	85,648	59,082	69	2,177	3	-26,566	-31	
Arlington, Lake	48	40,188	29,379	73	3,715	9	-10,809	-27	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late Dec. 2012		Change since Late Jan. 2012		
			Late Jan. (acre-feet)	2013 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
NORTH CENTRAL (Continue)									
Joe Pool Lake	49	175,358	161,282	92	5,344	3	-14,076	-8	
*Cisco, Lake	50	25,895	9,878	38	-15	-0	-1,575	-6	
Leon, Lake	51	26,476	17,763	67	4,651	18	-333	-1	
Granbury, Lake	52	128,046	92,111	72	2,530	2	-33,493	-26	
Pat Cleburne, Lake	53	26,008	19,057	73	402	2	-6,951	-27	
Waxahachie, Lake	54	10,780	9,806	91	43	0	-731	-7	
Bardwell Lake	55	46,122	38,600	84	3,292	7	-7,522	-16	
Proctor Lake	56	55,457	34,669	63	547	1	-20,788	-37	
Whitney, Lake	57	553,344	388,121	70	7,812	1	-43,936	-8	
Aquilla Lake	58	44,460	34,405	77	3,182	7	-10,055	-23	
Navarro Mills Lake	59	49,827	48,563	97	11,462	23	-1,216	-2	
*Halbert, Lake	60	6,033	5,100	85	1,022	17	-406	-7	
Richland-Chambers Reservoir	61	1,087,839	924,121	85	42,064	4	18,749	2	
*Brownwood, Lake	62	128,839	71,656	56	45	0	12,672	10	
Waco, Lake	62	187,808	161,020	86	7,352	4	-26,788	-14	
Limestone, Lake	64	208,014	173,551	83	25,047	12	27,172	13	
Belton Lake	65	435,225	358,284	82	539	0	30,430	7	
Stillhouse Hollow Lake	66	227,771	191,796	84	-553	-0	53,086	23	
Georgetown, Lake	67	36,823	23,584	64	2,068	6	4,561	12	
Granger Lake	68	50,779	50,779	100	4,748	9	13,687	27	
Tawakoni, Lake	69	871,685	714,770	82	7,335	1	-13,758	-2	
TOTAL		10,501,476	7,935,056	76	185,004	2	-757,249	-7	
EAST									
Wright Patman Lake	70	122,593	122,593	100	0	0	0	0	
*Sulphur Springs, Lake	71	17,747	14,831	84	877	5	-2,916	-16	
Cypress Springs, Lake	72	66,756	61,676	92	530	1	2,842	4	
Bob Sandlin, Lake	73	190,822	148,804	78	4,760	2	20,176	11	
Fork Reservoir, Lake	74	605,061	501,834	83	8,449	1	40,640	7	
O the Pines, Lake	75	241,363	180,196	75	5,807	2	-2,565	-1	
Cedar Creek Reservoir in Trinity	76	644,686	555,613	86	30,703	5	43,688	7	
Athens, Lake	77	29,503	24,804	84	1,134	4	1,528	5	
Palestine, Lake	78	373,199	354,480	95	19,004	5	69,609	19	
Tyler, Lake	79	80,103	61,758	77	2,584	3	5,879	7	
Murvaul, Lake	80	38,285	38,285	100	1,398	4	7,931	21	
Jacksonville, Lake	81	25,670	25,117	98	1,097	4	3,751	15	
Nacogdoches, Lake	82	39,522	38,935	99	5,450	14	19,474	49	
Houston County Lake	83	17,113	17,113	100	0	0	3,712	22	
Sam Rayburn Reservoir	84	2,857,077	2,540,594	89	198,770	7	666,422	23	
Toledo Bend Reservoir (Texas)	85	2,245,752	1,954,323	87	63,071	3	413,314	18	
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	3,908,646	87	126,143	3	826,628	18	
*Livingston, Lake	86	1,785,348	1,785,348	100	45,184	3	0	0	
B A Steinhagen Lake	87	66,961	53,148	79	-3,464	-5	-9,142	-14	
Conroe, Lake	88	416,177	360,306	87	6,942	2	65,463	16	
TOTAL		9,863,738	8,839,758	90	392,296	4	1,349,806	14	
TRANS-PECOS									
Red Bluff Reservoir	89	152,335	27,075	18	1,723	1	7,451	5	
TOTAL		152,335	27,075	18	1,723	1	7,451	5	

