

## RESERVOIR STORAGE

*February 2015*

At the end of the month, total storage in 114 of the state's major water supply reservoirs was at 20.59 million acre-feet\*, or 66% of their total conservation storage capacity. This is 275,143 acre-feet more than a month ago and 463,825 acre-feet more than the storage at this time last year.

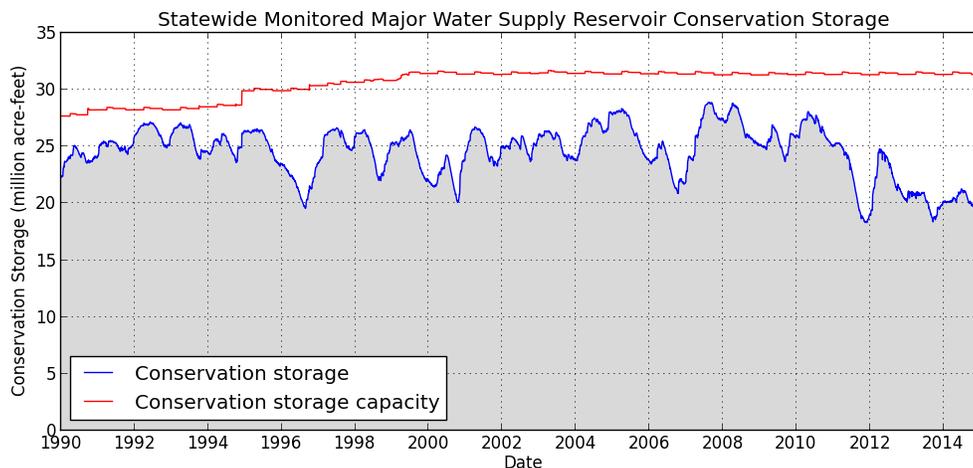
Nineteen reservoirs held 100% of conservation storage capacity. Fourteen (14) reservoirs were below 10% full: Electra (0%), O. C. Fisher (1%), Palo Duro (1%), E.V. Spence (2%), Abilene (3%), Medina (3%), Twin Buttes (3%), North Fork Buffalo Creek (3%), Meredith (4%), White River (4%), Champion Creek (6%), Mackenzie (7%), Millers Creek (8%), and Palo Pinto (8%).

Total combined storage was greater than 70% in the Trans-Pecos (91%), Upper Coast (100%) and East (95%) regions. The regions with the lowest percentage storage were the High Plains (5%) and Low Rolling regions (32%). Storage declined in 3 regions and increased in 6 regions over the past month.

Elephant Butte reservoir held 327,856 acre-feet, or 17% of storage capacity. This is 37,599 acre-feet 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 114 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.

**CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS**

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Feb 2015 (acre-feet)	(%)	Change since end of Jan 2015 (acre-feet)	(%)	Change since end of Feb 2014 (acre-feet)	(%)
<b>HIGH PLAINS</b>							
Palo Duro Reservoir	61,066	894	1	-60	-0	-1,540	-3
Meredith, Lake (Texas)	500,000	27,408	5	1,153	0	27,408	5
Meredith, Lake (Texas & Oklahoma)	779,556	27,408	4	1,153	0	27,408	4
MacKenzie Reservoir	46,450	3,354	7	-26	-0	955	2
White River Lake	29,880	1,153	4	-96	-0	1,153	4
<b>TOTAL</b>	<b>637,396</b>	<b>32,809</b>	<b>5</b>	<b>971</b>	<b>0</b>	<b>27,976</b>	<b>4</b>
<b>LOW ROLLING PLAINS</b>							
Greenbelt Lake	59,968	7,436	12	89	0	-1,147	-2
*Electra, Lake	5,626	No Data					
N. Fork Buffalo Crk Reservoir	15,400	530	3	-22	-0	476	3
Kemp, Lake	245,307	66,596	27	0	0	7,433	3
Millers Creek Reservoir	26,768	2,027	8	-22	-0	-2,011	-8
Alan Henry Reservoir	94,808	70,537	74	-528	-1	9,613	10
Stamford, Lake	51,570	5,099	10	-149	-0	-2,559	-5
J B Thomas, Lake	199,931	88,895	44	-1,201	-1	86,361	43
Fort Phantom Hill, Lake	70,030	21,965	31	277	0	-8,612	-12
Sweetwater, Lake	12,267	1,611	13	-35	0	-837	-7
Colorado City, Lake	30,758	6,506	21	-115	-0	-1,731	-6
Champion Creek Reservoir	41,580	2,288	6	-63	-0	-651	-2
Abilene, Lake	7,900	268	3	0	0	-213	-3
Coleman, Lake	38,075	11,830	31	-191	-1	-3,200	-8
Hords Creek Lake	8,443	3,445	41	-43	-1	882	10
<b>TOTAL</b>	<b>908,431</b>	<b>289,033</b>	<b>32</b>	<b>-2,003</b>	<b>0</b>	<b>83,804</b>	<b>9</b>
<b>NORTH CENTRAL</b>							
Nocona, Lake (Farmers Crk)	21,444	6,637	31	-317	-1	-2,222	-10
Hubert H Moss Lake	24,058	21,150	88	1,044	4	393	2
Texoma, Lake (Texas)	1,258,113	1,092,196	87	14,030	1	120,308	10
Texoma, Lake (Texas & Oklahoma)	2,525,281	1,092,196	43	14,030	1	120,308	5
*Pat Mayse Lake	113,683	111,941	98	2,622	2	24,702	22
Kickapoo, Lake	86,345	24,277	28	-313	-0	-2,925	-3
Arrowhead, Lake	230,359	43,633	19	-688	-0	-14,799	-6
Bonham, Lake	11,027	8,372	76	128	1	-479	-4
Crook, Lake	9,195	9,195	100	10	0	417	5
Amon G Carter, Lake	19,266	9,654	50	74	0	551	3
Ray Roberts, Lake	788,167	594,420	75	13,594	2	9,166	1
Jim Chapman Lake (Cooper)	260,332	118,710	46	17,526	7	38,192	15
Graham, Lake	45,288	16,955	37	-225	-0	-6,038	-13
*Lost Creek Reservoir	11,950	7,170	60	-3	-0	-1,287	-11
Bridgeport, Lake	366,236	138,312	38	70	0	-21,513	-6
Lewisville Lake	563,228	406,484	72	17,437	3	34,080	6
Lavon Lake	406,388	219,784	54	20,785	5	24,400	6
Hubbard Creek Reservoir	318,067	41,806	13	-1,568	-0	-32,636	-10
Possum Kingdom Lake	540,340	337,901	63	1,131	0	-11,007	-2
*Mineral Wells, Lake	6,760	3,442	51	84	1	-558	-8
Weatherford, Lake	17,812	10,689	60	-150	-1	1,123	6
Eagle Mountain Lake	179,880	98,617	55	-992	-1	-23,966	-13
Worth, Lake	33,495	22,577	67	766	2	-698	-2
Grapevine Lake	164,703	101,221	61	5,195	3	-5,644	-3
Ray Hubbard, Lake	452,040	296,824	66	17,633	4	-14,260	-3
New Terrell City Lake	8,583	7,786	91	673	8	1,303	15

**CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS**

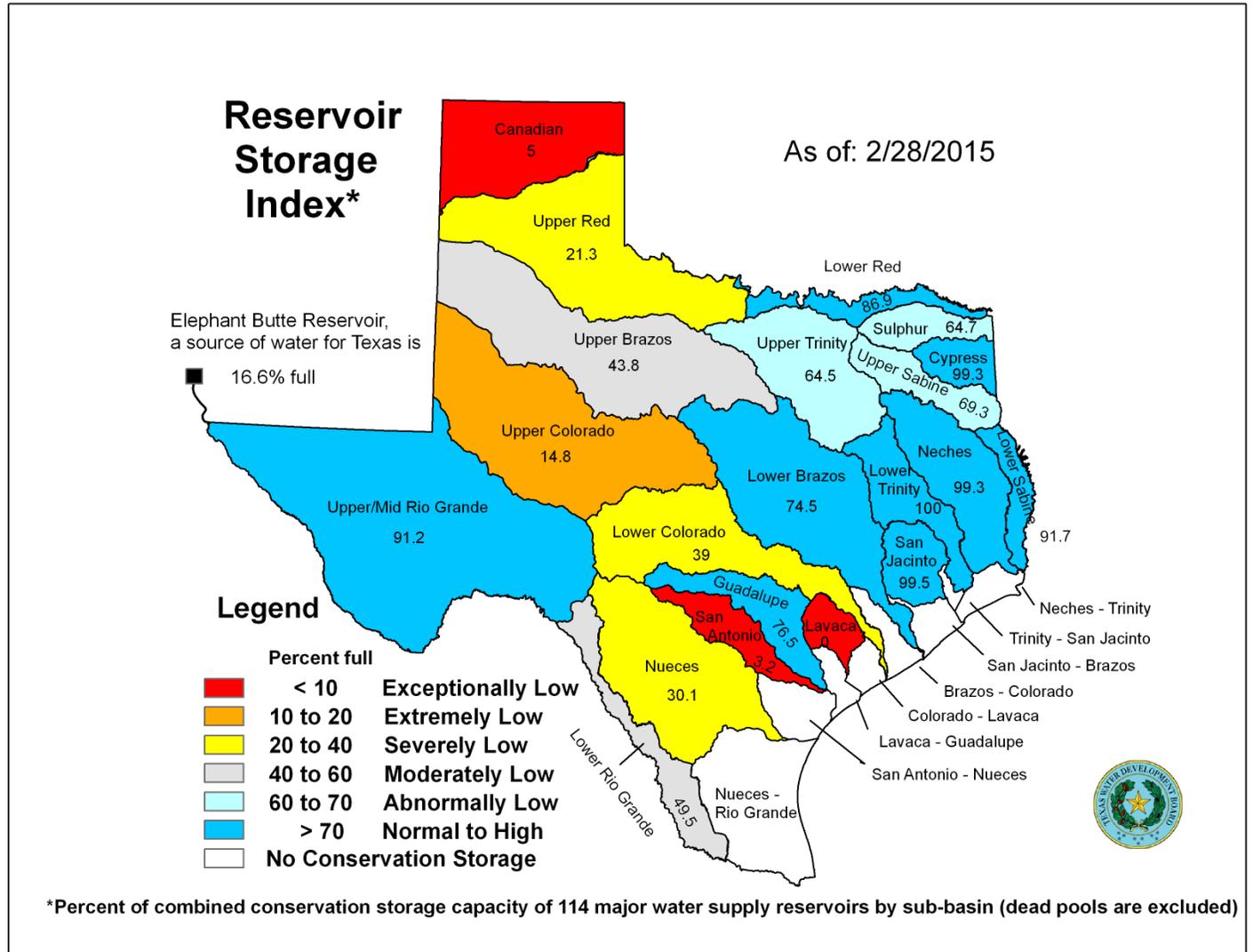
Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Feb 2015 (acre-feet)	(%)	Change since end of Jan 2015 (acre-feet)	(%)	Change since end of Feb 2014 (acre-feet)	(%)
<b>(North Central Continue)</b>							
Palo Pinto, Lake	26,827	2,252	8	-72	-0	-5,580	-21
Benbrook Lake	85,648	61,508	72	5,291	6	-4,659	-5
Arlington, Lake	40,188	32,421	81	2,282	6	806	2
Joe Pool Lake	175,358	169,085	96	3,555	2	2,835	2
*Cisco, Lake	25,895	11,845	46	17	0	-2,585	-10
Leon, Lake	26,476	16,203	61	-86	-0	-5,368	-20
Granbury, Lake	128,046	70,827	55	2,934	2	-1,060	-1
Pat Cleburne, Lake	26,008	17,590	68	158	1	1,534	6
Waxahachie, Lake	10,780	8,872	82	238	2	-211	-2
Bardwell Lake	46,122	40,255	87	830	2	3,254	7
Proctor Lake	55,457	16,093	29	-288	-1	-9,895	-18
Whitney, Lake	553,344	359,473	65	1,542	0	14,758	3
Aquila Lake	44,460	37,914	85	-223	-1	5,415	12
Navarro Mills Lake	49,827	43,206	87	134	0	-6,621	-13
*Halbert, Lake	6,033	4,834	80	-5	-0	-304	-5
Richland-Chambers Reservoir	1,087,839	692,879	64	-4,686	-0	-112,603	-10
*Brownwood, Lake	128,839	61,983	48	-834	-1	-9,673	-8
Waco, Lake	189,567	168,659	89	1,678	1	-3,071	-2
Limestone, Lake	208,014	207,645	100	-369	-0	864	0
Belton Lake	435,225	296,361	68	-1,648	-0	-33,548	-8
Stillhouse Hollow Lake	227,771	147,684	65	-965	-0	-18,913	-8
Georgetown, Lake	36,823	25,558	69	103	0	4,743	13
Granger Lake	50,779	50,779	100	0	0	0	0
Tawakoni, Lake	871,685	535,181	61	26,990	3	-24,528	-3
Mountain Creek, Lake	22,850	22,850	100	0	0	0	0
Squaw Creek, Lake	151,250	147,208	97	-2,434	-2	-1,151	-1
<b>TOTAL</b>	<b>10,647,870</b>	<b>6,998,918</b>	<b>66</b>	<b>142,688</b>	<b>1</b>	<b>-88,958</b>	<b>-1</b>
<b>EAST</b>							
Wright Patman Lake	122,593	122,593	100	0	0	0	0
*Sulphur Springs, Lake	17,747	17,747	100	0	0	328	2
Cypress Springs, Lake	66,756	66,756	100	194	0	227	0
Bob Sandlin, Lake	190,822	187,037	98	9,851	5	24,176	13
Caddo, Lake	29,898	29,898	100	0	0	0	0
Martin, Lake	75,116	75,116	100	0	0	48	0
Monticello, Lake	34,740	34,740	100	0	0	0	0
Fork Reservoir, Lake	605,061	453,317	75	17,519	3	-41,003	-7
O the Pines, Lake	241,363	241,363	100	0	0	0	0
Cedar Creek Reservoir in Trinity	644,686	522,008	81	26,831	4	-8,145	-1
Athens, Lake	29,435	29,008	99	827	3	-349	-1
Palestine, Lake	373,199	373,199	100	0	0	0	0
Tyler, Lake	73,161	73,161	100	0	0	3,690	5
Murvaul, Lake	38,285	38,285	100	0	0	0	0
Jacksonville, Lake	25,670	25,670	100	0	0	0	0
Nacogdoches, Lake	39,522	38,827	98	-695	-2	-21	-0
Houston County Lake	17,113	17,113	100	0	0	0	0
Sam Rayburn Reservoir	2,857,077	2,851,452	100	-5,625	-0	372,513	13
Toledo Bend Reservoir (Texas)	2,245,752	2,059,038	92	70,701	3	44,342	2
Toledo Bend Reservoir (TX & LA)	4,472,900	2,059,038	46	70,701	2	44,342	1
*Livingston, Lake	1,785,348	1,785,348	100	0	0	0	0
B A Steinhagen Lake	66,961	52,798	79	-1,939	-3	-4,715	-7
Conroe, Lake	416,177	413,399	99	-1,189	-0	17,840	4
<b>TOTAL</b>	<b>9,996,482</b>	<b>9,507,873</b>	<b>95</b>	<b>116,475</b>	<b>1</b>	<b>408,931</b>	<b>4</b>

**CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS**

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Feb 2015 (acre-feet)	(%)	Change since end of Jan 2015 (acre-feet)	(%)	Change since end of Feb 2014 (acre-feet)	(%)
<b>TRANS-PECOS</b>							
**Red Bluff Reservoir	151,110	137,881	91	2,628	2	68,840	46
<b>TOTAL</b>	151,110	137,881	91	2,628	2	68,840	46
<b>EDWARDS PLATEAU</b>							
Oak Creek Reservoir	39,210	5,843	15	-109	-0	-2,073	-5
E V Spence Reservoir	517,272	9,947	2	-813	-0	-6,188	-1
O C Fisher Lake	119,445	1,285	1	-94	-0	533	0
*O H Ivie Reservoir	554,340	77,357	14	-2,409	-0	5,756	1
Twin Buttes Reservoir	182,454	5,839	3	-266	-0		
Brady Creek Reservoir	28,808	7,618	26	-159	-1	-1,528	-5
Buchanan, Lake	860,607	300,768	35	2,524	0	-26,218	-3
Inks, Lake	13,962	12,810	92	-60	-0	-218	-2
Lyndon B Johnson, Lake	115,056	111,063	97	672	1	0	0
*Amistad Reservoir (Texas)	1,840,849	1,148,634	62	-4,908	-0	241,054	13
*Amistad Reservoir (TX & Mexico)	3,275,532	1,148,634	35	-4,908	-0	241,054	7
<b>TOTAL</b>	4,272,003	1,681,164	39	-5,622	-0	211,118	5
<b>SOUTH CENTRAL</b>							
Travis, Lake	1,113,348	379,562	34	5,339	0	-18,001	-2
*Austin, Lake	23,972	22,849	95	-886	-4	31	0
Somerville Lake	147,104	147,104	100	0	0	27,657	19
Canyon Lake	378,781	292,328	77	554	0	-23,512	-6
Medina Lake	254,823	8,260	3	-101	-0	-121	-0
*Coleto Creek Reservoir	31,040	21,094	68	825	3	-644	-2
<b>TOTAL</b>	1,949,068	871,197	45	5,731	0	-14,590	-1
<b>UPPER COAST</b>							
Houston, Lake	120,686	120,686	100	0	0	0	0
Texana, Lake	159,566	138,918	87	-3,556	-2	10,773	7
<b>TOTAL</b>	280,252	259,604	100	-3,556	-1	10,773	4
<b>SOUTHERN</b>							
Choke Canyon Reservoir	695,262	167,769	24	-4,762	-1	-63,728	-9
Corpus Christi, Lake	256,961	118,539	46	-1,559	-1	-100,568	-39
*Falcon Reservoir (Texas)	1,551,007	529,118	34	24,152	2	-79,773	-5
*Falcon Reservoir (TX & Mexico)	2,646,817	529,118	20	24,152	1	-79,773	-3
<b>TOTAL</b>	2,503,230	815,426	33	17,831	1	-244,069	-10
<b>STATE TOTAL</b>	31,345,842	20,593,905	66	275,143	1	463,825	1
* Conservation volume is used as conservation storage capacity because the dead storage is unknown.							
** Nov 11/27 2013 – 12/02 2014 data were not available. End of Nov 2013 storage was estimated.							
Elephant Butte Reservoir	1,973,358	327,856	17	37,599	2	-11,798	-1

