

RESERVOIR STORAGE

February 2014

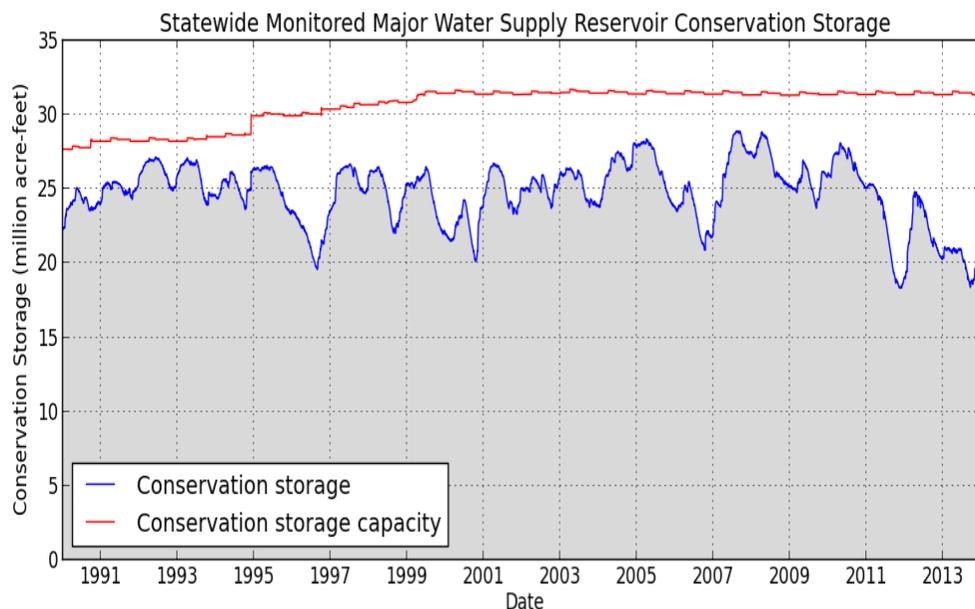
At the end of the month, total storage in 114 of the state's major water supply reservoirs was at 20.14 million acre-feet*, or 64% of their total conservation storage capacity. This is 72 thousand acre-feet more than a month ago and 852.6 thousand acre-feet less than the storage at this time last year. No data was reported for Electra and Twin Buttes. Electra has been empty since the end of October, 2012, and Twin Buttes has been empty since mid-November, 2013.

Fifteen reservoirs, most in North Central and East regions, held 100% of conservation storage capacity. Thirteen (13) reservoirs were at or below 10% full: Meredith (0%), North Fork Buffalo Creek (0%), White River (0%), Electra (0%), Twin Buttes (0%), J. B. Thomas (1%), O. C. Fisher (1%), Medina (3%), E.V. Spence (3%), Palo Duro (4%), Mackenzie (5%), Abilene (6%), and Champion Creek (7%).

Total combined storage was greater than 70% in the Upper Coast (89%) and East (91%) regions. The regions with the lowest percentage storage were the High Plains (1%) and Low Rolling Plains regions (23%). Storage declined in 5 regions and increased in 4 regions over the past month.

Elephant Butte reservoir held 339,654 acre-feet, or 17% of storage capacity. This is 28,347 acre-feet more than a month ago.

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		Change since end of Jan 2014		Change since end of Feb 2013	
		2014 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)
HIGH PLAINS							
Palo Duro Reservoir	61,066	2,434	4	655	1	926	2
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	2,400	5	-26	-0	-610	-1
White River Lake	29,880	0	0	0	0	-1,191	-4
TOTAL	637,396	4,834	1	629	0	-875	-0
LOW ROLLING PLAINS							
Greenbelt Lake	59,968	8,583	14	102	0	1,035	2
*Electra, Lake	5,626	No Data					
N. Fork Buffalo Crk Reservoir	15,400	54	0	-16	-0	-765	-5
Kemp, Lake	245,307	59,163	24	0	0	-2,606	-1
Millers Creek Reservoir	26,768	4,038	15	-103	-0	-2,883	-11
Alan Henry Reservoir	94,808	60,924	64	-355	-0	-8,128	-9
Stamford, Lake	51,570	7,658	15	-167	-0	-5,635	-11
J B Thomas, Lake	199,931	2,534	1	-77	-0	1,437	1
Fort Phantom Hill, Lake	70,030	30,577	44	-313	-0	-3,774	-5
Sweetwater, Lake	12,267	2,459	20	-48	-0	-1,128	-9
Colorado City, Lake	30,758	8,237	27	155	1	-2,349	-8
Champion Creek Reservoir	41,580	2,939	7	-88	-0	-472	-1
Abilene, Lake	7,900	481	6	44	1	-812	-10
Coleman, Lake	38,075	15,030	39	-194	-1	-2,293	-6
Hords Creek Lake	8,443	2,563	30	-35	-0	-334	-4
TOTAL	902,805	205,240	23	-1,095	-0	-20,124	-2
NORTH CENTRAL							
Nocona, Lake (Farmers Crk)	21,444	8,859	41	-177	-1	-1,668	-8
Hubert H Moss Lake	24,058	20,757	86	0	0	-272	-1
Texoma, Lake (Texas)	1,258,113	971,888	77	-13,316	-1	-99,951	-8
Texoma, Lake (Texas & Oklahoma)	2,525,281	971,888	38	-13,316	-1	-99,951	-4
*Pat Mayse Lake	113,683	87,239	77	-1,186	-1	-4,495	-4
Kickapoo, Lake	85,825	26,325	31	-192	-0	-8,254	-10
Arrowhead, Lake	235,997	61,137	26	-1,862	-1	-32,230	-14
Bonham, Lake	11,027	8,851	80	-192	-2	964	9
Crook, Lake	9,195	8,778	95	-63	-1	1,220	13
Amon G Carter, Lake	19,266	9,103	47	-81	-0	-2,853	-15
Ray Roberts, Lake	788,167	585,254	74	-3,983	-1	-95,548	-12
Jim Chapman Lake (Cooper)	260,332	80,518	31	-3,650	-1	-66,252	-25
Graham, Lake	45,288	22,993	51	-497	-1	-10,269	-23
*Lost Creek Reservoir	11,950	8,457	71	-64	-1	-1,706	-14
Bridgeport, Lake	366,236	159,825	44	-3,114	-1	-50,880	-14
Lewisville Lake	563,228	372,404	66	-9,534	-2	-52,294	-9
Lavon Lake	406,388	195,384	48	277	0	-52,819	-13
Hubbard Creek Reservoir	326,559	75,508	23	-1,324	-0	-16,328	-5
Possum Kingdom Lake	540,340	348,908	65	-2,443	-0	-41,392	-8
*Mineral Wells, Lake	6,760	4,000	59	-25	-0	-1,088	-16
Weatherford, Lake	17,812	9,566	54	-290	-2	-825	-5
Eagle Mountain Lake	179,880	122,583	68	-3,550	-2	-12,893	-7
Worth, Lake	33,495	23,275	69	-533	-2	-955	-3
Grapevine Lake	164,703	106,865	65	-1,813	-1	-21,323	-13
Ray Hubbard, Lake	452,040	311,084	69	-3,108	-1	-72,602	-16
New Terrell City Lake	8,583	6,483	76	0	0	-495	-6

