

## RESERVOIR STORAGE

*June 2012*

At the end of the month, total storage in 109 of the state's major water supply reservoirs was at 23.46 million acre-feet\*, or 75% of their total conservation storage capacity. This is 626,000 acre-feet less than a month ago and 610,000 acre-feet more than storage at this time last year.

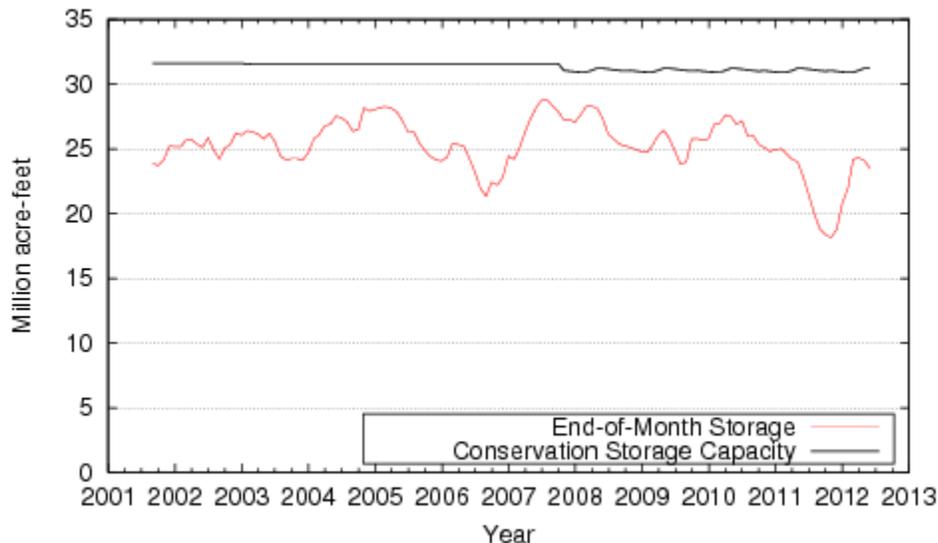
Four reservoirs held 100% of conservation storage capacity. Ten reservoirs were at or below 10% full: E.V. Spence, O. C. Fisher, Twin Buttes, Hords Creek Lake, J. B. Thomas, and Meredith were effectively empty; Electra was at 1%, Palo Duro at 4%, Mackenzie and Red Bluff at 8% full.

Total combined storage was greater than 70% in the North Central (90%), East (93%), and Upper Coast (94%) 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 274,000 acre-feet, or 14% of storage capacity. This is 94,000 acre-ft less than a month ago.

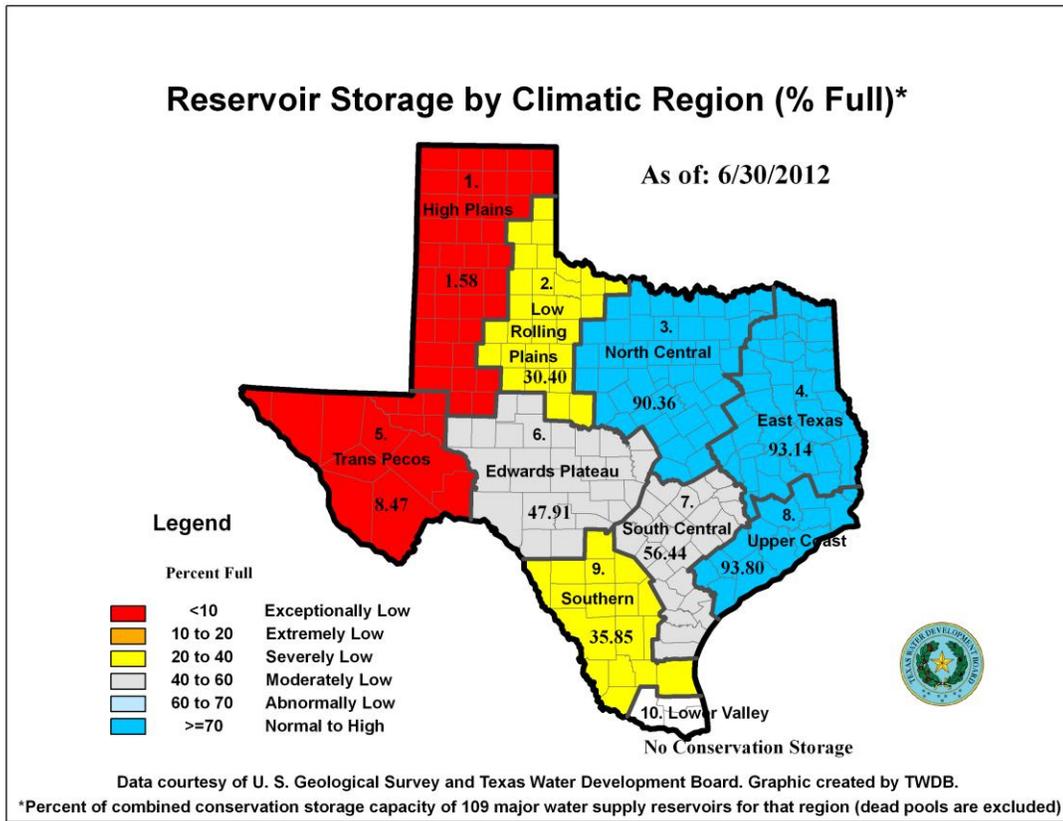
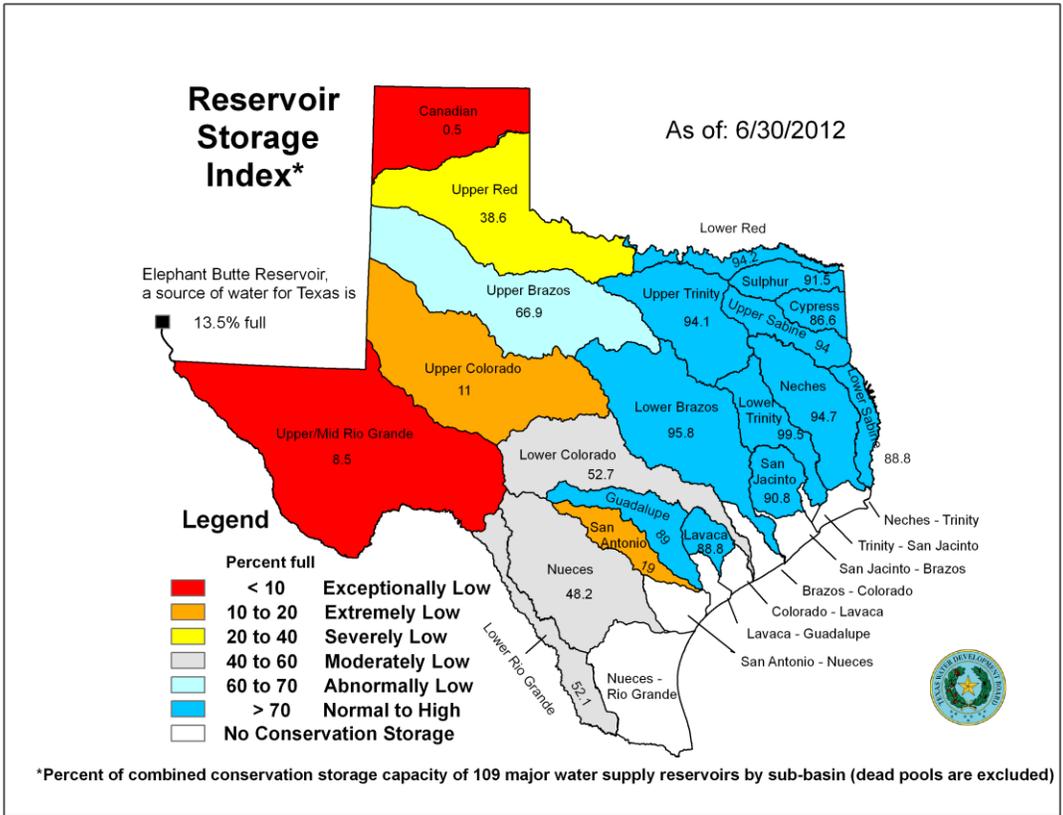
\* Only the Texas share of storage in border reservoirs is counted.

