

Texas Water Development Board



WATER
Conditions

RESERVOIR STORAGE

January 2012

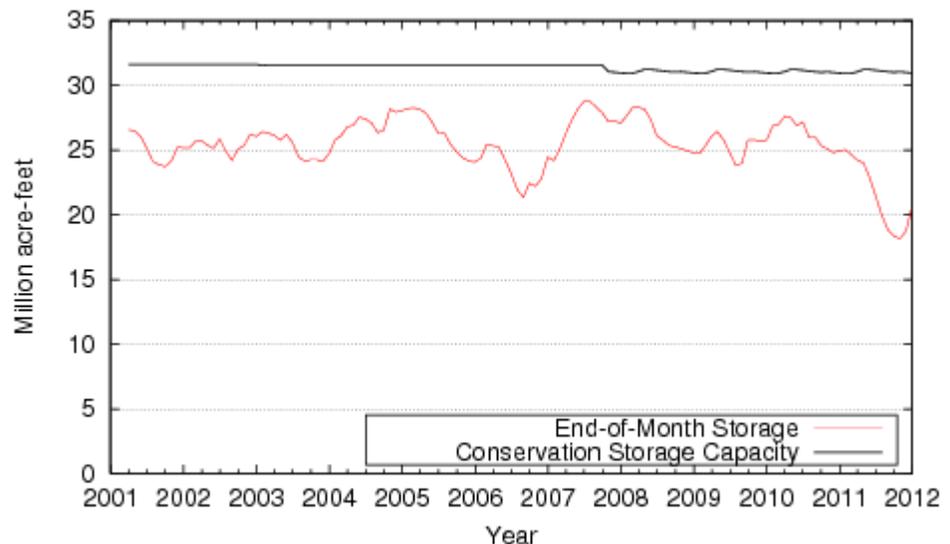
At the end of January, total storage in 109 of the state's major reservoirs was at 20.75 million acre-feet*, or 67% of their total conservation storage capacity. This is 2 million acre-feet **more** than a month ago and 9% higher than the record lowest total storage (58%) set last November since 1978. However, this is the lowest statewide storage observed at this time of year in records extending back to 1978.

Twenty-one (21) reservoirs located primarily in the North Central and East regions of the state held 100% of conservation storage capacity. This is up from only two last month. Ten (10) reservoirs were at or below 10% full: E.V. Spence, O. C. Fisher, Twin Buttes, Hords Creek Lake, and Meredith were effectively empty, Electra and J. B. Thomas at 1% full, Red Bluff and Palo Duro at 6%, and Mackenzie at 9% full.

Total combined storage increased to greater than 70% in the North Central (84%), East (76%), and Upper Coast (74%) regions. The regions with the lowest percentage storage were the High Plains (2%) and Trans-Pecos regions (6%). Storage declined in four regions and increased in five regions over the last month. However, storage in all regions was still lower than a year ago.

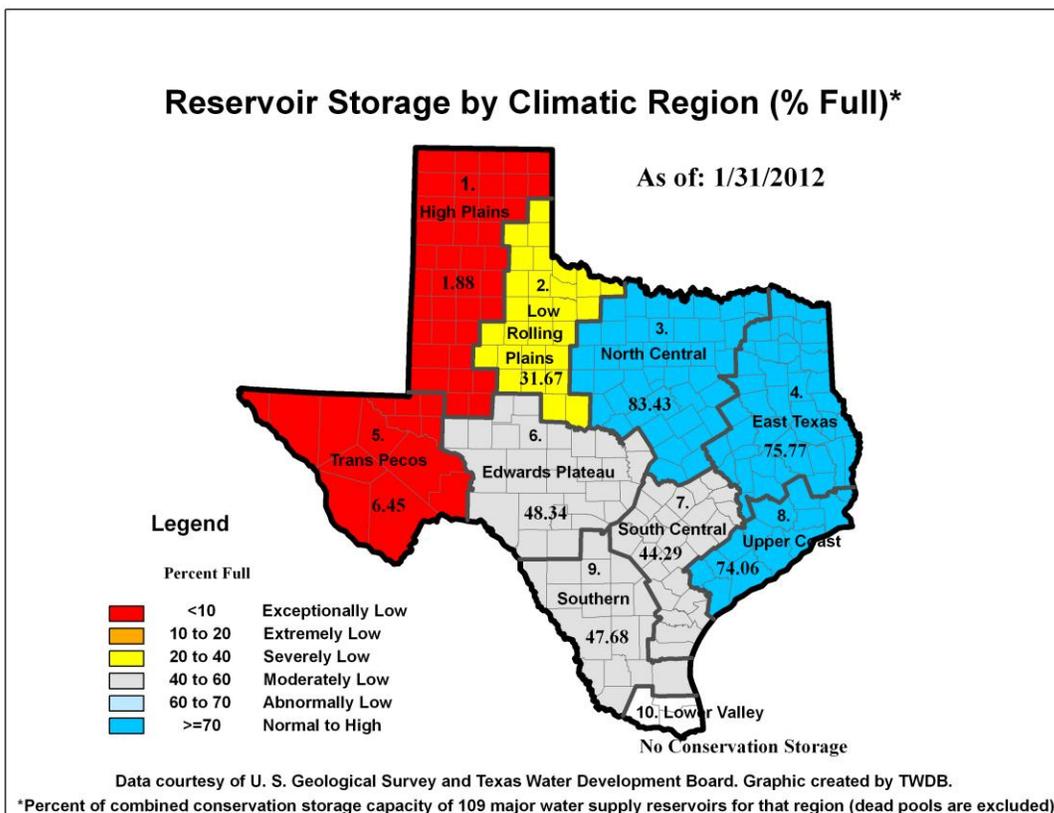
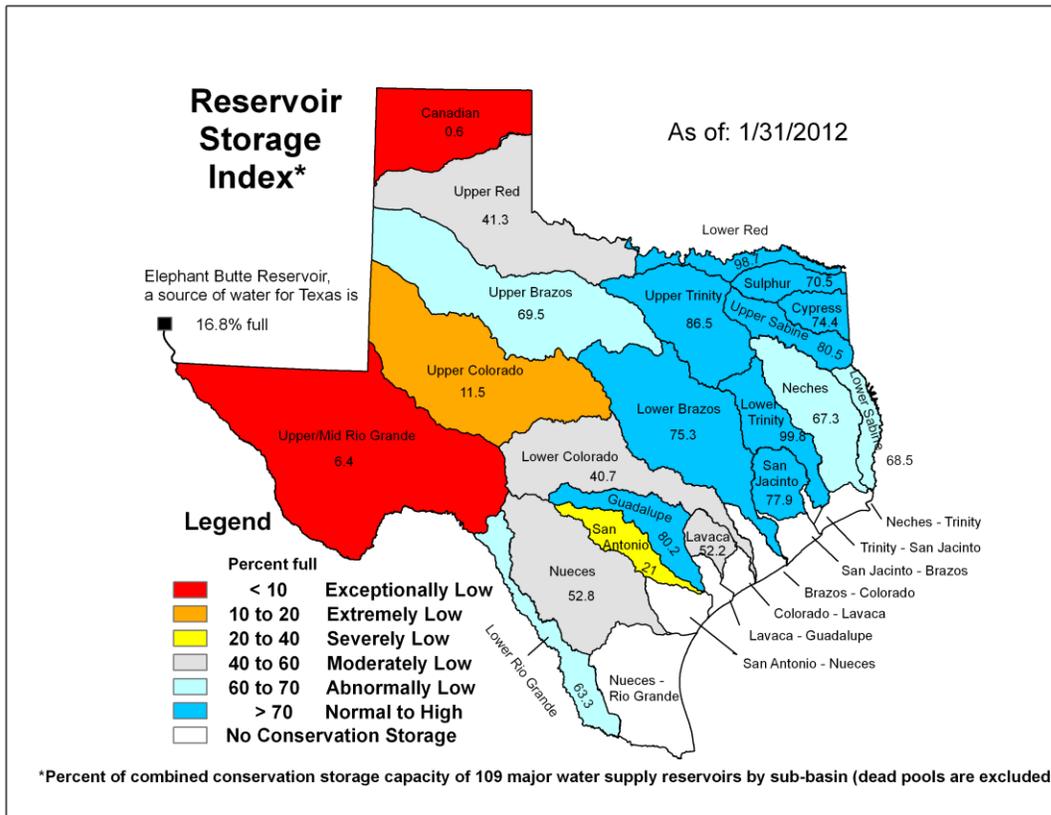
Elephant Butte reservoir held 329,148 acre-feet, or 17.0% of storage capacity. This is 38,104 acre-ft more than a month ago.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



