

Texas Water Development Board



Water **Conditions**

RESERVOIR STORAGE

February 2012

At the end of the month, total storage in 109 of the state's major reservoirs was at 21.94 million acre-feet*, or 71% of their total conservation storage capacity. This is 1.2 million acre-feet **more** than a month ago and 13% higher than the record lowest total storage (58%) set last November.

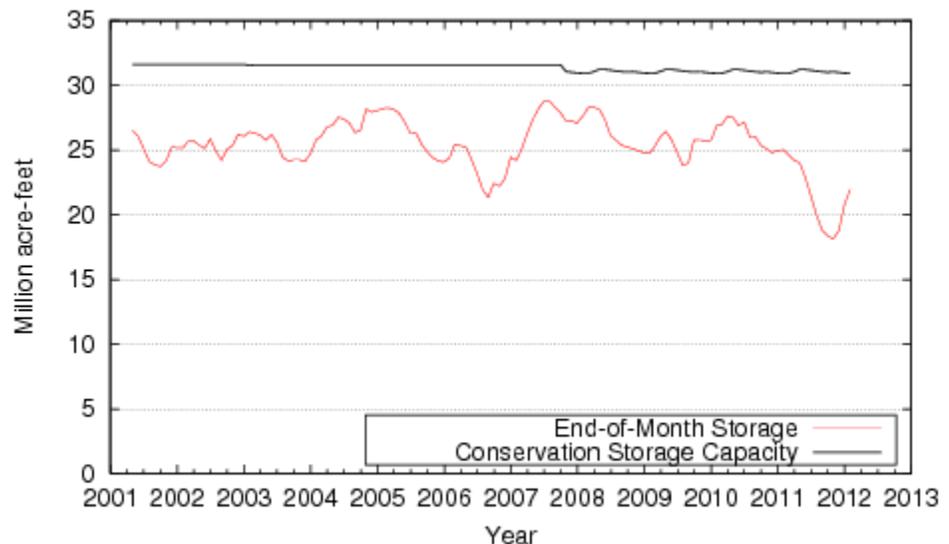
Twenty-two (22) reservoirs, located primarily in the North Central and East regions of the state, held 100% of conservation storage capacity, one more than last month. Ten (10) reservoirs were at or below 10% full: E.V. Spence, O. C. Fisher, Twin Buttes, Hords Creek Lake, and Meredith were effectively empty, Electra and J. B. Thomas at 1%, Palo Duro at 5%, Red Bluff at 7%, and Mackenzie at 9% full.

Total combined storage increased to greater than 70% in the North Central (87%), East (83%), and Upper Coast (89%) regions. The regions with the lowest percentage storage were the High Plains (2%) and Trans-Pecos regions (7%). Storage declined in 2 regions and increased in 7 regions over the last month. However, state total storage was still 3.1 million acre-feet less than a year ago.

Elephant Butte reservoir held 364,819 acre-feet, or 18.0% of storage capacity. This is 35,671 acre-ft more than a month ago.

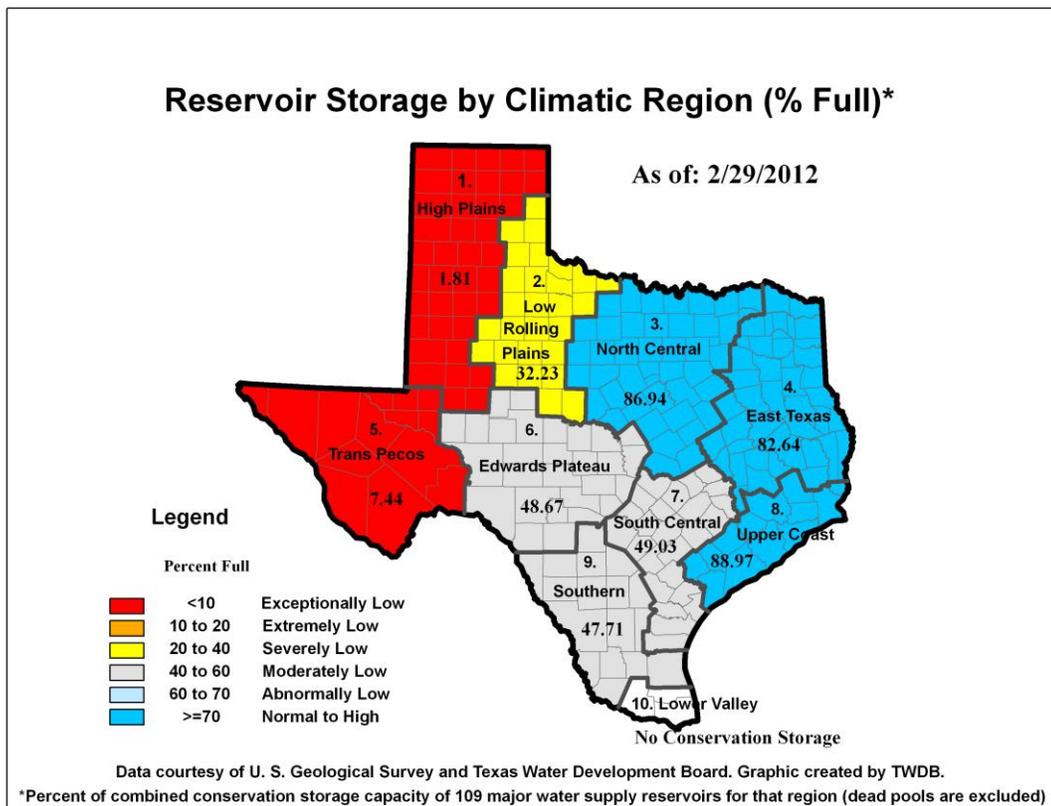
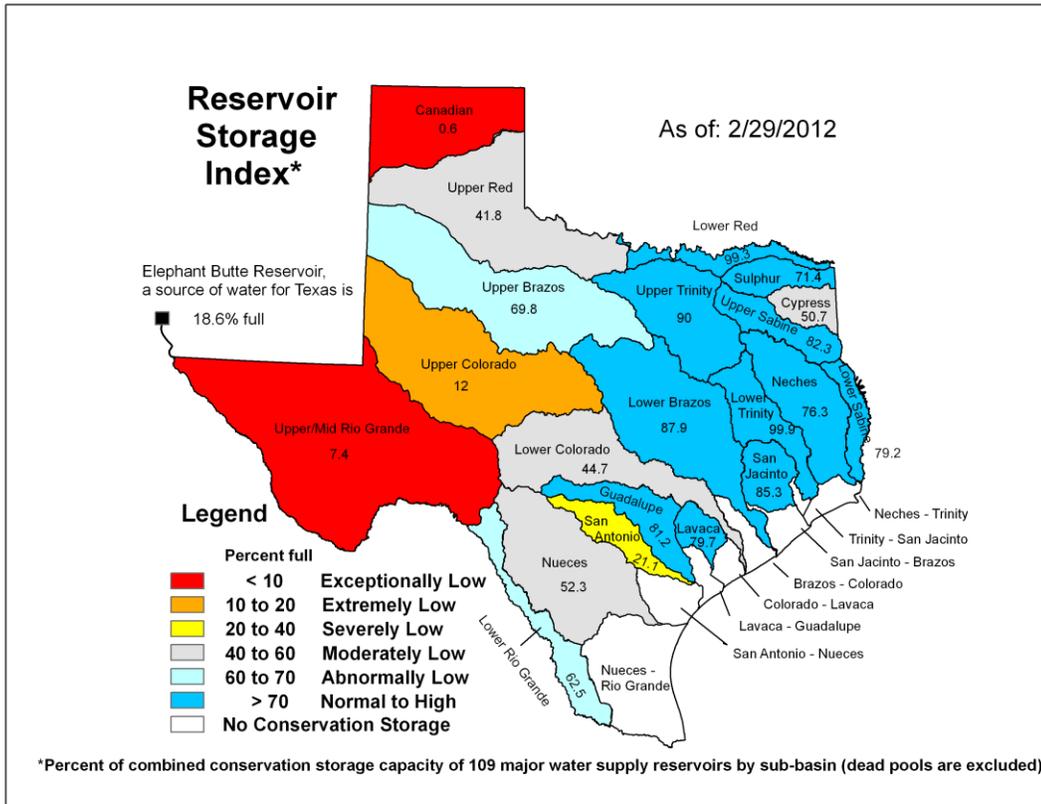
* Only the Texas share of storage in border reservoirs is counted.

