

RESERVOIR STORAGE

April 2013

At the end of the month, total storage in 115 of the state's major water supply reservoirs was at 20.54 million acre-feet*, or 67% of their total conservation storage capacity. This is 88,375 acre-feet less than a month ago and 3.93 million acre-feet less than the storage at this time last year.

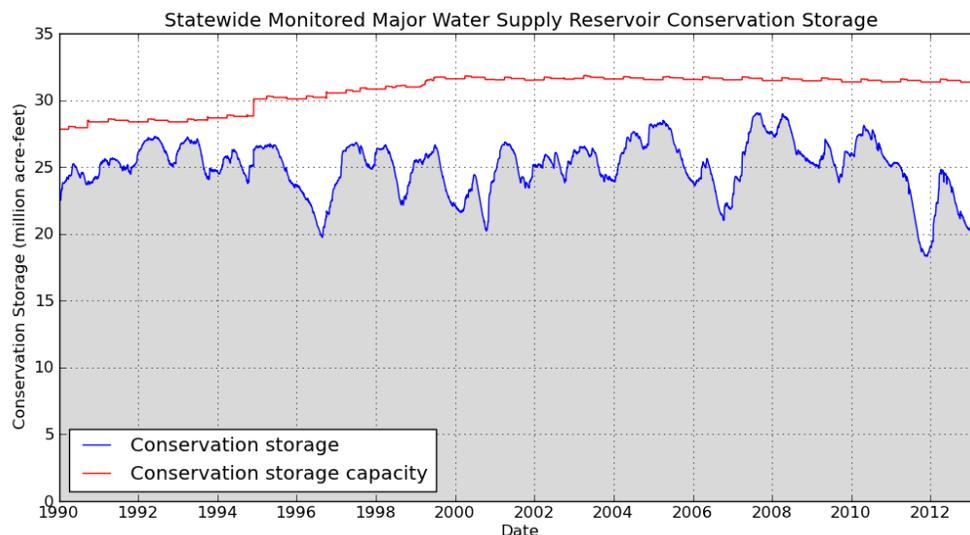
Nine reservoirs, most in the North Central and East regions, held 100% of conservation storage capacity. Twelve (12) reservoirs were below 10% full: O. C. Fisher, Electra, J. B. Thomas and Meredith were effectively empty, Twin Buttes was at 1%, Palo Duro and White River were at 2%, North Fork Buffalo Creek was at 4%, E.V. Spence was at 5%, Mackenzie and Medina were at 6%, and Champion Creek Reservoir was at 7% full.

Total combined storage was greater than 70% in the North Central (75%), Upper Coast (99%), and East (92%) 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 6 regions and increased in 3 region.

Elephant Butte reservoir held 222,970 acre-feet, or 11% of storage capacity. This is 2,968 acft more than a month ago.

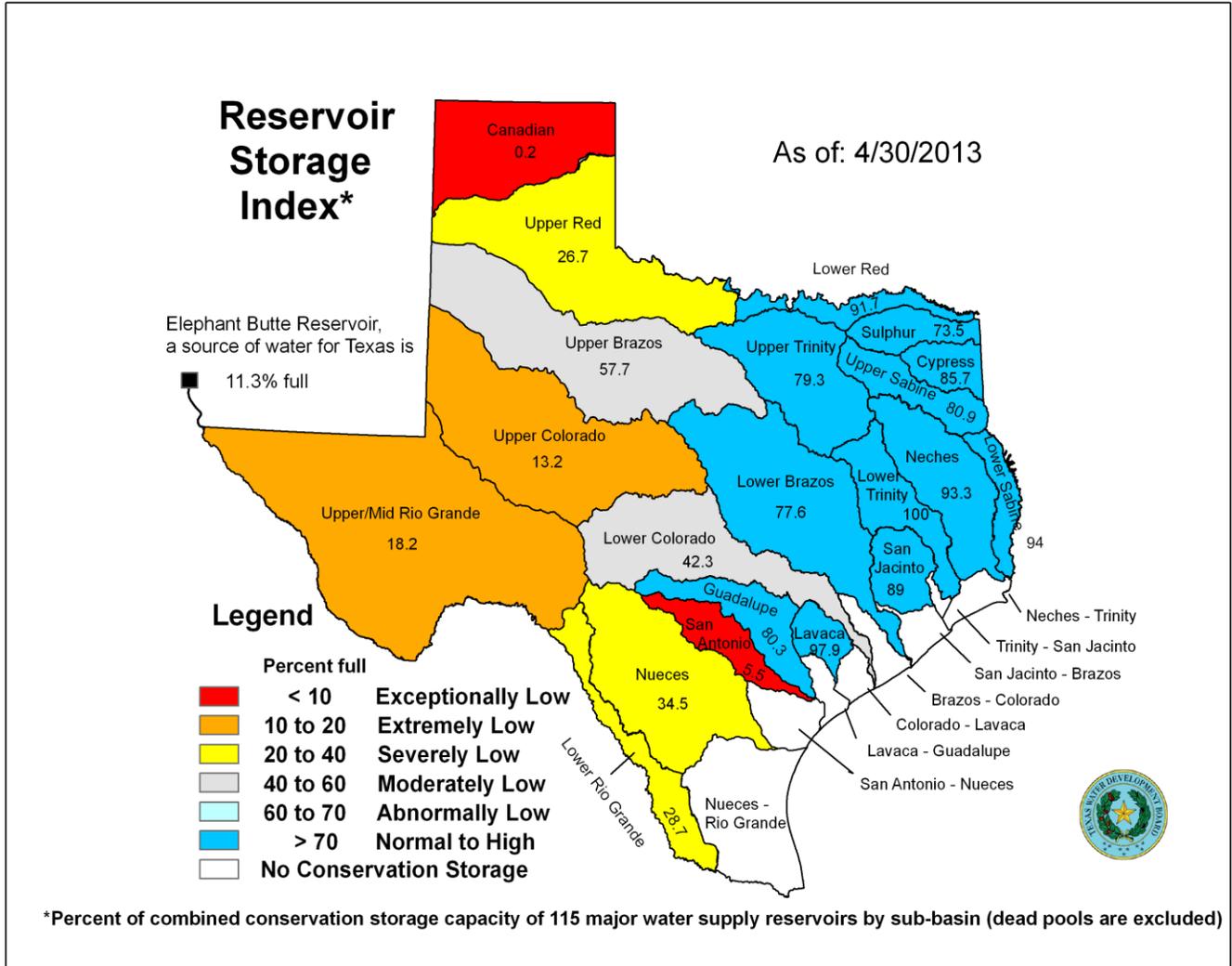
* Only the Texas share of storage in border reservoirs is counted.