Figures are based on the end of the month data at 109 major reservoirs that represent 96 percent of the total conservation storage capacity of the 175 major water supply reservoirs in Texas. Major reservoirs are defined as having a conservation storage capacity of 5,000 acre-feet or greater.

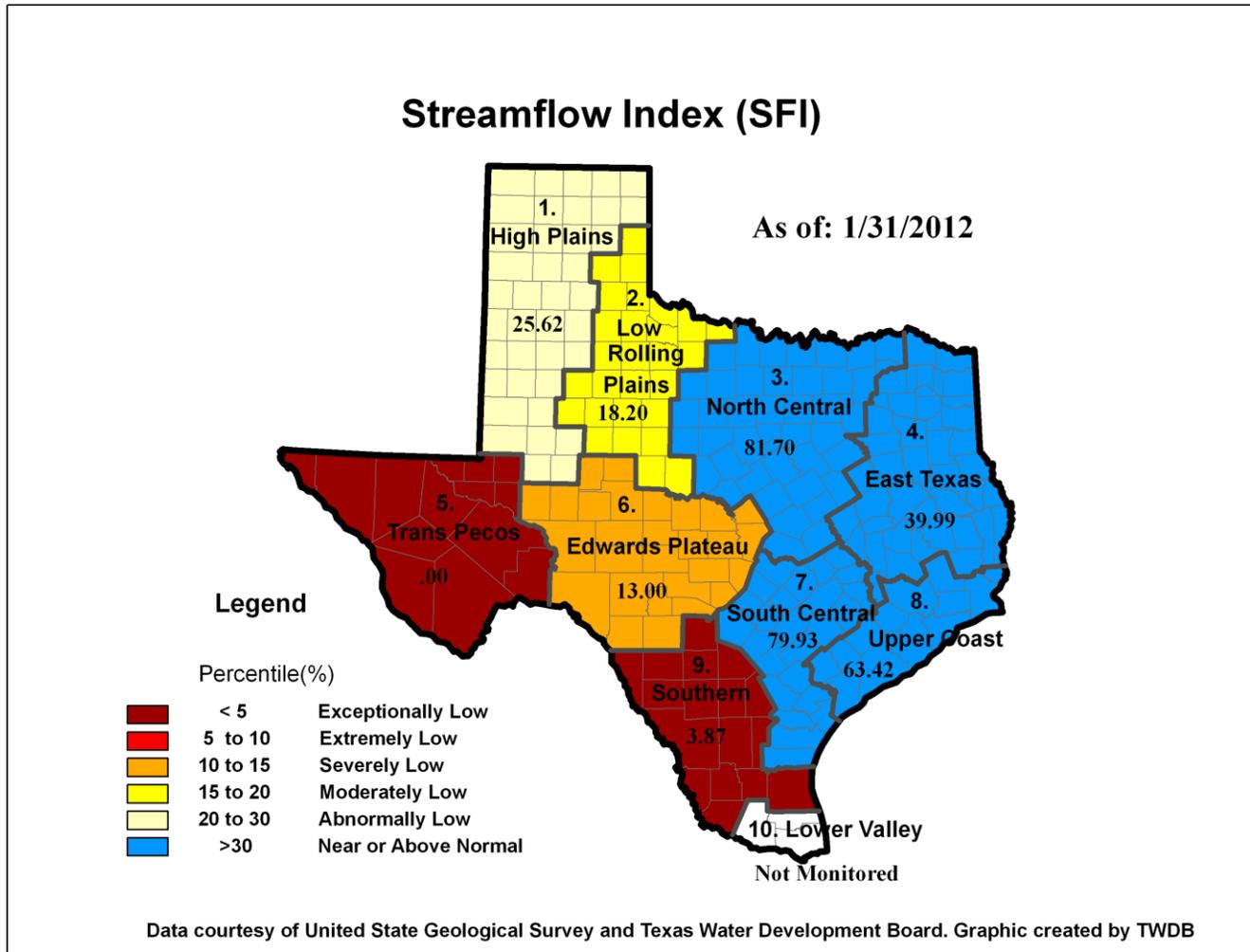
JANUARY RESERVOIR CONDITIONS



JANUARY STREAMFLOW CONDITIONS

Of 29 reporting index stations in January, computed 30-day mean flows were exceptionally low (<5%) at 6 stations, extremely low (5%-10%) at 1 stations, severely low (10-15%) at 1 stations, moderately low (15%-20%) at 2 stations, abnormally low at 3 stations (20% - 30%), and near normal (30% - 70%) at remaining 15 stations. Compared to December, flows have increased at 19 index stations and decreased at 6 stations.

