

## RESERVOIR STORAGE

*April 2012*

At the end of the month, total storage in 109 of the state's major water supply reservoirs was at 24.3 million acre-feet\*, or 78% of their total conservation storage capacity. This is 108,000 acre-feet more than a month ago and 95,000 acre-feet more than the storage at this time last year.

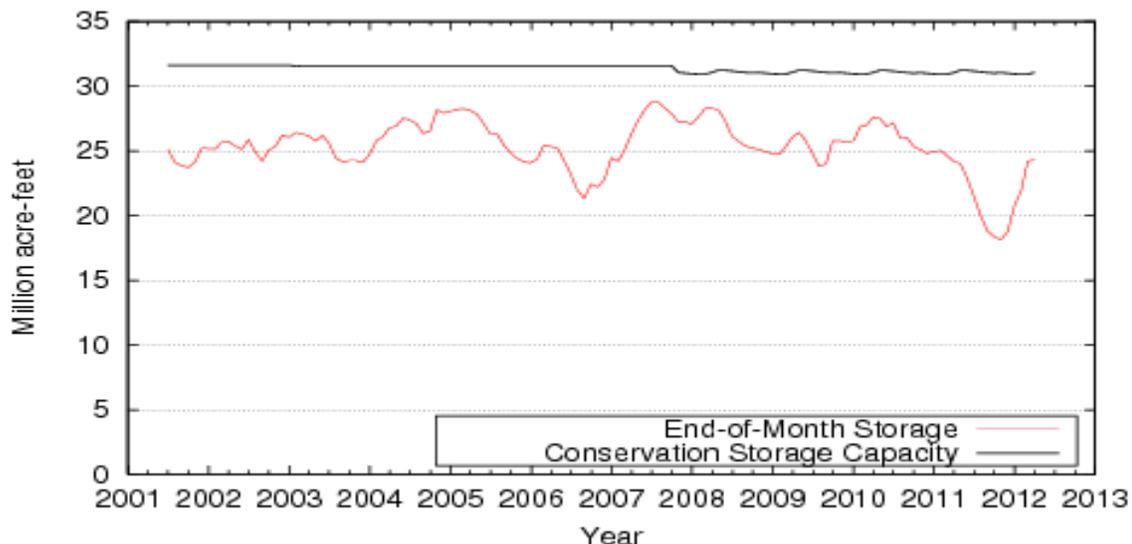
Twenty-six (26) reservoirs, located primarily in the North Central and East regions of the state, held 100% of conservation storage capacity. Ten (10) reservoirs were at or below 10% full: E.V. Spence, O. C. Fisher, Twin Buttes, Hords Creek Lake, and Meredith were effectively empty, Electra and J. B. Thomas at 1%, Palo Duro at 6%, Red Bluff at 8%, and Mackenzie at 9% full.

Total combined storage was greater than 70% in the North Central (94%), East (97%), and Upper Coast (98%) regions. The regions with the lowest percentage storage were the High Plains (2%) and Trans-Pecos regions (8%). Storage over the last month declined in 7 regions and increased in 2 regions.

Elephant Butte reservoir held 380,222 acre-feet, or 19% of storage capacity. This is 7,300 acre-ft less than a month ago.

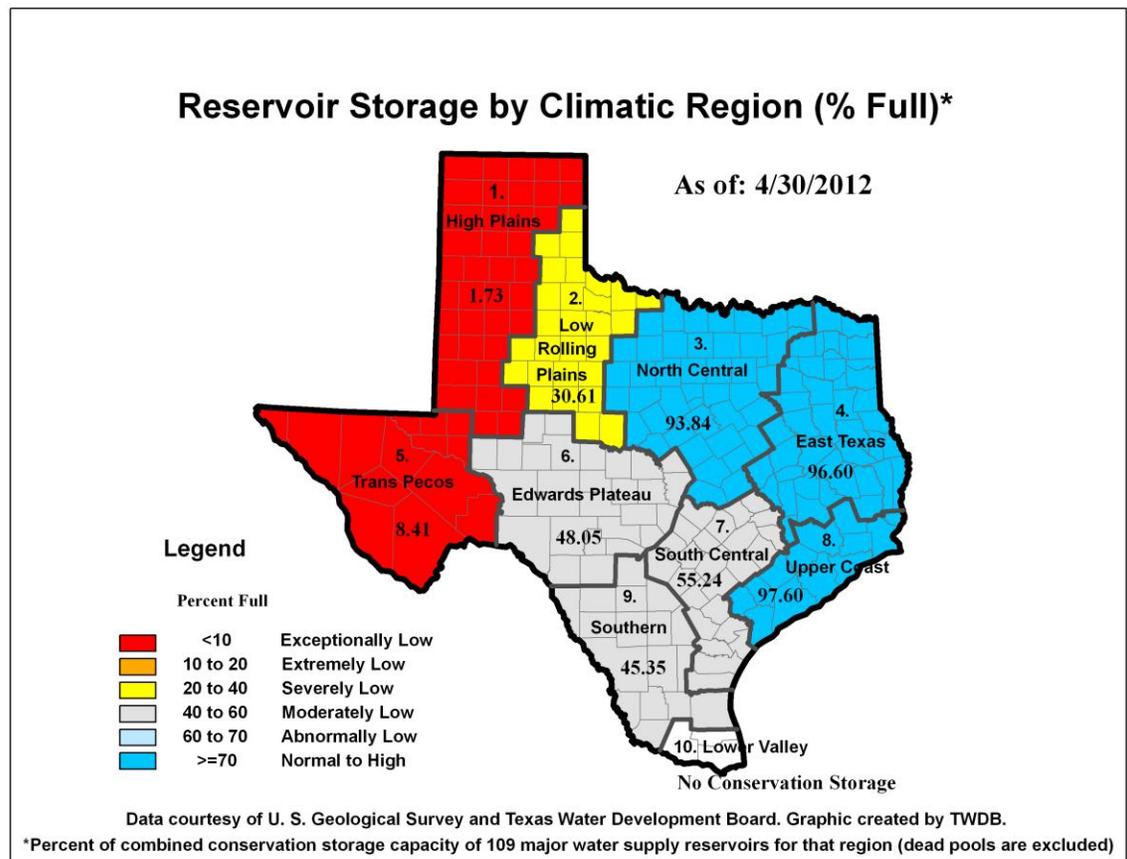
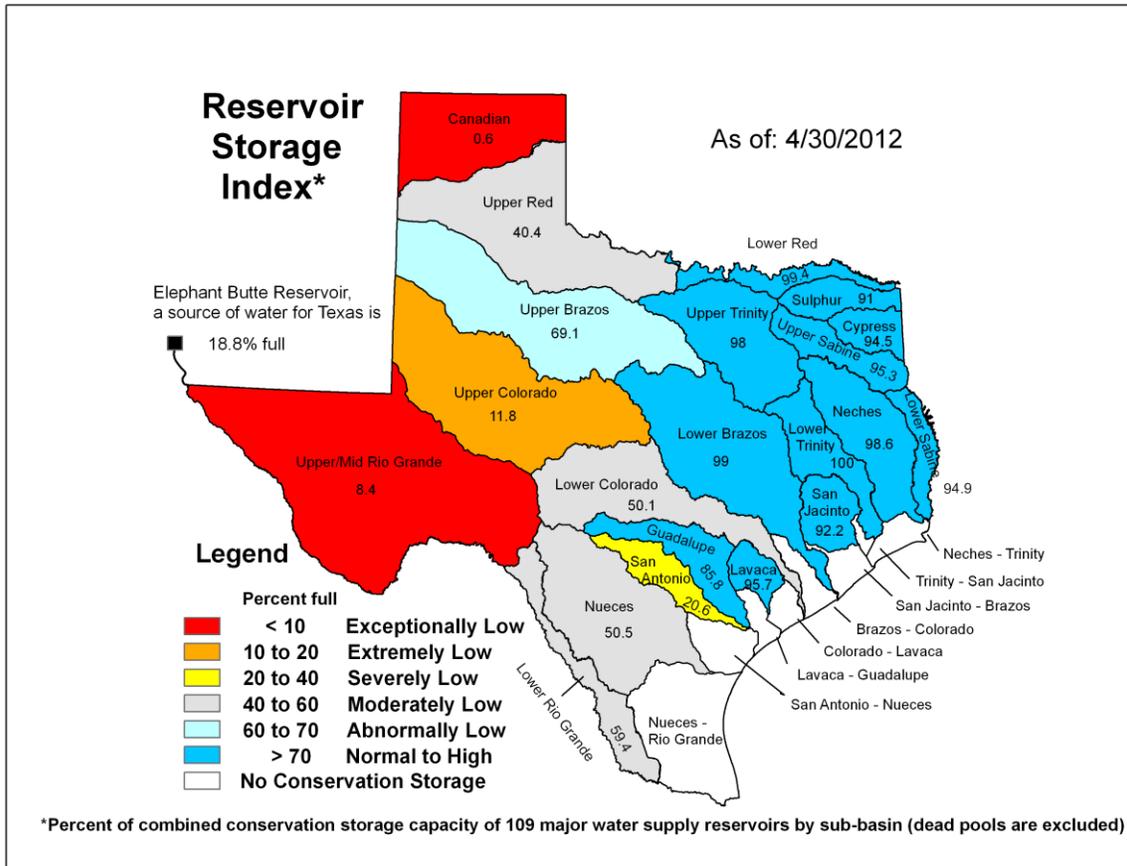
\* Only the Texas share of storage in border reservoirs is counted.

