Texas Water Conditions Report

Texas Water Development Board

RESERVOIR STORAGE

March 2015

At the end of the month, total storage in 114 of the state's major water supply reservoirs was at 21.89 million acre-feet*, or 70% of their total conservation storage capacity. This is 1.24 million acre-feet more than a month ago and 1.63 million acre-feet more than the storage at this time last year.

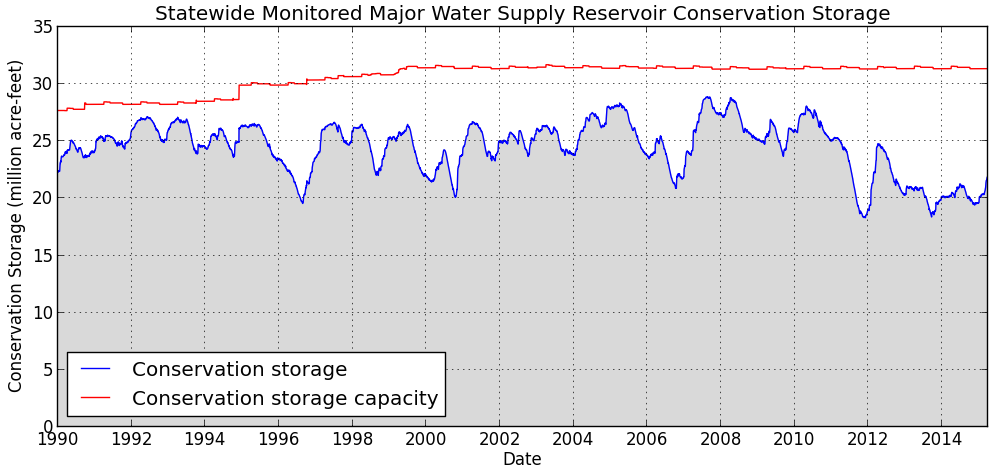
Thirty-five reservoirs held 100% of conservation storage capacity. Fourteen (14) reservoirs were below 10% full: Electra (0%), O. C. Fisher (1%), Palo Duro (1%), E.V. Spence (2%), Abilene (3%), Medina (3%), North Fork Buffalo Creek (3%), White River (3%), Twin Buttes (4%), Meredith (4%), Champion Creek (6%), Mackenzie (7%), Millers Creek (7%), and Palo Pinto (9%).

Total combined storage was greater than 70% in the North Central (73%), Trans-Pecos (86%), Upper Coast (100%) and East (99%) regions. The regions with the lowest percentage storage were the High Plains (5%) and Low Rolling regions (32%). Storage declined in 1 region and increased in 7 regions and remained unchanged in 1 region over the past month.

Elephant Butte reservoir held 367,162 acre-feet, or 19% of storage capacity. This is 39,306 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.

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CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Mar 2015 (acre-feet)	(%)	Change since end of Feb 2015 (acre-feet)	(%)	Change since end of Mar 2014 (acre-feet)	(%)
HIGH PLAINS							
Palo Duro Reservoir	61,066	819	1	-79	-0	-1,382	-2
Meredith, Lake (Texas)	500,000	27,928	6	520	0	27,928	6
Meredith, Lake (Texas & Oklahoma)	779,556	27,928	4	520	0	27,928	4
MacKenzie Reservoir	46,450	3,322	7	-32	-0	970	2
White River Lake	29,880	1,045	3	-108	-0	1,045	3
TOTAL	637,396	33,114	5	301	0	28,561	4
LOW ROLLING PLAINS							
Greenbelt Lake	59,968	7,530	13	94	0	-983	-2
*Electra, Lake	5,626	no data					
N. Fork Buffalo Crk Reservoir	15,400	527	3	-3	-0	491	3
Kemp, Lake	245,307	68,345	28	1,571	1	9,555	4
Millers Creek Reservoir	26,768	1,992	7	-35	-0	-1,790	-7
Alan Henry Reservoir	94,808	70,163	74	-374	-0	10,432	11
Stamford, Lake	51,570	5,319	10	220	0	-1,778	-3
J B Thomas, Lake	199,931	88,161	44	-734	-0	86,058	43
Fort Phantom Hill, Lake	70,030	22,845	33	880	1	-7,024	-10
Sweetwater, Lake	12,267	1,612	13	0	0	-763	-6
Colorado City, Lake	30,758	6,486	21	-20	-0	-1,217	-4
Champion Creek Reservoir	41,580	2,329	6	41	0	-509	-1
Abilene, Lake	7,900	268	3	0	0	-55	-1
Coleman, Lake	38,075	11,838	31	8	0	-2,851	-7
Hords Creek Lake	8,443	3,484	41	39	0	1,005	12
TOTAL	902,805	290,899	32	1,687	0	90,571	10
NORTH CENTRAL							
Nocona, Lake (Farmers Crk)	21,444	6,997	33	360	2	-1,704	-8
Hubert H Moss Lake	24,058	24,004	100	2,854	12	3,156	13
Texoma, Lake (Texas)	1,258,113	1,136,608	90	44,412	4	159,703	13
Texoma, Lake (Texas & Oklahoma)	2,525,281	1,136,608	45	44,412	2	159,703	6
*Pat Mayse Lake	113,683	113,683	100	1,742	2	27,620	24
Kickapoo, Lake	86,345	24,958	29	681	1	-1,448	-2
Arrowhead, Lake	230,359	45,990	20	2,357	1	-10,333	-4
Bonham, Lake	11,027	10,942	99	2,570	23	1,957	18
Crook, Lake	9,195	9,195	100	0	0	365	4
Amon G Carter, Lake	19,266	10,866	56	1,212	6	1,980	10
Ray Roberts, Lake	788,167	638,450	81	44,030	6	58,784	7
Jim Chapman Lake (Cooper)	260,332	223,804	86	105,094	40	139,836	54
Graham, Lake	45,288	17,166	38	211	0	-5,515	-12
*Lost Creek Reservoir	11,950	7,358	62	188	2	-1,001	-8
Bridgeport, Lake	366,236	139,997	38	1,685	0	-18,097	-5
Lewisville Lake	563,228	457,903	81	51,419	9	87,593	16
Lavon Lake	406,388	318,385	78	98,601	24	123,278	30
Hubbard Creek Reservoir	318,067	40,230	13	-1,576	-0	-30,518	-10
Possum Kingdom Lake	540,340	341,768	63	3,867	1	-3,210	-1
*Mineral Wells, Lake	6,760	3,468	51	26	0	-469	-7
Weatherford, Lake	17,812	10,557	59	-132	-1	113	1
Eagle Mountain Lake	179,880	104,658	58	6,041	3	-17,997	-10
Worth, Lake	33,495	22,837	68	260	1	461	1
Grapevine Lake	164,703	109,565	67	8,344	5	3,625	2
Ray Hubbard, Lake	452,040	337,252	75	40,428	9	30,280	7
New Terrell City Lake	8,583	8,583	100	797	9	2,138	25