**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 RESERVOIR CONDITIONS

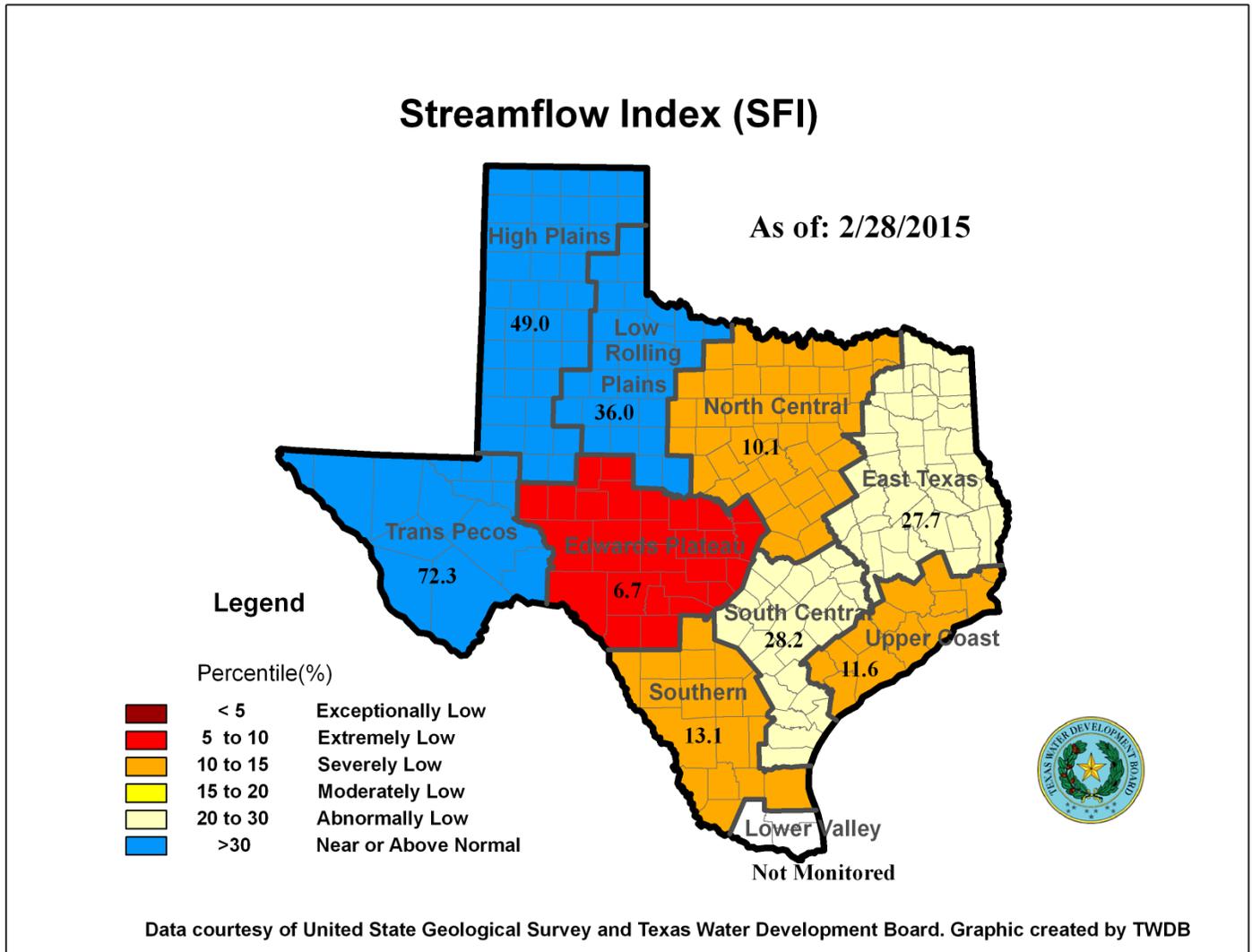


NOTE: NO DATA FROM TEXANA

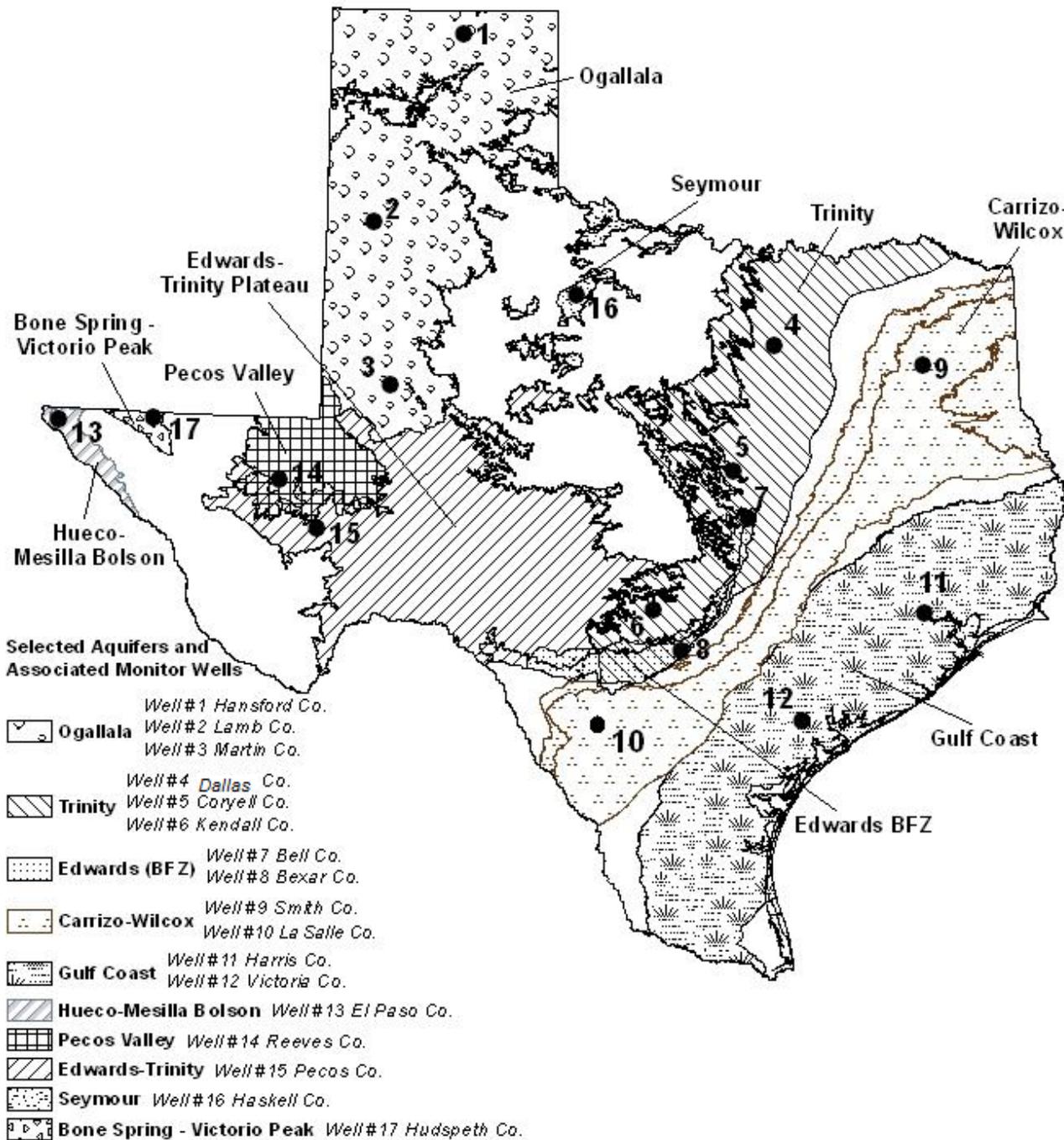
## ***FEBRUARY STREAMFLOW CONDITIONS***

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 5 stations, extremely low (5-10%) at 4 stations, severely low (10-15%) at 4 stations, moderately low (15-20%) at 2 stations, abnormally low (20-30%) at 4 stations, and near normal (30% - 70%) at the remaining 10 stations. Compared to last month, flows have increased at 19 index stations and decreased at 6 stations.

On a regional basis, flows in this month at index stations were extremely low in the Edwards Plateau region, severely low in the North Central, Upper Coast, and Southern regions, abnormally low in the East Texas and South Central regions, and near or above normal in all other regions. Streamflow in the Lower Valley region is not monitored.