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.

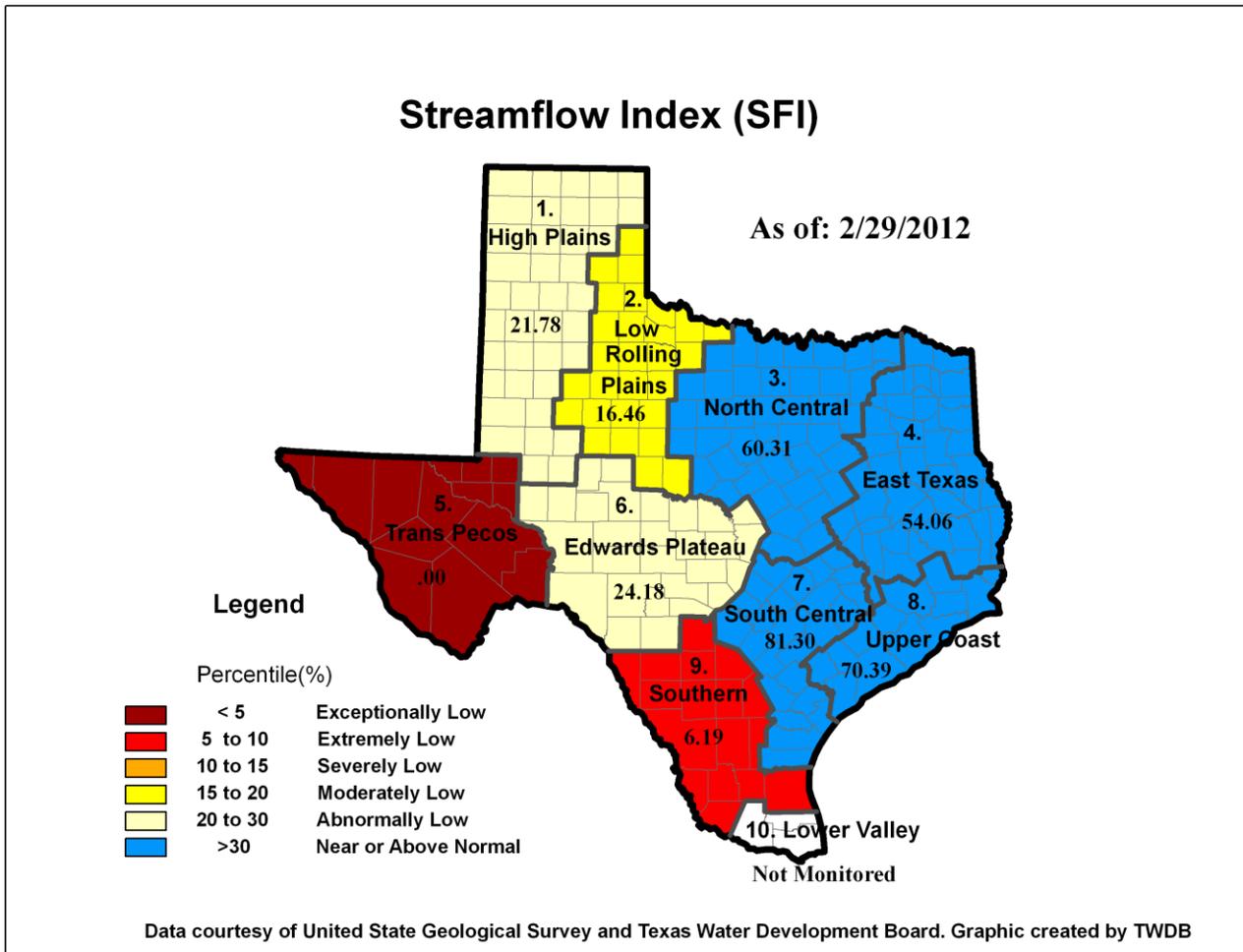
FEBRUARY RESERVOIR CONDITIONS



FEBRUARY STREAMFLOW CONDITIONS

Of 29 reporting index stations monitored in the month, computed 30-day mean flows were exceptionally low (<5%) at 7 stations, severely low (10-15%) at 3 stations, moderately low (15%-20%) at 1 station, abnormally low at 1 station (20% - 30%), and near normal (30% - 70%) at the remaining 17 stations. Compared to last month, flows have increased at 17 index stations and decreased at 7 stations.