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Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Feb		Change since end of Jan 2014		Change since end of Feb 2013		
		2014 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
(North Central Continue)								
Palo Pinto, Lake	26,827	7,288	27	-408	-2	-8,704	-32	
Benbrook Lake	85,648	66,167	77	-3,694	-4	2,032	2	
Arlington, Lake	40,188	31,615	79	2,866	7	1,294	3	
Joe Pool Lake	175,358	166,250	95	-360	-0	5,400	3	
*Cisco, Lake	25,895	14,430	56	-114	-0	4,703	18	
Leon, Lake	26,476	21,571	81	-225	-1	4,130	16	
Granbury, Lake	128,046	71,887	56	-133	-0	-19,428	-15	
Pat Cleburne, Lake	26,008	16,056	62	-25	-0	-2,599	-10	
Waxahachie, Lake	10,780	9,083	84	11	0	-359	-3	
Bardwell Lake	46,122	37,001	80	85	0	-1,277	-3	
Proctor Lake	55,457	25,988	47	-431	-1	-7,832	-14	
Whitney, Lake	553,344	344,715	62	-2,404	-0	-42,750	-8	
Aquilla Lake	44,460	32,499	73	-753	-2	-1,160	-3	
Navarro Mills Lake	49,827	49,827	100	0	0	1,681	3	
*Halbert, Lake	6,033	5,138	85	-38	-1	182	3	
Richland-Chambers Reservoir	1,087,839	805,482	74	1,487	0	-95,921	-9	
*Brownwood, Lake	128,839	71,656	56	-1,170	-1	1,381	1	
Waco, Lake	189,567	175,111	92	233	0	15,363	8	
Limestone, Lake	208,014	206,781	99	-864	-0	28,887	14	
Belton Lake	435,225	329,909	76	-825	-0	-24,606	-6	
Stillhouse Hollow Lake	227,771	166,597	73	-1,995	-1	-23,002	-10	
Georgetown, Lake	36,823	20,815	57	430	1	-2,798	-8	
Granger Lake	50,779	50,779	100	0	0	0	0	
Tawakoni, Lake	871,685	559,709	64	-7,959	-1	-150,057	-17	
Mountain Creek, Lake	22,850	22,850	100	0	0	0	0	
Squaw Creek, Lake	151,250	148,359	98	-2,322	-2	-1,849	-1	
TOTAL	10,651,965	7,093,607	67	-69,328	-1	-958,733	-9	
EAST								
Wright Patman Lake	122,593	122,593	100	0	0	0	0	
*Sulphur Springs, Lake	17,747	17,419	98	-328	-2	2,309	13	
Cypress Springs, Lake	66,756	66,529	100	932	1	5,383	8	
Bob Sandlin, Lake	190,822	162,861	85	6,105	3	11,423	6	
Caddo, Lake	29,898	29,898	100	0	0	0	0	
Martin, Lake	75,116	75,068	100	708	1	7,943	11	
Monticello, Lake	34,740	34,740	100	0	0	0	0	
Fork Reservoir, Lake	605,061	494,320	82	3,736	1	-6,807	-1	
O the Pines, Lake	241,363	241,363	100	0	0	49,523	21	
Cedar Creek Reservoir in Trinity	644,686	533,666	83	587	0	-15,965	-2	
Athens, Lake	29,435	29,219	99	797	3	4,195	14	
Palestine, Lake	373,199	373,199	100	0	0	12,229	3	
Tyler, Lake	73,161	69,471	95	2,375	3	10,399	14	
Murvault, Lake	38,285	38,285	100	206	1	0	0	
Jacksonville, Lake	25,670	25,670	100	23	0	0	0	
Nacogdoches, Lake	39,522	38,848	98	493	1	-238	-1	
Houston County Lake	17,113	17,113	100	0	0	0	0	
Sam Rayburn Reservoir	2,857,077	2,478,939	87	49,607	2	-170,932	-6	
Toledo Bend Reservoir (Texas)	2,245,752	2,014,696	90	53,581	2	3,272	0	
Toledo Bend Reservoir (TX & LA)	4,472,900	2,014,696	45	53,581	1	3,272	0	
*Livingston, Lake	1,785,348	1,785,348	100	0	0	0	0	
B A Steinhagen Lake	66,961	57,603	86	9,798	15	4,455	7	
Conroe, Lake	416,177	395,559	95	4,130	1	32,561	8	
TOTAL	9,996,482	9,102,407	91	132,750	1	-50,250	-1	