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			Late Jan. (acre-feet)	2013 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
EDWARDS PLATEAU									
Oak Creek Reservoir	90	39,210	11,447	29	-170	-0	-3,220	-8	
E V Spence Reservoir	91	517,272	28,183	5	44	0	25,904	5	
O C Fisher Lake	92	79,483	0	0	27,272	5	26,528	5	
*O H Ivie Reservoir	93	554,340	123,807	22	-2,606	-0	25,662	5	
Twin Buttes Reservoir	94	182,454	4,649	3	167	0	1,262	1	
Brady Creek Reservoir	95	28,808	7,876	27	40	0	-438	-2	
Buchanan, Lake	96	860,607	365,426	42	4,380	1	31,992	4	
Lyndon B Johnson, Lake	97	111,633	110,176	99	61	0	-242	-0	
*Amistad Reservoir (Texas)	98	1,840,849	831,216	45	-33,962	-2	-529,212	-29	
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	1,202,892	37	-223,288	-7	-1,301,419	-40	
TOTAL		4,135,173	1,482,780	36	-4,774	-0	-421,764	-10	
SOUTH CENTRAL									
Travis, Lake	99	1,113,256	431,590	39	3,654	0	42,523	4	
*Austin, Lake	100	23,972	22,772	95	184	1	-433	-2	
Somerville Lake	101	147,104	129,781	88	8,842	6	61,005	41	
Canyon Lake	102	378,781	310,767	82	864	0	7,436	2	
Medina Lake	103	254,884	22,359	9	-2,007	-1	-31,121	-12	
*Coletto Creek Reservoir	104	31,040	24,254	78	1,701	5	-988	-3	
TOTAL		1,949,037	941,523	48	13,238	1	78,422	4	
UPPER COAST									
Houston, Lake	105	102,876	102,876	100	5,587	5	0	0	
Texana, Lake	106	159,640	146,041	91	0	-0	0	-0	
TOTAL		262,516	248,917	95	5,587	5	0	0	
SOUTHERN									
Choke Canyon Reservoir	107	695,262	322,837	46	-6,080	-1	-98,837	-14	
Corpus Christi, Lake	108	256,961	40,323	16	446	0	-40,227	-16	
*Falcon Reservoir (Texas)	109	1,551,007	525,851	34	37,342	2	-90,245	-6	
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	746,361	28	72,057	3	-165,758	-6	
TOTAL		2,503,230	889,011	36	31,708	1	-229,309	-9	
STATE TOTAL		30,913,332	20,605,870	67	615,157	2	-34,474	-0	

* Conservation volume is used as conservation storage capacity because the dead storage is unknown.