CONSERVATION STORAGE DATA FOR



Figures are based on the end of the month data at 115 major reservoirs that represent 96 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.

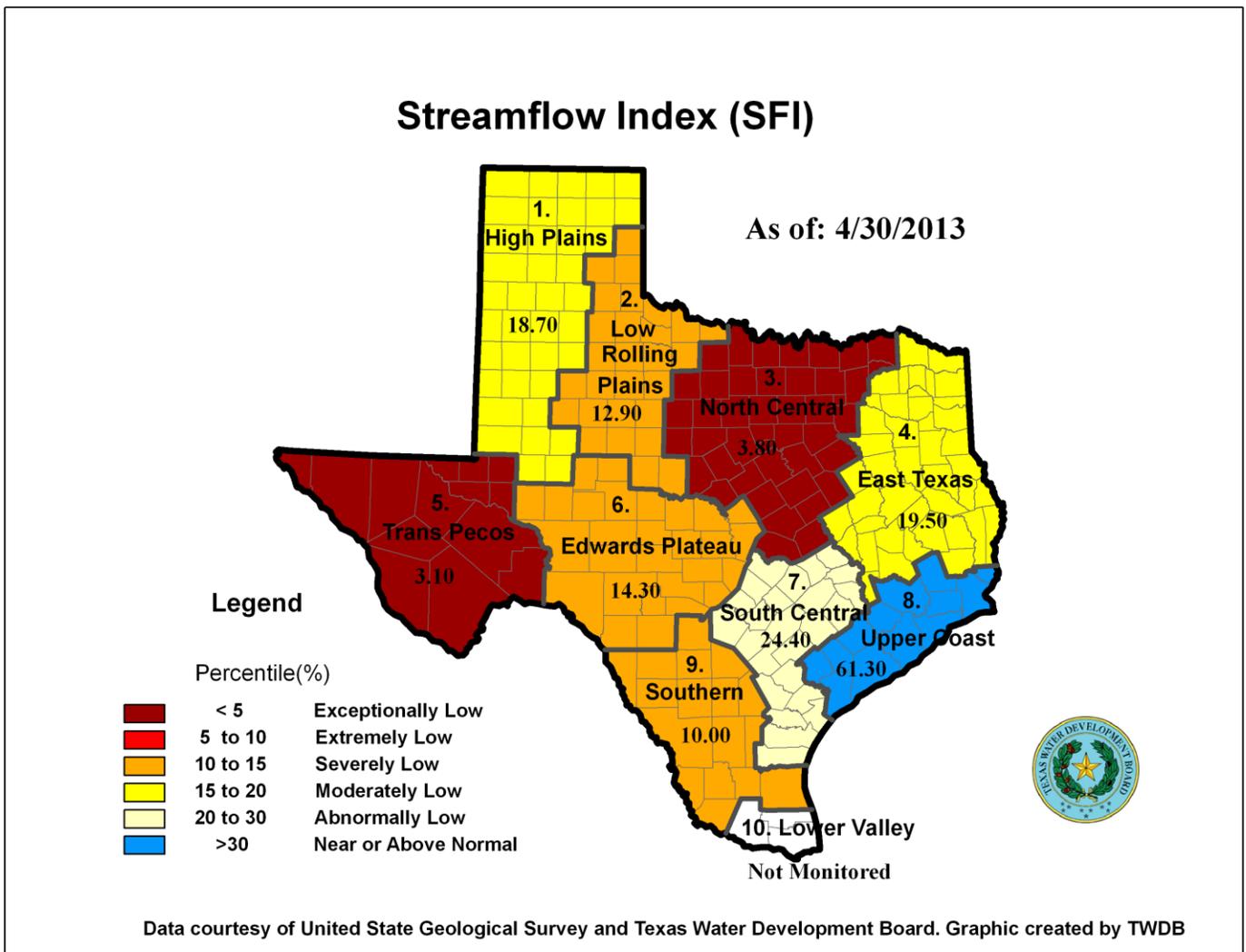
APRIL RESERVOIR CONDITIONS



APRIL STREAMFLOW CONDITIONS

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 8 stations, extremely low (5-10%) at 3 stations, severely low (10-15%) at 4 stations, moderately low (15-20%) at 3 stations, abnormally low (20% - 30%) at 5 stations, and near normal (30% - 70%) at the remaining 6 stations. Compared to last month, flows have increased at 18 index stations and decreased at 6 stations.