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		2014 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
TRANS-PECOS								
Red Bluff Reservoir	151,110	68,751	45	1,081	1	41,923	28	
TOTAL	151,110	68,751	45	1,081	1	41,923	28	
EDWARDS PLATEAU								
Oak Creek Reservoir	39,210	7,916	20	-128	-0	-3,248	-8	
E V Spence Reservoir	517,272	16,135	3	-1,722	-0	-11,166	-2	
O C Fisher Lake	119,445	752	1	3	0	-159	-0	
*O H Ivie Reservoir	554,340	71,601	13	-2,359	-0	-47,860	-9	
Twin Buttes Reservoir	182,454	No Data						
Brady Creek Reservoir	28,808	9,146	32	-117	-0	1,436	5	
Buchanan, Lake	860,607	326,986	38	878	0	-32,606	-4	
Inks, Lake	13,962	13,028	93	-408	-3	91	1	
Lyndon B Johnson, Lake	115,056	111,063	97	0	0	733	1	
*Amistad Reservoir (Texas)	1,840,849	907,580	49	1,746	0	65,285	4	
*Amistad Reservoir (TX & Mexico)	3,275,532	907,580	28	1,746	0	65,285	2	
TOTAL	4,272,003	1,464,207	34	-2,107	-0	40,618	1	
SOUTH CENTRAL								
Travis, Lake	1,113,348	397,563	36	-3,395	-0	-29,905	-3	
*Austin, Lake	23,972	22,818	95	15	0	-154	-1	
Somerville Lake	147,104	119,447	81	1,482	1	-8,690	-6	
Canyon Lake	378,781	315,840	83	-1,532	-0	7,230	2	
Medina Lake	254,823	8,381	3	-516	-0	-11,391	-4	
*Coleto Creek Reservoir	31,040	21,738	70	684	2	-2,999	-10	
TOTAL	1,949,068	885,787	45	-3,262	-0	-45,909	-2	
UPPER COAST								
Houston, Lake	128,054	128,054	100	0	0	0	0	
Texana, Lake	159,566	128,144	80	-5,300	-3	-12,243	-8	
TOTAL	287,620	256,198	89	-5,300	-2	-12,243	-4	
SOUTHERN								
Choke Canyon Reservoir	695,262	231,497	33	-2,286	-0	-87,174	-13	
Corpus Christi, Lake	256,961	219,107	85	-7,540	-3	179,419	70	
*Falcon Reservoir (Texas)	1,551,007	608,891	39	28,448	2	145,235	9	
*Falcon Reservoir (TX & Mexico)	2,646,817	608,891	23	28,448	1	145,235	5	
TOTAL	2,503,230	1,059,495	42	18,622	1	237,480	9	
STATE TOTAL	31,366,820	20,142,707	64	71,990	0	-852,599	-3	
* Conservation volume is used as conservation storage capacity because the dead storage is unknown.								
** No reading available. Last valid reading was near empty. Percentage estimated assuming current storage is zero.								
Elephant Butte Reservoir	1,973,358	339,654	17	28,347	1	132,879	7	

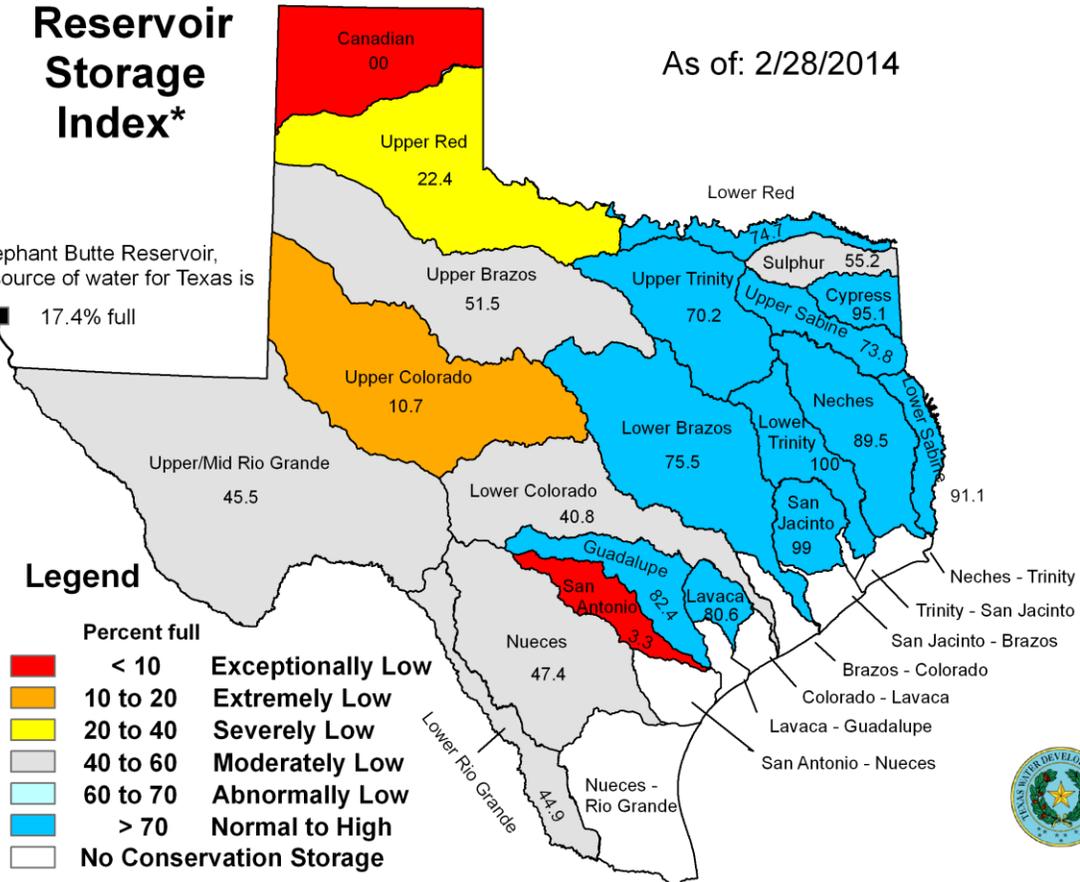
Note:
 Conservation storage capacity is the space available to store water above the lowest outlet and below the top of conservation pool, or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood 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