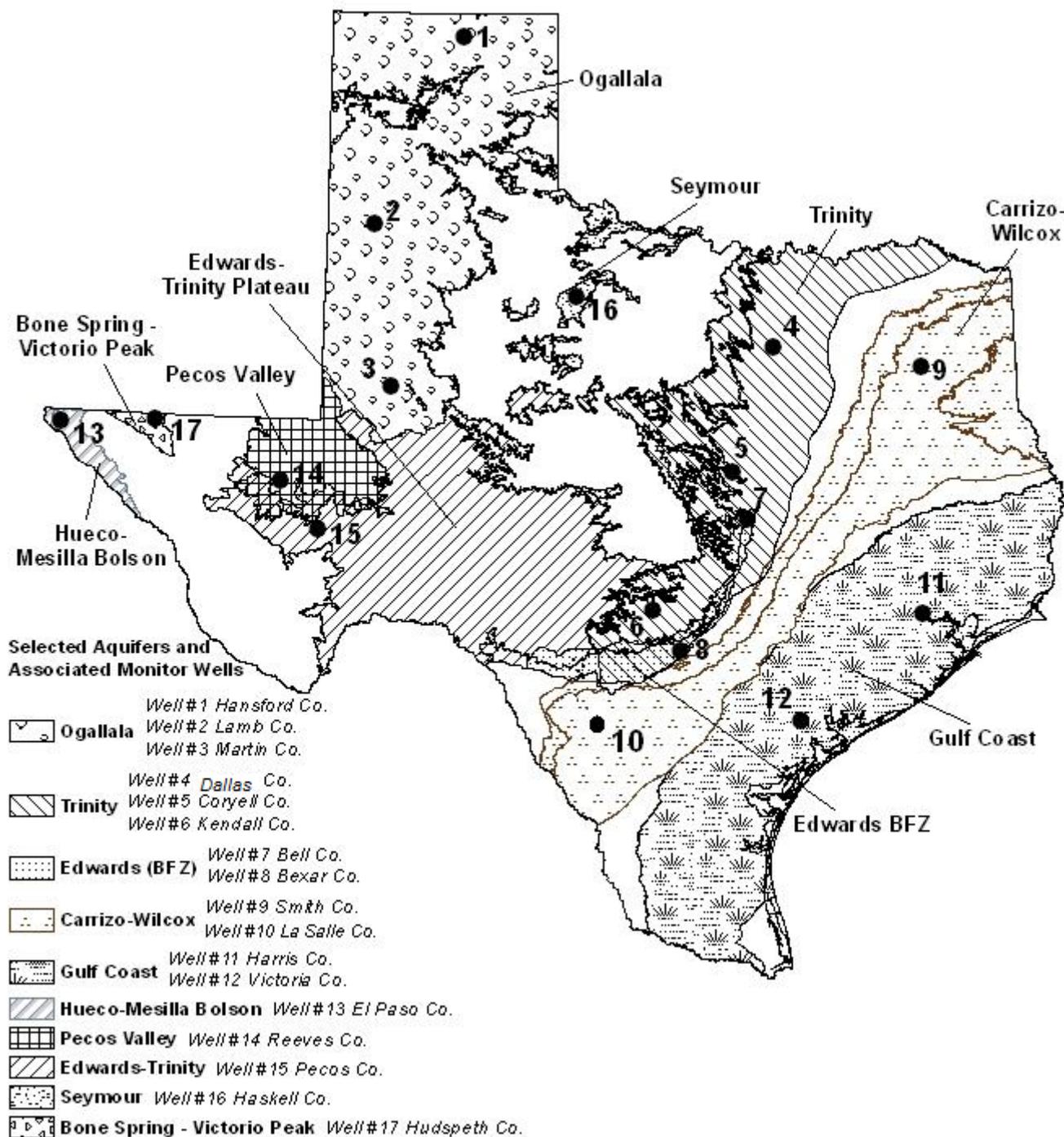
In Addition

Elephant Butte Reservoir	1,973,358	182,512	9	22,260	1	-148,794	-8
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Note:

Conservation storage capacity is the space available to store water above the lowest outlet and below the top of conservation pool, or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood control storage (above the top of conservation pool or normal maximum operating level), or any water in the dead storage. Conservation storage percentage is based on the conservation storage capacity of the reservoir and the conservation storage in the reservoir on date shown. Percent change is given by $100 * (\text{current conservation storage} - \text{past conservation storage}) / \text{conservation storage capacity}$. Figures shown are for the Texas share of conservation storage in all reservoirs.