On a regional basis, flows in January were exceptionally low in the Trans-Pecos and Southern regions, severely low in Edwards Plateau region; moderately low in Low Rolling Plains region, abnormally low in High Plains region, and near normal in North Central, East, Upper Coast, and South Central 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		Change since Late Dec.		Change since Late Jan.		
		Capacity (acre-feet)	Late Jan. (acre-feet)	2012 (%)	2011 (acre-feet)	2011 (%)	2011 (acre-feet)	2011 (%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,897	3,451	6	-257	0	-8,681	-14
Meredith, Lake (Texas)	2	500,000	0	0	0	0	-3,628	-1
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	0	0	-3,628	0
MacKenzie Reservoir	3	46,429	4,250	9	-51	0	-1,753	-4
White River Lake	4	29,880	4,265	14	-266	-1	-5,842	-20
TOTAL		637,206	11,966	2	-574	0	-19,904	-3
LOW ROLLING PLAINS								
Greenbelt Lake	5	59,500	10,559	18	-51	0	-5,611	-9
*Electra, Lake	6	5,626	55	1	-5	0	-312	-6
N. Fork Buffalo Crk Reservoir	7	15,400	2,417	16	-44	0	-3,447	-22
Kemp, Lake	8	245,308	85,791	35	-425	0	-153,493	-63
Millers Creek Reservoir	9	27,888	10,217	37	-157	-1	-8,545	-31
Alan Henry Reservoir	10	94,808	74,351	78	-500	-1	-14,477	-15
Stamford, Lake	11	51,570	26,990	52	-307	-1	-23,093	-45
J B Thomas, Lake	12	199,931	2,036	1	-151	0	-8,554	-4
Fort Phantom Hill, Lake	13	70,030	38,187	55	670	1	-19,663	-28
Sweetwater, Lake	14	10,006	3,072	31	6	0	-2,442	-24
Colorado City, Lake	15	31,793	10,020	32	65	0	-4,616	-15
Champion Creek Reservoir	16	41,618	5,003	12	69	0	-1,794	-4
Abilene, Lake	17	6,099	1,548	25	-52	-1	-3,130	-51
Coleman, Lake	18	38,076	15,249	40	172	0	-5,752	-15
Hords Creek Lake	19	5,684	0	0	0	0	-303	-5
TOTAL		903,337	285,495	32	-710	0	-255,232	-28
NORTH CENTRAL								
Nocona, Lake (Farmers Crk)	20	21,445	13,128	61	239	1	-5,318	-25
Hubert H Moss Lake	21	24,058	22,739	95	2,098	9	-1,126	-5
Texoma, Lake (Texas)	22	1,209,709	1,203,125	99	85,334	7	12,100	1
Texoma, Lake (Texas & Oklahoma)	(22)	2,419,418	2,406,250	99	170,667	7	24,199	1
*Pat Mayse Lake	23	117,844	117,844	100	13,979	12	14,506	12
Kickapoo, Lake	24	85,825	45,604	53	118	0	-23,027	-27
Arrowhead, Lake	25	235,997	137,780	58	7,731	3	-54,217	-23
Bonham, Lake	26	11,026	11,026	100	3,435	31	782	7
Crook, Lake	27	9,195	9,195	100	207	2	1,003	11
Amon G Carter, Lake	28	19,903	13,701	69	1,149	6	-3,779	-19
Ray Roberts, Lake	29	798,758	738,797	92	65,482	8	-22,313	-3
Jim Chapman Lake (Cooper)	30	260,332	142,204	55	60,058	23	-3,307	-1
Graham, Lake	31	45,260	45,260	100	8,859	20	3,010	7
*Lost Creek Reservoir	32	11,950	11,950	100	2,128	18	964	8
Bridgeport, Lake	33	366,236	269,430	74	33,258	9	-53,979	-15
Lewisville Lake	34	563,228	519,370	92	107,235	19	-27,858	-5
Lavon Lake	35	443,844	333,113	75	103,379	23	-10,578	-2
Hubbard Creek Reservoir	36	318,067	148,714	47	10,335	3	-42,301	-13
Possum Kingdom Lake	37	540,340	435,147	81	55,081	10	-80,459	-15
*Mineral Wells, Lake	38	7,065	7,065	100	1,974	28	710	10
Weatherford, Lake	39	17,789	14,694	83	4,358	24	108	1
Eagle Mountain Lake	40	179,880	171,814	96	39,265	22	7,829	4
Worth, Lake	41	24,500	24,264	99	9,047	37	4,951	20
Grapevine Lake	42	164,702	164,702	100	26,866	16	9,607	6
Ray Hubbard, Lake	43	452,040	406,254	90	58,106	13	13,602	3
New Terrell City Lake	44	8,583	7,108	83	1,479	17	-144	-2
Daniel, Lake	45	9,435	5,456	58	2,160	23	992	11
Palo Pinto, Lake	46	26,827	26,827	100	8,100	30	4,562	17
Benbrook Lake	47	85,648	85,648	100	30,164	35	2,930	3
Arlington, Lake	48	40,156	40,156	100	9,503	24	1,395	3