As of: 2/28/2014

Reservoir Storage Index*

Elephant Butte Reservoir, a source of water for Texas is 17.4% full



Legend

Color	Percent full	Storage Condition
Red	< 10	Exceptionally Low
Orange	10 to 20	Extremely Low
Yellow	20 to 40	Severely Low
Light Grey	40 to 60	Moderately Low
Light Blue	60 to 70	Abnormally Low
Dark Blue	> 70	Normal to High
White	No Conservation Storage	

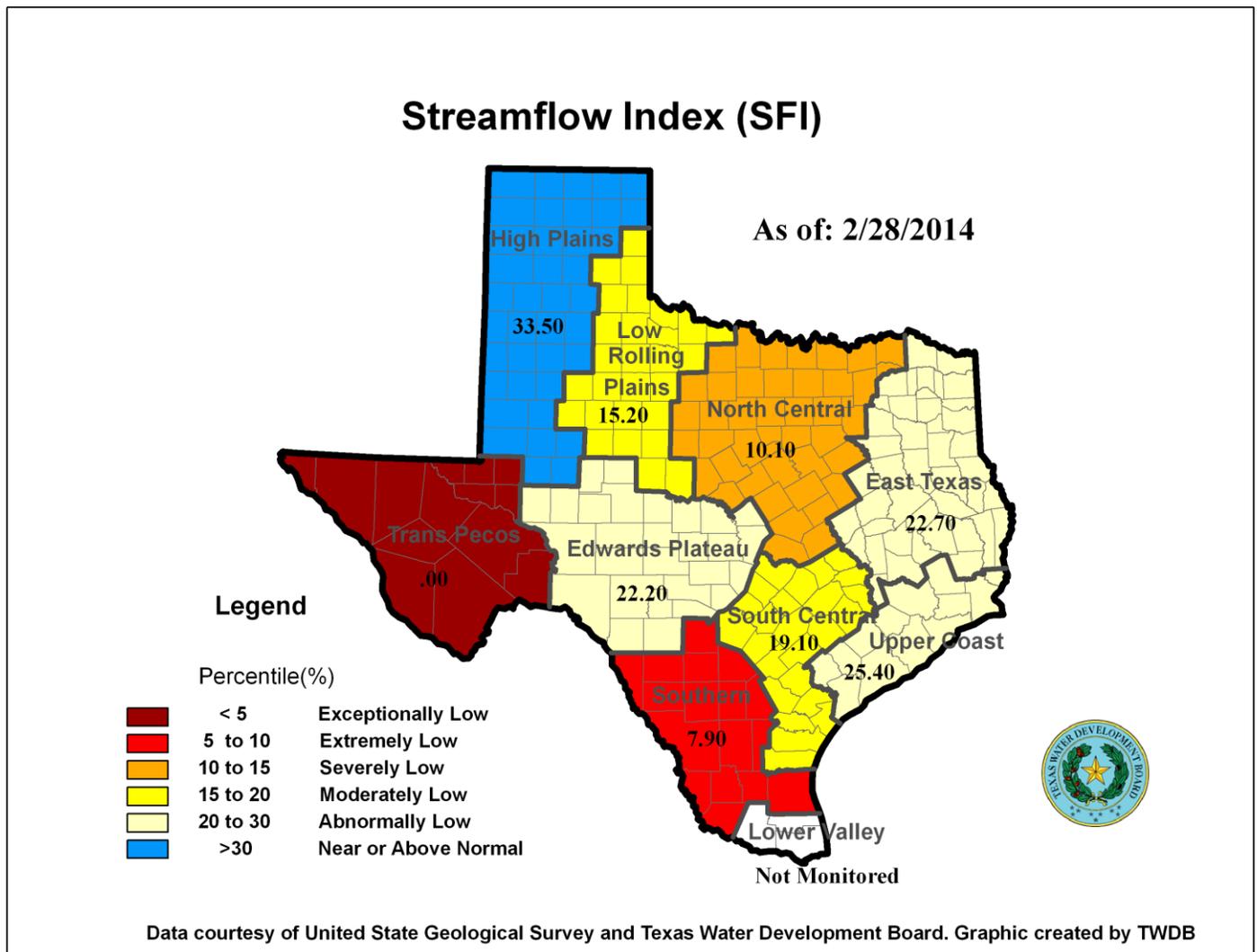


*Percent of combined conservation storage capacity of 115 major water supply reservoirs by sub-basin (dead pools are excluded)