JANUARY 2013 GROUNDWATER LEVELS IN OBSERVATION WELLS



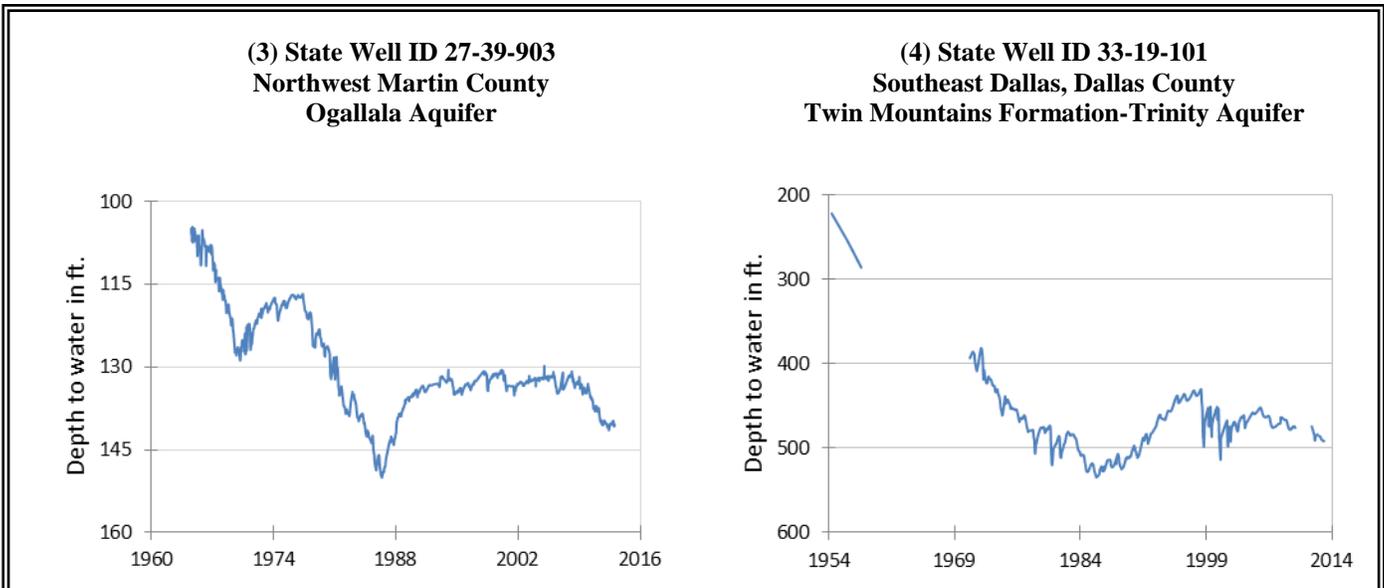
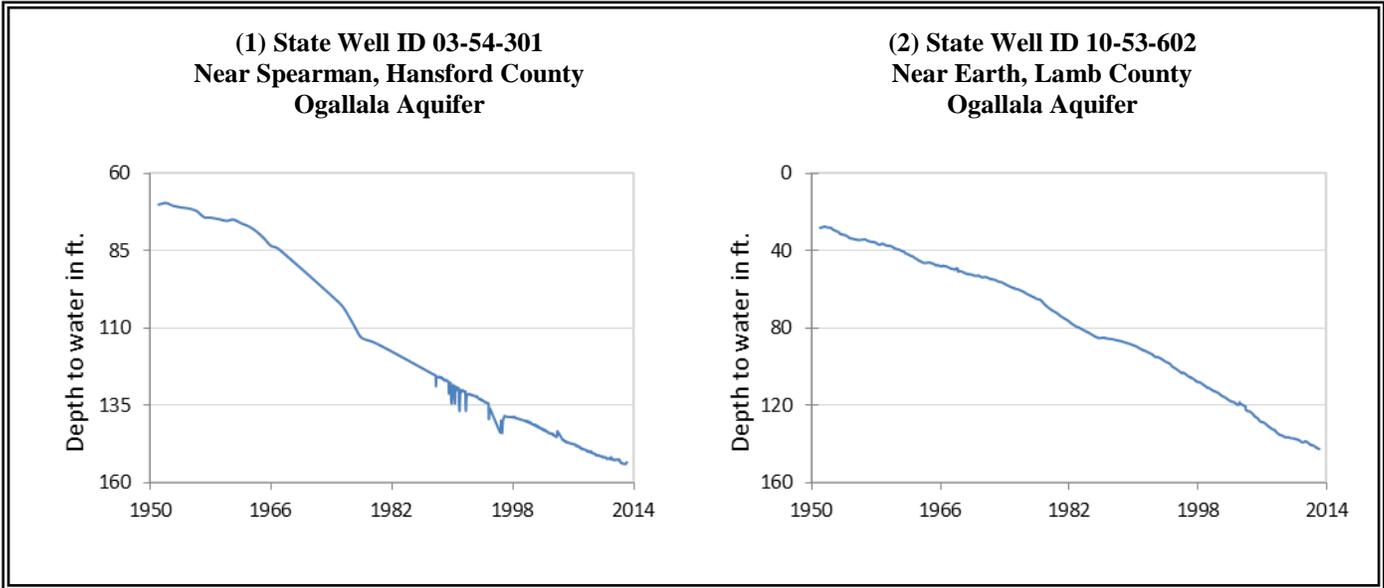
January, 2012