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. 2011		Change since Late Jan. 2011		
			Late Jan. (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
NORTH CENTRAL (Continue)									
Joe Pool Lake	49	142,861	142,861	100	16,895	12	0	0	
*Cisco, Lake	50	26,000	11,510	44	558	2	-2,652	-10	
Leon, Lake	51	26,421	17,997	68	6,446	24	1,779	7	
Granbury, Lake	52	128,046	125,554	98	35,425	28	4,002	3	
Pat Cleburne, Lake	53	26,008	26,008	100	7,701	30	1,440	6	
Waxahachie, Lake	54	10,779	10,530	98	3,055	28	1,558	14	
Bardwell Lake	55	46,122	46,122	100	13,440	29	0	0	
Proctor Lake	56	55,457	55,457	100	28,074	51	23,272	42	
Whitney, Lake	57	553,349	431,524	78	146,951	27	51,684	9	
Aquilla Lake	58	44,460	44,460	100	14,981	34	1,248	3	
Navarro Mills Lake	59	49,826	49,687	100	14,647	29	-139	0	
*Halbert, Lake	60	6,033	5,529	92	79	1	1,618	27	
Richland-Chambers Reservoir	61	1,087,839	905,061	83	120,038	11	-105,406	-10	
*Brownwood, Lake	62	131,429	60,593	46	8,841	7	-18,418	-14	
Waco, Lake	62	198,943	198,943	100	47,752	24	1,251	1	
Limestone, Lake	64	208,015	146,235	70	36,777	18	-34,589	-17	
Belton Lake	65	435,225	327,774	75	23,806	5	-71,323	-16	
Stillhouse Hollow Lake	66	227,771	138,713	61	-1,463	-1	-89,058	-39	
Georgetown, Lake	67	36,823	19,017	52	2,174	6	-15,371	-42	
Granger Lake	68	50,779	37,110	73	2,905	6	-11,719	-23	
Tawakoni, Lake	69	888,126	741,746	84	87,133	10	-39,983	-5	
TOTAL		10,479,954	8,714,546	83	1,367,342	13	-550,161	-5	
EAST									
Wright Patman Lake	70	122,593	122,593	100	0	0	0	0	
*Sulphur Springs, Lake	71	17,838	17,838	100	7,804	44	7,873	44	
Cypress Springs, Lake	72	66,756	58,811	88	3,070	5	-5,611	-8	
Bob Sandlin, Lake	73	200,579	135,953	68	5,872	3	-36,407	-18	
Fork Reservoir, Lake	74	604,927	458,392	76	29,826	5	-58,072	-10	
O the Pines, Lake	75	238,933	181,359	76	8,466	4	-56,427	-24	
Cedar Creek Reservoir in Trinity	76	644,686	512,595	80	74,123	11	-48,517	-8	
Athens, Lake	77	29,435	23,261	79	1,152	4	-4,398	-15	
Palestine, Lake	78	370,907	281,493	76	20,830	6	-55,358	-15	
Tyler, Lake	79	73,256	48,797	67	3,338	5	-17,539	-24	
Murvault, Lake	80	38,284	30,364	79	1,593	4	-2,237	-6	
Jacksonville, Lake	81	25,670	20,949	82	494	2	-2,895	-11	
Nacogdoches, Lake	82	39,521	19,452	49	424	1	-10,153	-26	
Houston County Lake	83	17,113	13,423	78	519	3	-2,877	-17	
Sam Rayburn Reservoir	84	2,857,077	1,871,941	66	187,275	7	-146,018	-5	
Toledo Bend Reservoir (Texas)	85	2,236,450	1,531,539	68	130,069	6	-86,299	-4	
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	3,063,079	68	260,138	6	-172,597	-4	
*Livingston, Lake	86	1,741,867	1,741,867	100	141,867	8	0	0	
B A Steinhagen Lake	87	66,966	62,833	94	9,880	15	9,093	14	
Conroe, Lake	88	416,188	295,353	71	15,910	4	-93,345	-22	
TOTAL		9,809,046	7,428,813	76	642,512	7	-609,187	-6	
TRANS-PECOS									
Red Bluff Reservoir	89	130,170	8,336	6	1,775	1	-38,277	-29	
TOTAL		130,170	8,336	6	1,775	1	-38,277	-29	

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. 2011		Change since Late Jan. 2011	
			Late Jan. (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)
EDWARDS PLATEAU								
Oak Creek Reservoir	90	39,260	14,773	38	63	0	-7,968	-20
E V Spence Reservoir	91	517,272	2,306	0	110	0	-11,695	-2
O C Fisher Lake	92	79,483	0	0	0	0	0	0
*O H Ivie Reservoir	93	554,335	98,346	18	-1,224	0	-78,807	-14
Twin Buttes Reservoir	94	177,850	0	0	0	0	-20,063	-11
Brady Creek Reservoir	95	29,110	7,339	25	104	0	-5,526	-19
Buchanan, Lake	96	875,610	348,402	40	17,526	2	-318,335	-36
Lyndon B Johnson, Lake	97	113,323	112,169	99	486	0	486	0
*Amistad Reservoir (Texas)	98	1,840,849	1,457,000	79	-36,000	-2	-384,000	-21
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	2,615,000	80	-123,000	-4	-660,532	-20
TOTAL		4,227,092	2,040,335	48	-18,935	0	-825,908	-20
SOUTH CENTRAL								
Travis, Lake	99	1,113,255	388,989	35	2,451	0	-490,905	-44
*Austin, Lake	100	21,804	21,062	97	211	1	13,839	63
Somerville Lake	101	147,104	68,592	47	10,782	7	-59,051	-40
Canyon Lake	102	378,781	303,337	80	3,527	1	-65,732	-17
Medina Lake	103	254,823	53,506	21	-4,535	-2	-110,688	-43
*Coletto Creek Reservoir	104	31,040	25,265	81	92	0	-5,775	-19
TOTAL		1,946,807	860,751	44	12,528	1	-718,312	-37
UPPER COAST								
Houston, Lake	105	128,863	128,863	100	0	0	0	0
Texana, Lake	106	153,246	80,390	52	23,551	15	-47,323	-31
TOTAL		282,109	209,253	74	23,551	8	-47,323	-17
SOUTHERN								
Choke Canyon Reservoir	107	695,262	422,512	61	-4,873	-1	-131,520	-19
Corpus Christi, Lake	108	256,961	80,808	31	-6,078	-2	-145,526	-57
*Falcon Reservoir (Texas)	109	1,551,034	691,000	45	-4,000	0	-925,000	-60
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	840,000	32	-271,000	-10	-1,651,000	-62
TOTAL		2,503,257	1,194,320	48	-14,951	-1	-1,202,046	-48
STATE TOTAL		30,918,978	20,753,815	67	2,012,538	7	-4,266,350	-14