### 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.

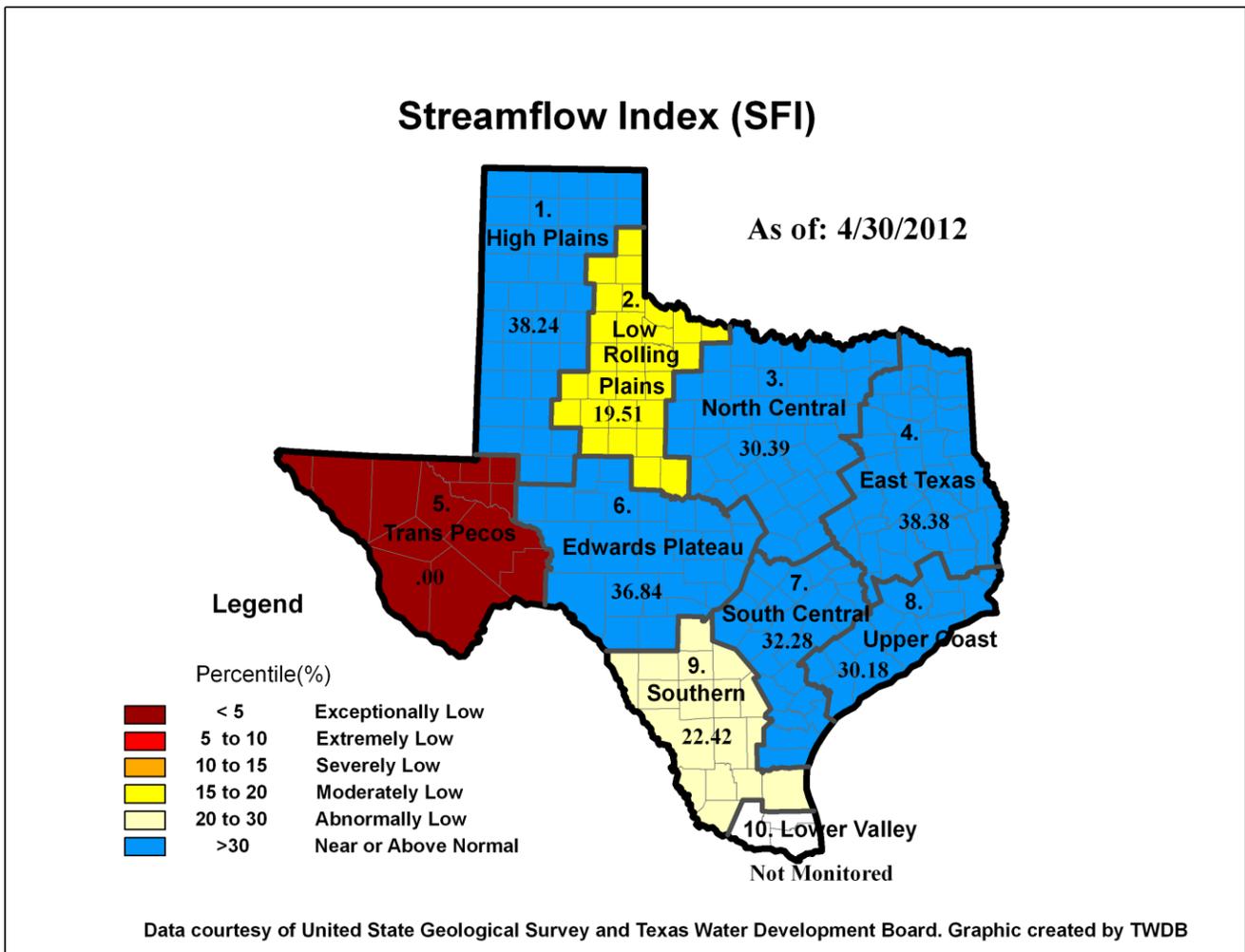
# APRIL RESERVOIR CONDITIONS



## *APRIL STREAMFLOW CONDITIONS*

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 4 stations, extremely low (5-10%) at 4 stations, severely low (10-15%) at 1 station, moderately low (15-20%) at 1 station, abnormally low at 4 stations (20% - 30%), and near normal (30% - 70%) at the remaining 15 stations. Compared to last month, flows have increased at 6 index stations and decreased at 22 stations.