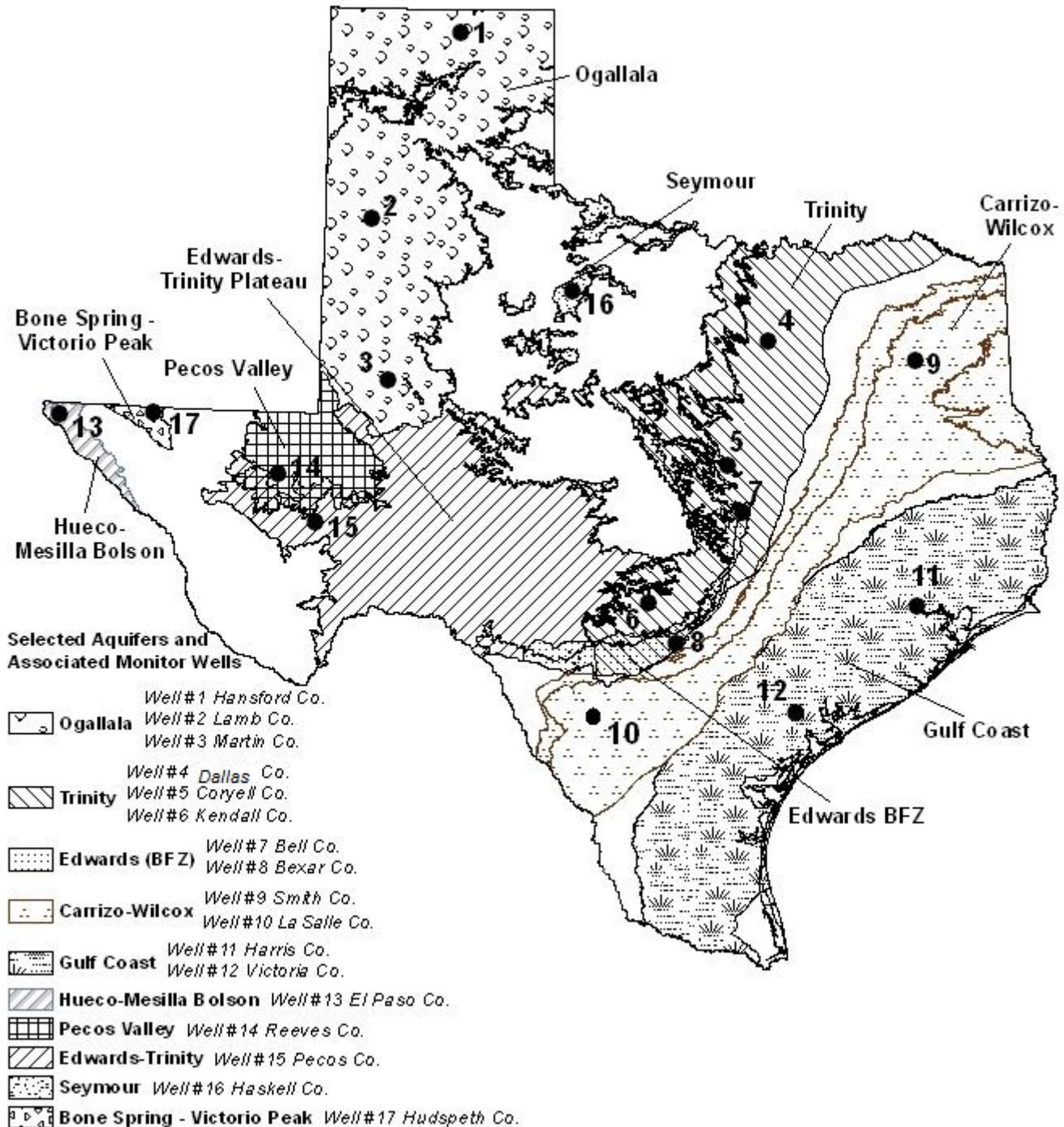
FEBRUARY STREAMFLOW CONDITIONS

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 11 stations, extremely low (5-10%) at 3 stations, severely low (10-15%) at 1 station, moderately low (15-20%) at 2 stations, abnormally low (20-30%) at 5 stations, and near normal (30% - 70%) at the remaining 7 stations. Compared to last month, flows have increased at 10 index stations and decreased at 15 stations.

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



FEBRUARY 2014 GROUNDWATER LEVELS IN OBSERVATION WELLS



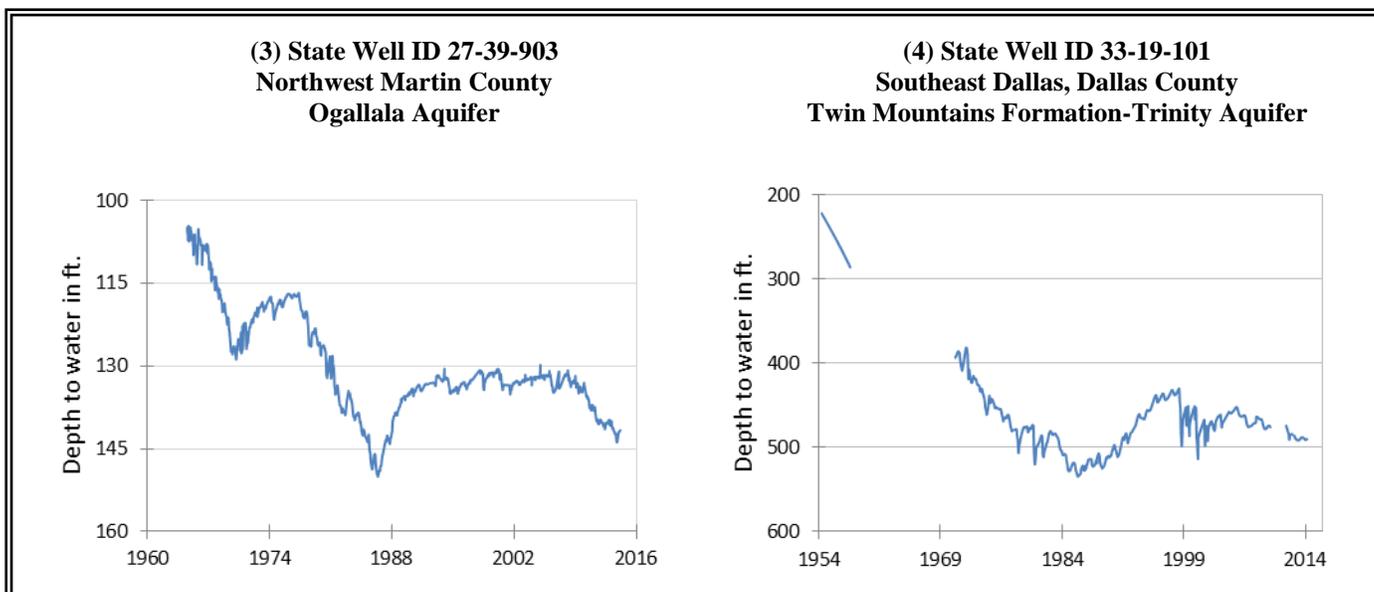
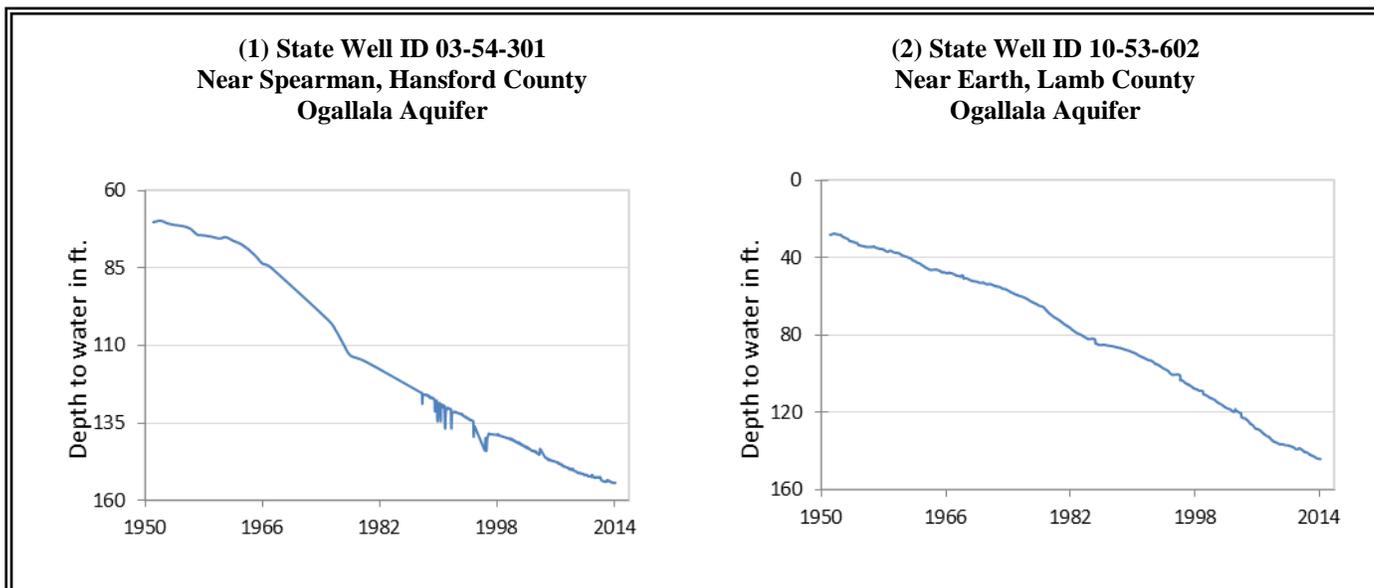
February, 2014