### 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.

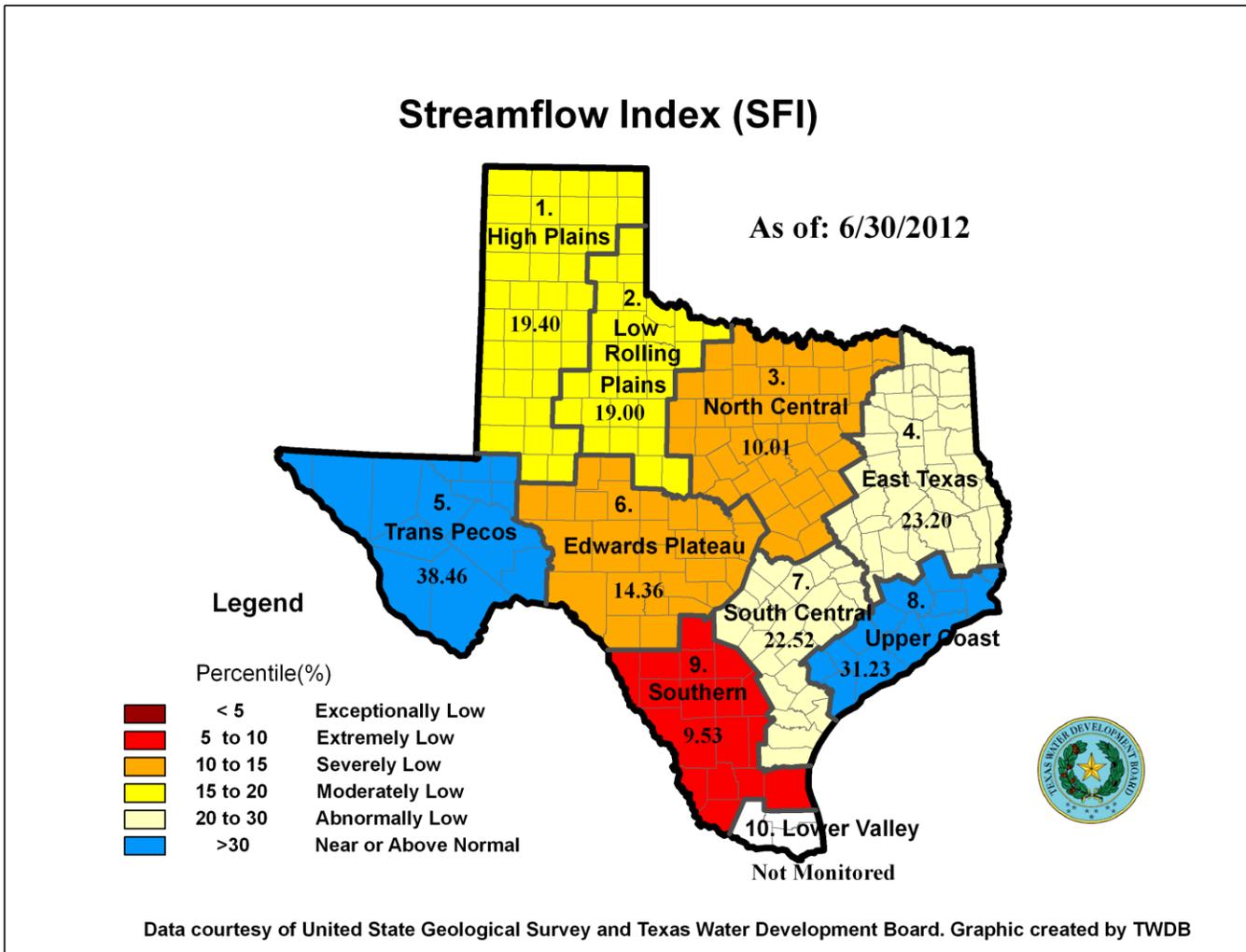
# JUNE RESERVOIR CONDITIONS



## ***JUNE STREAMFLOW CONDITIONS***

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 1 station, extremely low (5-10%) at 8 stations, severely low (10-15%) at 5 stations, moderately low (15-20%) at 3 stations, abnormally low (20% - 30%) at 7 stations, and near normal (30% - 70%) at the remaining 5 stations. Compared to last month, flows have increased at 9 index stations and decreased at 20 stations.