Water level measurements were available for all seventeen key monitoring wells in the state. Water levels rose in eleven of the monitoring wells since the beginning of January, ranging from 0.27 feet in the Hansford County Ogallala Aquifer well to 13.18 feet in the La Salle County Carrizo-Wilcox Aquifer well. Water levels declined in six monitoring wells, ranging from 0.04 feet in the Lamb County Ogallala Aquifer well to 2.57 feet in the Smith County Carrizo-Wilcox Aquifer well. The J-17 well in San Antonio recorded a water level of 77.1 feet below land surface or 653.9 feet above mean sea level. This water level is 6.1 feet above the Stage I critical management level in that segment of the Edwards Aquifer. Stage I restrictions were declared by the EAA on December 13th when the ten-day average rose above the 650-foot elevation, or 81 feet below land surface.

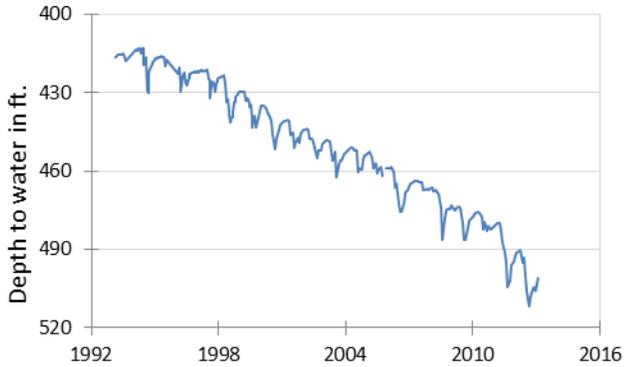
* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	Jan	Dec	Month Change	Year Change	Historical Change
(1) Hansford 0354301	153.4	153.67	0.27	-0.93	-83.28
(2) Lamb 1053602	142.53	142.49	-0.04	-1.97	-114.38
(3) Martin 2739903	140.44	140.75	0.31	-0.28	-35.55
(4) Dallas 3319101	491.52	491.41	-0.11	-5.98	-269.52
(5) Coryell 4035404	500.83	505.84	5.01	-9.37	-208.83
(6) Kendall 6802609	126.69	134.73	2.47	1.28	-74.73
(7) Bell 5804816	125.52	125.89	0.37	-0.37	-2.39
(8) Bexar 6837203	77.1	80.00	2.9	-3.42	-30.46
(9) Smith 3430907	444.32	441.75	-2.57	-9.77	-78.32
(10) La Salle 7738103	448.06	461.24	13.18	-54.19	-194.99
(11) Harris 6514409	205.89	203.71	-2.18	-0.43	-70.39
(12) Victoria 8017502	35.37	37.02	1.65	2.29	-1.37
(13) El Paso 4913301	293.22	292.93	-0.29	-3.44	-61.32
(14) Reeves 4644501	146.25	147.79	1.54	-0.78	-54.16
(15) Pecos 5216802	190.67	202.26	11.59	3.66	56.21
(16) Haskell 2135748	47.67	47.57	-0.1	-1.78	-6.34
(17) Hudspeth 4807516	133.75	136.91	3.16	-1.06	-29.83

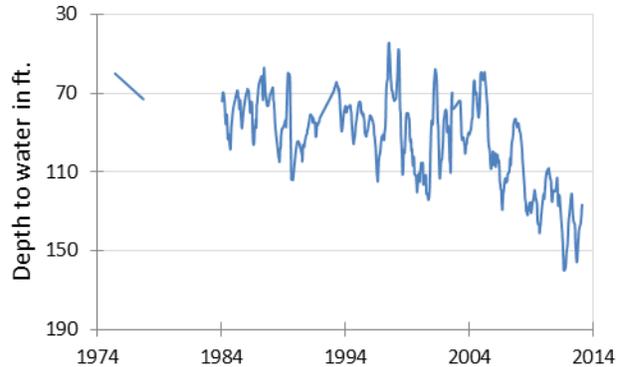
JANUARY GROUNDWATER LEVELS IN OBSERVATION WELLS