On a regional basis, flows in this month were exceptionally low in the Trans-Pecos region, extremely low in Southern region, moderately low in Low Rolling Plains region, abnormally low in High Plains and Edwards Plateau regions, 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		Change since	
		Capacity (acre-feet)	Late Feb. (acre-feet)	Late Jan. 2012 (acre-feet)	(%)	Late Feb. 2011 (acre-feet)	(%)
HIGH PLAINS							
Palo Duro Reservoir	1	60,897	3,213	5	-238	0	-7,867 -13
Meredith, Lake (Texas)	2	500,000	0	0	0	0	-3,953 -1
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	0	0	-3,953 -1
MacKenzie Reservoir	3	46,429	4,213	9	-37	0	-1,731 -4
White River Lake	4	29,880	4,059	14	-206	-1	-5,932 -20
TOTAL		637,206	11,485	2	-481	0	-19,483 -3
LOW ROLLING PLAINS							
Greenbelt Lake	5	59,500	10,597	18	38	0	-5,624 -9
*Electra, Lake	6	5,626	49	1	-6	0	-306 -5
N. Fork Buffalo Crk Reservoir	7	15,400	2,330	15	-87	-1	-3,437 -22
Kemp, Lake	8	245,308	85,526	35	-265	0	-151,047 -62
Millers Creek Reservoir	9	27,888	10,011	36	-206	-1	-8,486 -30
Alan Henry Reservoir	10	94,808	73,828	78	-523	-1	-14,743 -16
Stamford, Lake	11	51,570	26,501	51	-489	-1	-22,987 -45
J B Thomas, Lake	12	199,931	1,798	1	-238	0	-8,244 -4
Fort Phantom Hill, Lake	13	70,030	38,160	54	-27	0	-19,487 -28
Sweetwater, Lake	14	10,006	3,026	30	-46	0	-2,484 -25
Colorado City, Lake	15	31,793	9,923	31	-97	0	-4,510 -14
Champion Creek Reservoir	16	41,618	4,978	12	-25	0	-1,785 -4
Abilene, Lake	17	6,099	1,460	24	-88	-1	-3,198 -52
Coleman, Lake	18	38,076	15,290	40	41	0	-5,532 -15
Hords Creek Lake	19	5,684	0	0	0	0	-241 -4
TOTAL		903,337	283,477	31	-2,018	0	-252,111 -28
NORTH CENTRAL							
Nocona, Lake (Farmers Crk)	20	21,445	13,045	61	-83	0	-5,413 -25
Hubert H Moss Lake	21	24,058	23,353	97	614	3	-705 -3
Texoma, Lake (Texas)	22	1,185,688	1,185,688	100	-17,437	-1	13,045 1
Texoma, Lake (Texas & Oklahoma)	(22)	2,371,376	2,371,376	100	-34,874	-1	26,089 1
*Pat Mayse Lake	23	117,844	117,844	100	0	0	15,664 13
Kickapoo, Lake	24	85,825	44,579	52	-1,025	-1	-23,381 -27
Arrowhead, Lake	25	235,997	135,812	58	-1,968	-1	-55,807 -24
Bonham, Lake	26	11,026	10,974	100	-52	0	843 8
Crook, Lake	27	9,195	9,029	98	-166	-2	103 1
Amon G Carter, Lake	28	19,903	13,764	69	63	0	-3,846 -19
Ray Roberts, Lake	29	798,758	743,229	93	4,432	1	-21,015 -3
Jim Chapman Lake (Cooper)	30	260,332	145,775	56	3,571	1	-1,720 -1
Graham, Lake	31	45,260	45,138	100	-122	0	2,651 6
*Lost Creek Reservoir	32	11,950	11,950	100	0	0	971 8
Bridgeport, Lake	33	366,236	271,658	74	2,228	1	-48,187 -13
Lewisville Lake	34	563,228	542,961	96	23,591	4	-5,067 -1
Lavon Lake	35	443,844	356,780	80	23,667	5	6,934 2
Hubbard Creek Reservoir	36	318,067	147,853	46	-861	0	-42,939 -13
Possum Kingdom Lake	37	540,340	442,088	82	6,941	1	-74,005 -14
*Mineral Wells, Lake	38	7,065	7,065	100	0	0	680 10
Weatherford, Lake	39	17,789	15,305	86	611	3	758 4
Eagle Mountain Lake	40	179,880	178,933	99	7,119	4	14,035 8
Worth, Lake	41	24,500	23,018	94	-1,246	-5	3,933 16
Grapevine Lake	42	164,702	164,702	100	0	0	6,981 4
Ray Hubbard, Lake	43	452,040	414,752	92	8,498	2	18,326 4
New Terrell City Lake	44	8,583	7,494	87	386	4	-161 -2
Daniel, Lake	45	9,435	5,484	58	28	0	1,003 11
Palo Pinto, Lake	46	26,827	26,827	100	0	0	4,894 18
Benbrook Lake	47	85,648	85,648	100	0	0	1,230 1
Arlington, Lake	48	40,156	40,156	100	0	0	1,681 4