## FEBRUARY 2015 GROUNDWATER LEVELS IN OBSERVATION WELLS



February, 2015 Water level measurements were available for all of the seventeen key monitoring wells in the state. Water levels rose

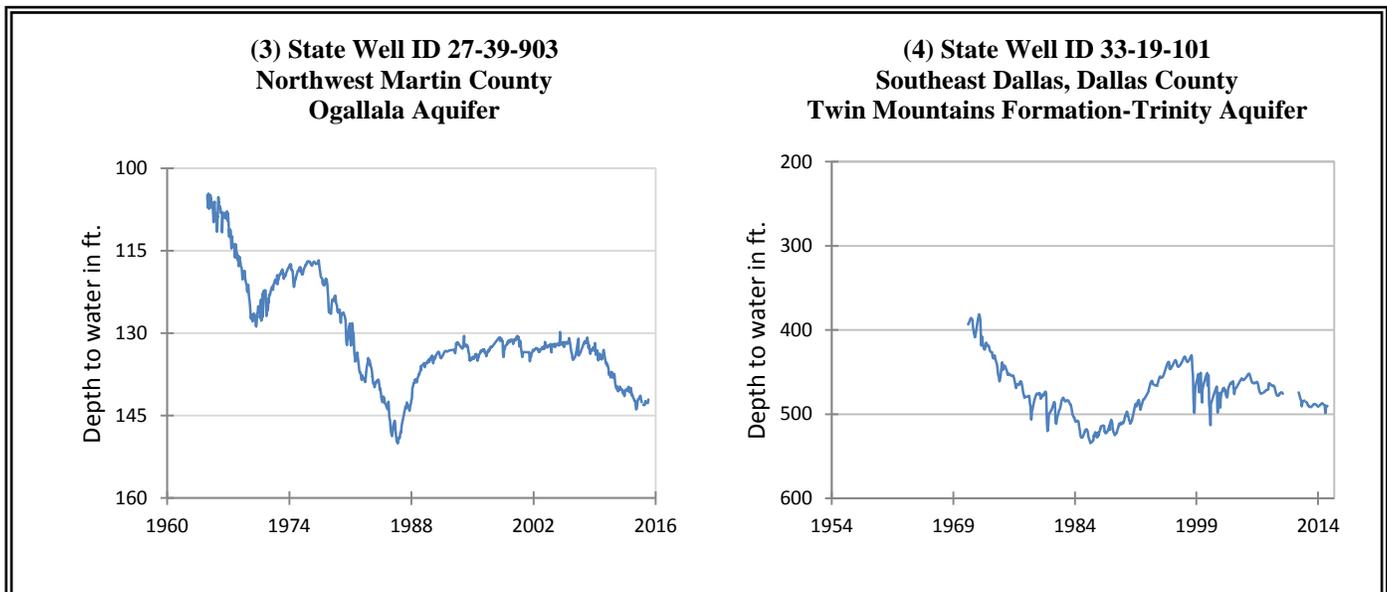
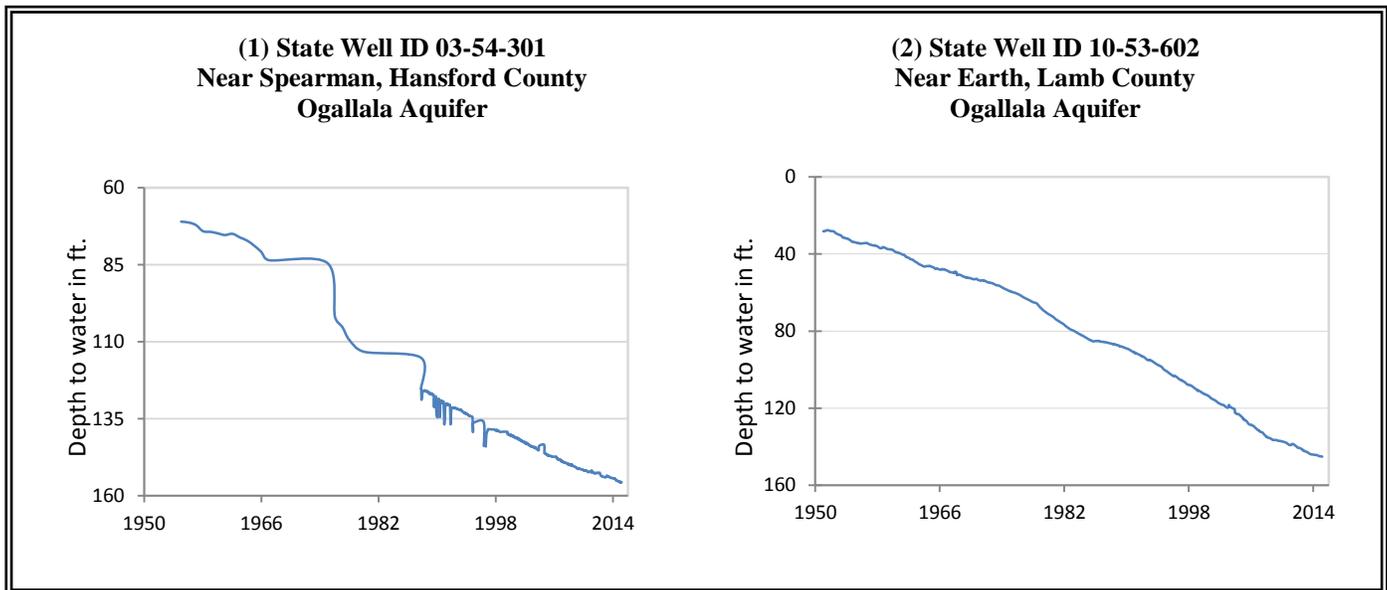
in ten of the monitoring wells since the beginning of February, ranging from 0.09 feet in the Haskell County Seymour Aquifer well to 4.49 feet in the La Salle County Carrizo-Wilcox Aquifer well. Water levels declined in seven monitoring wells, ranging from 0.1 feet in the Lamb County Ogallala Aquifer well to 4.85 feet in the Reeves County Pecos Valley Aquifer well. The J-17 well in San Antonio recorded a water level of 86.61 feet below land surface or 645.89 feet above mean sea level. This water level is 3.39 feet above the Stage III critical management level in that segment of the Edwards Aquifer. Stage III restrictions were declared by the EAA when the ten-day average fell below the 640-foot elevation, or 91 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.