On a regional basis, flows in this month were exceptionally low in the Trans-Pecos region, moderately low in Low Rolling Plains region, abnormally low in the Southern region, and near normal in all other regions. Streamflow in the Lower Valley region is not monitored.



## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir		Conservation Storage		Change since		Change since		
		Capacity (acre-feet)	Late April (acre-feet)	2012 (%)	Late March 2012 (acre-feet) (%)	Late April 2011 (acre-feet) (%)		
<b>HIGH PLAINS</b>								
Palo Duro Reservoir	1	60,897	3,492	6	444	1	-5,629	-9
Meredith, Lake (Texas)	2	500,000	0	0	0	0	-1,792	0
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	0	0	-1,792	0
MacKenzie Reservoir	3	46,429	4,017	9	-139	0	-1,620	-3
White River Lake	4	29,880	3,483	12	-452	-2	-5,512	-18
TOTAL		637,206	10,992	2	-147	0	-14,553	-2
<b>LOW ROLLING PLAINS</b>								
Greenbelt Lake	5	59,500	10,372	17	-315	-1	-5,163	-9
*Electra, Lake	6	5,626	75	1	29	1	-166	-3
N. Fork Buffalo Crk Reservoir	7	15,400	2,363	15	0	0	-2,676	-17
Kemp, Lake	8	245,308	84,655	35	-1,508	-1	-115,714	-47
Millers Creek Reservoir	9	27,888	9,230	33	-588	-2	-7,592	-27
Alan Henry Reservoir	10	94,808	73,397	77	68	0	-12,570	-13
Stamford, Lake	11	51,570	24,287	47	-1,632	-3	-20,323	-39
J B Thomas, Lake	12	199,931	1,116	1	-377	0	-6,923	-3
Fort Phantom Hill, Lake	13	70,030	36,624	52	-1,276	-2	-17,417	-25
Sweetwater, Lake	14	10,006	2,762	28	-175	-2	-2,369	-24
Colorado City, Lake	15	31,793	9,361	29	-380	-1	-4,066	-13
Champion Creek Reservoir	16	41,618	4,702	11	-194	0	-1,571	-4
Abilene, Lake	17	6,099	1,161	19	-162	-3	-2,964	-49
Coleman, Lake	18	38,076	15,734	41	485	1	-3,919	-10
Hords Creek Lake	19	5,684	0	0	0	0	-30	-1
TOTAL		903,337	275,839	31	-6,025	-1	-203,463	-23
<b>NORTH CENTRAL</b>								
Nocona, Lake (Farmers Crk)	20	21,445	14,199	66	425	2	-3,157	-15
Hubert H Moss Lake	21	24,058	23,791	99	-267	-1	-138	-1
Texoma, Lake (Texas)	22	1,185,688	1,185,688	100	0	0	34,327	3
Texoma, Lake (Texas & Oklahoma)	(22)	2,371,376	2,371,376	100	0	0	68,654	3
*Pat Mayse Lake	23	117,844	117,844	100	0	0	9,723	8
Kickapoo, Lake	24	85,825	43,476	51	-1,379	-2	-20,073	-23
Arrowhead, Lake	25	235,997	134,422	57	-3,140	-1	-42,830	-18
Bonham, Lake	26	11,026	10,583	96	-443	-4	154	1
Crook, Lake	27	9,195	8,874	97	-321	-3	-321	-3
Amon G Carter, Lake	28	19,903	17,436	88	1,245	6	974	5
Ray Roberts, Lake	29	798,758	796,719	100	-2,039	0	48,780	6
Jim Chapman Lake (Cooper)	30	260,332	243,487	94	11,041	4	109,494	42
Graham, Lake	31	45,260	44,210	98	-1,050	-2	4,108	9
*Lost Creek Reservoir	32	11,950	11,819	99	-131	-1	1,145	10
Bridgeport, Lake	33	366,236	306,986	84	2,171	1	-2,496	-1
Lewisville Lake	34	563,228	561,628	100	-1,600	0	40,174	7
Lavon Lake	35	443,844	443,844	100	0	0	105,807	24
Hubbard Creek Reservoir	36	318,067	139,757	44	-5,972	-2	-41,363	-13
Possum Kingdom Lake	37	540,340	451,408	84	-8,613	-2	-47,491	-9
*Mineral Wells, Lake	38	7,065	6,742	95	-323	-5	775	11
Weatherford, Lake	39	17,789	17,264	97	-525	-3	3,894	22
Eagle Mountain Lake	40	179,880	177,322	99	-2,558	-1	21,288	12
Worth, Lake	41	24,500	21,468	88	-3,032	-12	2,772	11
Grapevine Lake	42	164,702	164,303	100	-399	0	6,646	4
Ray Hubbard, Lake	43	452,040	444,807	98	-7,233	-2	45,800	10
New Terrell City Lake	44	8,583	8,583	100	0	0	1,186	14
Daniel, Lake	45	9,435	5,124	54	-501	-5	1,366	14
Palo Pinto, Lake	46	26,827	26,266	98	-561	-2	-561	-2
Benbrook Lake	47	85,648	81,645	95	-4,003	-5	-603	-1
Arlington, Lake	48	40,156	39,926	99	-230	-1	5,765	14