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



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Apr 2013 (acre-feet)	(%)	Change since end of Mar 2013 (acre-feet)	(%)	Change since end of Apr 2012 (acre-feet)	(%)
HIGH PLAINS							
Palo Duro Reservoir	61,066	1,257	2	-136	-0	-2,567	-4
Meredith, Lake (Texas)	500,000	0	0	0	0	0	0
Meredith, Lake (Texas & Oklahoma)	779,556	0	0	0	0	0	0
MacKenzie Reservoir	46,450	2,888	6	-72	-0	-1,019	-2
White River Lake	29,880	564	2	-357	-1	-2,931	-10
TOTAL	637,396	4,709	1	-565	-0	-6,517	-1
LOW ROLLING PLAINS							
Greenbelt Lake	59,968	7,299	12	-198	-0	-3,095	-5
*Electra, Lake	5,626	0	0	0	0	-84	-1
N. Fork Buffalo Crk Reservoir	15,400	652	4	-69	-0	-1,614	-10
Kemp, Lake	268,811	55,420	21	1,617	1	-29,481	-11
Millers Creek Reservoir	26,768	6,213	23	-346	-1	-3,017	-11
Alan Henry Reservoir	94,808	65,928	70	-1,793	-2	-7,600	-8
Stamford, Lake	51,570	11,803	23	-666	-1	-12,505	-24
J B Thomas, Lake	199,931	442	0	-477	-0	-781	-0
Fort Phantom Hill, Lake	70,030	33,104	47	-716	-1	-3,524	-5
Sweetwater, Lake	12,267	3,328	27	-139	-1	-1,472	-12
Colorado City, Lake	30,758	9,813	32	-453	-1	452	1
Champion Creek Reservoir	41,580	3,098	7	-158	-0	-1,469	-4
Abilene, Lake	7,900	1,005	13	-142	-2	-1,598	-20
Coleman, Lake	38,075	16,433	43	-457	-1	681	2
Hords Creek Lake	8,443	2,746	33	-83	-1	118	1
TOTAL	931,935	217,284	23	-4,080	-0	-64,989	-7
NORTH CENTRAL							
Nocona, Lake (Farmers Crk)	21,444	10,344	48	-37	-0	-3,839	-18
Hubert H Moss Lake	24,058	21,120	88	111	0	-2,647	-11
Texoma, Lake (Texas)	1,268,161	1,116,156	88	31,565	2	-148,091	-12
Texoma, Lake (Texas & Oklahoma)	2,525,281	1,116,156	44	31,565	1	-148,091	-6
*Pat Mayse Lake	113,683	93,311	82	866	1	-20,372	-18
Kickapoo, Lake	85,825	33,793	39	484	1	-9,810	-11
Arrowhead, Lake	235,997	91,790	39	470	0	-42,086	-18
Bonham, Lake	11,027	9,197	83	-166	-2	-1,381	-13
Crook, Lake	9,195	8,122	88	404	4	-739	-8
Amon G Carter, Lake	19,266	11,543	60	-222	-1	-5,327	-28
Ray Roberts, Lake	788,167	676,115	86	-4,948	-1	-110,068	-14
Jim Chapman Lake (Cooper)	260,332	135,744	52	-3,757	-1	-107,563	-41
Graham, Lake	45,288	29,012	64	-801	-2	-12,027	-27
*Lost Creek Reservoir	11,950	9,960	83	-86	-1	-1,855	-16
Bridgeport, Lake	366,236	201,472	55	-2,180	-1	-105,497	-29
Lewisville Lake	563,228	441,809	78	5,675	1	-119,259	-21
Lavon Lake	406,388	264,800	65	11,070	3	-141,588	-35
Hubbard Creek Reservoir	322,280	85,451	27	-2,036	-1	-53,995	-17
Possum Kingdom Lake	540,340	385,155	71	-1,375	-0	-63,822	-12
*Mineral Wells, Lake	6,760	4,955	73	-26	-0	-1,797	-27
Weatherford, Lake	17,812	10,999	62	894	5	-6,305	-35
Eagle Mountain Lake	179,880	140,715	78	632	0	-36,761	-20
Worth, Lake	33,495	24,048	72	-395	-1	-6,610	-20
Grapevine Lake	164,703	130,531	79	229	0	-33,759	-20
Ray Hubbard, Lake	452,040	381,330	84	2,933	1	-63,059	-14
New Terrell City Lake	8,583	6,900	80	8	0	-1,683	-20
Daniel, Lake	9,515	3,852	40	1,319	14	-1,332	-14

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Apr 2013 (acre-feet)	(%)	Change since end of Mar 2013 (acre-feet)	(%)	Change since end of Apr 2012 (acre-feet)	(%)
(NORTH CENTRAL CONTINUE)							
Palo Pinto, Lake	27,398	17,374	63	2,209	8	-8,763	-32
Benbrook Lake	85,648	74,797	87	7,003	8	-6,739	-8
Arlington, Lake	40,188	37,597	94	4,827	12	-2,361	-6
Joe Pool Lake	175,358	170,930	97	8,352	5	-4,428	-3
*Cisco, Lake	25,895	9,541	37	54	0	-1,584	-6
Leon, Lake	26,476	19,034	72	1,941	7	-3,672	-14
Granbury, Lake	128,046	87,193	68	-913	-1	-36,445	-28
Pat Cleburne, Lake	26,008	18,546	71	55	0	-7,322	-28
Waxahachie, Lake	10,780	9,568	89	139	1	-1,212	-11
Bardwell Lake	46,122	39,277	85	1,699	4	-6,845	-15
Proctor Lake	55,457	39,443	71	6,832	12	-15,742	-28
Whitney, Lake	553,344	381,601	69	-810	-0	-171,743	-31
Aquilla Lake	44,460	32,053	72	-670	-2	-12,407	-28
Navarro Mills Lake	49,827	46,491	93	-1,008	-2	-3,147	-6
*Halbert, Lake	6,033	4,702	78	-116	-2	-361	-6
Richland-Chambers Reservoir	1,087,839	860,965	79	-20,307	-2	-222,166	-20
*Brownwood, Lake	128,839	67,075	52	-1,875	-1	-6,521	-5
Waco, Lake	187,808	158,927	85	-149	-0	-28,881	-15
Limestone, Lake	208,014	170,395	82	-5,433	-3	-34,296	-16
Belton Lake	435,225	346,410	80	-4,251	-1	-88,815	-20
Stillhouse Hollow Lake	227,771	185,487	81	-3,403	-1	-29,335	-13
Georgetown, Lake	36,823	22,573	61	668	2	-14,160	-38
Granger Lake	50,779	50,779	100	0	0	0	0
Tawakoni, Lake	871,685	686,348	79	-8,851	-1	-164,071	-19
Mountain Creek, Lake	22,850	22,850	100	0	0	0	0
Squaw Creek, Lake	151,250	151,250	100	1,105	1	0	0
TOTAL	10,675,576	8,039,430	75	27,729	0	-1,972,288	-18
EAST							
Wright Patman Lake	310,382	228,594	74	106,001	34	-43,669	-14
*Sulphur Springs, Lake	17,747	15,061	85	99	1	-2,686	-15
Cypress Springs, Lake	66,756	61,676	92	312	0	-5,015	-8
Bob Sandlin, Lake	190,822	151,361	79	156	0	-15,595	-8
Caddo, Lake	29,898	29,898	100	0	0		
Martin, Lake	75,116	67,660	90	44	0	10,118	13
Monticello, Lake	34,740	34,740	100	0	0	0	0
Fork Reservoir, Lake	605,061	494,555	82	-1,639	-0	-58,417	-10
O the Pines, Lake	241,363	205,674	85	10,226	4	-29,038	-12
Cedar Creek Reservoir in Trinity	644,686	543,096	84	5,610	1	-95,065	-15
Athens, Lake	29,503	25,403	86	159	1	-1,819	-6
Palestine, Lake	373,199	367,940	99	6,318	2	-1,969	-1
Tyler, Lake	73,161	58,267	80	-7,153	-10	-11,324	-15
Murvaul, Lake	38,285	38,285	100	0	0	0	0
Jacksonville, Lake	25,670	25,577	100	-93	-0	-58	-0
Nacogdoches, Lake	39,522	38,185	97	-556	-1	4,347	11
Houston County Lake	17,113	16,997	99	-116	-1	39	0
Sam Rayburn Reservoir	2,857,077	2,654,159	93	26,742	1	-178,180	-6
Toledo Bend Reservoir (Texas)	2,245,752	2,111,164	94	98,922	4	-25,980	-1
Toledo Bend Reservoir (TX & LA)	4,472,900	2,111,164	47	98,922	2	-25,980	-1
*Livingston, Lake	1,785,348	1,785,348	100	0	0	0	0
B A Steinhagen Lake	66,961	62,086	93	3,117	5	1,318	2
Conroe, Lake	416,177	359,232	86	1,607	0	-15,734	-4
TOTAL	10,184,339	9,374,958	92	249,756	2	-468,727	-5