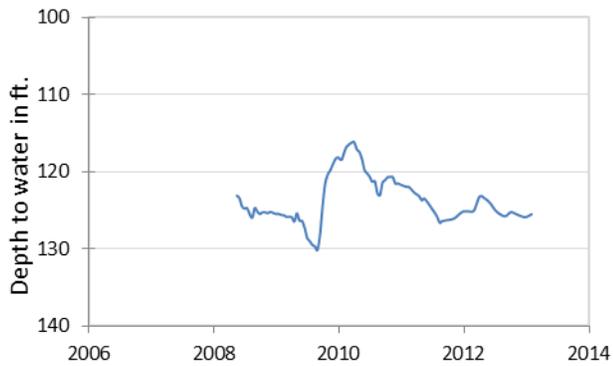
**(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer**



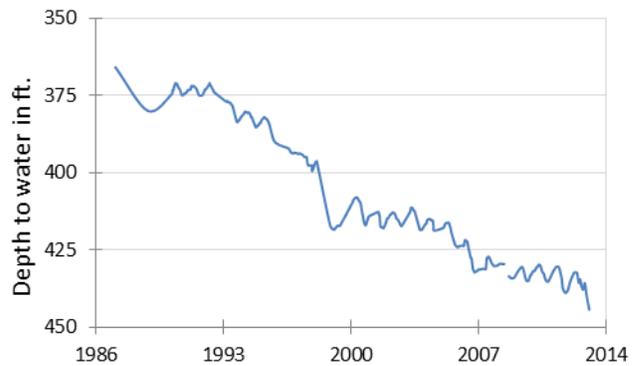
**(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer**



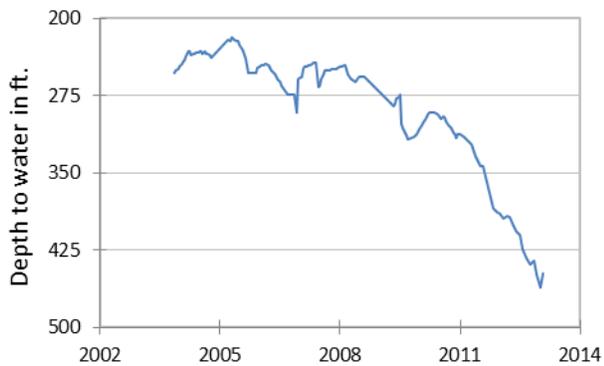
**(7) State Well ID 58-04-816
Near Salado, Bell County
Edwards (BFZ) Aquifer**



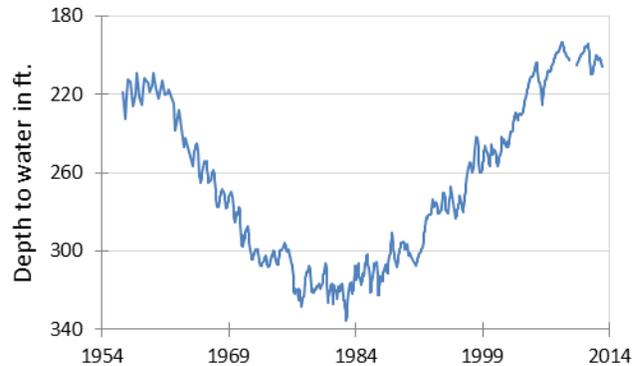
**(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer**



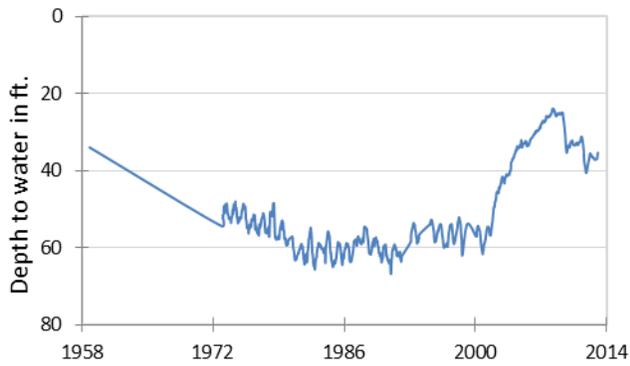
**(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer**