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir		Conservation Storage		Change since		Change since		
		Capacity (acre-feet)	Late April 2012 (acre-feet)	Late March 2012 (acre-feet)	Late April 2011 (acre-feet)	Late March 2012 (%)	Late April 2011 (%)	
<b>NORTH CENTRAL (Continue)</b>								
Joe Pool Lake	49	142,861	142,861	100	0	0	1,698	1
*Cisco, Lake	50	26,000	11,214	43	-302	-1	-2,143	-8
Leon, Lake	51	26,421	22,573	85	-338	-1	7,350	28
Granbury, Lake	52	128,046	123,590	97	-2,643	-2	-1,284	-1
Pat Cleburne, Lake	53	26,008	25,883	100	-125	0	2,295	9
Waxahachie, Lake	54	10,779	10,779	100	0	0	1,428	13
Bardwell Lake	55	46,122	46,122	100	0	0	960	2
Proctor Lake	56	55,457	55,056	99	-401	-1	22,739	41
Whitney, Lake	57	553,349	553,349	100	0	0	191,051	35
Aquilla Lake	58	44,460	44,429	100	-31	0	2,643	6
Navarro Mills Lake	59	49,826	49,640	100	-186	0	1,117	2
*Halbert, Lake	60	6,033	5,070	84	-337	-6	1,549	26
Richland-Chambers Reservoir	61	1,087,839	1,083,174	100	-4,665	0	102,305	9
*Brownwood, Lake	62	131,429	75,433	57	-2,683	-2	3,131	2
Waco, Lake	62	198,943	198,943	100	0	0	8,904	4
Limestone, Lake	64	208,015	204,843	98	-3,172	-2	37,389	18
Belton Lake	65	435,225	435,225	100	0	0	47,120	11
Stillhouse Hollow Lake	66	227,771	214,763	94	7,262	3	-4,997	-2
Georgetown, Lake	67	36,823	36,746	100	-77	0	9,281	25
Granger Lake	68	50,779	50,779	100	0	0	876	2
Tawakoni, Lake	69	888,126	867,582	98	-3,016	0	103,544	12
TOTAL		10,455,933	9,807,675	94	-40,152	0	822,101	8
<b>EAST</b>								
Wright Patman Lake	70	307,973	271,299	88	148,706	48	24,711	8
*Sulphur Springs, Lake	71	17,838	17,838	100	0	0	6,706	38
Cypress Springs, Lake	72	66,756	66,756	100	0	0	3,037	5
Bob Sandlin, Lake	73	200,579	175,565	88	3,205	2	3,542	2
Fork Reservoir, Lake	74	604,927	551,765	91	-1,261	0	33,838	6
O the Pines, Lake	75	238,933	235,329	98	-3,604	-2	-3,604	-2
Cedar Creek Reservoir in Trinity	76	644,686	638,899	99	-5,787	-1	88,072	14
Athens, Lake	77	29,435	27,186	92	17	0	-509	-2
Palestine, Lake	78	370,907	367,864	99	-3,043	-1	33,775	9
Tyler, Lake	79	73,256	62,654	86	-133	0	-2,484	-3
Murvaul, Lake	80	38,284	38,284	100	0	0	6,231	16
Jacksonville, Lake	81	25,670	25,670	100	0	0	1,581	6
Nacogdoches, Lake	82	39,521	33,369	84	998	3	6,015	15
Houston County Lake	83	17,113	16,960	99	-140	-1	114	1
Sam Rayburn Reservoir	84	2,857,077	2,837,992	99	164,879	6	827,265	29
Toledo Bend Reservoir (Texas)	85	2,236,450	2,126,787	95	-18,307	-1	541,923	24
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	4,253,575	95	-36,613	-1	1,083,846	24
*Livingston, Lake	86	1,741,867	1,741,867	100	0	0	0	0
B A Steinhagen Lake	87	66,966	60,918	91	-705	-1	-2,015	-3
Conroe, Lake	88	416,188	373,920	90	544	0	-3,627	-1
TOTAL		9,994,426	9,670,922	97	285,369	3	1,564,571	16
<b>TRANS-PECOS</b>								
Red Bluff Reservoir	89	130,170	10,945	8	389	0	-24,704	-19
TOTAL		130,170	10,945	8	389	0	-24,704	-19

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir		Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late March 2012		Change since Late April 2011		
			Late April (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
<b>EDWARDS PLATEAU</b>									
Oak Creek Reservoir	90	39,260	13,970	36	-425	-1	-7,190	-18	
E V Spence Reservoir	91	517,272	2,128	0	-148	0	-7,000	-1	
O C Fisher Lake	92	79,483	0	0	0	0	0	0	
*O H Ivie Reservoir	93	554,335	90,938	16	-6,238	-1	-66,859	-12	
Twin Buttes Reservoir	94	177,850	0	0	0	0	-16,586	-9	
Brady Creek Reservoir	95	29,110	7,196	25	-512	-2	-4,352	-15	
Buchanan, Lake	96	824,519	441,744	54	3,761	0	-212,719	-26	
Lyndon B Johnson, Lake	97	113,323	110,407	97	-972	-1	-243	0	
*Amistad Reservoir (Texas)	98	1,840,849	1,362,000	74	-33,000	-2	-473,000	-26	
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	2,114,000	65	-31,000	-1	-1,153,000	-35	
<b>TOTAL</b>		<b>4,176,001</b>	<b>2,028,383</b>	<b>49</b>	<b>-37,534</b>	<b>-1</b>	<b>-787,949</b>	<b>-19</b>	
<b>SOUTH CENTRAL</b>									
Travis, Lake	99	1,113,255	502,525	45	-19,672	-2	-227,315	-20	
*Austin, Lake	100	21,804	20,609	95	-181	-1	-332	-2	
Somerville Lake	101	147,104	147,104	100	0	0	33,386	23	
Canyon Lake	102	378,781	324,369	86	-747	0	-30,856	-8	
Medina Lake	103	254,823	52,536	21	-5,587	-2	-87,735	-34	
*Coletto Creek Reservoir	104	31,040	27,450	88	-460	-1	-1,456	-5	
<b>TOTAL</b>		<b>1,946,807</b>	<b>1,074,593</b>	<b>55</b>	<b>-26,647</b>	<b>-1</b>	<b>-314,308</b>	<b>-16</b>	
<b>UPPER COAST</b>									
Houston, Lake	105	128,863	128,863	100	0	0	3,863	3	
Texana, Lake	106	159,640	152,904	96	-342	0	48,727	31	
<b>TOTAL</b>		<b>288,503</b>	<b>281,767</b>	<b>98</b>	<b>-342</b>	<b>0</b>	<b>52,590</b>	<b>18</b>	
<b>SOUTHERN</b>									
Choke Canyon Reservoir	107	695,262	406,709	58	-11,321	-2	-122,006	-18	
Corpus Christi, Lake	108	256,961	75,581	29	-2,687	-1	-121,043	-47	
*Falcon Reservoir (Texas)	109	1,551,034	654,000	42	-53,000	-3	-756,000	-49	
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	1,076,000	41	-212,000	-8	-1,210,000	-46	
<b>TOTAL</b>		<b>2,503,257</b>	<b>1,136,290</b>	<b>45</b>	<b>-67,008</b>	<b>-3</b>	<b>-999,049</b>	<b>-40</b>	
<b>STATE TOTAL</b>		<b>31,035,640</b>	<b>24,297,406</b>	<b>78</b>	<b>107,903</b>	<b>0</b>	<b>95,236</b>	<b>0</b>	