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Mar 2015 (acre-feet)	(%)	Change since end of Feb 2015 (acre-feet)	(%)	Change since end of Mar 2014 (acre-feet)	(%)
(North Central Continue)							
Palo Pinto, Lake	26,827	2,435	9	183	1	-4,692	-17
Benbrook Lake	85,648	63,648	74	2,140	2	-3,674	-4
Arlington, Lake	40,188	35,830	89	3,409	8	2,230	6
Joe Pool Lake	175,358	175,358	100	6,273	4	10,260	6
*Cisco, Lake	25,895	11,845	46	0	0	-2,386	-9
Leon, Lake	26,476	16,485	62	282	1	-4,618	-17
Granbury, Lake	128,046	75,654	59	4,827	4	6,780	5
Pat Cleburne, Lake	26,008	18,793	72	1,203	5	2,922	11
Waxahachie, Lake	10,780	10,505	97	1,633	15	1,356	13
Bardwell Lake	46,122	46,122	100	5,867	13	9,577	21
Proctor Lake	55,457	16,381	30	288	1	-8,779	-16
Whitney, Lake	553,344	374,376	68	14,903	3	43,404	8
Aquilla Lake	44,460	44,460	100	6,546	15	12,358	28
Navarro Mills Lake	49,827	49,827	100	6,621	13	1	0
*Halbert, Lake	6,033	5,340	89	506	8	299	5
Richland-Chambers Reservoir	1,087,839	836,348	77	143,469	13	45,284	4
*Brownwood, Lake	128,839	62,024	48	41	0	-7,941	-6
Waco, Lake	189,567	183,396	97	14,737	8	13,128	7
Limestone, Lake	208,014	208,014	100	369	0	369	0
Belton Lake	435,225	304,850	70	8,489	2	-22,594	-5
Stillhouse Hollow Lake	227,771	152,113	67	4,429	2	-12,558	-6
Georgetown, Lake	36,823	24,956	68	-602	-2	3,888	11
Granger Lake	50,779	50,779	100	0	0	0	0
Tawakoni, Lake	871,685	643,782	74	108,601	12	93,915	11
Mountain Creek, Lake	22,850	22,850	100	0	0	0	0
Squaw Creek, Lake	151,250	147,177	97	-31	-0	-155	-0
TOTAL	10,647,870	7,748,572	73	749,654	7	728,971	7
EAST							
Wright Patman Lake	122,593	122,593	100	0	0	0	0
*Sulphur Springs, Lake	17,747	17,747	100	0	0	0	0
Cypress Springs, Lake	66,756	66,756	100	0	0	0	0
Bob Sandlin, Lake	190,822	190,822	100	3,785	2	24,108	13
Caddo, Lake	29,898	29,898	100	0	0	0	0
Martin, Lake	75,116	75,116	100	0	0	0	0
Monticello, Lake	34,740	34,740	100	0	0	0	0
Fork Reservoir, Lake	605,061	529,991	88	76,674	13	30,275	5
O the Pines, Lake	241,363	241,363	100	0	0	0	0
Cedar Creek Reservoir in Trinity	644,686	644,032	100	122,024	19	121,734	19
Athens, Lake	29,435	29,435	100	427	1	0	0
Palestine, Lake	373,199	373,199	100	0	0	0	0
Tyler, Lake	73,161	73,161	100	0	0	1,131	2
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	39,522	100	695	2	66	0
Houston County Lake	17,113	17,113	100	0	0	0	0
Sam Rayburn Reservoir	2,857,077	2,857,077	100	5,625	0	298,593	10
Toledo Bend Reservoir (Texas)	2,245,752	2,245,752	100	186,714	8	168,337	7
Toledo Bend Reservoir (TX & LA)	4,472,900	2,245,752	50	186,714	4	168,337	4
*Livingston, Lake	1,785,348	1,785,348	100	0	0	0	0
B A Steinhagen Lake	66,961	54,737	82	1,939	3	-10,963	-16
Conroe, Lake	416,177	416,177	100	2,778	1	10,240	2
TOTAL	9,996,482	9,908,534	99	400,661	4	643,521	6