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 Jan. 2012		Change since Late Feb. 2011		
			Late Feb. (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
NORTH CENTRAL (Continue)									
Joe Pool Lake	49	142,861	142,861	100	0	0	0	0	
*Cisco, Lake	50	26,000	11,527	44	17	0	-2,577	-10	
Leon, Lake	51	26,421	19,396	73	1,399	5	3,290	12	
Granbury, Lake	52	128,046	125,403	98	-151	0	-1,661	-1	
Pat Cleburne, Lake	53	26,008	26,008	100	0	0	1,393	5	
Waxahachie, Lake	54	10,779	10,779	100	249	2	1,301	12	
Bardwell Lake	55	46,122	46,122	100	0	0	0	0	
Proctor Lake	56	55,457	55,457	100	0	0	23,634	43	
Whitney, Lake	57	553,349	507,837	92	76,313	14	132,918	24	
Aquilla Lake	58	44,460	44,460	100	0	0	213	0	
Navarro Mills Lake	59	49,826	49,826	100	139	0	0	0	
*Halbert, Lake	60	6,033	5,407	90	-122	-2	1,580	26	
Richland-Chambers Reservoir	61	1,087,839	975,954	90	70,893	7	-34,513	-3	
*Brownwood, Lake	62	131,429	69,930	53	9,337	7	-8,281	-6	
Waco, Lake	62	198,943	198,943	100	0	0	0	0	
Limestone, Lake	64	208,015	190,113	91	43,878	21	9,749	5	
Belton Lake	65	435,225	389,821	90	62,047	14	-10,198	-2	
Stillhouse Hollow Lake	66	227,771	147,293	65	8,580	4	-80,478	-35	
Georgetown, Lake	67	36,823	21,992	60	2,975	8	-11,216	-30	
Granger Lake	68	50,779	46,046	91	8,936	18	-4,733	-9	
Tawakoni, Lake	69	888,126	754,526	85	12,780	1	-34,141	-4	
TOTAL		10,455,933	9,070,605	87	356,059	3	-202,234	-2	
EAST									
Wright Patman Lake	70	122,593	122,593	100	0	0	0	0	
*Sulphur Springs, Lake	71	17,838	17,838	100	0	0	6,855	38	
Cypress Springs, Lake	72	66,756	58,811	88	0	0	-5,611	-8	
Bob Sandlin, Lake	73	200,579	144,618	72	8,665	4	-31,116	-16	
Fork Reservoir, Lake	74	604,927	468,465	77	10,073	2	-56,776	-9	
O the Pines, Lake	75	238,933	198,752	83	17,393	7	-40,181	-17	
Cedar Creek Reservoir in Trinity	76	644,686	556,268	86	43,673	7	-14,228	-2	
Athens, Lake	77	29,435	24,289	83	1,028	3	-4,052	-14	
Palestine, Lake	78	370,907	317,013	85	35,520	10	-26,637	-7	
Tyler, Lake	79	73,256	53,324	73	4,527	6	-14,191	-19	
Murvaul, Lake	80	38,284	36,592	96	6,228	16	3,444	9	
Jacksonville, Lake	81	25,670	23,245	91	2,296	9	-1,067	-4	
Nacogdoches, Lake	82	39,521	22,504	57	3,052	8	-6,961	-18	
Houston County Lake	83	17,113	14,510	85	1,087	6	-2,234	-13	
Sam Rayburn Reservoir	84	2,857,077	2,139,839	75	267,898	9	74,872	3	
Toledo Bend Reservoir (Texas)	85	2,236,450	1,771,028	79	239,489	11	139,258	6	
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	3,542,056	79	478,977	11	278,516	6	
*Livingston, Lake	86	1,741,867	1,741,867	100	0	0	0	0	
B A Steinhagen Lake	87	66,966	63,034	94	201	0	10,255	15	
Conroe, Lake	88	416,188	335,777	81	40,424	10	-52,921	-13	
TOTAL		9,809,046	8,110,367	83	681,554	7	-21,291	0	
TRANS-PECOS									
Red Bluff Reservoir	89	130,170	9,660	7	1,324	1	-37,073	-28	
TOTAL		130,170	9,660	7	1,324	1	-37,073	-28	

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 Jan. 2012		Change since Late Feb. 2011		
			Late Feb. (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
EDWARDS PLATEAU									
Oak Creek Reservoir	90	39,260	14,710	37	-63	0	-7,905	-20	
E V Spence Reservoir	91	517,272	2,352	0	46	0	-10,699	-2	
O C Fisher Lake	92	79,483	0	0	0	0	0	0	
*O H Ivie Reservoir	93	554,335	98,993	18	647	0	-75,294	-14	
Twin Buttes Reservoir	94	177,850	0	0	0	0	-20,137	-11	
Brady Creek Reservoir	95	29,110	7,450	26	111	0	-5,328	-18	
Buchanan, Lake	96	875,610	395,921	45	47,519	5	-265,634	-30	
Lyndon B Johnson, Lake	97	113,323	111,500	98	-669	-1	-851	-1	
*Amistad Reservoir (Texas)	98	1,840,849	1,424,000	77	-33,000	-2	-417,000	-23	
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	2,329,000	71	-286,000	-9	-946,532	-29	
TOTAL		4,227,092	2,054,926	49	14,591	0	-802,848	-19	
SOUTH CENTRAL									
Travis, Lake	99	1,113,255	427,845	38	38,856	3	-423,227	-38	
*Austin, Lake	100	21,804	20,654	95	-408	-2	-136	-1	
Somerville Lake	101	147,104	118,100	80	49,508	34	-9,129	-6	
Canyon Lake	102	378,781	306,617	81	3,280	1	-59,549	-16	
Medina Lake	103	254,823	53,759	21	253	0	-105,809	-42	
*Coletto Creek Reservoir	104	31,040	26,208	84	943	3	-4,832	-16	
TOTAL		1,946,807	953,183	49	92,432	5	-602,682	-31	
UPPER COAST									
Houston, Lake	105	128,863	128,863	100	0	0	0	0	
Texana, Lake	106	153,246	122,260	80	41,870	27	1,334	1	
TOTAL		282,109	251,123	89	41,870	15	1,334	0	
SOUTHERN									
Choke Canyon Reservoir	107	695,262	418,224	60	-4,288	-1	-132,187	-19	
Corpus Christi, Lake	108	256,961	80,494	31	-314	0	-141,948	-55	
*Falcon Reservoir (Texas)	109	1,551,034	696,000	45	5,000	0	-872,000	-56	
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	1,109,000	42	269,000	10	-1,411,000	-53	
TOTAL		2,503,257	1,194,718	48	398	0	-1,146,135	-46	
STATE TOTAL		30,894,957	21,939,544	71	1,185,729	4	-3,082,523	-10	