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

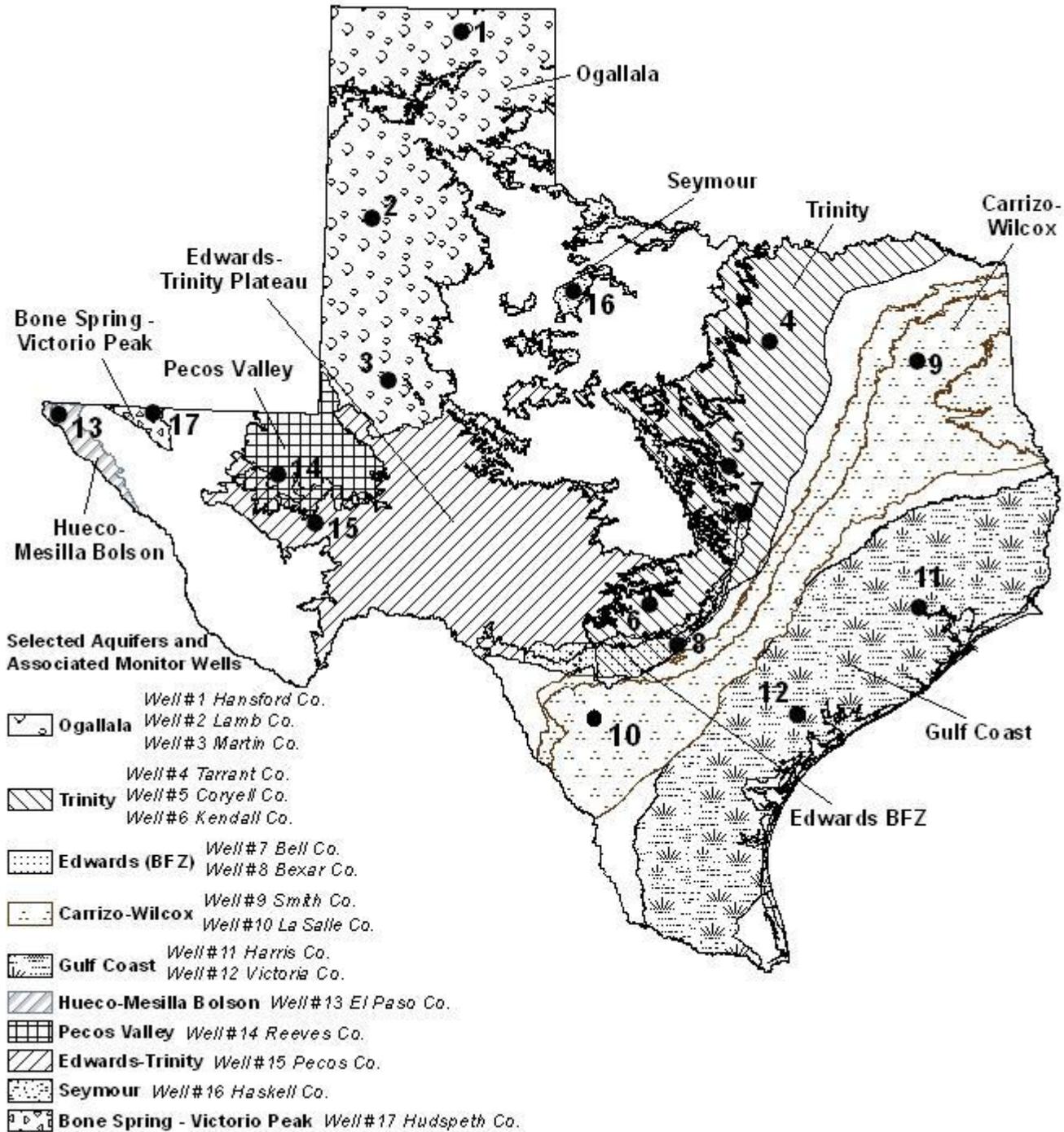
In Addition

Elephant Butte Reservoir		1,975,000	329,148	17	38,104	2	-145,079	-7
--------------------------	--	-----------	---------	----	--------	---	----------	----

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 $100 \times (\text{current conservation storage} - \text{past conservation storage}) / \text{conservation storage capacity}$. Figures shown are for the Texas share of conservation storage in all reservoirs.