Water level measurements were available for all seventeen key monitoring wells in the state. Water levels rose in eleven of the monitoring wells since the beginning of February, ranging from 0.05 feet in the Hudspeth County Bone Spring Aquifer well to 1.39 feet in the Pecos County Edwards Trinity Aquifer well. Water levels declined in six monitoring wells, ranging from 0.02 feet in the Lamb County Ogallala Aquifer well to 4.32 feet in the Reeves County Pecos Valley Aquifer well. The J-17 well in San Antonio recorded a water level of 89.7 feet below land surface or 641.3 feet above mean sea level. This water level is 1.3 feet above the Stage III 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.

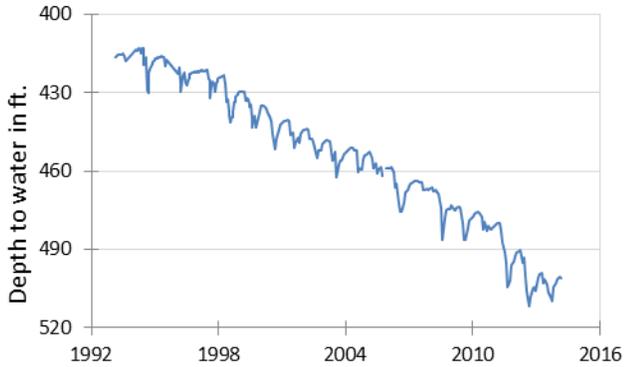
* ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	February	January	month change	year change	historical change	first measured
(1) Hansford 0354301	154.3	154.4	0.1	-0.5	-84.18	1951
(2) Lamb 1053602	144.2	144.18	-0.02	-1.56	-116.05	1951
(3) Martin 2739903	141.66	141.89	0.23	-1.69	-36.77	1964
(4) Dallas 3319101	490.09	490.52	0.43	1.41	-268.09	1954
(5) Coryell 4035404	500.79	500.57	-0.22	-1.19	-208.79	1955
(6) Kendall 6802609	131.6	132.6	1	-6.34	-71.6	1975
(7) Bell 5804816	124.25	123.87	-0.38	1.49	-1.12	2008
(8) Bexar 6837203	89.7	87.6	-2.1	-7.53	-43.06	1932
(9) Smith 3430907	437.71	438.96	1.25	3.05	-71.71	1987
(10) La Salle 7738103	471.07	471.8	0.73	-26.03	-218	2003
(11) Harris 6514409	192.44	193.71	1.27	4.81	-56.94	1956
(12) Victoria 8017502	36.53	37.58	1.05	-1.23	-2.53	1958
(13) El Paso 4913301	294.49	294.25	-0.24	-0.93	-62.59	1967
(14) Reeves 4644501	154.56	150.24	-4.32	-8.13	-62.47	1952
(15) Pecos 5216802	197.55	198.94	1.39	-2.44	49.33	1976
(16) Haskell 2135748	48.2	48.54	0.34	-0.8	-6.87	2002
(17) Hudspeth 4807516	132.49	132.54	0.05	1.06	-28.57	1964