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

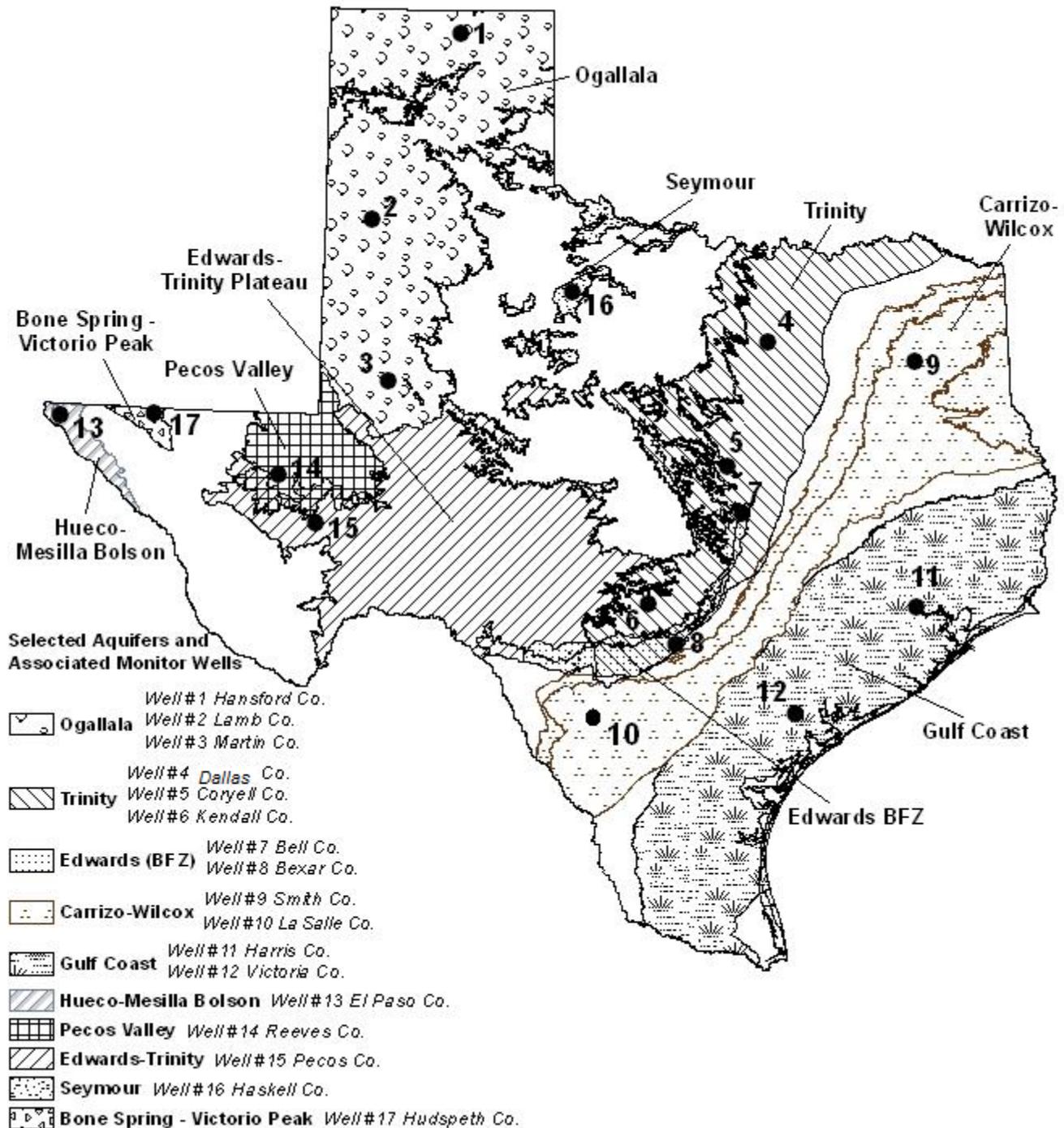
In Addition

Elephant Butte Reservoir		1,975,000	364,819	18	35,671	2	-139,464	-7
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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*(current conservation storage - past conservation storage)/conservation storage capacity. Figures shown are for the Texas share of conservation storage in all reservoirs.