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

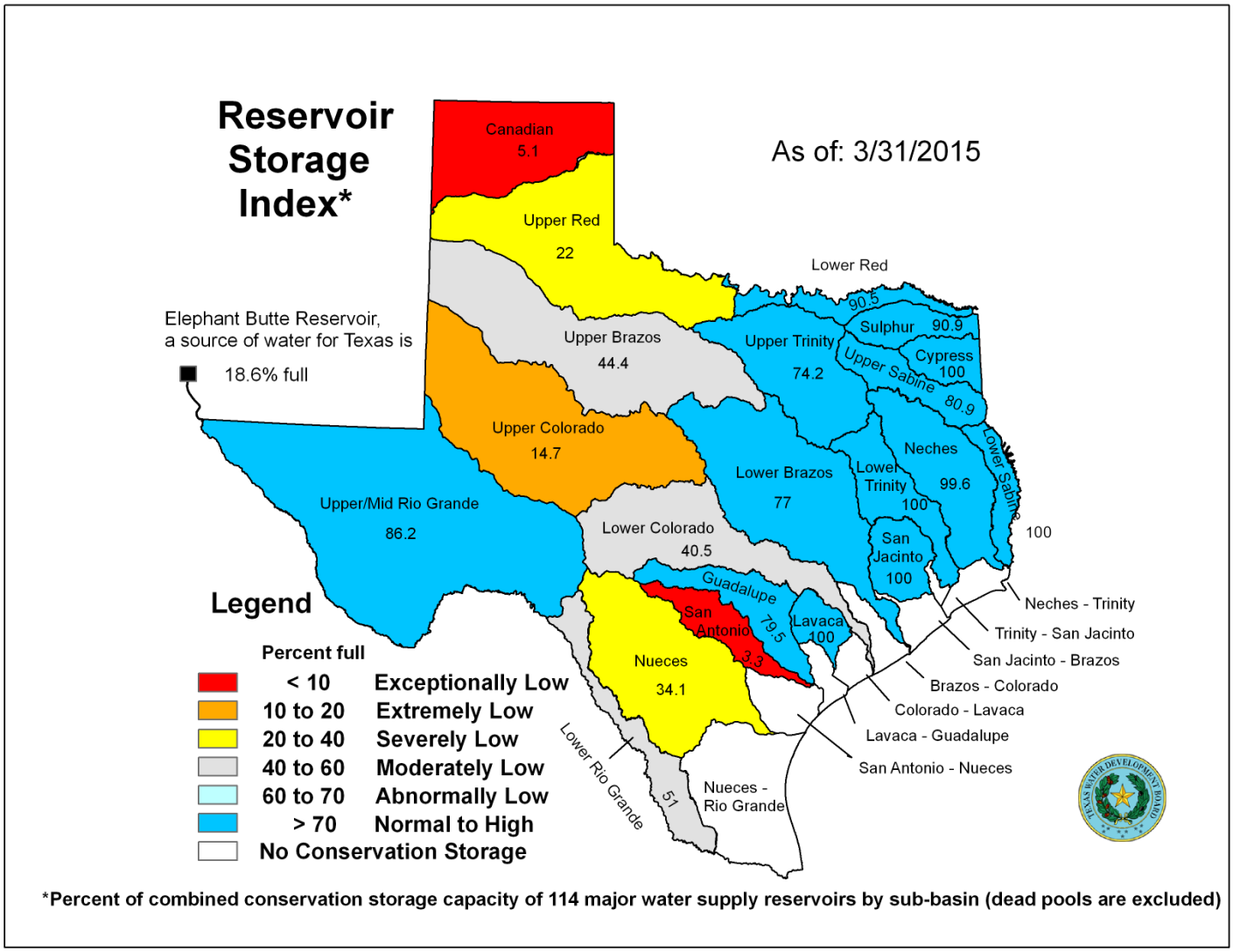
Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Mar 2015 (acre-feet)	(%)	Change since end of Feb 2015 (acre-feet)	(%)	Change since end of Mar 2014 (acre-feet)	(%)
TRANS-PECOS							
**Red Bluff Reservoir	151,110	130,205	86	-7,676	-5	61,260	41
TOTAL	151,110	130,205	86	-7,676	-5	61,260	41
EDWARDS PLATEAU							
Oak Creek Reservoir	39,210	5,865	15	22	0	-1,781	-5
E V Spence Reservoir	517,272	9,650	2	-297	-0	-4,845	-1
O C Fisher Lake	119,445	1,282	1	-3	-0	533	0
*O H Ivie Reservoir	554,340	75,783	14	-1,574	-0	8,454	2
Twin Buttes Reservoir	182,454	6,418	4	579	0		
Brady Creek Reservoir	28,808	7,685	27	67	0	-1,183	-4
Buchanan, Lake	860,607	310,848	36	10,080	1	-11,378	-1
Inks, Lake	13,962	12,840	92	30	0	-82	-1
Lyndon B Johnson, Lake	115,056	111,002	96	-61	-0	61	0
*Amistad Reservoir (Texas)	1,840,849	1,154,778	63	6,144	0	253,432	14
*Amistad Reservoir (TX & Mexico)	3,275,532	1,154,778	35	6,144	0	253,432	8
TOTAL	4,272,003	1,696,151	40	14,987	0	243,211	6
SOUTH CENTRAL							
Travis, Lake	1,113,348	400,958	36	21,396	2	6,595	1
*Austin, Lake	23,972	23,376	98	527	2	388	2
Somerville Lake	147,104	147,104	100	0	0	25,665	17
Canyon Lake	378,781	294,758	78	2,430	1	-18,611	-5
Medina Lake	254,823	8,307	3	47	0	428	0
*Coleto Creek Reservoir	31,040	31,040	100	9,946	32	8,962	29
TOTAL	1,949,068	905,543	46	34,346	2	23,427	1
UPPER COAST							
Houston, Lake	120,686	120,686	100	0	0	0	0
Texana, Lake	159,566	159,566	100			24,080	15
TOTAL	280,252	280,252	100	0	0	24,080	9
SOUTHERN							
Choke Canyon Reservoir	695,262	174,323	25	6,554	1	-54,089	-8
Corpus Christi, Lake	256,961	150,594	59	32,055	12	-64,335	-25
*Falcon Reservoir (Texas)	1,551,007	573,374	37	44,256	3	-54,931	-4
*Falcon Reservoir (TX & Mexico)	2,646,817	573,374	22	44,256	2	-54,931	-2
TOTAL	2,503,230	898,291	36	82,865	3	-173,355	-7
STATE TOTAL	31,340,216	21,891,561	70	1,241,208	4	1,634,687	5