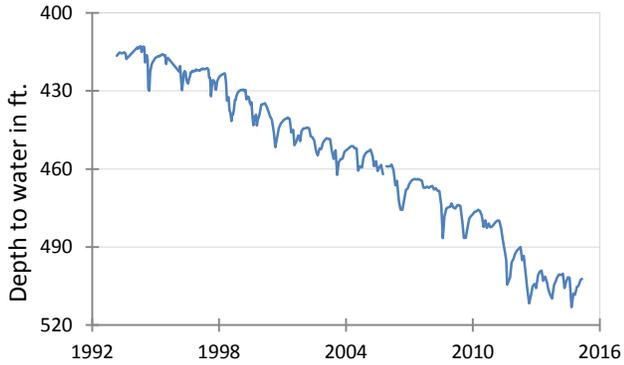
Monitoring Well	February	January	month change	year change	historical change	first measured
(1) Hansford 0354301	155.9	155.53	-0.37	-1.6	-85.78	1951
(2) Lamb 1053602	145.18	145.08	-0.1	-0.98	-117.03	1951
(3) Martin 2739903	142.07	142.74	0.67	-0.41	-37.18	1964
(4) Dallas 3319101	490.59	490.38	-0.21	-0.5	-268.59	1954
(5) Coryell 4035404	502.22	502.8	0.58	-1.43	-210.22	1955
(6) Kendall 6802609	130.5	132.85	2.35	1.1	-70.5	1975
(7) Bell 5804816	124.5	124.98	0.48	-0.25	-1.37	2008
(8) Bexar 6837203	86.61	85.71	-0.9	3.09	-39.97	1932
(9) Smith 3430907	434.33	435.5	1.17	3.38	-68.33	1987
(10) La Salle 7738103	493.72	498.21	4.49	-22.65	-240.65	2003
(11) Harris 6514409	190.03	190.23	0.2	2.41	-54.53*	1956
(12) Victoria 8017502	37.6	36.95	-0.65	-1.07	-3.6	1958
(13) El Paso 4913301	295.93	295.58	-0.35	-1.44	-64.03	1967
(14) Reeves 4644501	156.01	151.16	-4.85	-1.45	-63.92	1952
(15) Pecos 5216802	190.05	192.19	2.14	7.5	56.83	1976
(16) Haskell 2135748	48.67	48.76	0.09	-0.47	-7.34	2002
(17) Hudspeth 4807516	133.67	134.45	0.78	-1.18	-29.75	1964

\*change since the original measurement of 135.5 feet below land surface in 1947 (measurement not shown on the hydrograph)

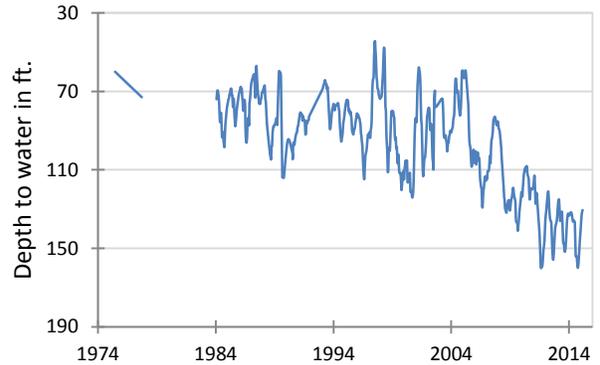
## FEBRUARY GROUNDWATER LEVELS IN OBSERVATION WELLS



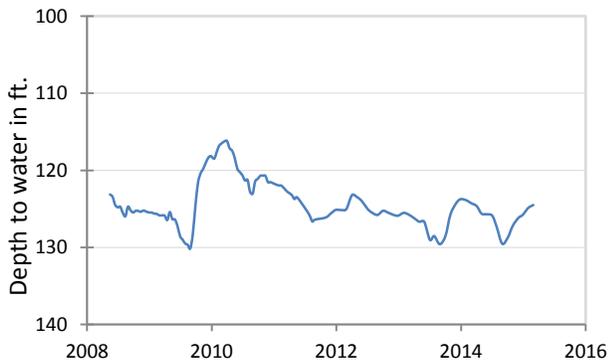
**(5) State Well ID 40-35-404  
Gatesville, Coryell County  
Hosston Formation-Trinity Aquifer**