FEBRUARY 2012 GROUNDWATER LEVELS IN OBSERVATION WELLS



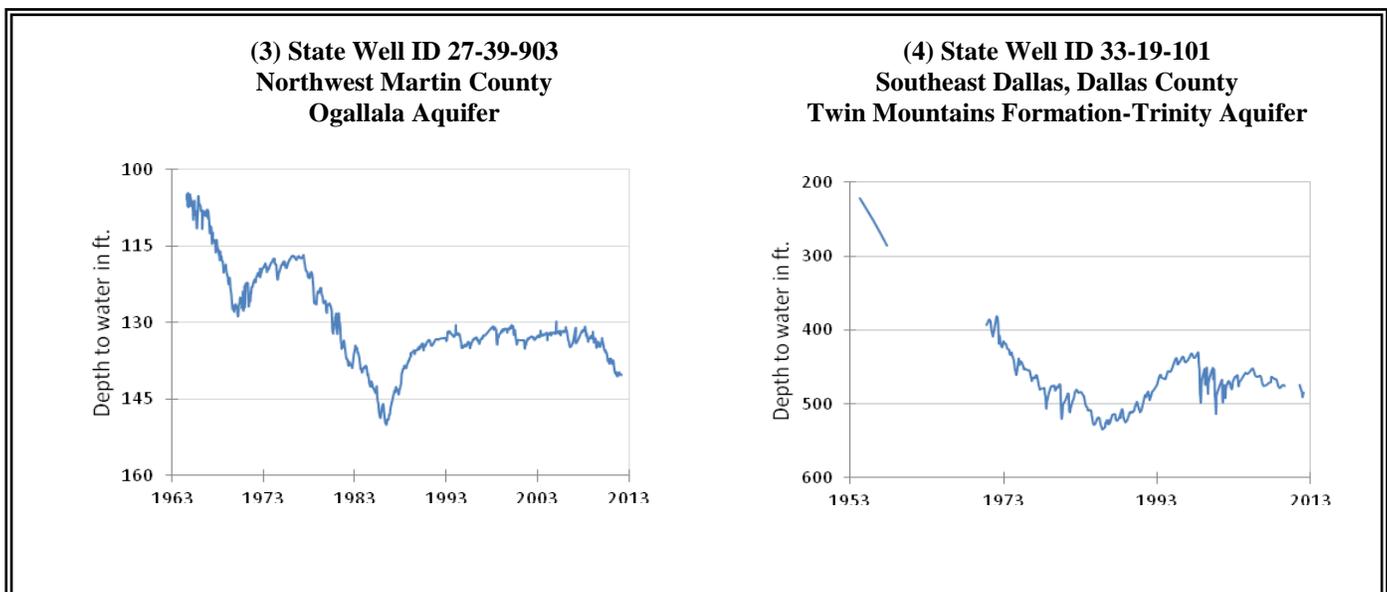
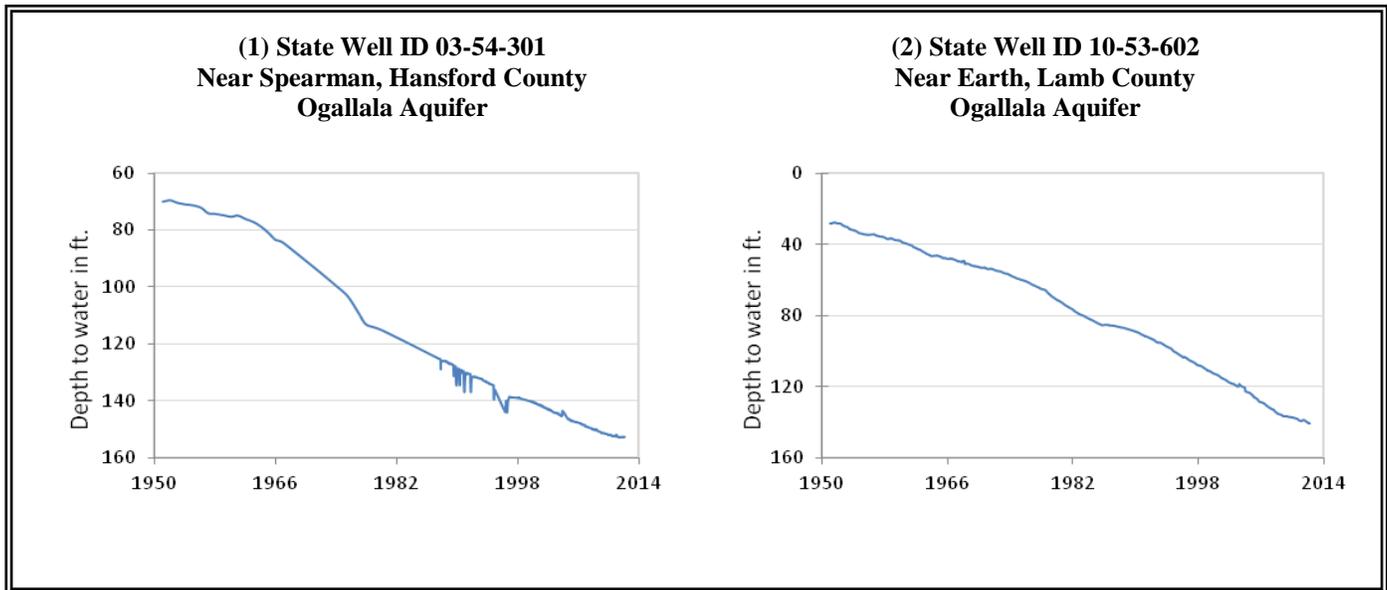
February, 2012

Water level measurements were available for sixteen of seventeen key monitoring wells in the state. Water levels rose in twelve of the monitoring wells since the beginning of February, ranging from 0.11 feet in the Bell County Edwards Balcones Fault Zone Aquifer well to 5.75 feet in the Kendall County Trinity Aquifer well. Water levels declined in the remaining four monitoring wells, ranging from 0.02 feet in the Lamb County Ogallala Aquifer to 3.76 feet in the Pecos County Edwards Trinity Aquifer well. The J-17 well in San Antonio recorded a water level of 68.88 feet below land surface. This water level is 2.12 feet above the Stage I critical management level in that segment of the Edwards Aquifer. Stage I restrictions become effective by the E.A.A. when the 10 day average of water levels is below 660 foot elevation or 71 feet below land surface.

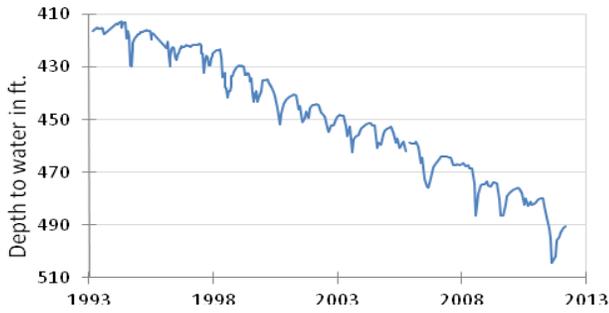
* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	Feb 2012	Jan 2012	Month Change	Year Change	Historical Change
(1) Hansford 0354301	N/A	152.47	N/A	N/A	-82.35
(2) Lamb 1053602	140.58	140.56	-0.02	-1.42	-112.43
(3) Martin 2739903	140.31	140.16	-0.15	-2.19	-35.42
(4) Dallas 3319101	484.84	485.54	0.7	N/A	-262.84
(5) Coryell 4035404	490.69	491.46	0.77	-10.86	-198.69
(6) Kendall 6802609	124.51	130.26	5.75	2.56	-64.51
(7) Bell 5804816	125.04	125.15	0.11	-2.91	-1.91
(8) Bexar 6837203	68.88	73.68	4.8	-7.32	-22.24
(9) Smith 3430907	433.44	434.55	1.11	-2.07	-67.44
(10) La Salle 7738103	392.03	393.87	1.84	-78.84	-138.96
(11) Harris 6514409	204.37	205.46	1.09	-8.7	-68.87
(12) Victoria 8017502	36.8	37.66	0.86	-4.12	-2.8
(13) El Paso 4913301	289.66	289.78	0.12	1.73	-57.88
(14) Reeves 4644501	146.92	145.47	-1.45	-3.00	-54.83
(15) Pecos 5216802	198.09	194.33	-3.76	-6.21	48.79
(16) Haskell 2135748	45.72	45.89	0.17	-2.1	-4.39
(17) Hudspeth 4807516	131.95	132.69	0.74	-1.69	-28.03