* 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	367,162	19	39,306	2	5,638	0

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

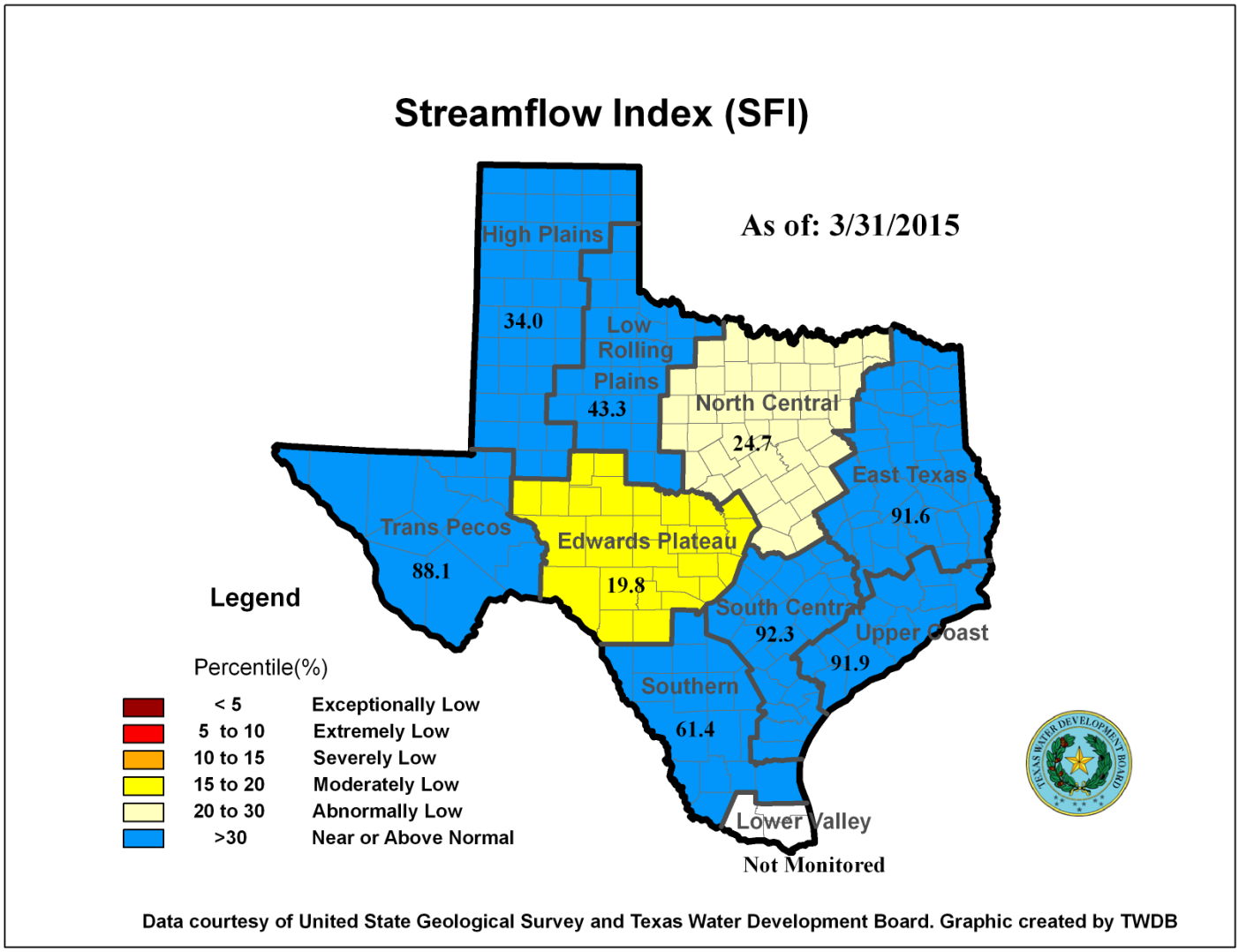


NOTE: NO DATA FROM TEXANA

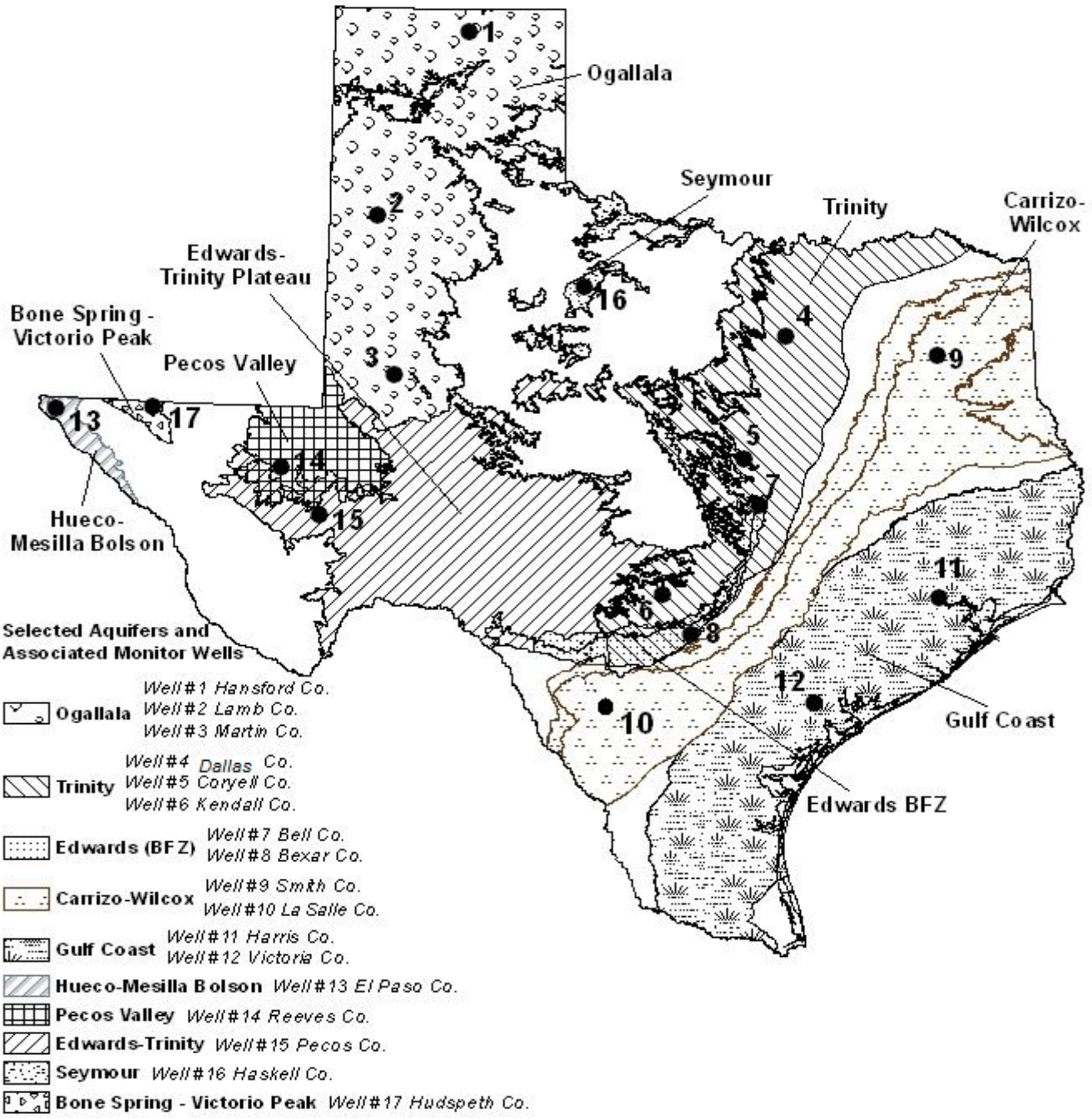
FEBRUARY STREAMFLOW CONDITIONS

Of 29 reporting index stations monitored this month, computed 30-day mean flows were exceptionally low (<5%) at 0 station, extremely low (5-10%) at 2 stations, severely low (10-15%) at 3 stations, moderately low (15-20%) at 1 station, abnormally low (20-30%) at 2 stations, and near normal (30% - 70%) at the remaining 21 stations. Compared to last month, flows have increased at 22 index stations and decreased at 3 stations.

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



MARCH 2015 GROUNDWATER LEVELS IN OBSERVATION WELLS



March, 2015

Water level measurements were available for all of the seventeen key monitoring wells in the state. Water levels rose in fourteen of the monitoring wells since the beginning of March, ranging from 0.04 feet in the Hansford County Ogallala Aquifer well to 6.12 feet in the La Salle County Carrizo Aquifer well. Water levels declined in three monitoring wells, ranging from 0.09 feet in the Lamb County Ogallala Aquifer well to 4.43 feet in the Hudspeth County Victorio Peak Aquifer well. The J-17 well in San Antonio recorded a water level of 84.80 feet below land surface or 646.20 feet above mean sea level. This water level is 6.20 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.