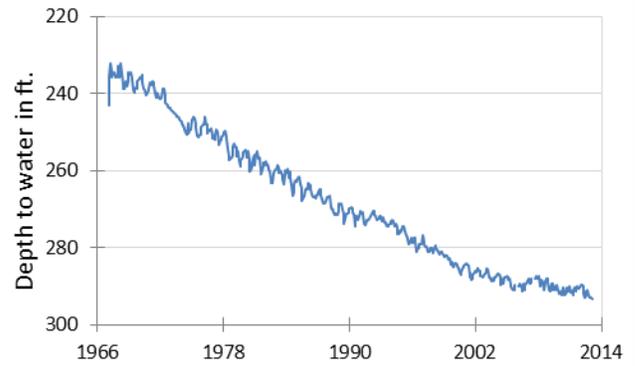
**(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer**



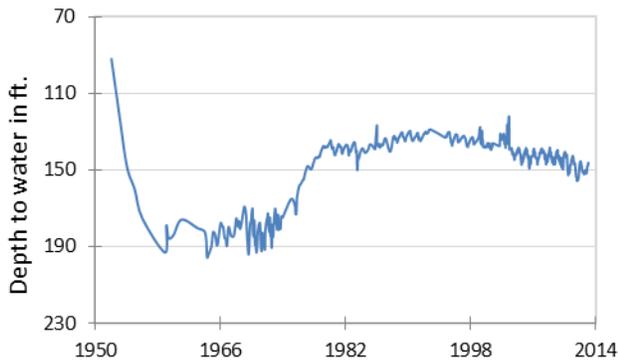
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



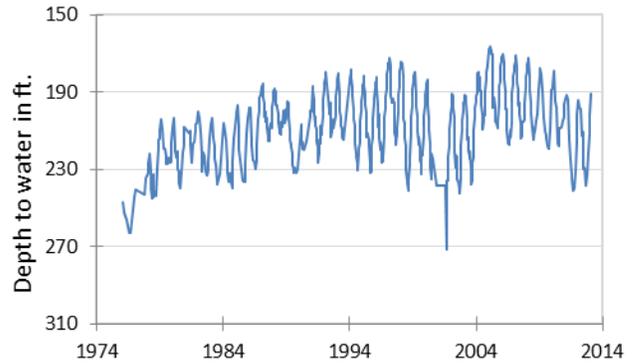
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



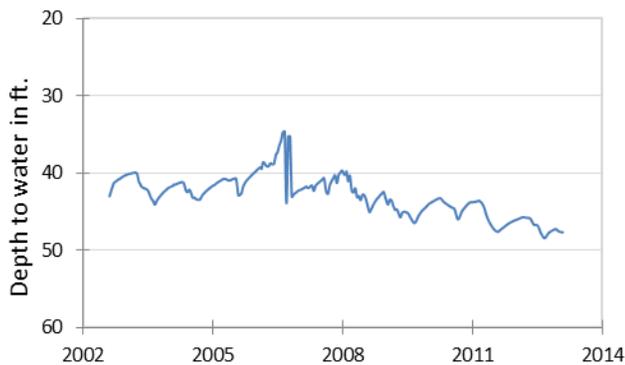
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



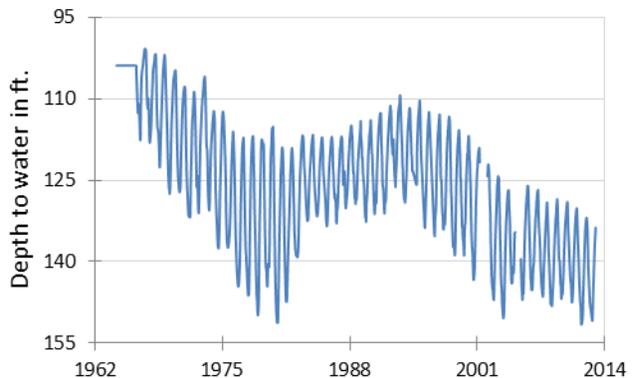
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



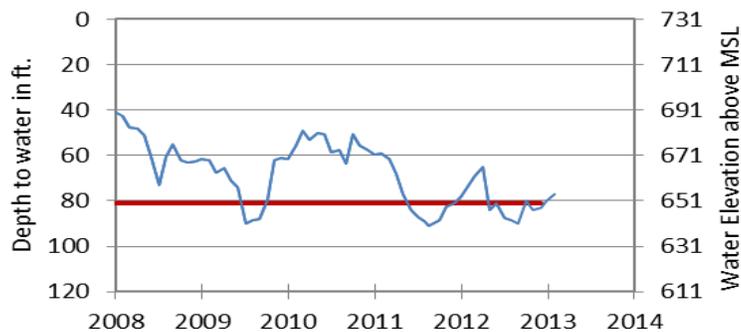
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