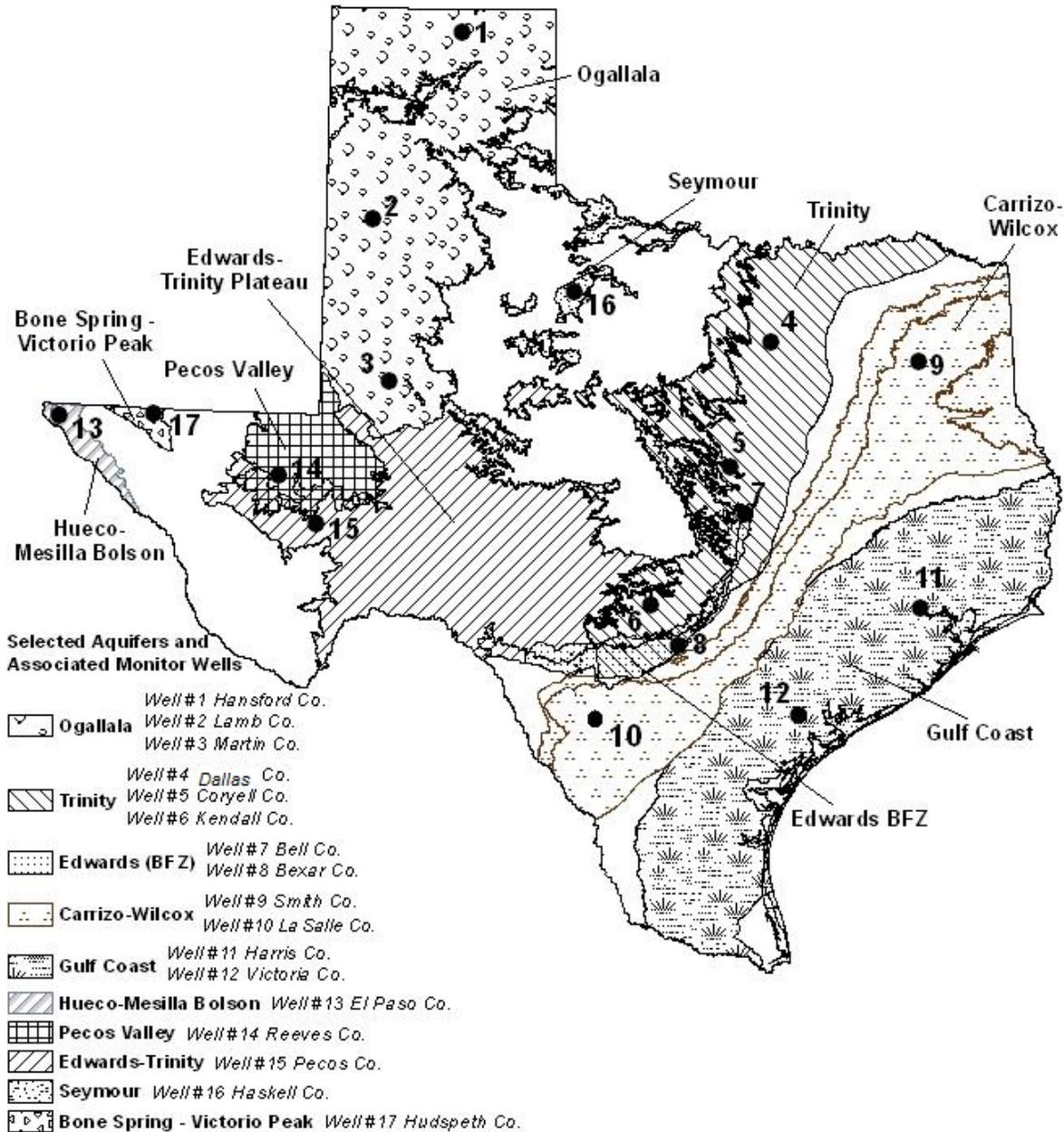
CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Apr 2013 (acre-feet)	(%)	Change since end of Mar 2013 (acre-feet)	(%)	Change since end of Apr 2012 (acre-feet)	(%)
TRANS-PECOS							
Red Bluff Reservoir	152,335	27,737	18	-332	-0	5,550	4
TOTAL	152,335	27,737	18	-332	-0	5,550	4
EDWARDS PLATEAU							
Oak Creek Reservoir	39,210	10,372	26	-448	-1	-3,446	-9
E V Spence Reservoir	517,272	24,999	5	-1,165	-0	23,023	4
O C Fisher Lake	79,483	0	0	0	0	23,933	5
*O H Ivie Reservoir	554,335	90,938	16	-88,462	-17	-65,881	-13
Twin Buttes Reservoir	182,454	2,168	1	-15	-0	-719	-0
Brady Creek Reservoir	28,808	7,010	24	-344	-1	-1,224	-4
Buchanan, Lake	860,607	348,204	40	-4,950	-1	-78,458	-9
Inks, Lake	13,962	12,937	93	-8	-0	37	0
Lyndon B Johnson, Lake	111,633	109,392	98	60	0	660	1
*Amistad Reservoir (Texas)	1,840,849	647,001	35	-168,843	-9	-714,315	-39
*Amistad Reservoir (TX & Mexico)	3,275,532	647,001	20	-168,843	-5	-714,315	-22
TOTAL	3,594,795	1,162,083	32	-264,175	-7	-816,390	-23
SOUTH CENTRAL							
Travis, Lake	1,113,256	411,067	37	-7,042	-1	-91,133	-8
*Austin, Lake	23,972	22,818	95	-356	-1	-47	-0
Somerville Lake	147,104	125,176	85	-1,631	-1	-21,928	-15
Canyon Lake	378,781	303,402	80	-2,418	-1	-20,965	-6
Medina Lake	254,884	14,083	6	-2,623	-1	-38,396	-15
*Coleta Creek Reservoir	31,040	25,725	83	1,218	4	-1,701	-5
TOTAL	1,949,037	902,271	46	-12,852	-1	-174,170	-9
UPPER COAST							
Houston, Lake	102,876	102,876	100	1,300	1	0	0
Texana, Lake	159,640	156,254	98	25,132	16	3,440	2
TOTAL	262,516	259,130	99	26,432	17	3,440	2
SOUTHERN							
Choke Canyon Reservoir	695,262	286,627	41	-14,656	-2	-119,638	-17
Corpus Christi, Lake	256,961	41,612	16	2,177	1	-33,468	-13
*Falcon Reservoir (Texas)	1,551,007	329,447	21	-20,658	-1	-201,608	-13
*Falcon Reservoir (TX & Mexico)	2,646,817	329,447	12	-20,658	-1	-201,608	-8
TOTAL	2,503,230	657,686	26	-33,137	-1	-354,714	-14
STATE TOTAL	30,788,283	20,542,412	67	-88,375	-0	-3,925,956	-13
* Conservation volume is used as conservation storage capacity because the dead storage is unknown.							
Elephant Butte Reservoir	1,973,358	222,971	11	2,968	0	-150,060	-8