On a regional basis, flows in this month were extremely low in Southern, severely low in Edwards Plateau and North Central, moderately low in High Plains and Low Rolling Plains, abnormally low in East and South Central, 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	No. on Map	Conservation Storage		Change since Late May		Change since Late June		
		Capacity (acre-feet)	Late June (acre-feet)	2012 (%)	2012 (%)	2011 (acre-feet)	2011 (%)	
<b>HIGH PLAINS</b>								
Palo Duro Reservoir	1	60,897	2,695	4	-347	-1	-4,243	-7
Meredith, Lake (Texas)	2	500,000	0	0	0	0	0	0
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	0	0	0	0
MacKenzie Reservoir	3	46,429	3,764	8	-117	0	-1,315	-3
White River Lake	4	29,880	3,582	12	556	2	-3,810	-13
TOTAL		637,206	10,041	2	92	0	-9,368	-1
<b>LOW ROLLING PLAINS</b>								
Greenbelt Lake	5	59,500	10,409	17	229	0	-3,197	-5
*Electra, Lake	6	5,626	40	1	-20	0	-73	-1
N. Fork Buffalo Crk Reservoir	7	15,400	1,876	12	-198	-1	-1,926	-13
Kemp, Lake	8	245,308	90,842	37	6,137	3	-57,925	-24
Millers Creek Reservoir	9	27,888	8,142	29	-585	-2	-6,158	-22
Alan Henry Reservoir	10	94,808	76,152	80	604	1	-5,950	-6
Stamford, Lake	11	51,570	20,535	40	-1,928	-4	-16,697	-32
J B Thomas, Lake	12	199,931	684	0	-259	0	-4,928	-2
Fort Phantom Hill, Lake	13	70,030	34,097	49	-1,812	-3	-13,012	-19
Sweetwater, Lake	14	10,006	2,402	24	-264	-3	-1,943	-19
Colorado City, Lake	15	31,793	8,982	28	-569	-2	-2,997	-9
Champion Creek Reservoir	16	41,618	4,442	11	-283	-1	-1,126	-3
Abilene, Lake	17	6,099	880	14	-213	-3	-2,262	-37
Coleman, Lake	18	38,076	14,763	39	-506	-1	-3,282	-9
Hords Creek Lake	19	5,684	0	0	0	0	0	0
TOTAL		903,337	274,246	30	333	0	-121,476	-13
<b>NORTH CENTRAL</b>								
Nocona, Lake (Farmers Crk)	20	21,445	13,378	62	-157	-1	-2,539	-12
Hubert H Moss Lake	21	24,058	23,855	99	0	0	620	3
Texoma, Lake (Texas)	22	1,334,295	1,263,017	95	13,378	1	85,911	6
Texoma, Lake (Texas & Oklahoma)	(22)	2,668,590	2,526,035	95	26,756	1	171,823	6
*Pat Mayse Lake	23	117,844	114,158	97	-3,630	-3	-2,122	-2
Kickapoo, Lake	24	85,825	40,828	48	-998	-1	-15,256	-18
Arrowhead, Lake	25	235,997	120,398	51	-5,278	-2	-38,096	-16
Bonham, Lake	26	11,026	10,090	92	112	1	-82	-1
Crook, Lake	27	9,195	8,203	89	-516	-6	-227	-2
Amon G Carter, Lake	28	19,903	16,043	81	-716	-4	108	1
Ray Roberts, Lake	29	798,758	784,195	98	-5,533	-1	31,825	4
Jim Chapman Lake (Cooper)	30	260,332	234,450	90	-10,427	-4	73,988	28
Graham, Lake	31	45,260	42,084	93	-688	-2	5,616	12
*Lost Creek Reservoir	32	11,950	11,379	95	-193	-2	1,090	9
Bridgeport, Lake	33	366,236	297,251	81	-5,285	-1	3,933	1
Lewisville Lake	34	563,228	531,092	94	-14,803	-3	-2,604	0
Lavon Lake	35	443,844	409,825	92	-22,462	-5	39,563	9
Hubbard Creek Reservoir	36	318,067	128,700	40	-5,387	-2	-35,502	-11
Possum Kingdom Lake	37	540,340	444,213	82	-142	0	-22,371	-4
*Mineral Wells, Lake	38	7,065	6,180	87	-357	-5	843	12
Weatherford, Lake	39	17,789	15,565	87	-792	-4	3,235	18
Eagle Mountain Lake	40	179,880	153,591	85	-13,548	-8	8,984	5
Worth, Lake	41	24,500	17,981	73	-844	-3	-1,202	-5
Grapevine Lake	42	164,702	151,892	92	-5,637	-3	-11,412	-7
Ray Hubbard, Lake	43	452,040	442,121	98	3,281	1	26,155	6
New Terrell City Lake	44	8,583	8,328	97	-255	-3	1,140	13
Daniel, Lake	45	9,435	4,391	47	-331	-4	1,384	15
Palo Pinto, Lake	46	26,827	26,029	97	108	0	3,051	11
Benbrook Lake	47	85,648	77,875	91	548	1	2,295	3
Arlington, Lake	48	40,156	35,427	88	-2,064	-5	1,340	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 May 2012		Change since Late June 2011		
			Late June (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
<b>NORTH CENTRAL (Continue)</b>									
Joe Pool Lake	49	142,861	139,392	98	-1,992	-1	2,657	2	
*Cisco, Lake	50	26,000	11,476	44	445	2	-1,169	-4	
Leon, Lake	51	26,421	21,954	83	-309	-1	8,243	31	
Granbury, Lake	52	128,046	120,129	94	2,412	2	9,517	7	
Pat Cleburne, Lake	53	26,008	24,062	93	-844	-3	2,362	9	
Waxahachie, Lake	54	10,779	9,726	90	-528	-5	290	3	
Bardwell Lake	55	46,122	44,791	97	-959	-2	3,058	7	
Proctor Lake	56	55,457	49,854	90	-2,266	-4	21,851	39	
Whitney, Lake	57	553,349	530,084	96	-15,873	-3	200,957	36	
Aquilla Lake	58	44,460	42,702	96	-693	-2	4,061	9	
Navarro Mills Lake	59	49,826	49,826	100	0	0	4,494	9	
*Halbert, Lake	60	6,033	4,967	82	-103	-2	1,793	30	
Richland-Chambers Reservoir	61	1,087,839	1,056,886	97	-11,873	-1	118,236	11	
*Brownwood, Lake	62	131,429	71,397	54	-1,855	-1	7,342	6	
Waco, Lake	62	198,943	198,609	100	-334	0	22,304	11	
Limestone, Lake	64	208,015	189,757	91	-7,158	-3	29,109	14	
Belton Lake	65	435,225	429,925	99	-5,300	-1	49,926	11	
Stillhouse Hollow Lake	66	227,771	216,569	95	-2,315	-1	18,999	8	
Georgetown, Lake	67	36,823	31,411	85	-3,402	-9	9,903	27	
Granger Lake	68	50,779	48,988	96	-1,791	-4	4,525	9	
Tawakoni, Lake	69	888,126	853,789	96	-8,574	-1	84,895	10	
TOTAL		10,604,540	9,578,833	90	-145,928	-1	763,021	7	
<b>EAST</b>									
Wright Patman Lake	70	292,668	268,825	92	-12,991	-4	-23,843	-8	
*Sulphur Springs, Lake	71	17,838	17,127	96	-711	-4	6,033	34	
Cypress Springs, Lake	72	66,756	65,573	98	-575	-1	4,421	7	
Bob Sandlin, Lake	73	200,579	174,216	87	-2,445	-1	16,415	8	
Fork Reservoir, Lake	74	604,927	546,998	90	-7,059	-1	48,422	8	
O the Pines, Lake	75	267,672	206,092	77	-7,660	-3	-21,762	-8	
Cedar Creek Reservoir in Trinity	76	644,686	613,179	95	-15,753	-2	85,581	13	
Athens, Lake	77	29,435	26,175	89	-590	-2	267	1	
Palestine, Lake	78	370,907	365,473	99	434	0	57,521	16	
Tyler, Lake	79	73,256	61,357	84	-386	-1	6,816	9	
Murvaul, Lake	80	38,284	37,942	99	-342	-1	7,976	21	
Jacksonville, Lake	81	25,670	25,108	98	-275	-1	2,156	8	
Nacogdoches, Lake	82	39,521	32,578	82	-640	-2	7,745	20	
Houston County Lake	83	17,113	16,516	97	-76	0	559	3	
Sam Rayburn Reservoir	84	2,857,077	2,707,793	95	-66,625	-2	760,271	27	
Toledo Bend Reservoir (Texas)	85	2,236,450	1,990,116	89	-51,736	-2	469,953	21	
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	3,980,233	89	-103,471	-2	939,906	21	
*Livingston, Lake	86	1,741,867	1,736,000	100	-5,867	0	-2,000	0	
B A Steinhagen Lake	87	66,966	63,740	95	1,512	2	1,613	2	
Conroe, Lake	88	416,188	365,760	88	-3,989	-1	6,681	2	
TOTAL		10,007,860	9,320,568	93	-175,774	-2	1,434,825	14	
<b>TRANS-PECOS</b>									
Red Bluff Reservoir	89	130,170	11,042	8	-1,042	-1	-8,425	-6	
TOTAL		130,170	11,042	8	-1,042	-1	-8,425	-6	