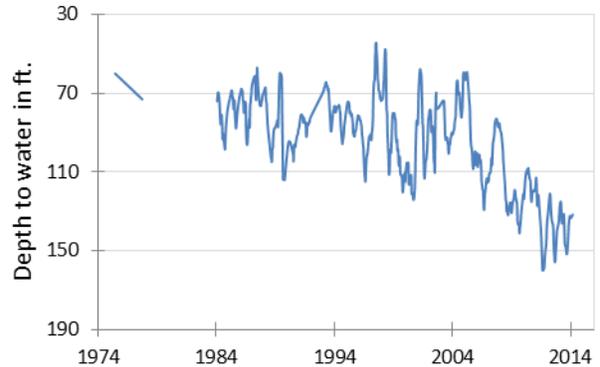
FEBRUARY GROUNDWATER LEVELS IN OBSERVATION WELLS



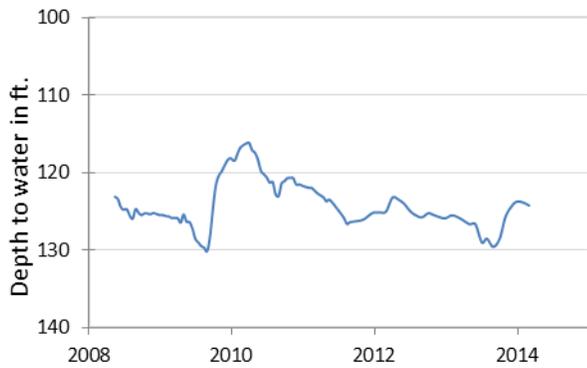
**(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer**



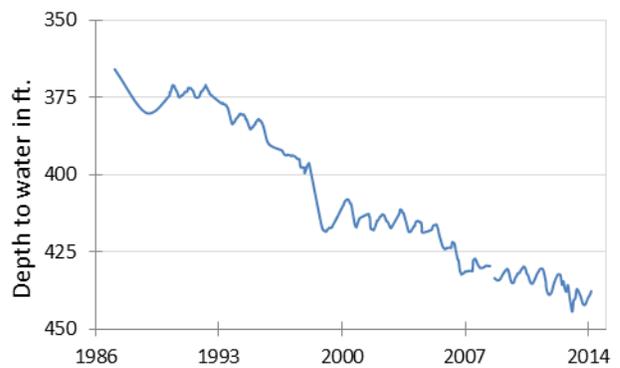
**(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer**



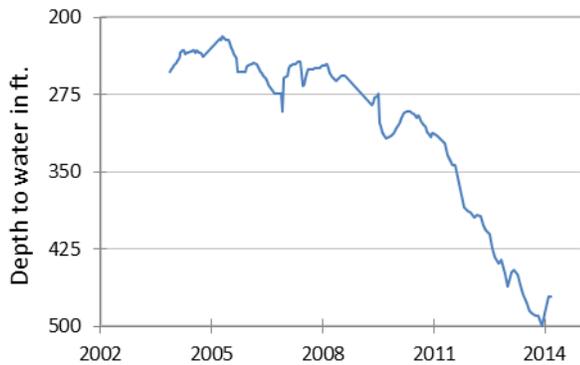
**(7) State Well ID 58-04-816
Near Salado, Bell County
Edwards (BFZ) Aquifer**



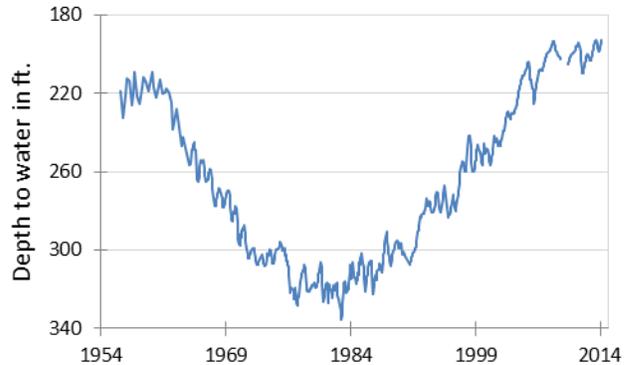
**(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer**



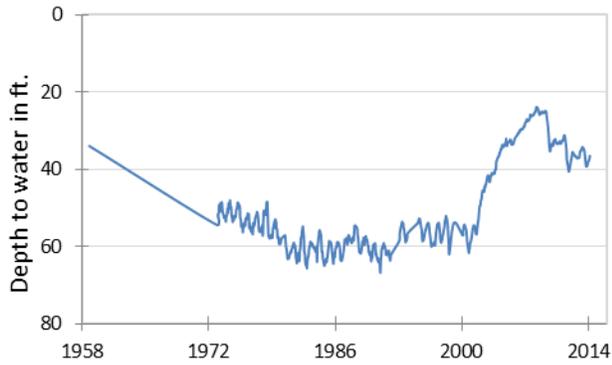
**(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer**



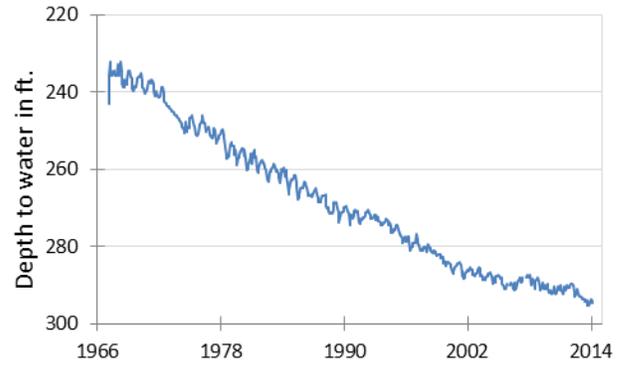
**(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer**



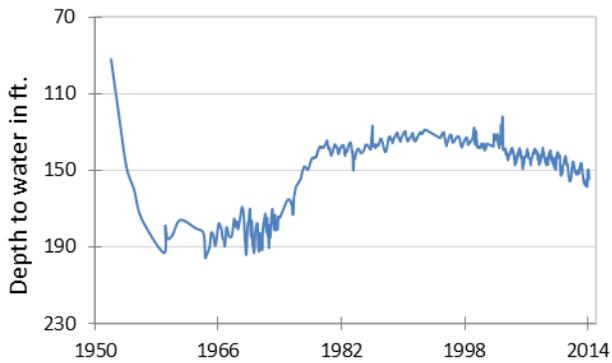
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