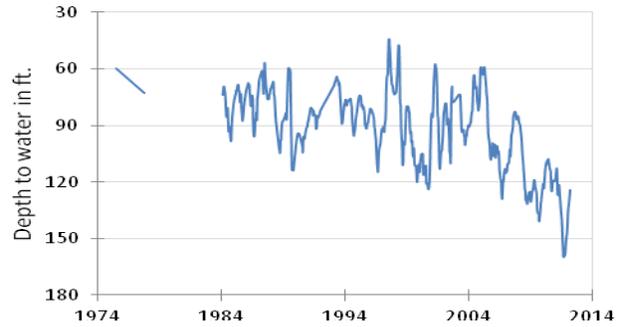
JANUARY GROUNDWATER LEVELS IN OBSERVATION WELLS



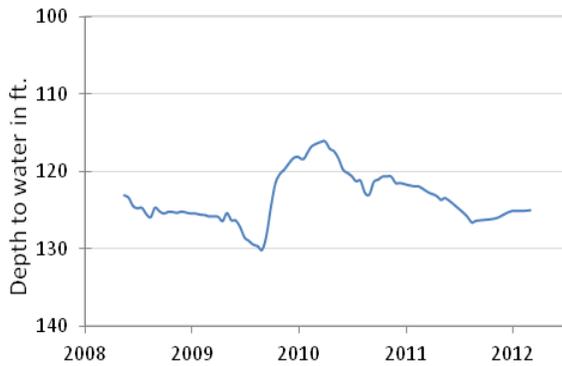
**(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer**



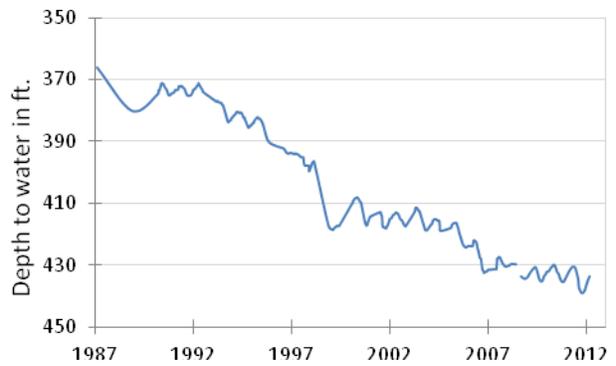
**(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer**



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



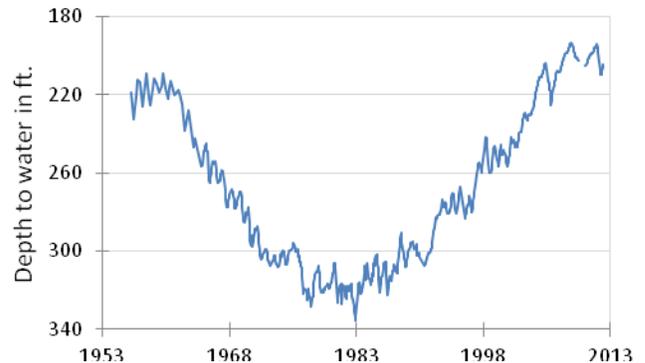
**(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer**



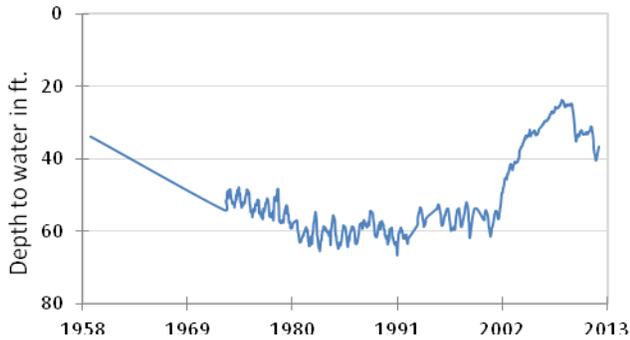
**(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer**



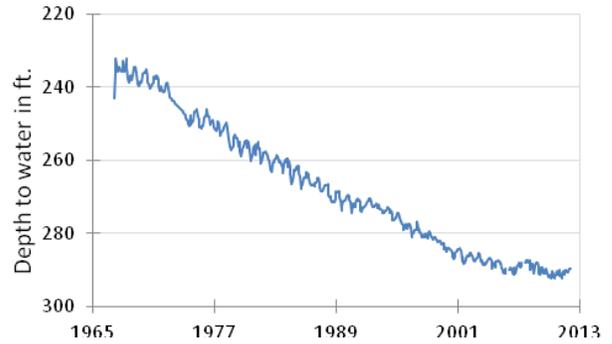
**(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer**



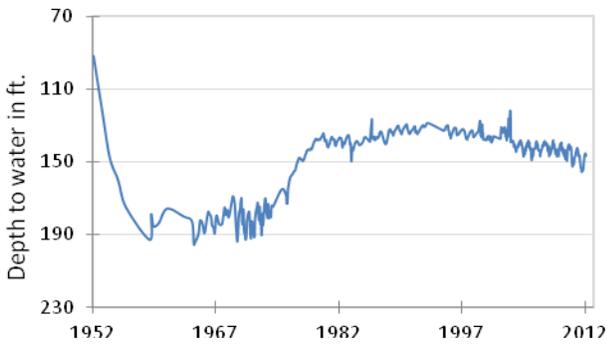
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



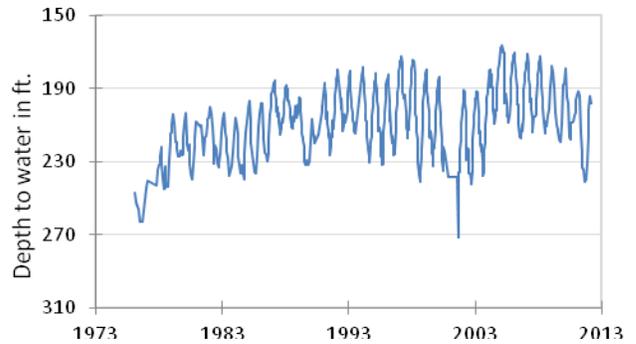
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