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Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late May 2012		Change since Late June 2011		
			Late June (acre-feet)	2012 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
<b>EDWARDS PLATEAU</b>									
Oak Creek Reservoir	90	39,260	12,738	32	-871	-2	-6,080	-15	
E V Spence Reservoir	91	517,272	1,766	0	-273	0	-3,540	-1	
O C Fisher Lake	92	79,483	0	0	0	0	0	0	
*O H Ivie Reservoir	93	554,335	84,282	15	-7,239	-1	-55,254	-10	
Twin Buttes Reservoir	94	177,850	0	0	-546	0	-9,370	-5	
Brady Creek Reservoir	95	29,110	7,071	24	-235	-1	-2,796	-10	
Buchanan, Lake	96	824,519	451,805	55	-6,909	-1	-76,913	-9	
Lyndon B Johnson, Lake	97	113,323	111,258	98	0	0	-182	0	
*Amistad Reservoir (Texas)	98	1,840,849	1,329,000	72	-38,000	-2	-415,000	-23	
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	1,938,000	59	-74,000	-2	-1,101,000	-34	
<b>TOTAL</b>		<b>4,176,001</b>	<b>1,997,920</b>	<b>48</b>	<b>-54,073</b>	<b>-1</b>	<b>-569,135</b>	<b>-14</b>	
<b>SOUTH CENTRAL</b>									
Travis, Lake	99	1,113,255	520,291	47	-28,728	-3	-67,422	-6	
*Austin, Lake	100	21,804	20,972	96	303	1	378	2	
Somerville Lake	101	147,104	143,903	98	-3,201	-2	40,060	27	
Canyon Lake	102	378,781	338,444	89	-4,692	-1	-3,536	-1	
Medina Lake	103	254,823	48,391	19	-10,312	-4	-63,024	-25	
*Coletto Creek Reservoir	104	31,040	26,522	85	-830	-3	1,073	3	
<b>TOTAL</b>		<b>1,946,807</b>	<b>1,098,523</b>	<b>56</b>	<b>-47,460</b>	<b>-2</b>	<b>-92,471</b>	<b>-5</b>	
<b>UPPER COAST</b>									
Houston, Lake	105	128,863	128,863	100	0	0	25,763	20	
Texana, Lake	106	159,640	141,572	89	-9,267	-6	47,309	30	
<b>TOTAL</b>		<b>288,503</b>	<b>270,435</b>	<b>94</b>	<b>-9,267</b>	<b>-3</b>	<b>73,072</b>	<b>25</b>	
<b>SOUTHERN</b>									
Choke Canyon Reservoir	107	695,262	396,444	57	-12,546	-2	-103,455	-15	
Corpus Christi, Lake	108	256,961	64,183	25	-27,462	-11	-100,672	-39	
*Falcon Reservoir (Texas)	109	1,551,034	438,000	28	-153,000	-10	-656,000	-42	
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	650,000	25	-179,000	-7	-919,000	-35	
<b>TOTAL</b>		<b>2,503,257</b>	<b>898,627</b>	<b>36</b>	<b>-193,008</b>	<b>-8</b>	<b>-860,127</b>	<b>-34</b>	
<b>STATE TOTAL</b>		<b>31,197,681</b>	<b>23,460,235</b>	<b>75</b>	<b>-626,127</b>	<b>-2</b>	<b>609,916</b>	<b>2</b>	