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.

APRIL 2013 GROUNDWATER LEVELS IN OBSERVATION WELLS



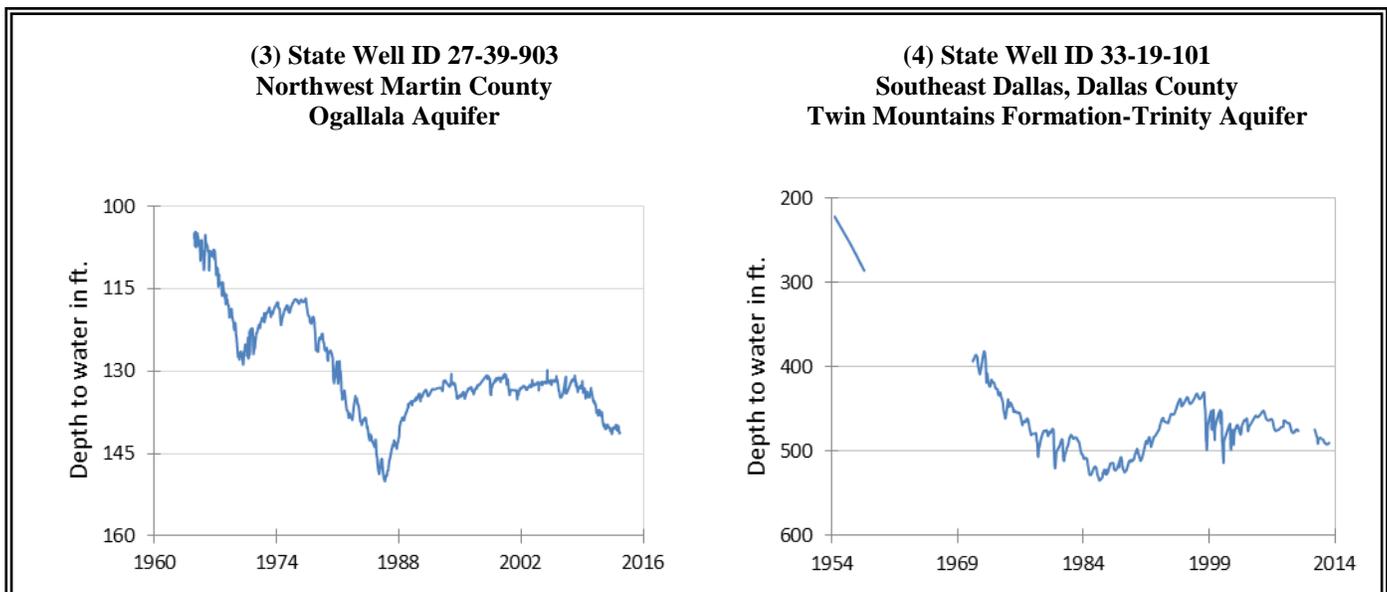
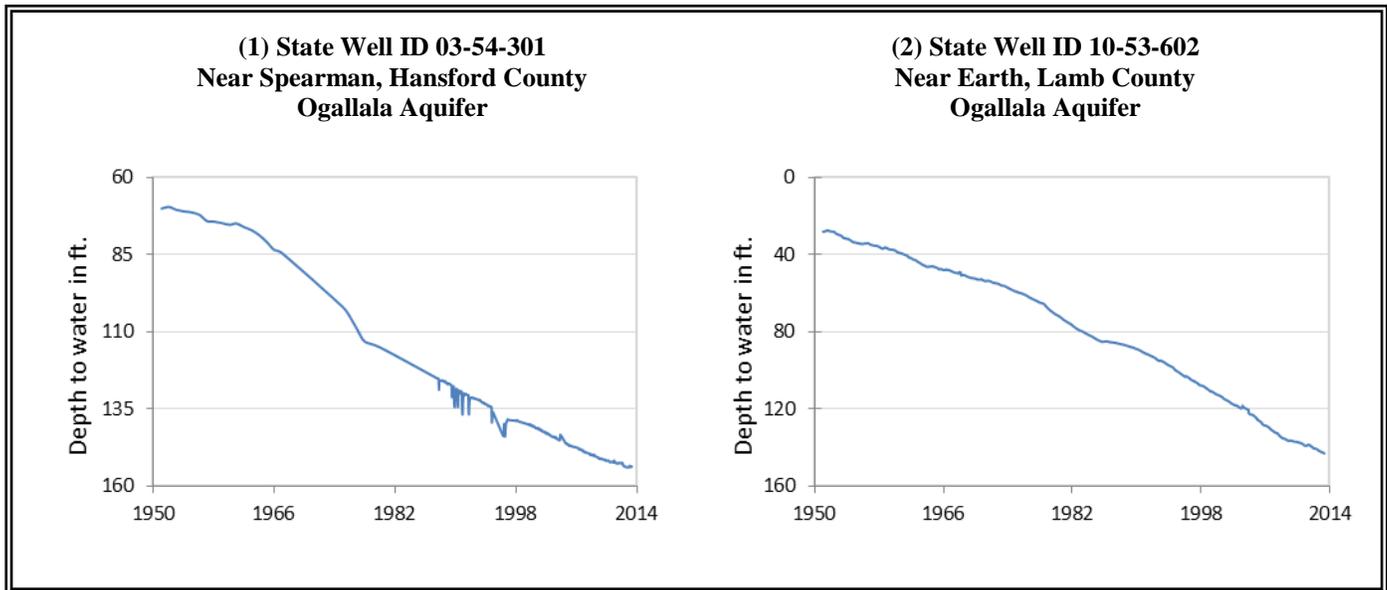
April, 2013