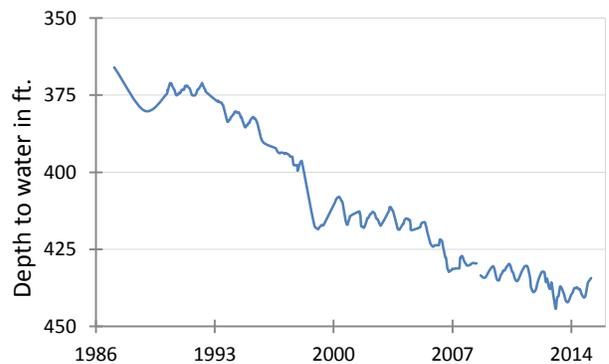
**(6) State Well ID 68-02-609  
Waring, Kendall County  
Cow Creek Formation-Trinity Aquifer**



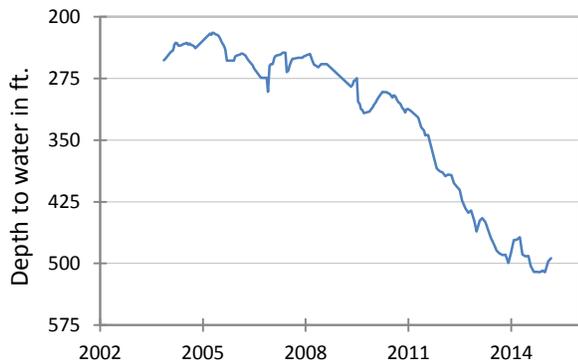
**(7) State Well ID 58-04-816  
Near Salado, Bell County  
Edwards (BFZ) Aquifer**



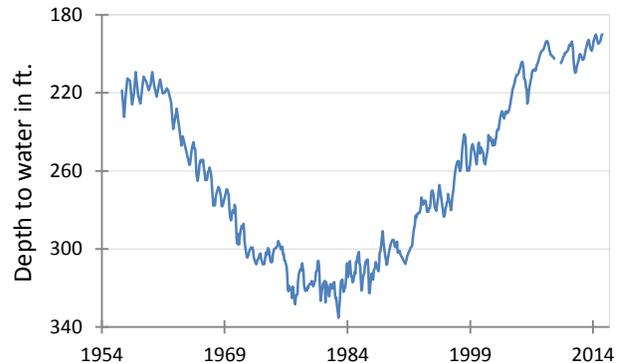
**(9) State Well ID 34-30-907  
Red Springs, Smith County  
Carrizo-Wilcox Aquifer**



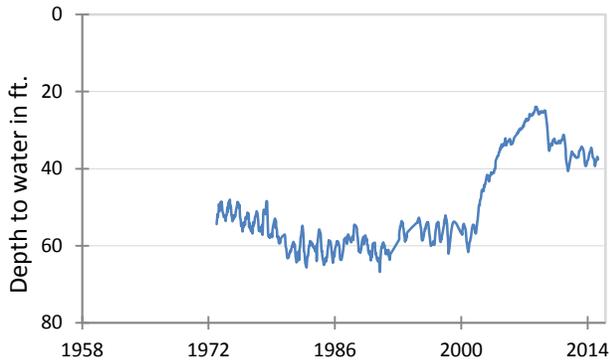
**(10) State Well ID 77-38-103  
Near Cotulla, La Salle County  
Carrizo-Wilcox Aquifer**



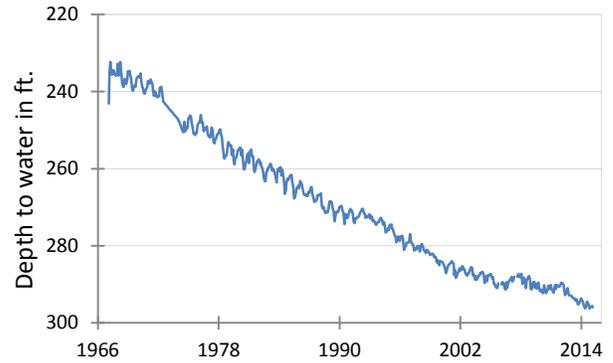
**(11) State Well ID 65-14-409  
Alief, Harris County  
Evangeline Formation-Gulf Coast Aquifer**



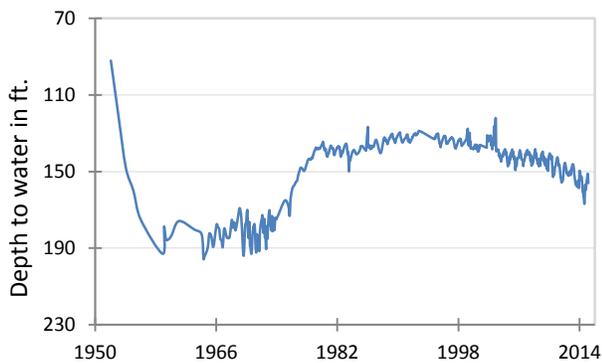
**(12) State Well ID 80-17-502**  
Near Bloomington, Victoria County  
Lissie Formation-Gulf Coast Aquifer



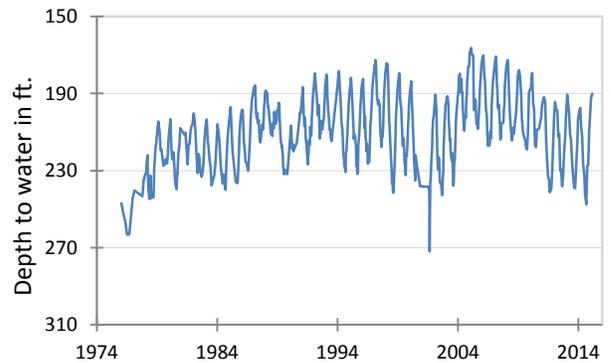
**(13) State Well ID 49-13-301**  
El Paso, El Paso County  
Hueco-Mesilla Bolson Aquifer