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

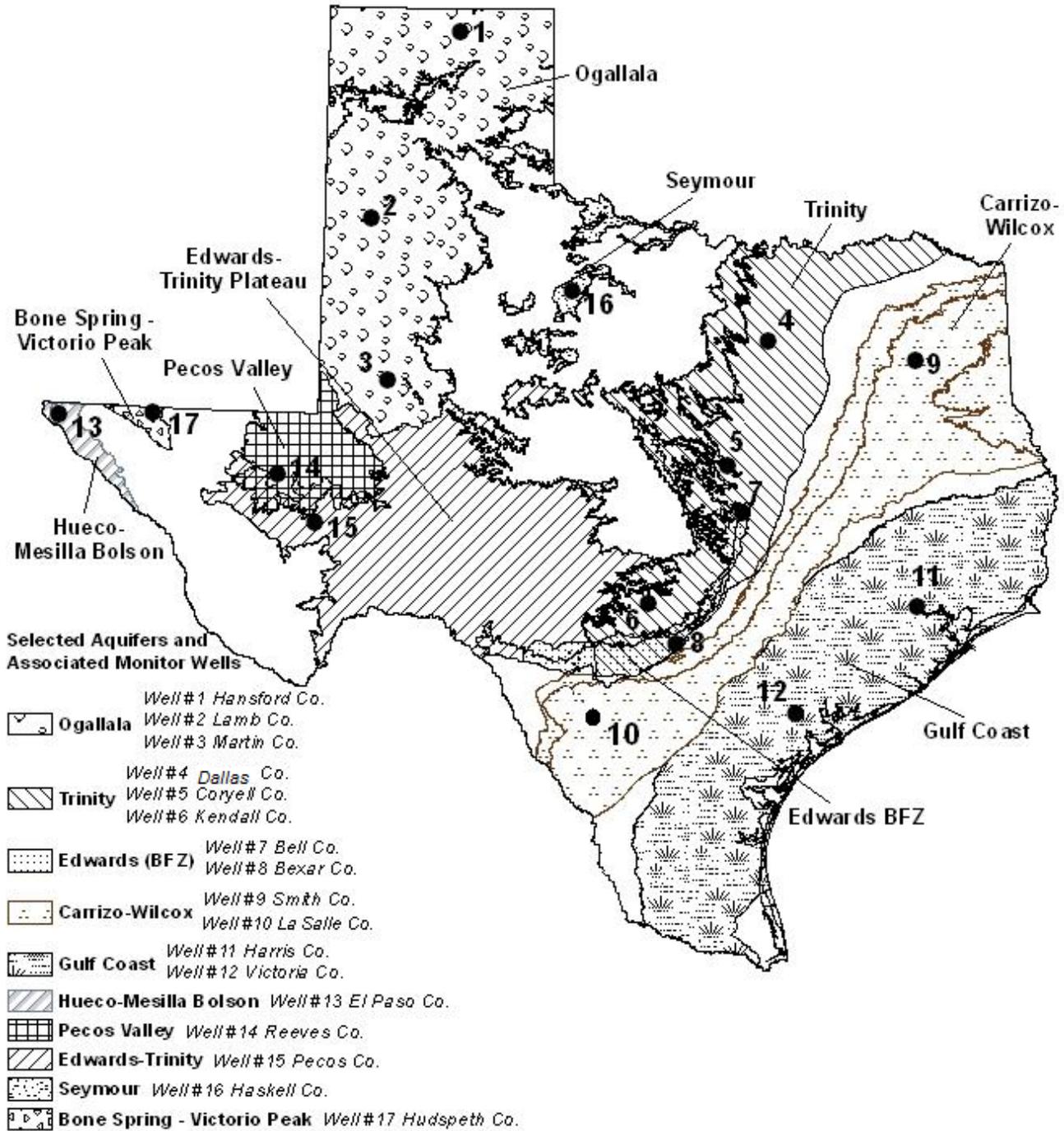
In Addition

Elephant Butte Reservoir	1,975,000	274,019	14	-94,043	-5	-9,104	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.

# JUNE 2012 GROUNDWATER LEVELS IN OBSERVATION WELLS



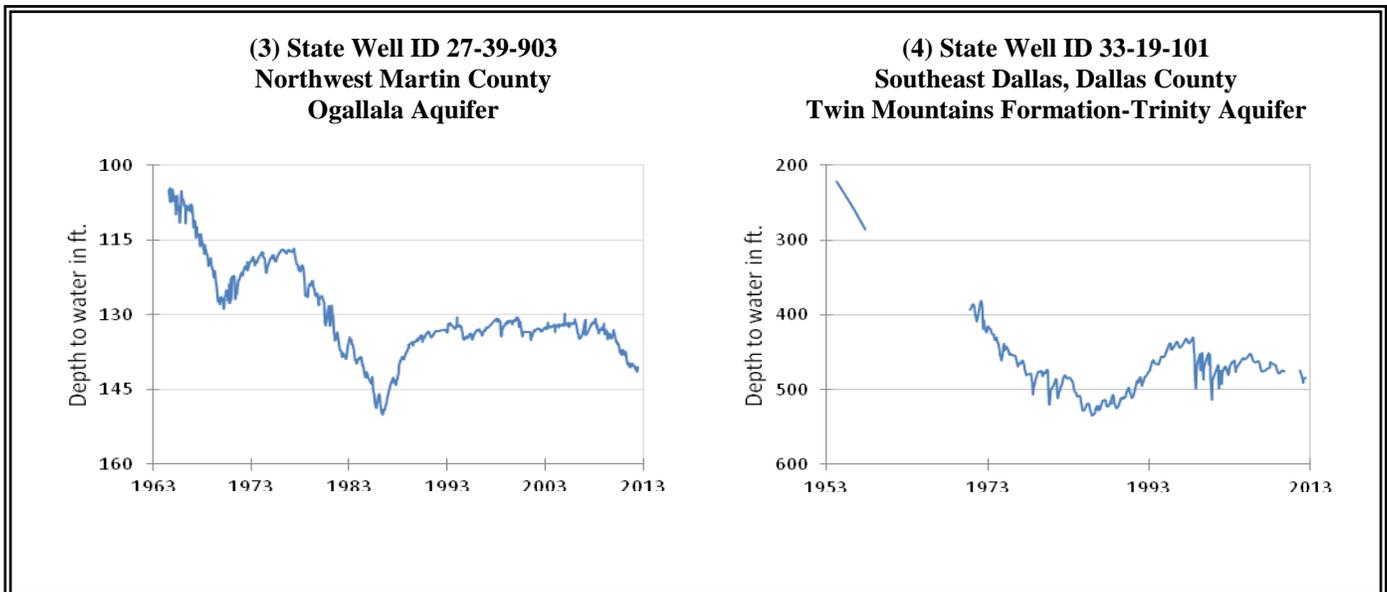
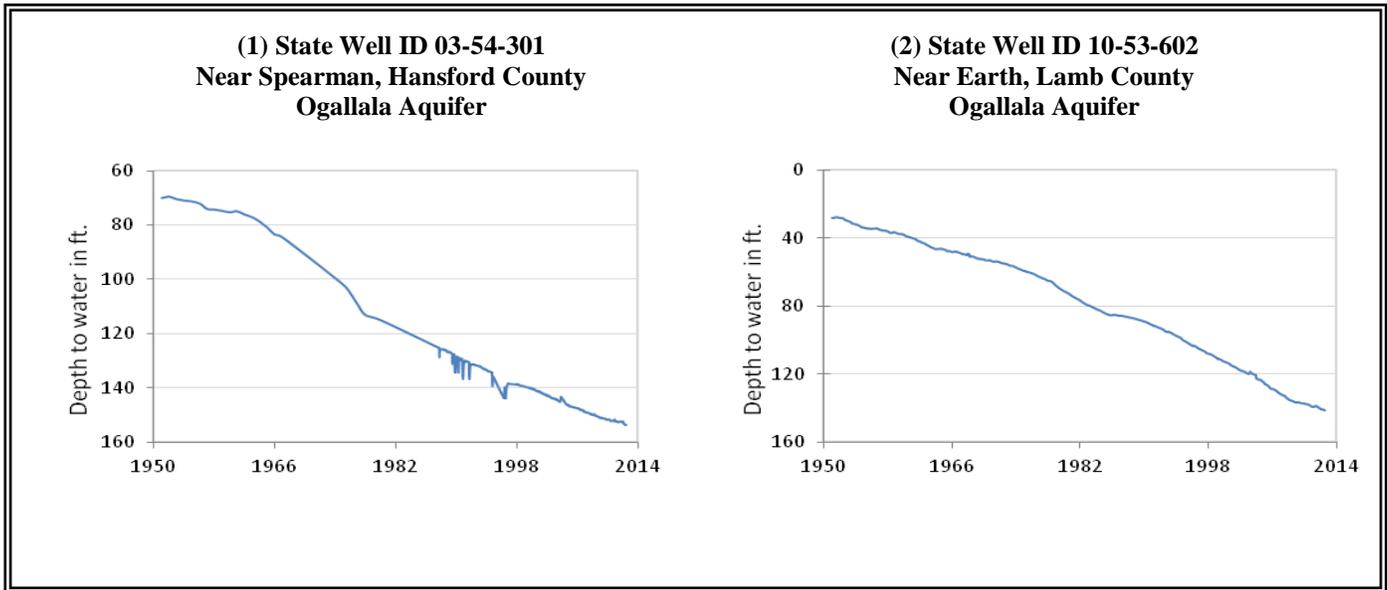
June, 2012