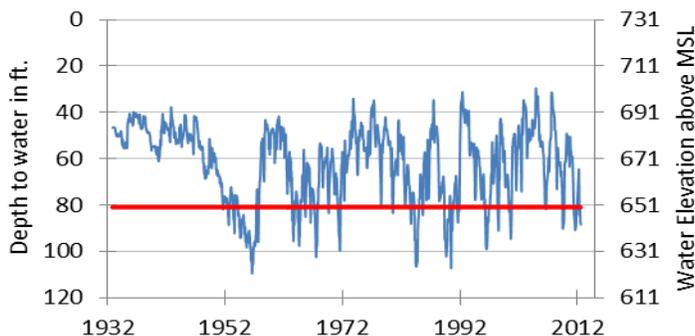
(17) State Well ID 48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



**(8) State Well ID 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards (BFZ) Aquifer**

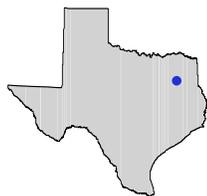


The late January water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above mean sea level, was 77.1 feet below land surface, or 653.9 feet above mean sea level. This was 2.9 feet above last month's measurement, 3.42 feet below last year's measurement, and 30.46 feet below the initial measurement recorded in 1932.



***** Water levels below the red line indicate Edwards Aquifer Authority Stage II drought restrictions. *****

HYDROGRAPH OF THE MONTH

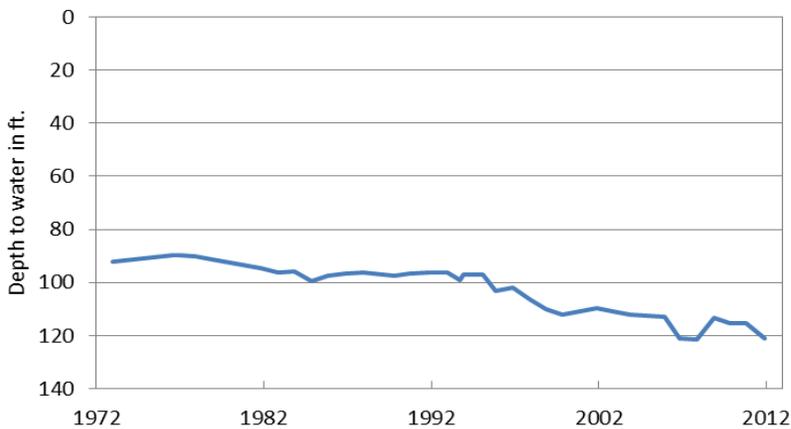


Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

Queen City Aquifer

The Queen City Aquifer is a minor but widespread aquifer that stretches across the Texas upper coastal plain. The formation is composed of sand, loosely cemented sandstone, and interbedded clay layers that reach 2,000 feet in thickness in South Texas. The formation was deposited in the Eocene in a regressive fluvial-deltaic and shallow marine environment along the gulf coast of Texas. As the climate shifted in the middle Eocene from greenhouse to icehouse conditions, global eustatic sea level dropped and the deltas fed by rivers running off Texas prograded out into the Gulf pushing the coastline seaward. Eventually the Queen City was buried under many similar prograding deltas of various compositions and thicknesses that each moved the coast toward the Gulf basin until it reached its present day position. The weight of all that sediment warped the crust downward such that the beds of the formation are now tilted. Only a thin edge is exposed in a strip that runs parallel to the coast across Texas. Water in the Queen City aquifer is generally fresh, with an average concentration of 300-750 milligrams per liter total dissolved solids. The aquifer is used primarily for livestock and domestic purposes.

**Well # 34-37-305
Smith County**



Although this 330-foot deep well in northwest Smith County is unused, water levels have declined just over 30 feet since 1972. Despite generally greater rainfall in this area of the state, nearby landowners are drilling wells for irrigation and public supply (to Lindale). Pumping in some of the wells—a few as close as a third of a mile to a mile away—may have contributed to the recent decline.

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