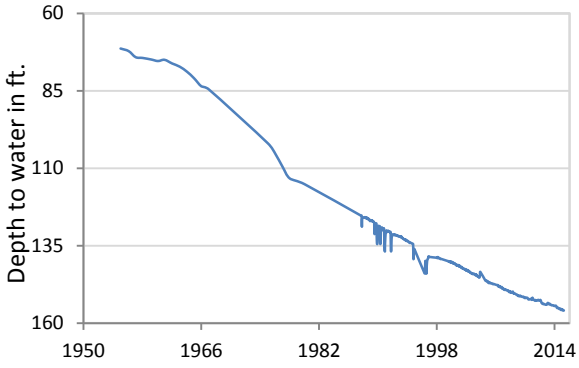
***IDs used in this publication on the aquifer map to indicate the monitoring well location (IDs 1 - 17) are different than the TWDB's six- or seven-digit state well "identification" number.**

Monitoring Well	March	February	month change	year change	historical change
(1) Hansford 0354301	155.86	155.9	0.04	-1.2	-85.74
(2) Lamb 1053602	145.27	145.18	-0.09	-1.03	-117.12
(3) Martin 2739903	141.75	142.07	0.32	-0.37	-36.86
(4) Dallas 3319101	490.18	490.59	0.41	-0.96	-268.18
(5) Coryell 4035404	501.28	502.22	0.94	-0.94	-209.28
(6) Kendall 6802609	124.74	130.5	5.76	8.01	-64.74
(7) Bell 5804816	123.76	124.5	0.74	0.87	-0.42
(8) Bexar 6837203	84.80	86.61	1.81	5.41	-29.59
(9) Smith 3430907	433.72	434.33	0.61	3.84	-67.72
(10) La Salle 7738103	487.6	493.72	6.12	-19.63	-234.53
(11) Harris 6514409	187.61	190.03	2.42	3.5	-52.11*
(12) Victoria 8017502	37.17	37.6	0.43	-1.53	-3.17
(13) El Paso 4913301	296.3	295.93	-0.37	-0.98	-64.4
(14) Reeves 4644501	155.39	156.01	0.62	-2.81	-63.3
(15) Pecos 5216802	188.08	190.05	1.97	19.47	58.8
(16) Haskell 2135748	48.47	48.67	0.2	0.37	-7.14
(17) Hudspeth 4807516	138.1	133.67	-4.43	-1.52	-34.18