Water level measurements were available for all seventeen key monitoring wells in the state. Water levels rose in three of the monitoring wells since the beginning of June, ranging from 0.08 feet in the Hansford County Ogallala Aquifer well to 0.93 feet in the Martin County Ogallala Aquifer well. Water levels declined in the remaining fourteen monitoring wells, ranging from 0.15 feet in the Haskell County Seymour Aquifer to 18.89 feet in the Pecos County Edwards-Trinity Aquifer well. The J-17 well in San Antonio recorded a water level of 87.36 feet below land surface or 643.64 feet above mean sea level. This water level is 6.36 feet below the Stage II critical management level in that segment of the Edwards Aquifer. Stage II restrictions were declared by the E.A.A. on June 13, 2012, when the ten-day average fell below 650-foot elevation or 81 feet below land surface.

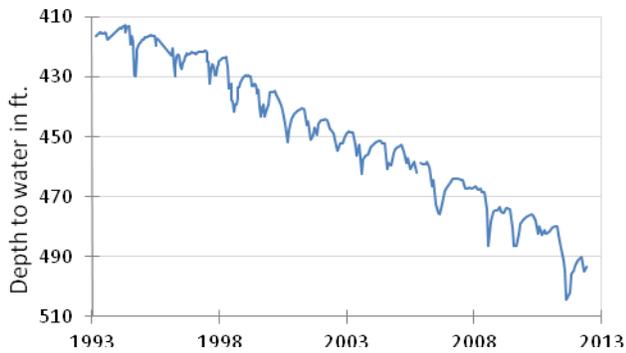
\* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	June 2012	May 2012	Month Change	Year Change	Historical Change
(1) Hansford 0354301	153.72	153.8	0.08	-1.01	-83.6
(2) Lamb 1053602	141.17	140.97	-0.2	-2.4	-113.02
(3) Martin 2739903	140.52	141.45	0.93	-0.47	-35.63
(4) Dallas 3319101	485.66	NA	NA	NA	-263.66
(5) Coryell 4035404	500.21	493.41	-6.8	-8.95	-208.21
(6) Kendall 6802609	136.90	135.44	-1.46	5.77	-76.9
(7) Bell 5804816	125.00	124	-1	-0.06	-1.87
(8) Bexar 6837203	87.36	80.88	-6.48	-0.52	-40.72
(9) Smith 3430907	435.63	432.47	-3.16	-3.2	-69.63
(10) La Salle 7738103	410.32	406.64	-3.68	-66.18	-157.25
(11) Harris 6514409	200.49	200.09	-0.4	-4.82	-64.99
(12) Victoria 8017502	36.64	36.05	-0.59	-3.34	-2.64
(13) El Paso 4913301	292.24	292.85	0.61	-1.02	-60.34
(14) Reeves 4644501	152.12	150.45	-1.67	0.98	-60.03
(15) Pecos 5216802	229.86	210.97	-18.89	3.47	17.02
(16) Haskell 2135748	46.82	46.67	-0.15	0.53	-5.49
(17) Hudspeth 4807516	147.82	144.45	-3.37	-0.67	-43.9

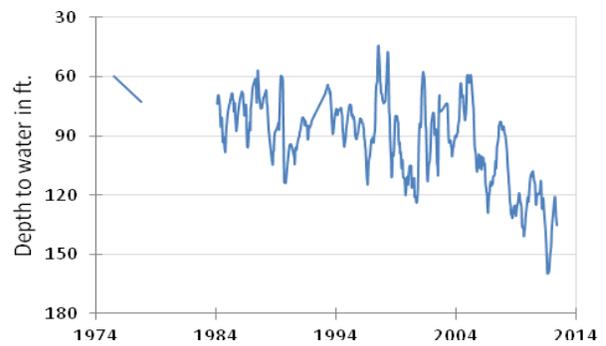
## June GROUNDWATER LEVELS IN OBSERVATION WELLS