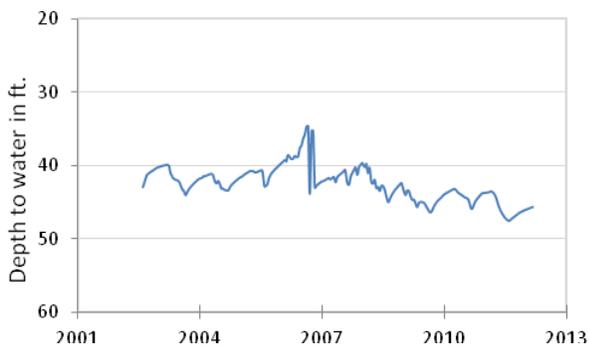
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



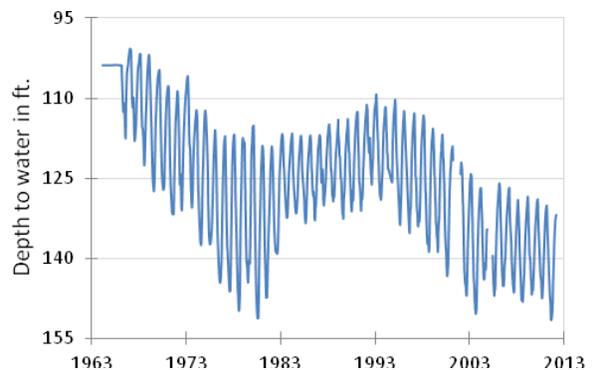
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



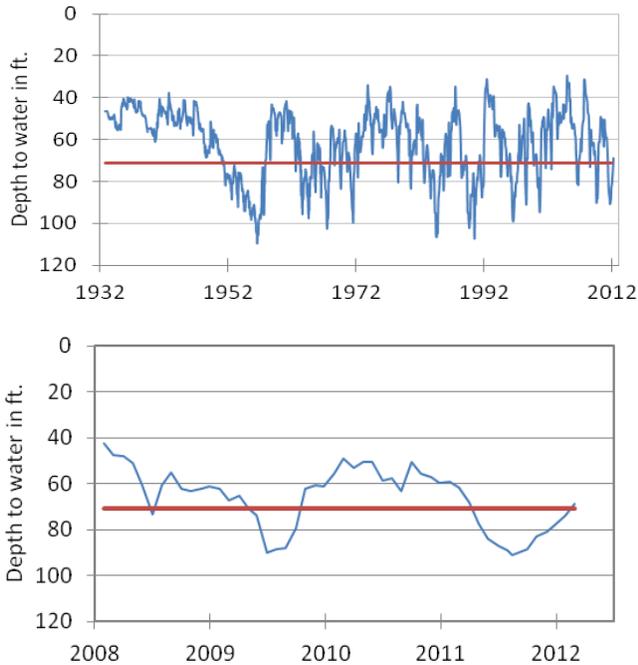
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



(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**

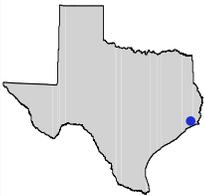


The late February water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 68.88 feet below land surface. This was 4.8 feet above last month's measurement, 7.32 feet below last year's measurement, and 22.24 feet below the initial measurement recorded in 1932.

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

HYDROGRAPH OF THE MONTH

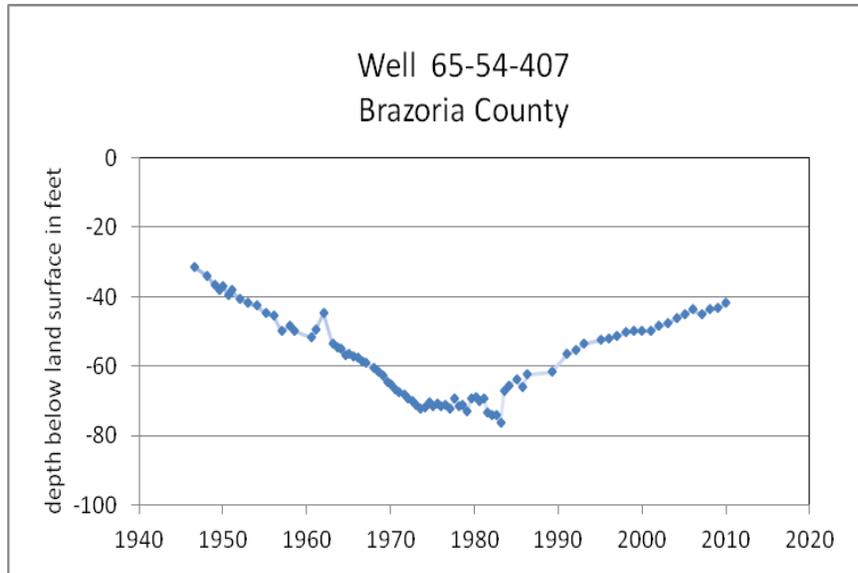
Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.



Gulf Coast Aquifer

The Gulf Coast Aquifer is a major aquifer paralleling the Gulf of Mexico coastline from the Louisiana border to the Mexican border. The geologic formations that form the aquifer are the youngest of a thick wedge of sediments deposited in the Gulf of Mexico Basin which began filling in Late Triassic time as the result of rifting within Pangaea. The Gulf Coast Aquifer includes several aquifers—primarily the Jasper, Evangeline, and Chicot—which are composed of discontinuous sand, silt, clay, and gravel beds that form a large, leaky artesian aquifer system. Water quality, although changing with depth and locality, is generally good in the central and northeastern parts of the aquifer. Water quality ranges from 500 to 10,000 milligrams per liter of total dissolved solids. In Harris, Galveston, Fort Bend, Jasper, and Wharton counties, water level declines of up to 350 feet have led to land subsidence due to dewatering and compaction of the sedimentary deposits.

**Well 65-54-407
Brazoria County**



The hydrograph above shows a similar water level history for an irrigation well in Brazoria County as that in 65-14-409, ~45 miles north in Harris County. Water levels declined as a result of unregulated pumping prior to the early eighties and then rebounded, in part due to regulation and increased reliance on surface water.

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