Water level measurements were available for all seventeen key monitoring wells in the state. Water levels rose in eight of the monitoring wells since the beginning of April, ranging from 0.12 feet in the Hansford and Martin County Ogallala Aquifer wells to 3.64 feet in the Kendall County Trinity Aquifer well. Water levels declined in nine monitoring wells, ranging from 0.08 feet in the Haskell County Seymour Aquifer well to 10.6 feet in the Pecos County Edwards Trinity Aquifer well. The J-17 well in San Antonio recorded a water level of 83 feet below land surface or 648 feet above mean sea level. This water level is 2 feet below the Stage II critical management level in that segment of the Edwards Aquifer. Stage II restrictions were declared by the EAA when the ten-day average fell below the 650-foot elevation, or 81 feet below land surface.

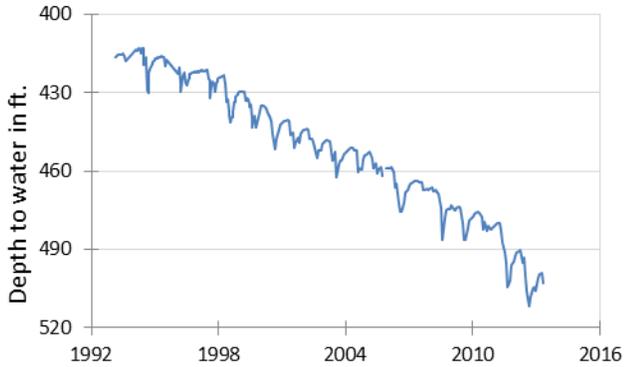
* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	April	Mar	Month Change	Year Change	Historical Change
(1) Hansford 0354301	153.6	153.8	0.12	-0.16	-83.56
(2) Lamb 1053602	143.06	142.88	-0.18	-2.27	-114.55
(3) Martin 2739903	141.20	141.32	0.12	-0.68	-36.31
(4) Dallas 3319101	489.83	490.74	0.91	-5.92	-267.83
(5) Coryell 4035404	502.99	499.02	-3.97	-7.98	-210.99
(6) Kendall 6802609	132.27	135.91	3.64	-1.66	-72.27
(7) Bell 5804816	126.67	126.22	-0.45	-3.21	-3.54
(8) Bexar 6837203	83	83.41	0.41	1.08	-36.36
(9) Smith 3430907	437.12	440.02	2.9	-4.87	-71.12
(10) La Salle 7738103	459.99	450.05	-9.94	-57.56	-206.92
(11) Harris 6514409	194.23	195.50	1.27	7.02	-58.73
(12) Victoria 8017502	34.29	34.74	0.45	1.62	-0.29
(13) El Paso 4913301	293.73	293.59	-0.14	-1.86	-61.83
(14) Reeves 4644501	154.96	149.58	-5.38	-3.84	-62.87
(15) Pecos 5216802	210.94	200.34	-10.6	-1.66	35.94
(16) Haskell 2135748	48.52	48.44	-0.08	-2.62	-7.19
(17) Hudspeth 4807516	141.37	138.73	-2.64	-0.4	-37.45

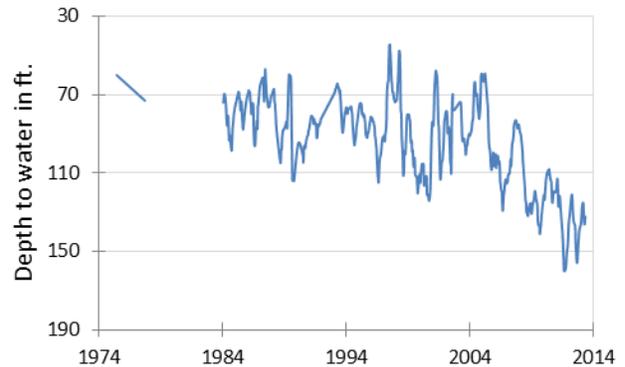
APRIL GROUNDWATER LEVELS IN OBSERVATION WELLS