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

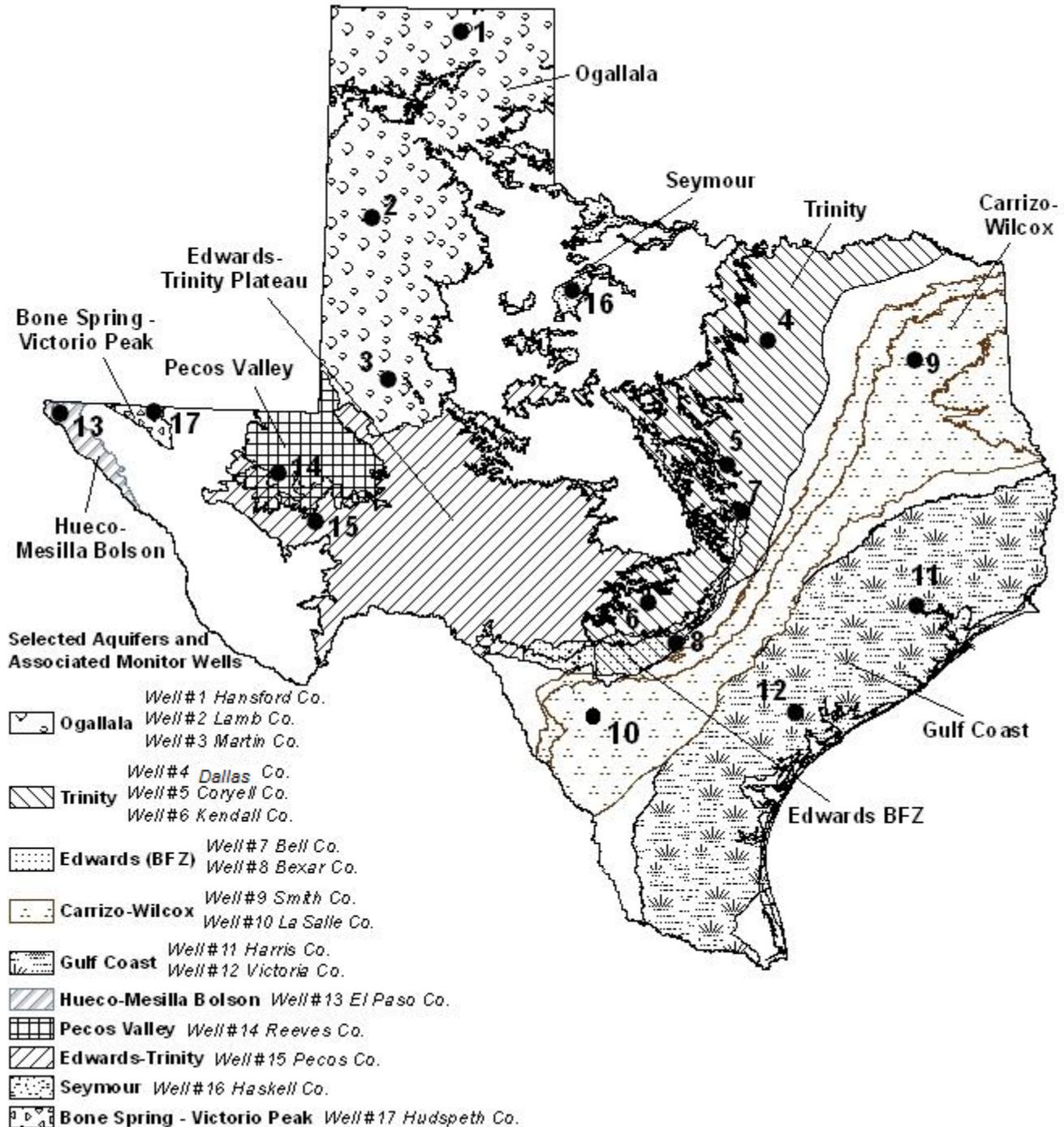
In Addition

Elephant Butte Reservoir	1,975,000	380,222	19	-7,297	0	-3,440	0
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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.