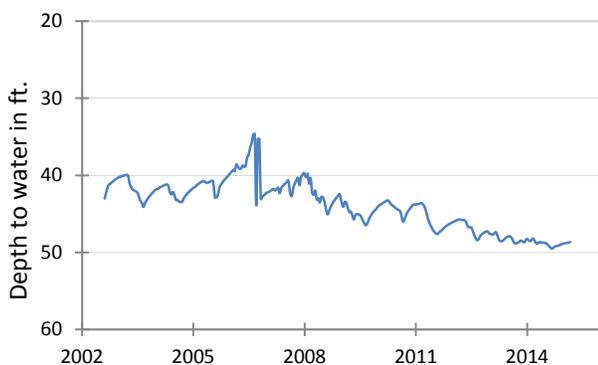
**(14) State Well ID 46-44-501**  
Near Pecos, Reeves County  
Pecos Valley Aquifer



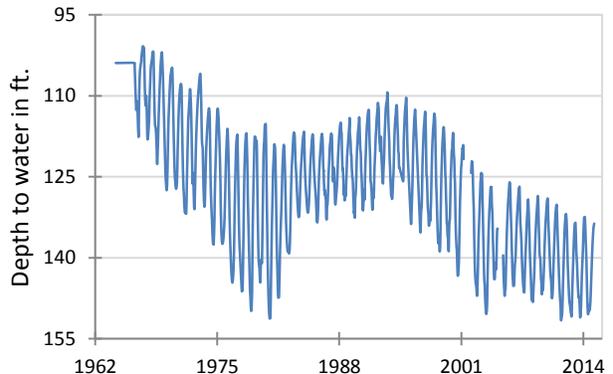
**(15) State Well ID 52-16-802**  
Fort Stockton, Pecos County  
Edwards-Trinity (Plateau) Aquifer



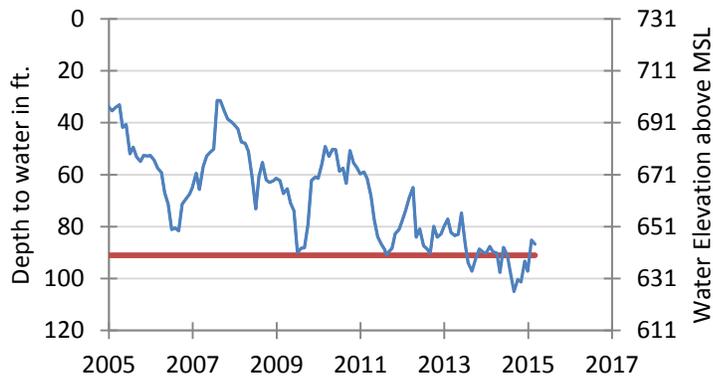
**(16) State Well ID 21-35-748**  
Near O'Brien, Haskell County  
Seymour Aquifer



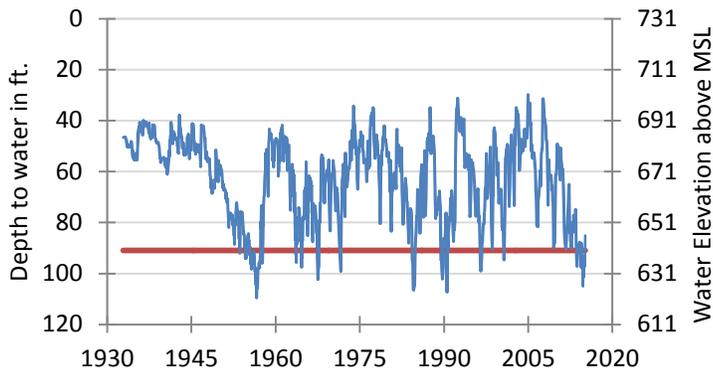
**(17) State Well ID 48-07-516**  
Dell City, Hudspeth County  
Bone Spring - Victorio Peak Aquifer



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

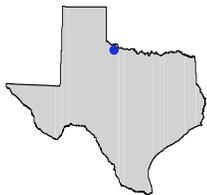


The late February water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above mean sea level, was 86.61 feet below land surface, or 645.89 feet above mean sea level. This was 0.9 feet below last month's measurement, 3.09 feet above last year's measurement, and 39.97 feet below the initial measurement recorded in 1932.



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

***HYDROGRAPH OF THE MONTH***

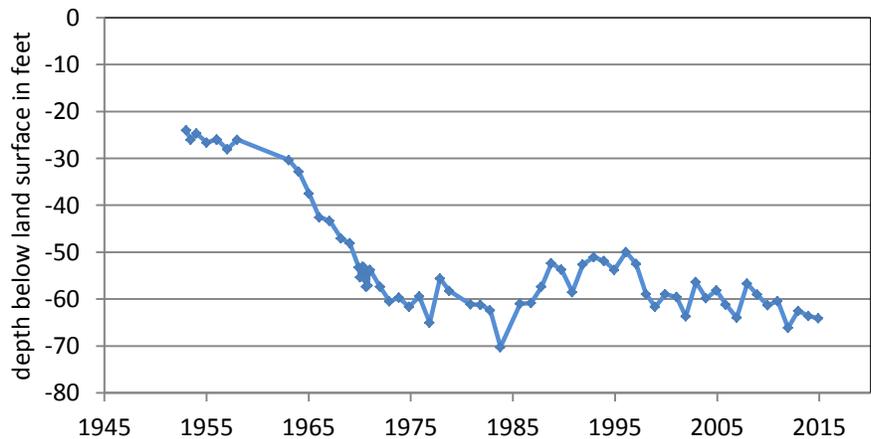


Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

**Seymour Aquifer**

The Seymour Aquifer is a major aquifer that consists of Quaternary-age, alluvial sediments overlying Permian-age rocks. Water is contained in isolated patches of alluvium as much as 360 feet thick composed of discontinuous beds of poorly sorted gravel, conglomerate, sand, and silty clay. Water ranges from fresh to slightly saline ranging from 100 – 3,000 milligrams per liter total dissolved solids; however, moderately to very saline water containing 3,000 to more than 10,000 milligrams per liter total dissolved solids exists in localized areas. The aquifer is affected by nitrate in excess of primary drinking water standards and excess chloride throughout its extent. Irrigation accounts for 90 percent of the water used from the aquifer, with the remainder primarily used for municipal supply.

Well # 1346402, 100 feet deep  
unused, northwestern Wilbarger County



Depth-to-water in this well has been measured by the TWDB for 54 years. Water levels declined sharply throughout the 1960s to the lowest measurement of 70.25 feet in 1983 followed by a ten-foot recovery. Since then, the water level has fluctuated within a range of about 15 feet in response to periods of drought. The well has been unused since 1994.

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