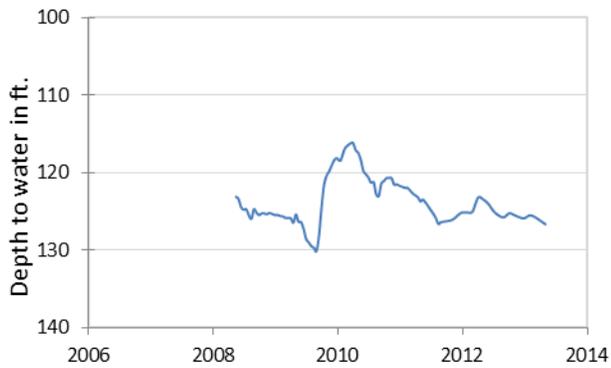
**(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer**



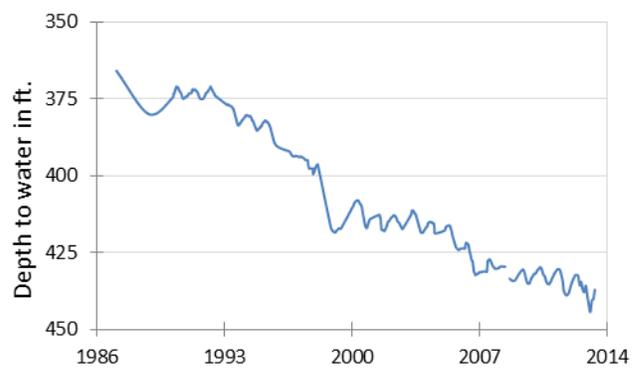
**(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer**



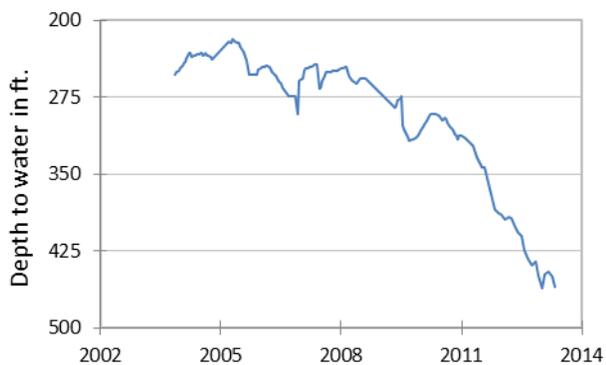
**(7) State Well ID 58-04-816
Near Salado, Bell County
Edwards (BFZ) Aquifer**



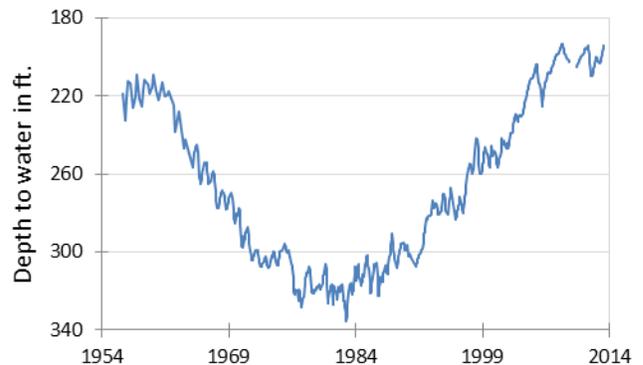
**(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer**



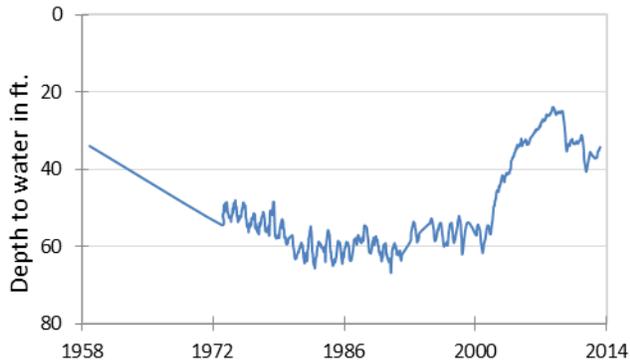
**(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer**



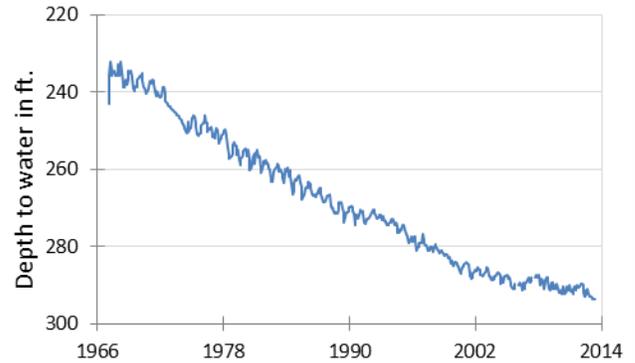
**(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer**



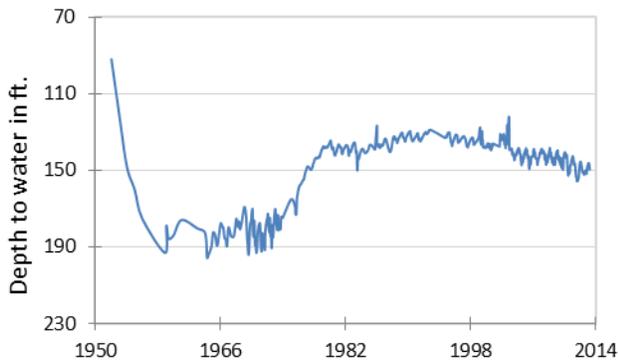
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



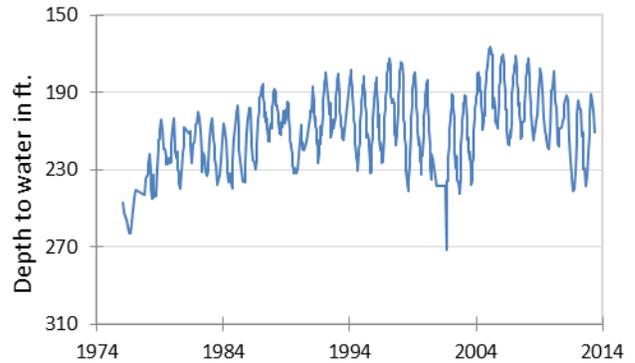
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