# APRIL 2012 GROUNDWATER LEVELS IN OBSERVATION WELLS



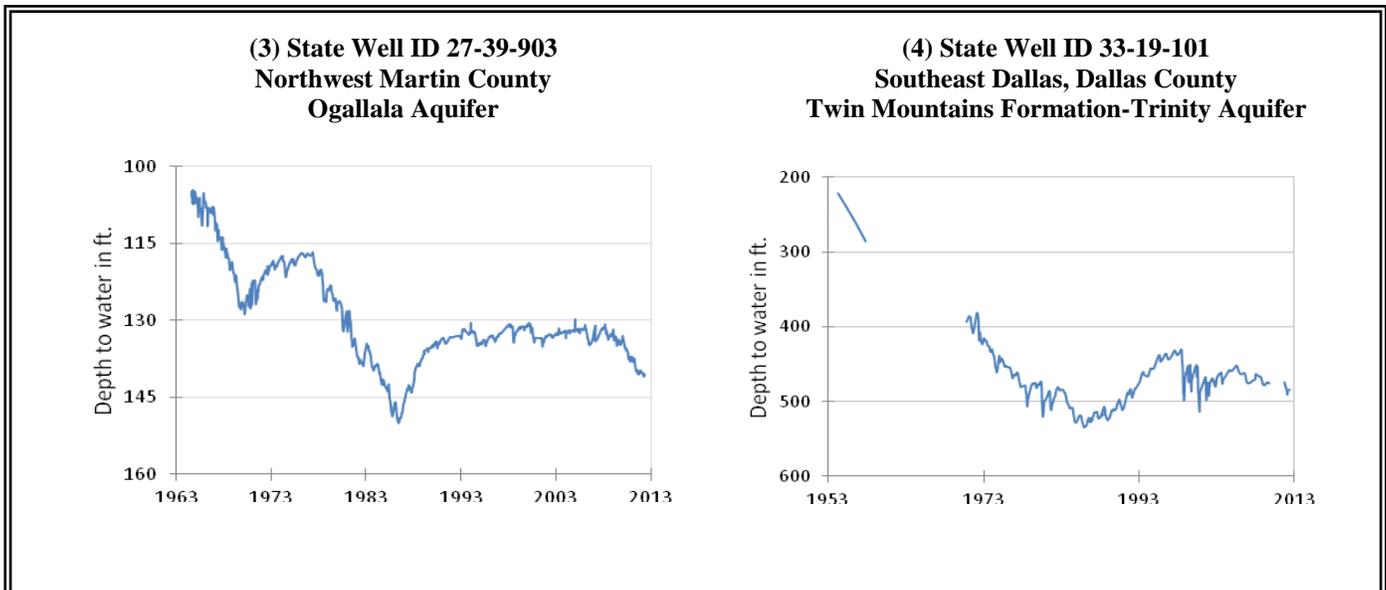
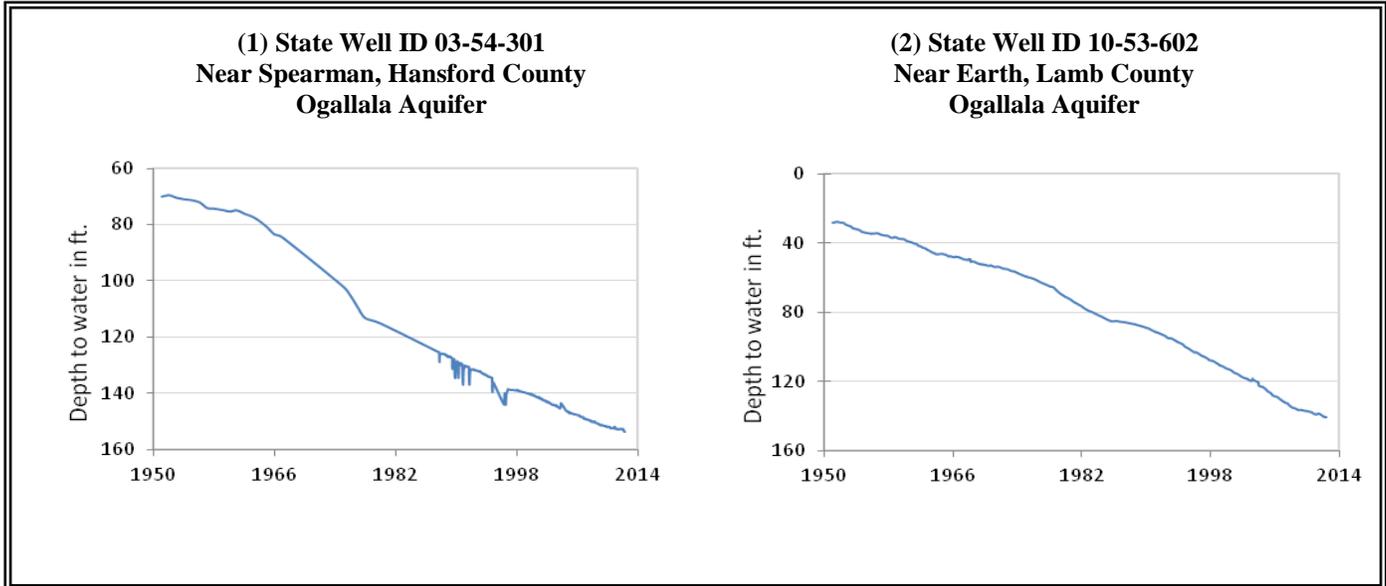
April, 2012

Water level measurements were available for all 17 key monitoring wells in the state. Water levels rose in four of the monitoring wells since the beginning of April, ranging from 0.15 feet in the Smith County Carrizo-Wilcox Aquifer well to 2.14 feet in the Harris County Gulf Coast Aquifer well. Water levels declined in the remaining 13 monitoring wells, ranging from 0.1 feet in the Haskell County Seymour Aquifer to 19.09 feet in the Bexar County Edwards BFZ (J-17) well. The J-17 well in San Antonio recorded a water level of 84.08 feet below land surface. This water level is 13.08 feet below the Stage I critical management level in that segment of the Edwards Aquifer. Stage I restrictions were declared by the E.A.A. on April 18, 2012, when the 10-day average fell below the 660-foot elevation or 71 feet below land surface.

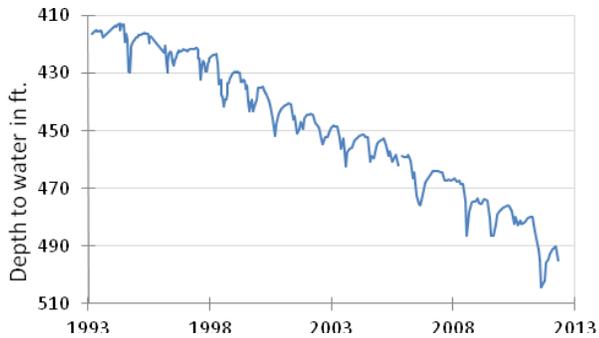
\* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	April 2012	Mar 2012	Month Change	Year Change	Historical Change
(1) Hansford 0354301	153.52	153.52	0.0	-0.78	-83.40
(2) Lamb 1053602	140.79	140.68	-0.11	-2.22	-112.64
(3) Martin 2739903	140.52	140.98	0.46	-1.77	-35.63
(4) Dallas 3319101	483.91	484.16	0.25	N/A	-261.91
(5) Coryell 4035404	495.01	490.04	-4.97	-12.25	-203.01
(6) Kendall 6802609	130.61	121.20	-9.41	-2.69	-70.61
(7) Bell 5804816	123.46	123.23	-0.23	0.27	-0.33
(8) Bexar 6837203	84.08	64.99	-19.09	-6.92	-37.44
(9) Smith 3430907	432.25	432.40	0.15	-1.89	-66.25
(10) La Salle 7738103	402.43	392.77	-9.66	-75.91	-149.36
(11) Harris 6514409	201.25	203.39	2.14	-6.19	-65.75
(12) Victoria 8017502	35.91	35.58	-0.33	-4.72	-1.91
(13) El Paso 4913301	291.87	290.06	-1.81	-0.84	-59.97
(14) Reeves 4644501	151.12	148.97	-2.15	-4.76	-59.03
(15) Pecos 5216802	212.60	198.69	-13.91	1.82	34.28
(16) Haskell 2135748	45.90	45.80	-0.1	-0.2	-4.57
(17) Hudspeth 4807516	140.97	134.86	-6.11	-1.74	-37.05