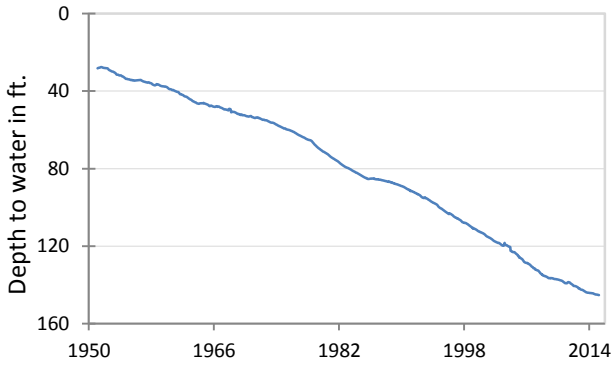
*change since the original measurement of 135.5 feet below land surface in 1947 (measurement not shown on the hydrograph)

MARCH GROUNDWATER LEVELS IN OBSERVATION WELLS

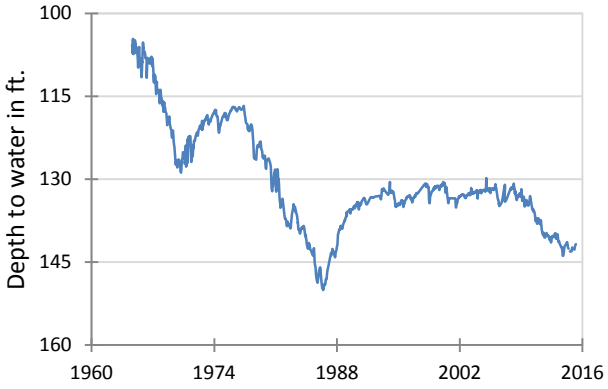
(1) State Well ID 03-54-301
Near Spearman, Hansford County
Ogallala Aquifer



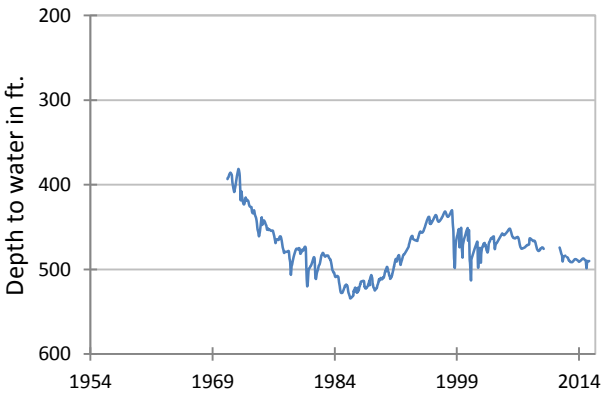
(2) State Well ID 10-53-602
Near Earth, Lamb County
Ogallala Aquifer



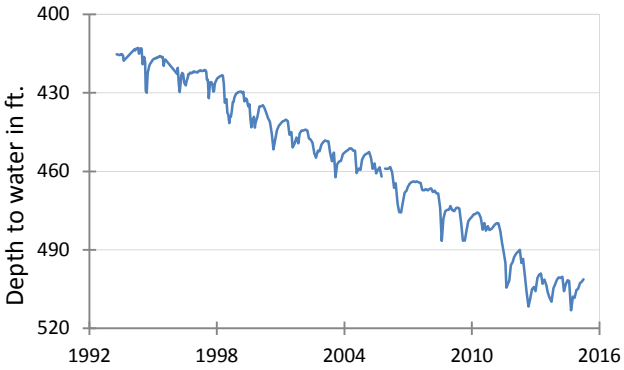
(3) State Well ID 27-39-903
Northwest Martin County
Ogallala Aquifer



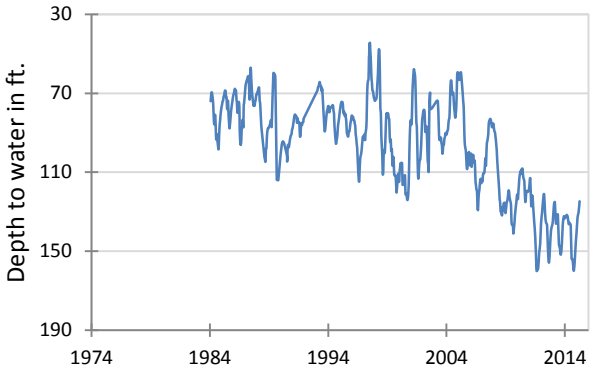
(4) State Well ID 33-19-101
Southeast Dallas, Dallas County
Twin Mountains Formation-Trinity Aquifer



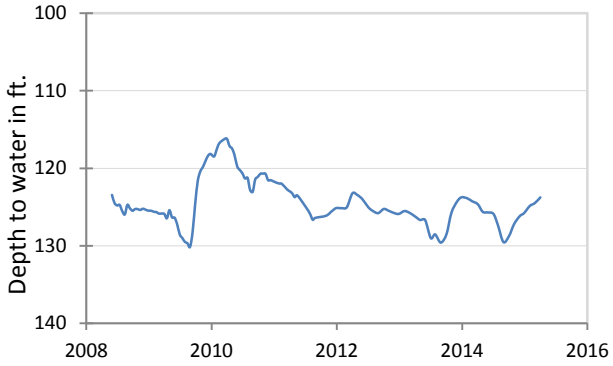
(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer