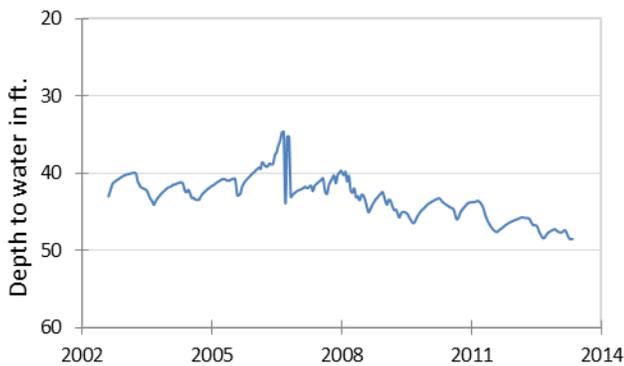
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



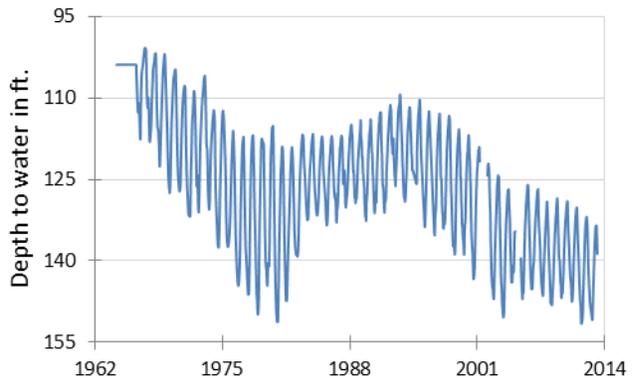
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



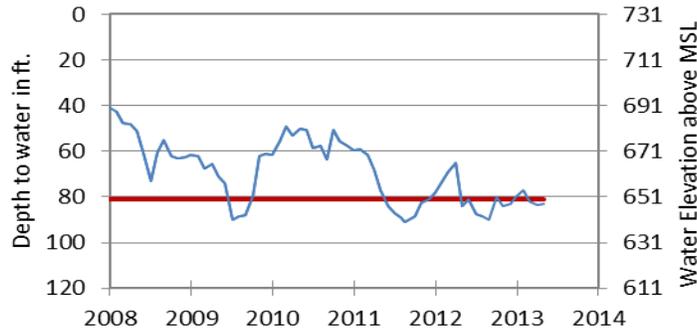
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



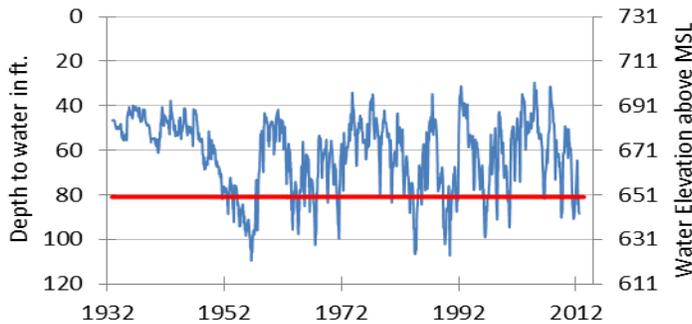
(17) State Well ID 48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



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

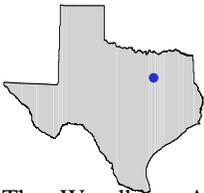


The late April water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above mean sea level, was 83 feet below land surface, or 648 feet above mean sea level. This was 0.41 feet above last month's measurement, 1.08 feet above last year's measurement, and 36.36 feet below the initial measurement recorded in 1932.



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

HYDROGRAPH OF THE MONTH

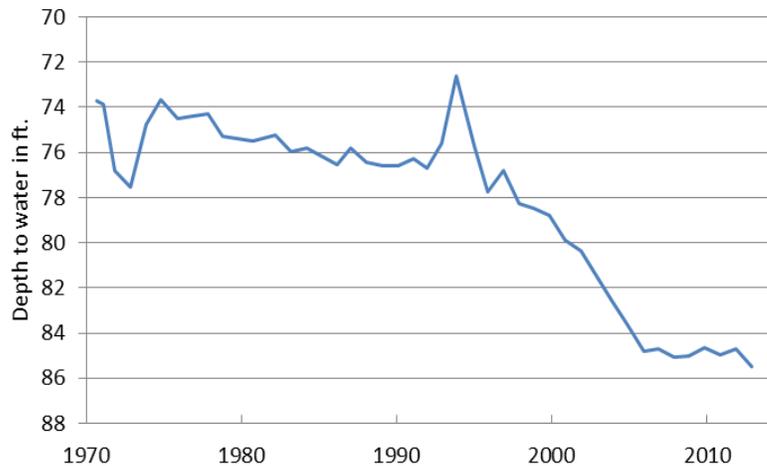


Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

Woodbine Aquifer

The Woodbine Aquifer is a minor aquifer located in northeast Texas. Overlying the Trinity Aquifer and capped by the Eagle Ford Shale, the Woodbine consists of sandstone interbedded with shale and clay that form three distinct water-bearing zones. The lower zones of the aquifer typically yield the most water, while the upper zone yields limited water that tends to be very high in iron. The units of the Woodbine were formed in the Cretaceous in a clastic progradational wedge deposited in the East Texas Basin, one of the salt basins formed along the Gulf of Mexico during the early Mesozoic. Uplift of the Sabine Arch at the east edge of the basin truncates the Woodbine. Water quality is fresh to saline, ranging from 1,000 to 4,000 milligrams per liter of total dissolved solids. The aquifer provides water for municipal, industrial, domestic, livestock, and small irrigation supplies. Locally, large water level declines have occurred due to heavy pumping but have rebounded in the past decade as suppliers have switched to surface water.

**Well # 18-15-902
Fannin County Texas**



This 489-foot deep unused well is at an elevation of 558 feet above sea level in north-central Fannin County, less than two miles east of the Red River. Water levels have declined, but at a relatively insignificant rate of less than 1/3 of a foot per year in the last 32 years. Other wells in the area, primarily domestic and irrigation, have experienced similar rates of decline or have remained flat.

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