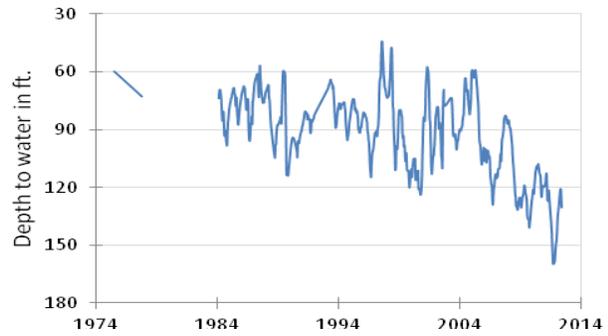
## APRIL GROUNDWATER LEVELS IN OBSERVATION WELLS



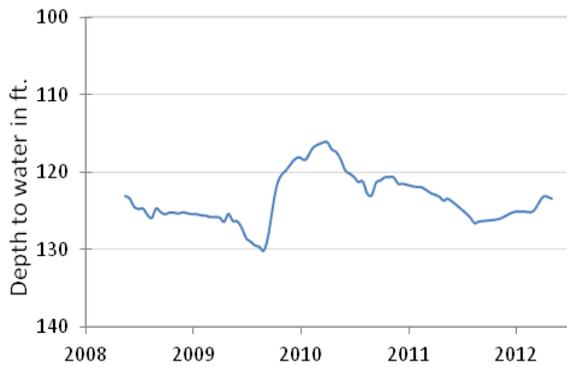
**(5) State Well ID 40-35-404  
Gatesville, Coryell County  
Hosston Formation-Trinity Aquifer**



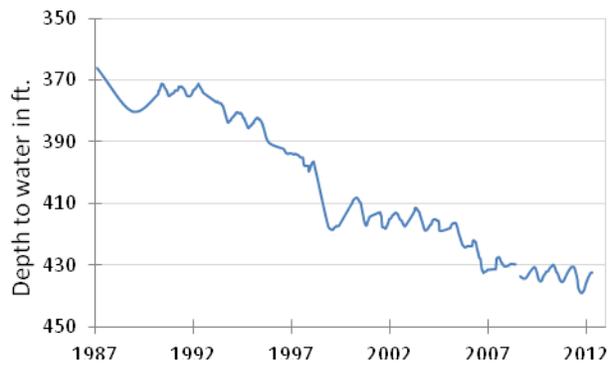
**(6) State Well ID 68-02-609  
Waring, Kendall County  
Cow Creek Formation-Trinity Aquifer**



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



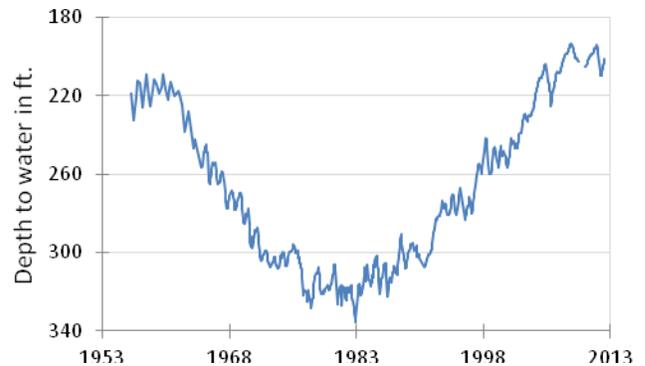
**(9) State Well ID 34-30-907  
Red Springs, Smith County  
Carrizo-Wilcox Aquifer**



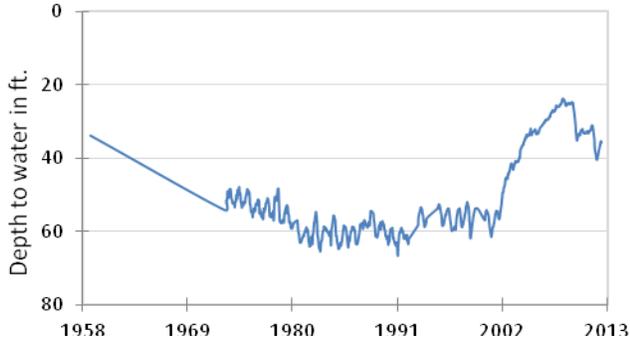
**(10) State Well ID 77-38-103  
Near Cotulla, La Salle County  
Carrizo-Wilcox Aquifer**



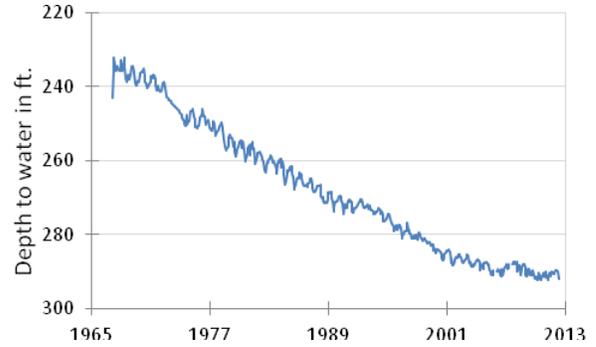
**(11) State Well ID 65-14-409  
Alief, Harris County  
Evangeline Formation-Gulf Coast Aquifer**



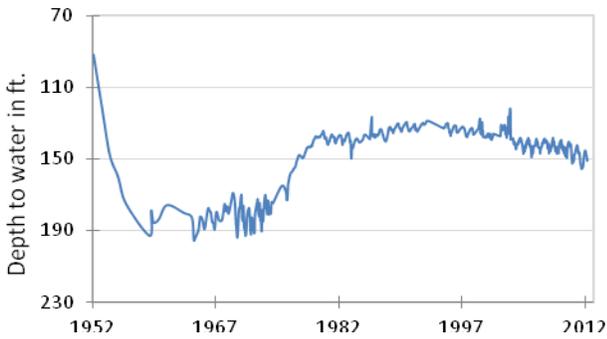
**(12) State Well ID 80-17-502**  
**Near Bloomington, Victoria County**  
**Lissie Formation-Gulf Coast Aquifer**



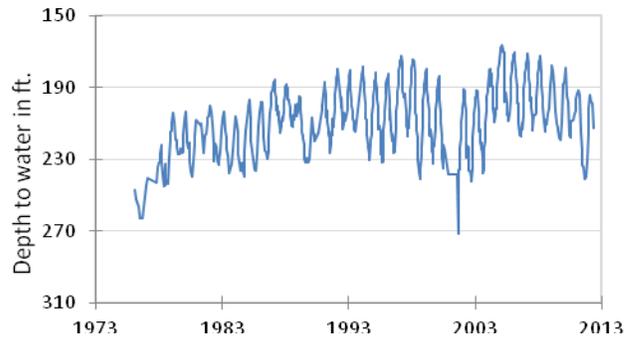
**(13) State Well ID 49-13-301**  
**El Paso, El Paso County**  
**Hueco-Mesilla Bolson Aquifer**