JANUARY 2012 GROUNDWATER LEVELS IN OBSERVATION WELLS



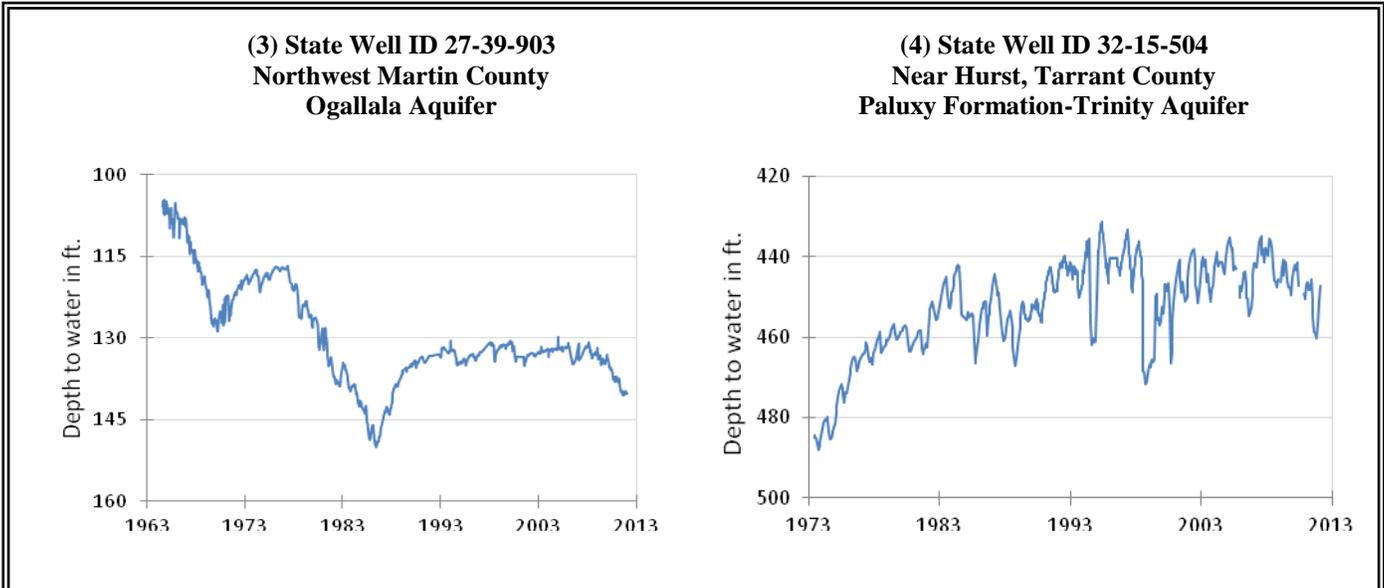
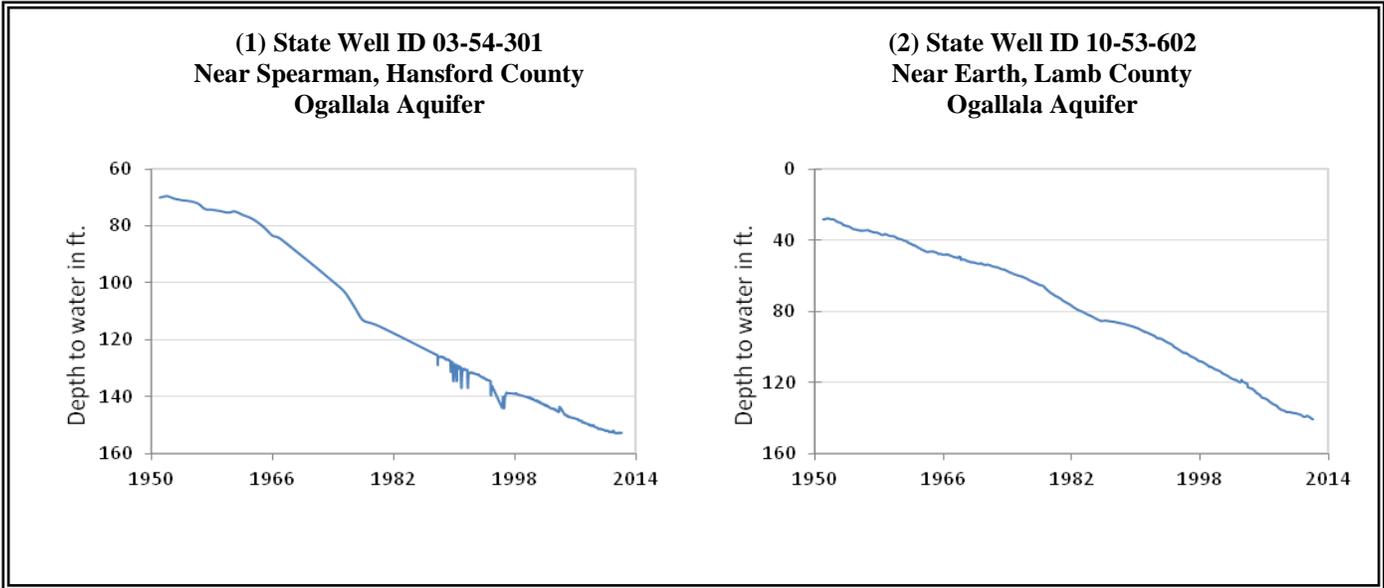
January, 2012

Water level measurements were available for all seventeen key monitoring wells in the state. Water levels rose in thirteen of the monitoring wells since the beginning of January, ranging from 0.06 feet in the Hansford County Ogallala Aquifer well to 7.02 feet in the Pecos County Edwards-Trinity Plateau Aquifer well. Water levels declined in the remaining four monitoring wells, ranging from 0.01 feet in the Bell County Edwards (BFZ) Aquifer to 4.48 feet in the La Salle County Carrizo-Wilcox Aquifer well. The J-17 well in San Antonio recorded a water level of 73.68 feet below land surface. This water level is 7.32 feet above the Stage II critical management level in that segment of the Edwards Aquifer. Stage I restrictions remain in effect by the Edwards Aquifer Authority as long as the 10 day average of water levels is below 660 foot elevation or 71 feet below land surface.

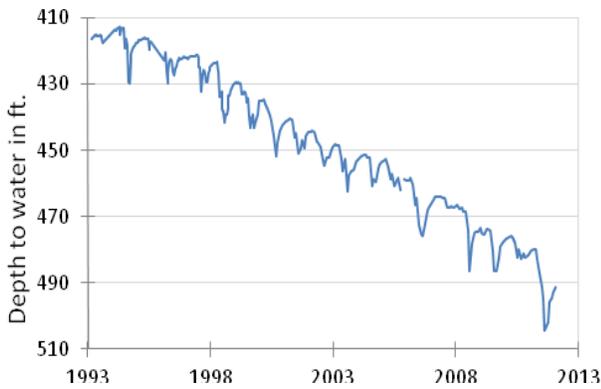
* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	Jan 2012	Dec 2011	Month Change	Year Change	Historical Change
(1) Hansford 0354301	152.47	152.53	0.06	-0.17	-82.35
(2) Lamb 1053602	140.56	140.48	-0.08	-1.45	-112.41
(3) Martin 2739903	140.16	140.26	0.1	-2.22	-35.27
(4) Tarrant 3215504	447.34	451.2	3.86	-0.54	-69.34
(5) Coryell 4035404	491.46	492.77	1.31	-11.14	-199.46
(6) Kendall 6802609	130.26	136.01	5.75	-17.05	-70.26
(7) Bell 5804816	125.15	125.14	-0.01	-3.18	-2.02
(8) Bexar 6837203	73.68	78.06	4.38	-14.77	-27.04
(9) Smith 3430907	434.55	436.18	1.63	-2.37	-68.55
(10) La Salle 7738103	393.87	389.03	-4.48	-92.88	-140.44
(11) Harris 6514409	205.46	207.43	1.97	-9.57	-69.96
(12) Victoria 8017502	37.66	38.95	1.29	-5.03	-3.66
(13) El Paso 4913301	289.78	289.6	-0.18	1.73	-57.88
(14) Reeves 4644501	145.47	146.48	1.01	-2.94	-53.38
(15) Pecos 5216802	194.33	201.35	7.02	-0.62	52.55
(16) Haskell 2135748	45.89	46.09	0.2	-2.18	-4.56
(17) Hudspeth 4807516	132.69	135.53	2.84	-1.82	-28.77