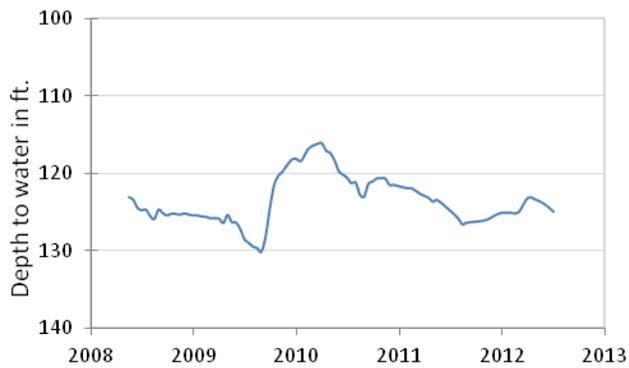
**(5) State Well ID 40-35-404  
Gatesville, Coryell County  
Hosston Formation-Trinity Aquifer**



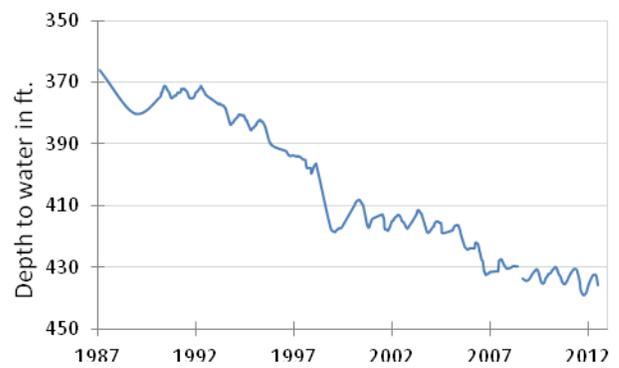
**(6) State Well ID 68-02-609  
Waring, Kendall County  
Cow Creek Formation-Trinity Aquifer**



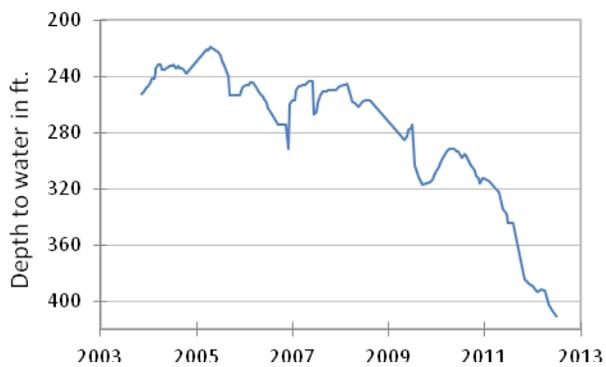
**(7) State Well ID 58-04-816  
Near Salado, Bell County  
Edwards (BFZ) Aquifer**



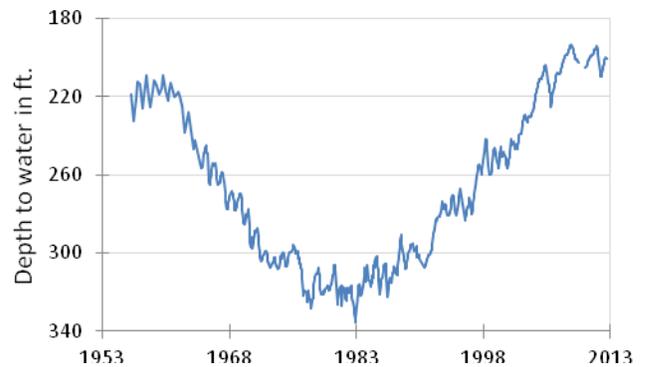
**(9) State Well ID 34-30-907  
Red Springs, Smith County  
Carrizo-Wilcox Aquifer**



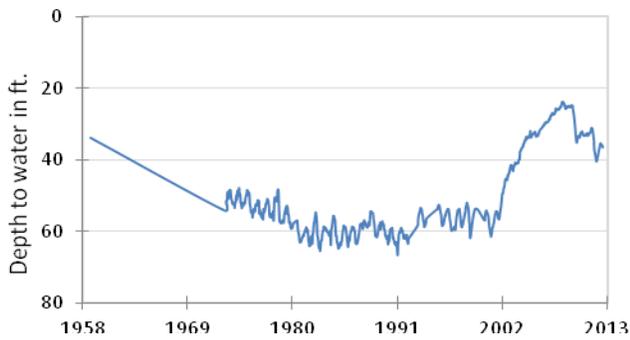
**(10) State Well ID 77-38-103  
Near Cotulla, La Salle County  
Carrizo-Wilcox Aquifer**



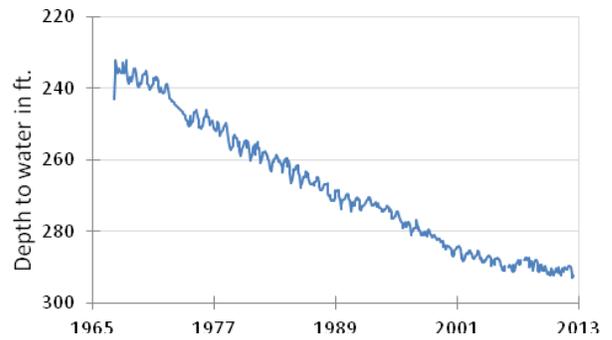
**(11) State Well ID 65-14-409  
Alief, Harris County  
Evangeline Formation-Gulf Coast Aquifer**



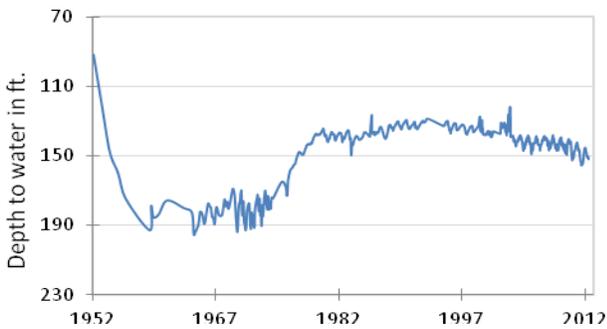
**(12) State Well ID 80-17-502**  
Near Bloomington, Victoria County  
Lissie Formation-Gulf Coast Aquifer



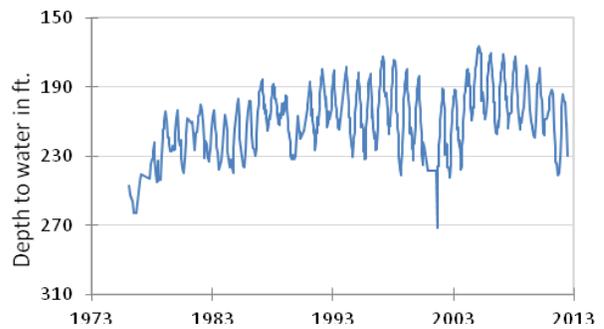
**(13) State Well ID 49-13-301**  
El Paso, El Paso County  
Hueco-Mesilla Bolson Aquifer