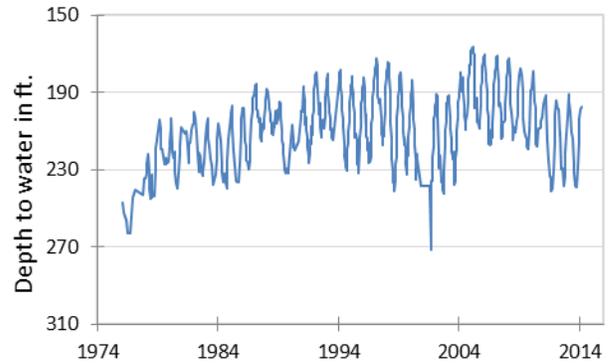
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



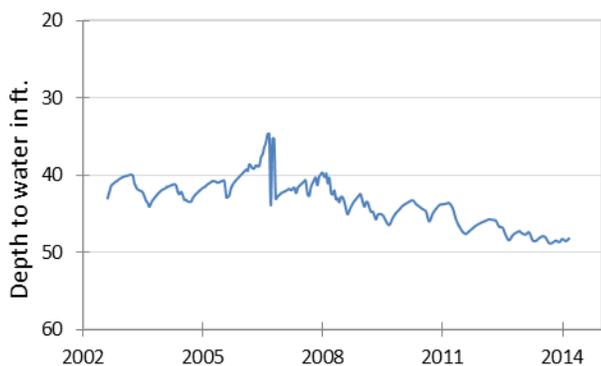
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



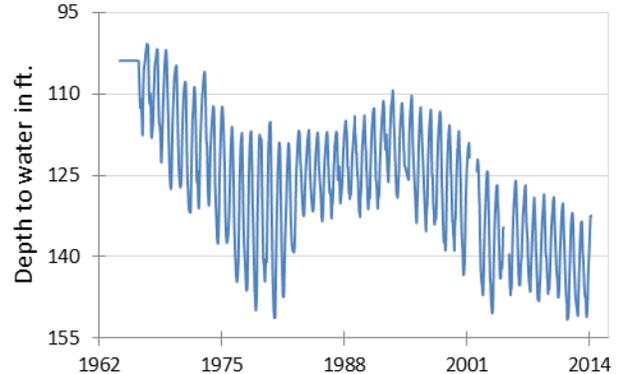
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



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



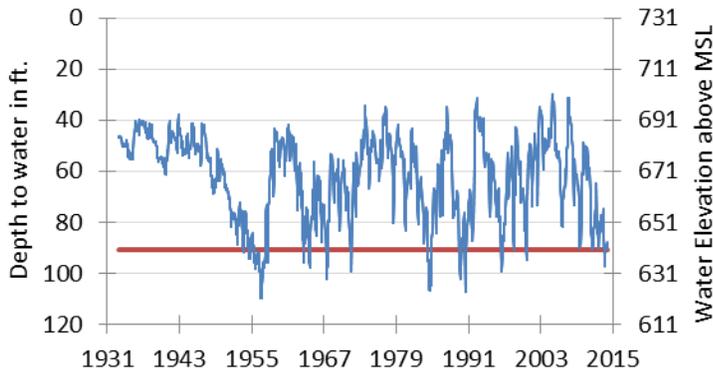
(17) State Well ID 48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



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

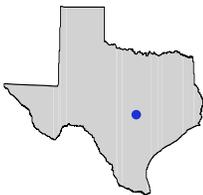


The late February water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above mean sea level, was 89.7 feet below land surface, or 641.3 feet above mean sea level. This was 2.1 feet below last month's measurement, 7.53 feet below last year's measurement, and 43.06 feet below the initial measurement recorded in 1932.



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

HYDROGRAPH OF THE MONTH

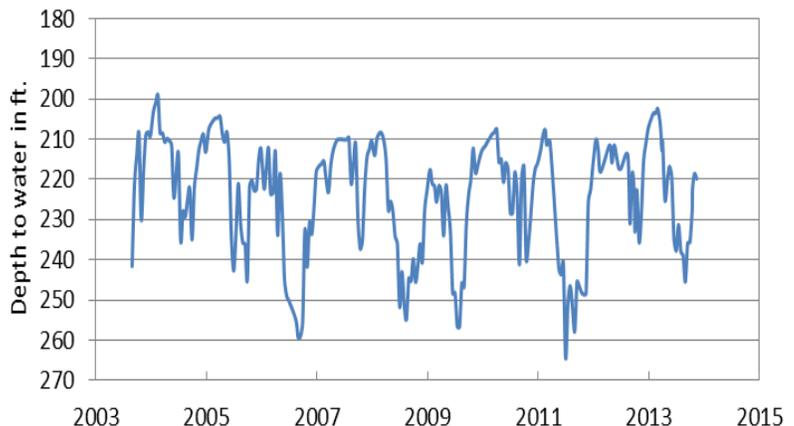


Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

Carrizo Aquifer

This Carrizo-Wilcox Aquifer water level recorder well is located within the City of Bastrop at an elevation of 528 feet above sea level. The high fluctuations seen in the hydrograph show the varying demands placed on this aquifer between the high use summer months, and the low use winter months. Groundwater from the Carrizo-Wilcox Aquifer is generally fresh and typically contains less than 500 milligrams per liter of total dissolved solids. High iron and manganese content in excess of secondary drinking water standards is characteristic in the deeper subsurface portions of the aquifer. Significant water level declines have been observed in the Winter Garden area due to irrigation pumping, and in the northeastern part of the aquifer due to municipal pumping.

**Well # 58-62-208
Bastrop County, Carrizo Aquifer**



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