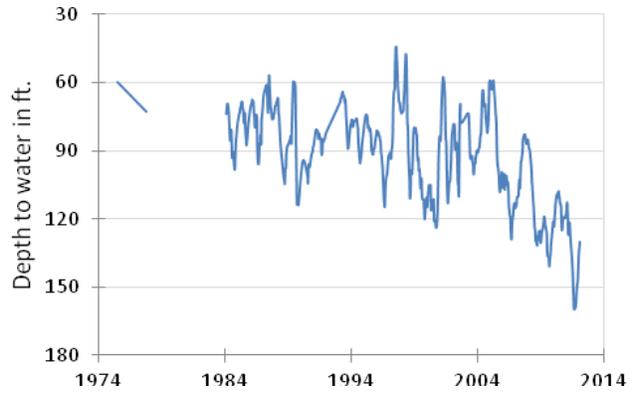
JANUARY GROUNDWATER LEVELS IN OBSERVATION WELLS



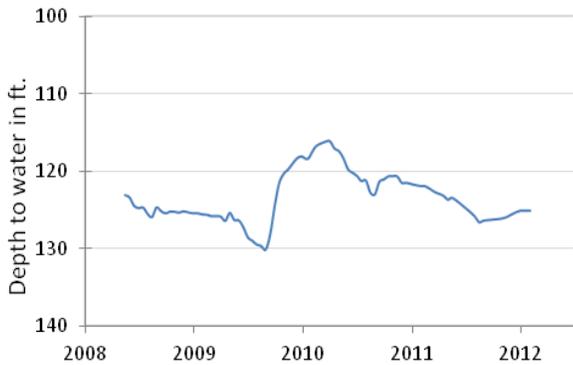
**(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer**



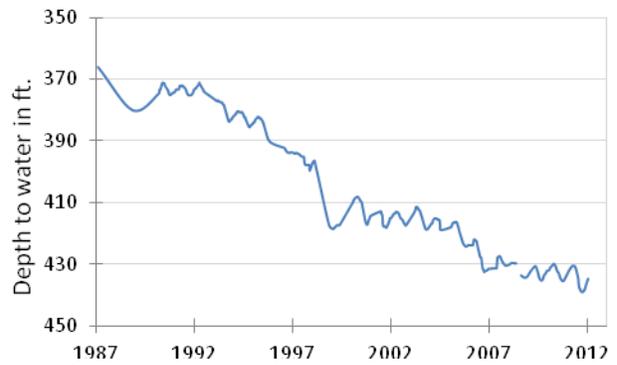
**(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer**



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



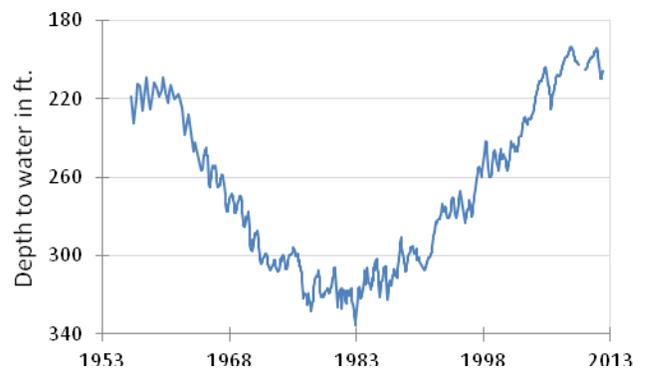
**(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer**



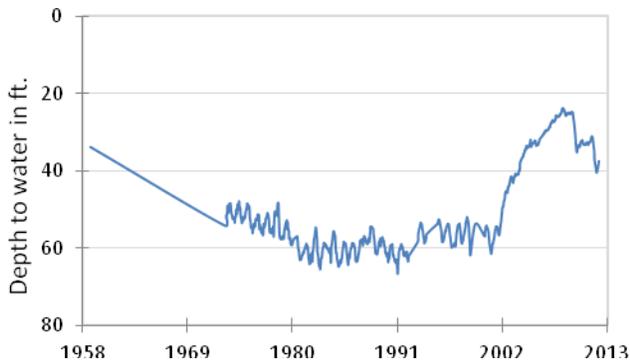
**(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer**



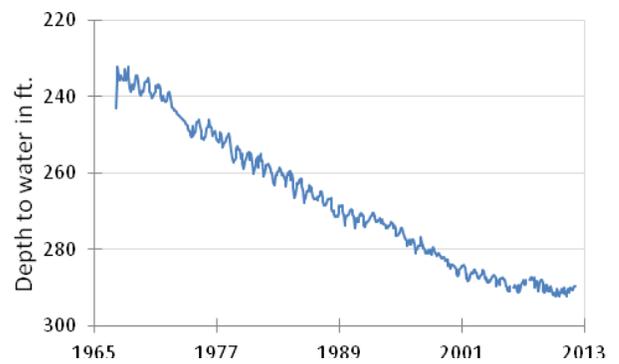
**(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer**



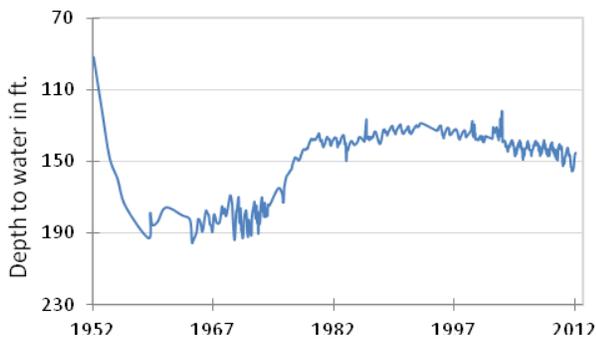
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



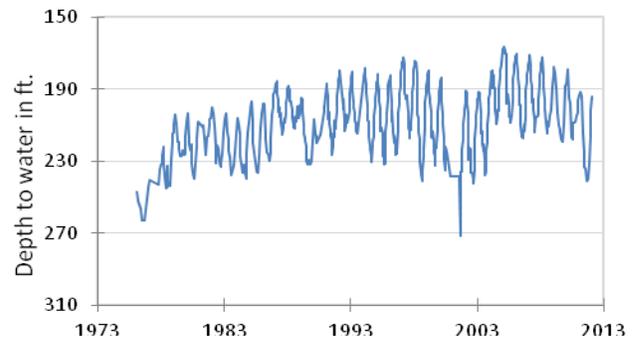
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