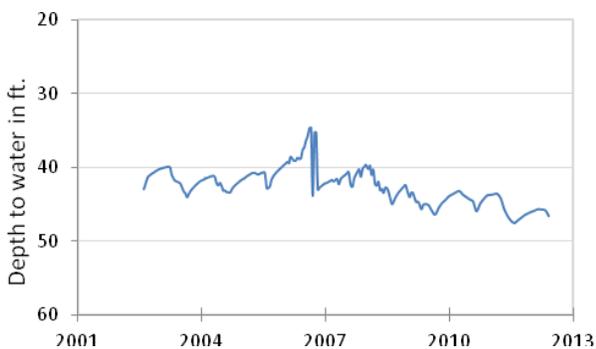
**(14) State Well ID 46-44-501**  
Near Pecos, Reeves County  
Pecos Valley Aquifer



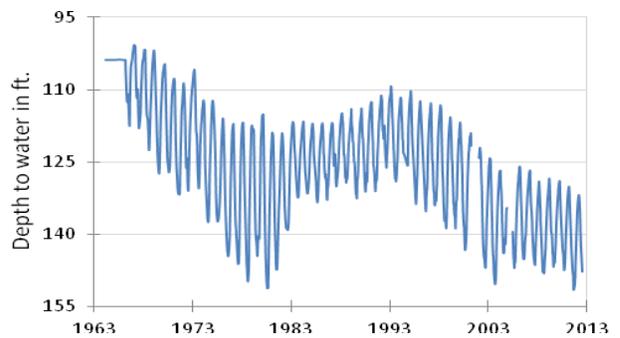
**(15) State Well ID 52-16-802**  
Fort Stockton, Pecos County  
Edwards-Trinity (Plateau) Aquifer



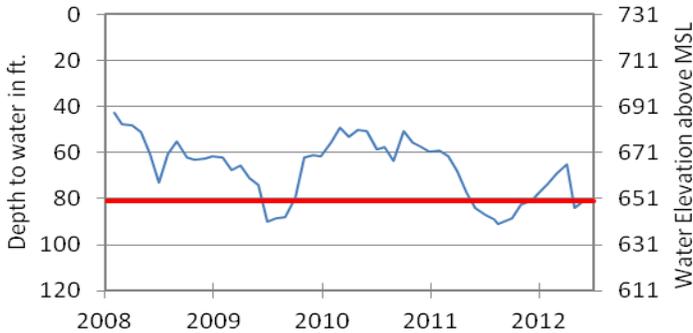
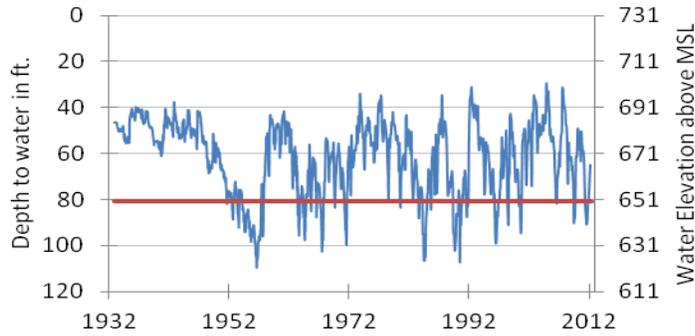
**(16) State Well ID 21-35-748**  
Near O'Brien, Haskell County  
Seymour Aquifer



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



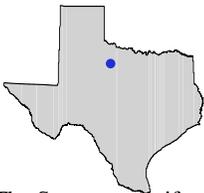
**(8) State Well ID 68-37-203 (J-17)  
In San Antonio, Bexar County  
Edwards (BFZ) Aquifer**



The late June water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 87.36 feet below land surface, or 643.64 feet above mean sea level. This was 6.48 feet below last month's measurement, 0.52 feet below last year's measurement, and 40.72 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***



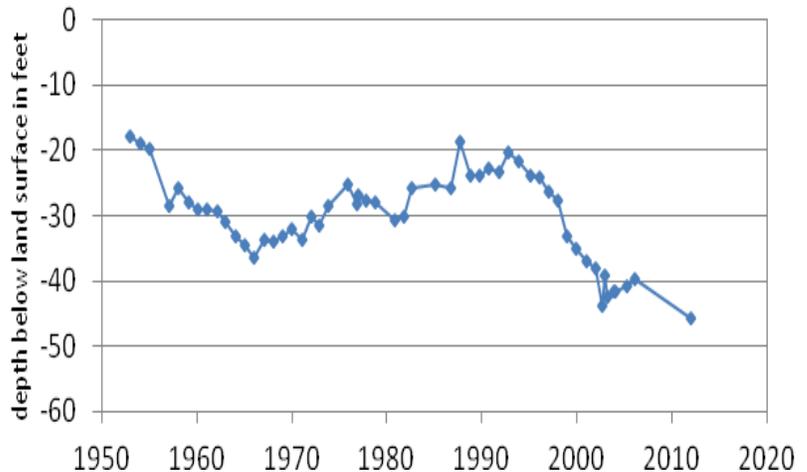
Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

**Seymour Aquifer**

The Seymour aquifer occurs in isolated patches of alluvium in parts of 23 north-central and Panhandle counties in the state. The isolated aquifers are the scattered erosional remnants of the Seymour Formation which is composed of poorly sorted gravel, conglomerate, sand, and silty clay deposited in the Pleistocene by streams flowing off distant mountains to the west. The eastward-flowing streams carried fluvial debris that buried the exposed surface of Permian redbeds and clays of the Clear-Fork-Group, filling channels and valleys with coarse gravels and sands. Wells in the Seymour average 40 to 60 feet deep, and typically yield around 270 gallons per minute (GPM) ranging up to 1,300 GPM. Water in the aquifer generally is unconfined; however, it may be confined locally by beds of clay. Recharge is mainly by direct infiltration of rainfall. Concentrations of dissolved solids range from 300 to 3,000 milligrams per liter (mg/l); most values are between 400 and 1,000 mg/l. Throughout its extent, the aquifer is affected by nitrate in excess of drinking water standards.

Well #2135702, 54' TD

irrigation, Seymour Aquifer, north central Haskell County



Irrigation pumpage in excess of recharge (rainfall), resulting in seasonal and longer-term periods of water level decline as has happened in several Haskell County wells completed in the Seymour Aquifer, is of particular concern in wells completed at such shallow depths.

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