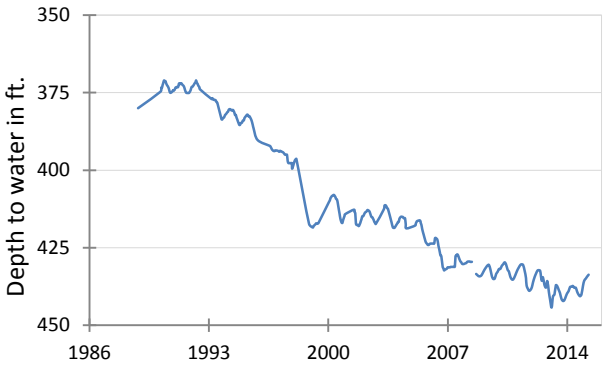
(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer



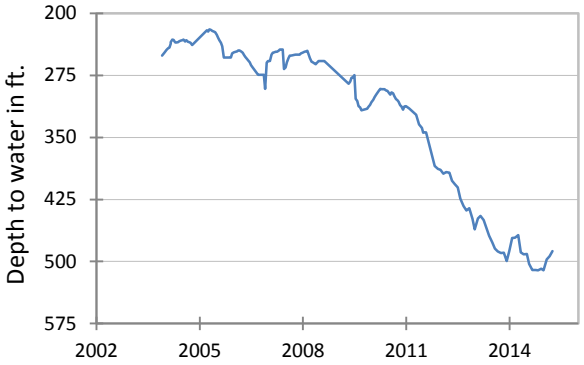
(7) State Well ID 58-04-816
Near Salado, Bell County
Edwards (BFZ) Aquifer



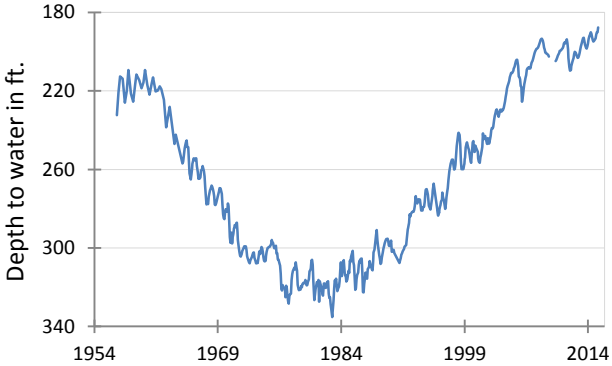
(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer



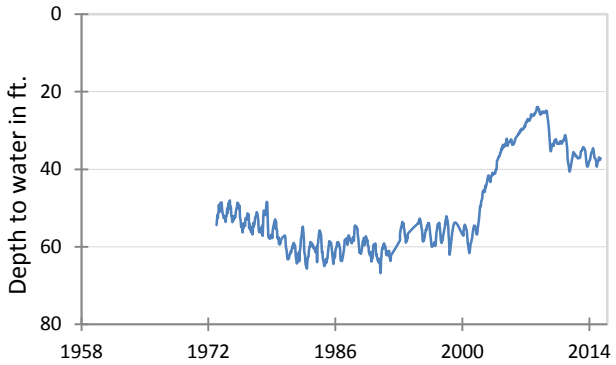
(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer



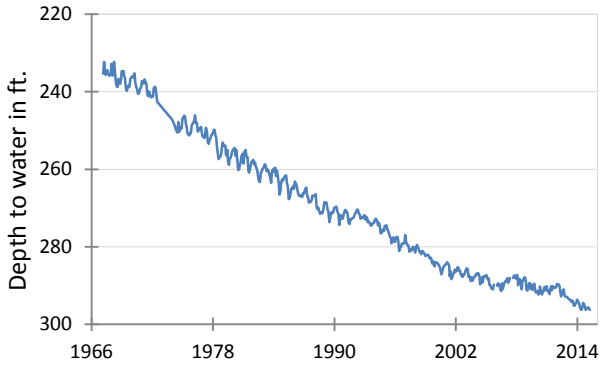
(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer



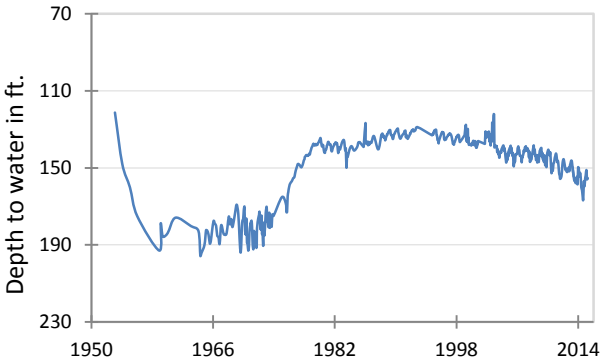
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



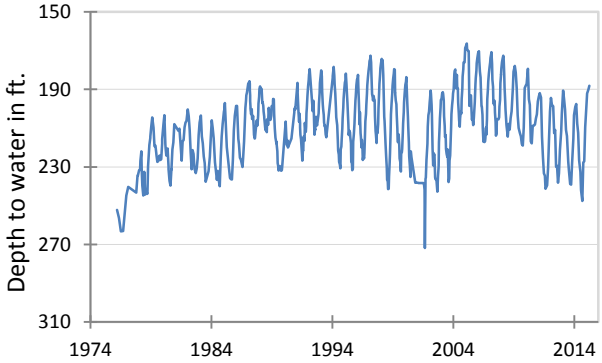
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



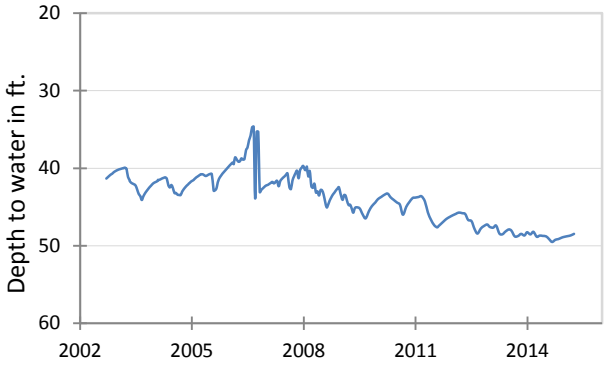
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