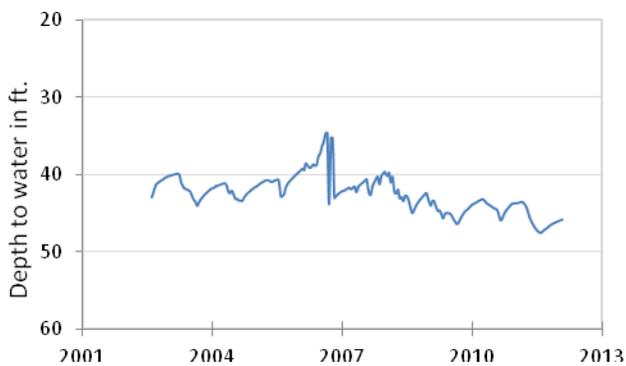
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



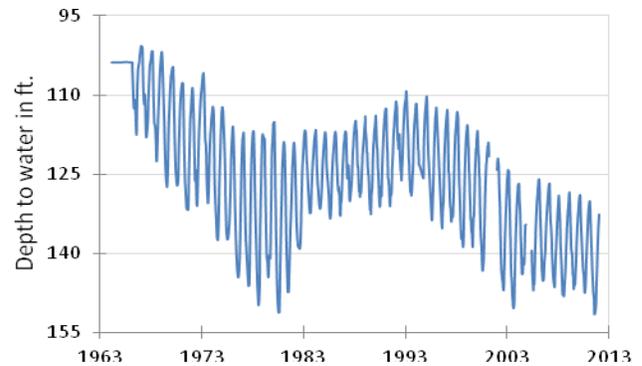
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



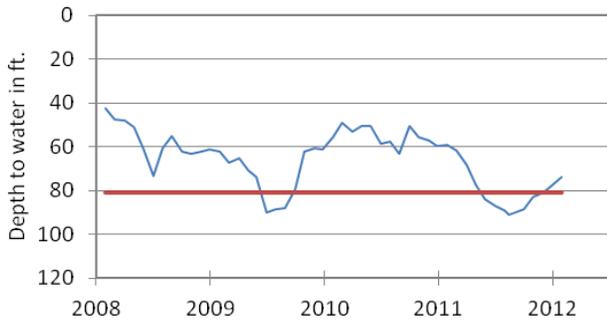
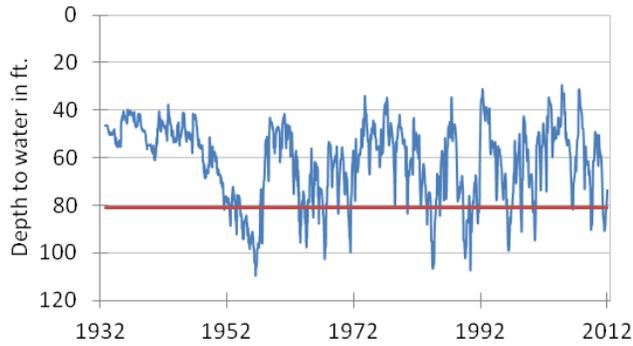
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



(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**

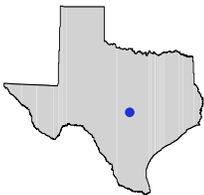


The late January water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 73.68 feet below land surface. This was 4.38 feet above last month's measurement, 14.77 feet below last year's measurement, and 27.04 feet below the initial measurement recorded in 1932.

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

HYDROGRAPH OF THE MONTH

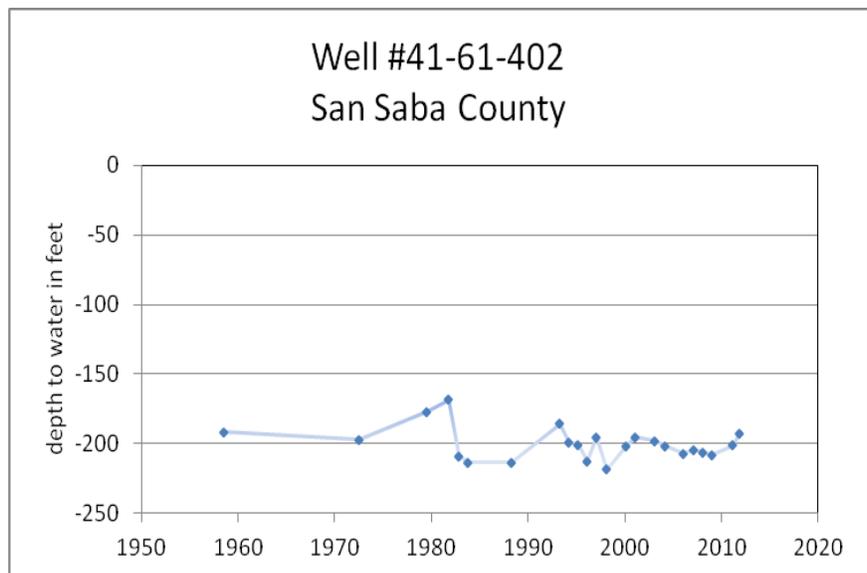
Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.



Ellenburger - San Saba Aquifer

The Ellenburger-San Saba Aquifer is a minor aquifer found in parts of 16 counties in the Llano Uplift area of Central Texas. The aquifer consists of the Tanyard, Gorman, and Honeycut formations of the Ellenburger Group and the San Saba Limestone Member of the Wilberns Formation. The formations were deposited as ocean sediments during the Ordovician on the passive continental margin that was Texas at the time. Diagenesis (chemical alteration) of the limestones and significant dolimitization hardened the massive units into tough rock that resists erosion and makes good building stone. The Ellenburger also experience karstification as it was uplifted and exposed to meteoric waters. Many large karst conduits and caves have formed in the dolomites and limestones of these units. The aquifer is highly permeable in places, as indicated by wells that yield as much as 1,000 gallons per minute and springs that issue from the aquifer, maintaining the base flow of streams in the area. Water produced from the aquifer is hard and usually has less than 500 milligrams per liter of total dissolved solids. Elevated concentrations of naturally occurring radium and radon are commonly found in excess of primary drinking water standards.

**Well #41-61-402
San Saba County**



This well was drilled in 1950, to a total depth of 1,454 feet—reportedly to the base of the Ellenburger- San Saba Aquifer formation—to provide water to a campground. Although hard, water quality is good: total dissolved solids are less than 400 milligrams per liter and no constituents are in excess of any drinking water standards.

*TEXAS WATER DEVELOPMENT BOARD
1700 N. CONGRESS AVE.
P.O. BOX 13231
AUSTIN TX 78711-3231*