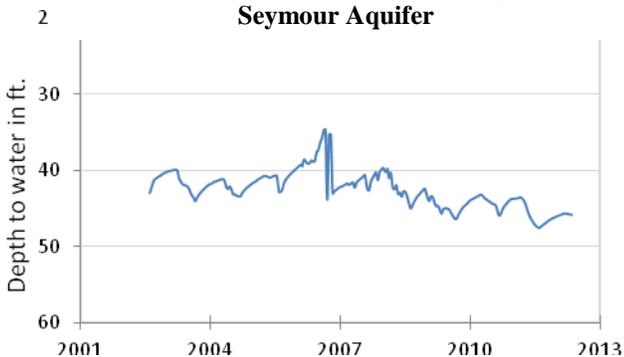
**(14) State Well ID 46-44-501**  
**Near Pecos, Reeves County**  
**Pecos Valley Aquifer**



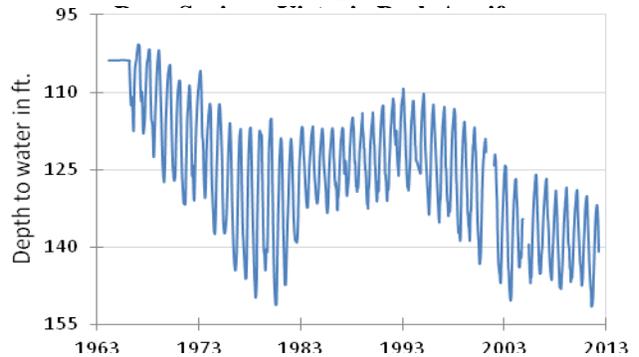
**(15) State Well ID 52-16-802**  
**Fort Stockton, Pecos County**  
**Edwards-Trinity (Plateau) Aquifer**



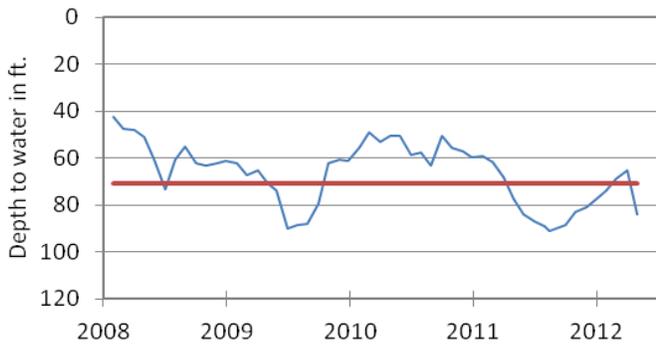
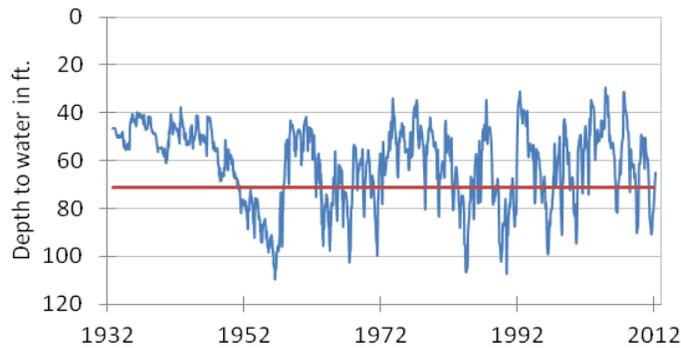
**(16) State Well ID 21-35-748**  
**Near O'Brien, Haskell County**  
**Seymour Aquifer**



**(17) State Well ID 48-07-516**  
**Dell City, Hudspeth County**  
**Edwards-Trinity (Plateau) Aquifer**



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

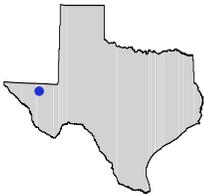


The late April water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 84.08 feet below land surface. This was 19.09 feet below last month's measurement, 6.92 feet below last year's measurement, and 37.44 feet below the initial measurement recorded in 1932.

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

***HYDROGRAPH OF THE MONTH***

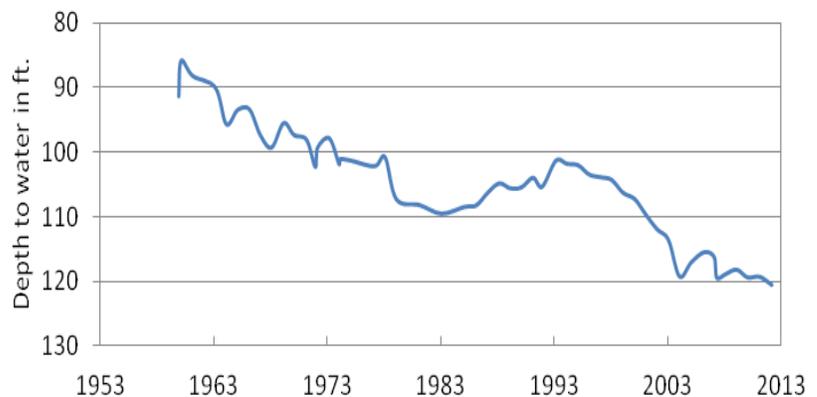
Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.



**Capitan Reef Complex Aquifer**

The Capitan Reef Complex Aquifer is a minor aquifer located in portions of eight west Texas counties. It is exposed in mountain ranges of Far West Texas but elsewhere remains buried in the subsurface. The aquifer is composed of up to 2,360 feet of massive, cavernous dolomite and limestone that was deposited around the edge of the Permian Delaware Basin around 270 to 260 million years ago. The formations host the most famous cave in the U.S. at Carlsbad Caverns National Park. Water-bearing formations include the Capitan Limestone, Goat Seep Limestone, and most of the Carlsbad facies of the Artesia Group. Overall, the aquifer contains water of marginal quality, yielding small to large quantities of slightly saline to saline groundwater containing 1,000 to greater than 5,000 milligrams per liter of total dissolved solids. Although most of the groundwater pumped from the aquifer in Texas is used for oil reservoir flooding in Ward and Winkler counties, a small amount is used to irrigate salt-tolerant crops in Pecos, Culberson, and Hudspeth counties. Over the last 70 years, water levels have declined in some areas as a result of irrigation exceeding recharge.

**Well # 47-17-206  
Hudspeth County  
Capitan Reef Complex Aquifer**



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