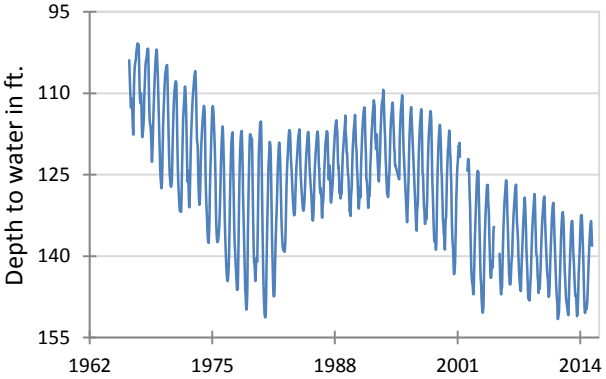
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



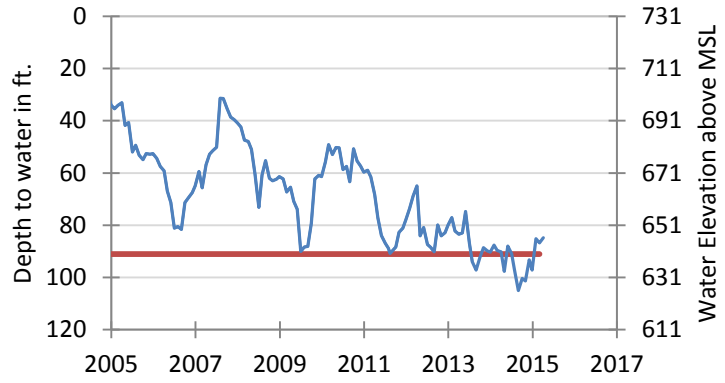
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer

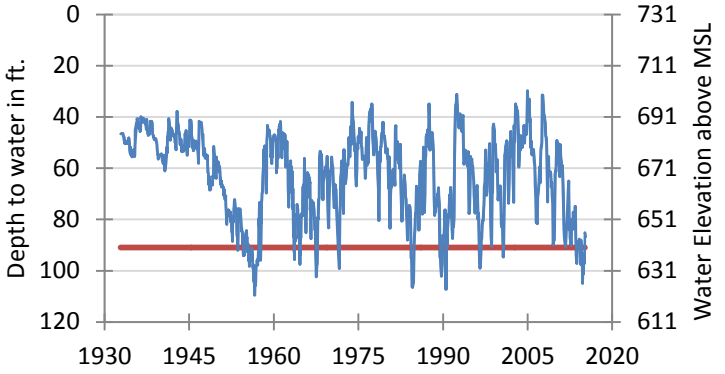


(17) State Well ID 48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



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

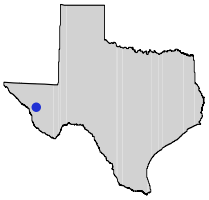




The late March water-level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above mean sea level, was 84.80 feet below land surface, or 646.20 feet above mean sea level. This was 1.81 feet above last month's measurement, 5.41 feet above last year's measurement, and 29.59 feet below the initial measurement recorded in 1932.

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

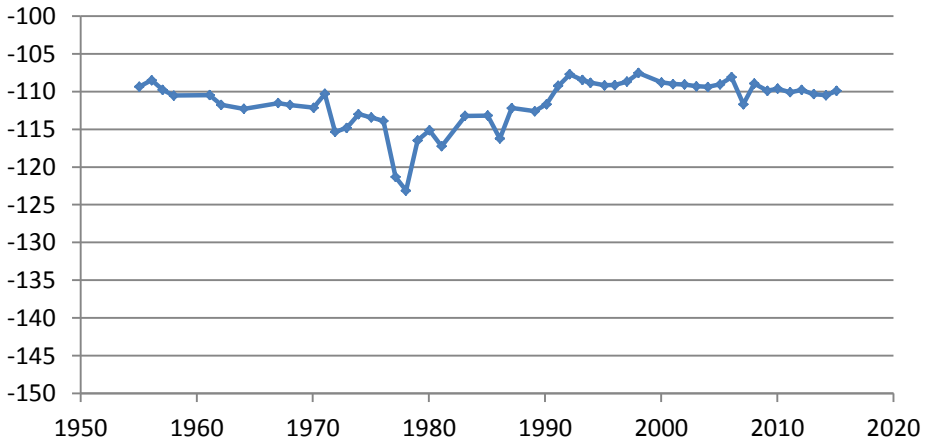
HYDROGRAPH OF THE MONTH



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

West Texas Bolsons

Well # 5119902, 170 feet deep
unused, western Jeff Davis County



The West Texas Bolsons is a minor aquifer located in several basins or bolsons in far West Texas. The aquifer is composed of eroded materials that vary in composition depending on the mountains bordering the basins and the manner in which the sediments were deposited. Sediments range from fine-grained silt and clay of lake deposits to coarse-grained volcanic rock and limestone of alluvial fans. Freshwater thickness averages about 580 feet. Groundwater quality varies depending on the basin, ranging from freshwater, containing less than 1,000 milligrams per liter of total dissolved solids, to slightly to moderately saline water containing between 1,000 to 4,000 millaigrams per liter of total dissolved solids. Groundwater is used for irrigation and livestock throughout the area and for municipal supply in the regional cities.

Depth-to-water in this well has been measured by the TWDB for 60 years. Water levels have remained relatively unchanged throughout historical data. There was a small fluctuation during the late 1970s when water levels dropped to their historical measured low of 123 feet in 1978.

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